FORMS E and F

Web Reporting Score Interpretation Guide

Version 2

Iowa Assessments™

FORMS E and F
Web Reporting
Score Interpretation Guide

Developed at The University of Iowa by

Iowa Testing Programs

Acknowledgments

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Part 1 Introduction

About This Guide

Purpose

This *Web Reporting Score Interpretation Guide* helps teachers, counselors, and school administrators interpret and use the interactive, web-based results of the *Iowa Assessments*™ Form E and F, all levels, so that students and schools gain the greatest benefit from the administration of this assessment.

How to Use This Guide

This guide is relevant to all educators who create or use assessment reports online in *DataManager*. This *Web Reporting Score Interpretation Guide* is used to review and interpret the web displays. Use this guide to:

- establish the integrity of the scores you have received
- understand which web report displays best serve your needs

Getting More Help

If you need help beyond the information provided in this guide, please make use of the following resources:

- Your Riverside Insights® Assessment Consultant
- Riverside Insights Customer Service
  E-mail: inquiry@riversideinsights.com
  Phone: 1-800-323-9540

Part 2 Getting Started

In Brief

Assessment provides valuable information for making educational decisions. This part of the guide provides essential information for anyone using the *Iowa Assessments* and their results to support the educational process.

- "Identify the Purposes of Assessment" explains appropriate uses of standardized achievement test results.
- "Before You Begin" describes actions you need to take **before** you interpret test results.
- "What Do You Want to Do Next?" offers quick navigation to topics within this guide based on common activities related to score interpretation.

Identify the Purposes of Assessment

The *Iowa Assessments* have been designed, developed, and researched to support a variety of important educational purposes. These purposes involve the collection and use of information that describes either the individual student or groups of students.

The *Iowa Assessments Planning and Implementation Guide* encourages communication about the testing purposes most important to a school or district early in the planning stages. Testing purposes give meaning to the test administration and help you determine how best to interpret test results.

Identifying the testing purposes that your school deems most important will provide focus as you use this guide. The following examples of appropriate uses of results from the *Iowa Assessments* support a broad range of educational decisions.

- Identify strengths and weaknesses – Make relative comparisons of student performance from one content area to another.
- Inform instruction – Make judgments about past and future instructional strategies.
- Monitor growth – Describe change in student performance over time.
- Determine college readiness – Compare student achievement levels with established benchmarks.
- Measure core standards – Determine the degree to which students have acquired the essential skills and concepts of core standards.
- Implement Response to Intervention (RTI) – Identify students at risk for poor learning outcomes who may benefit from intensive, systematic learning interventions.

- Inform placement decisions – Place students into programs; assign students to different levels of a learning program.
- Make comparisons – Compare student performance with the performance of local, state, and national groups.
- Evaluate programs – Provide information that can be used to evaluate the effectiveness of curricular changes.
- Predict future performance – Use current information to predict future student performance.
- Support accountability – Provide reliable and valid information that can be used to meet district and state reporting requirements.

Before You Begin

In preparation for using *Iowa Assessments* web reports and scores to accomplish your testing purposes, complete the four steps described below.

1. Determine Your Objectives for Testing

Refer to "Identify the Purposes of Assessment" on page 3. After you identify your school's or district's purposes for administering the *Iowa Assessments*, state them as objectives relevant to your role. Specify objectives that require you to make data-driven educational decisions.

Once you define your testing purposes, you can focus on the test scores and reports appropriate for the objectives you have chosen.

2. Understand the Meaning of Score Types

Types of test scores differ from one another in the purposes they can serve, the precision with which they describe achievement, and the kind of information they provide. Most of the *Iowa Assessments* score reports offer several types of scores for each separate test. Understanding what the different types of scores mean helps you determine which scores to use to achieve your purposes for testing.

To better understand the scores, refer to "Appendix A: Understanding Test Scores," beginning on page 125. Appendix A spells out the acronyms and explains the meaning of score types used in reporting results of the *Iowa Assessments*. Keep the "Quick Reference Guide to Score Types", which begins on page 125, handy as you use this *Score Interpretation Guide* and review your online score reports.

"Appendix B: Types of Score Interpretation," beginning on page 151, explains how results of the *Iowa Assessments* enable you to gauge student achievement. By understanding the scores available and using appropriate scores when making educational decisions, you can make the test results meaningful.

3. Establish the Integrity of Your Online Score Reports

Although errors in test scoring are not common, it is important to check new score reports before reading and analyzing them. Educators familiar with students in a given class are best equipped to perform this review.

Refer to "Appendix C: Confirm Score Report Integrity," beginning on page 159, for details on how to conduct a quick check of the reports you receive.

4. Plan to Use Test Results in Combination with Other Measures

It is important to use test results appropriately when making educational decisions. It is not appropriate to depend only on the scores from a single test or test battery to make an important decision about a student or a class of students.

Use more than one measure (for example, course grades, other kinds of assessments, teacher recommendations) instead of scores from a single test or battery to perform tasks such as these:

- Select students for special instructional programs.
- Decide whether to retain a student at a certain grade level.
- Determine the effectiveness of the entire instructional program.
- Evaluate the effectiveness of the instruction of an individual teacher.
- Identify the "best" schools in a region or state.

What Do You Want to Do Next?

Upon completion of the steps described above, you are ready to start working with your test results.

The table on the next page serves as a navigational guide to a number of activities that educators commonly perform after receiving *Iowa Assessments* score reports in *DataManager*. This is *not* an exhaustive list; consider it a starting point for matching your needs to the purposes described in this guide.

Navigating This Guide

If you want to…	Then refer to…	Page
Identify the purpose and contents of score reports	Part 3: Reading Score Reports	7
Review general guidelines and suggestions for interpreting test results for specific testing purposes Interpret score reports and score data to inform specific testing purposes	Part 4: Using Test Results	71
Communicate test results to others	Part 5: Communicating Test Results	117
Understand the meaning of each score type	Appendix A: Understanding Test Scores	125
Understand and use norms to make meaningful score comparisons	Appendix B: Types of Score Interpretation	151
Conduct a quick check on the completeness and accuracy of your score reports	Appendix C: Confirm Score Report Integrity	159

To find information on a specific topic, such as a score type or score report, use the index that begins on page 161.

Part 3 Reading Score Reports

In Brief

This part of the guide explains two keys to reading score reports from the *Iowa Assessments*:

- a framework for understanding the information presented in score reports when viewed online
- the kinds of information presented in score reports

Framework of Information from the *Iowa Assessments*

The *Iowa Assessments* provide an easily understood framework for the information presented in score reports. Understanding this framework helps you focus on the information you need to support educational decisions about individual students or groups of students. The framework is based on two broad categories for structuring the information:

- **Test takers –** Individual student or some group of students
- **Information time span –** Current performance ("today"), historic performance ("yesterday"), or predicted performance ("tomorrow")

The tables on the following pages show how these categories filter information and create an organizational framework useful in working with specific reports. Making data-based decisions begins with selecting and interpreting the right reports for your purpose.

Reports by Testing Purpose

The table below categorizes reports by the test-taker (individual student or group) and indicates primary testing purposes the report data can help inform.

Purpose for Testing and Score Report Displays

Testing Purposes	Reports on Individual Students				
	Student Profile - Bar Graph (Test and Composite)	*Student Profile - Bar Graph (Skill Domains)*	*Student Profile – Longitudinal Line Graph*	*Student Profile – Balanced Assessment Line Graph*	*Student Profile Narrative (Scoring Service Print Style)*
Identify Strengths and Weaknesses	✓	✓		✓	✓
Inform Instruction	✓	✓		✓	✓
Monitor Growth	✓		✓	✓	✓
Determine College Readiness	✓		✓	✓	
Measure Core Standards		✓		✓	
Implement Response to Intervention (RTI)	✓				✓
Inform Placement Decisions	✓				✓
Make Comparisons	✓	✓	✓	✓	
Evaluate Programs	✓	✓	✓	✓	
Predict Future Performance	✓		✓	✓	
Support Accountability			✓	✓	

Please check with your Riverside Assessment Consultant for report availability.

Continued on next page…

Purpose for Testing and Score Reports, *continued*

Testing Purposes	Reports on Groups of Students				
	List of Scores for Each Student in the Group				
	Student Roster (Test and Composite)	*Student Roster (Skill Domains)*	*Multimeasure Student Roster (Test and Composite)*	*Multimeasure Student Roster (Skill Domains)*	*List of Student Scores (Scoring Service Print Style)*
Identify Strengths and Weaknesses	✓	✓	✓	✓	✓
Inform Instruction	✓	✓	✓	✓	✓
Monitor Growth	✓	✓	✓	✓	✓
Determine College Readiness	✓		✓		✓
Measure Core Standards		✓		✓	
Implement Response to Intervention (RTI)			✓		
Inform Placement Decisions	✓			✓	✓
Make Comparisons	✓	✓	✓	✓	✓
Evaluate Programs	✓	✓	✓	✓	✓
Predict Future Performance	✓				✓
Support Accountability	✓				✓

Please check with your Riverside Assessment Consultant for report availability.

Continued on next page…

Purpose for Testing and Score Reports, *continued*

Testing Purposes	Reports on Groups of Students		
	Summary of Scores for All Students in the Group		
	Group Roster (Test and Composite)	*Group Roster (Skill Domains)*	*Subgroup Roster*
Identify Strengths and Weaknesses	✓	✓	✓
Inform Instruction	✓	✓	
Monitor Growth			
Determine College Readiness			✓
Measure Core Standards		✓	
Implement Response to Intervention (RTI)	✓		✓
Inform Placement Decisions			
Make Comparisons	✓	✓	✓
Evaluate Programs	✓	✓	✓
Predict Future Performance			
Support Accountability			✓

Please check with your Riverside Assessment Consultant for report availability.

Continued on next page…

Purpose for Testing and Score Reports, *continued*

Testing Purposes	Reports on Groups of Students, *continued*					
	Summary of Scores for All Students in the Group					
	Group Profile – Bar Graph (Test and Composite)	*Group Profile – Bar Graph (Skill Domains)*	*Group Profile – Longitudinal Report*	*Group Profile – College Readiness*	*Group Profile – Estimated Growth Summary*	*Group Summary (Scoring Service Print Style)*
Identify Strengths and Weaknesses	✓	✓			✓	✓
Inform Instruction	✓	✓	✓	✓		✓
Monitor Growth			✓		✓	
Determine College Readiness	✓		✓	✓		
Measure Core Standards		✓				
Implement Response to Intervention (RTI)	✓		✓		✓	✓
Inform Placement Decisions						
Make Comparisons	✓	✓	✓		✓	✓
Evaluate Programs		✓	✓	✓	✓	✓
Predict Future Performance	✓		✓	✓		
Support Accountability			✓	✓	✓	✓

Please check with your Riverside Assessment Consultant for report availability.

Score Report Icons: Information Types and Time Spans

This part of the guide uses two sets of icons to represent a framework based on the type of information in a report and the time spans covered. Look for these icons on each report sample in this part of the guide; they are quick indicators of the kinds of information you will find in each report.

Information Type		
Individual Student	**Groups of Students**	
Scores for an individual student	Listing of scores for each student in a group	Summary of scores for a group of students

Information Time Span			
Today	**Yesterday and Today**	**Today and Tomorrow**	**Yesterday, Today and Tomorrow**
• Snapshot of a student's/group's achievement across the curriculum • Detailed description of a student's/group's performance on important content standards • Diagnostic information about a student's/group's answers to test questions in specific content areas	• Snapshot of a student's/group's achievement across the curriculum over time • Comparison of a student's/group's achievement over time with expected growth	Using current test results, provide indicators of a student's/group's readiness for future educational opportunities and trends in performance	Using current and historical test results, provide predictions of a student's readiness for future educational opportunities and ability to meet educational goals

Iowa Assessments Form E and F Score Report Summary

This table lists the score reports explained in this part of the guide, shows the framework icons for each web report display, and gives a brief description of the report contents.

Note: For Texas users only, the Texas Essential Knowledge and Skills (TEKS) are also available for the following report titles: Student Roster, Student Profile, Group Roster, and Group Profile. Reports using TEKS as a skill domain selection follow the format used for *Iowa Assessments* Skill Domains. For a complete list of the TEKS skill domains by level, see page 147.

Report Title	See page…	Type	Time Span	Description of Report Contents
Student Roster (Test and Composite)	18			*Iowa Assessments* scores by test and composite or skill domain and cognitive level for each student in the selected group
Student Roster (Common Core Skill Domains)	20			
Student Roster (Iowa Assessments Skill Domains)	22			
Multimeasure Student Roster (Test and Composite)	24			A multiple-column report that provides scores by test and composite or skill domain and cognitive level for each student in the selected group
Multimeasure Student Roster (Common Core Skill Domains)	26			
Multimeasure Student Roster (Iowa Assessments Skill Domains)	28			
List of Student Scores (Scoring Service Print Style)	30			Class listing of each student's *Iowa Assessments* test and composite scores for the selected content area
Student Profile – Bar Graph (Test and Composite)	32			A bar graph displaying the individual student scores by test and composite or by skill domain and cognitive level for each student in the selected group
Student Profile – Bar Graph (Common Core Skill Domains)	34			
Student Profile – Bar Graph (Iowa Assessments Skill Domains)	36			
Student Profile – Longitudinal Line Graph	38			A series of line graphs showing a student's test and composite scores over time for up to five *Iowa Assessments* administrations
Student Profile – Balanced Assessment Line Graph	40			A line graph showing an individual student's test and composite results from *Iowa Assessments* and *Riverside Interim Assessments* over time for up to five administrations and tracking the student's progress toward a growth goal

Continued on next page…

Report Title	See page…	Type	Time Span	Description of Report Contents
Student Profile Narrative (Scoring Service Print Style)	44			*Iowa Assessments* test and composite scores for an individual student as well as descriptions to aid in interpreting and using the scores
Group Roster (Test and Composite)	46			*Iowa Assessments* scores by test and composite or skill domain for each selected group—class, building, district, system, or region
Group Roster (Common Core Skill Domains)	48			
Group Roster (Iowa Assessments Skill Domains)	50			
Subgroup Roster	52			A list of the test and composite scores for a selected subgroup or all subgroups—gender, federal race/ethnicity, programs, and administrator codes
Group Profile – Bar Graph (Test and Composite)	54			A bar graph displaying the average scores by test and composite or by skill domain and cognitive level for a group—class, building, district, system, or region
Group Profile – Bar Graph (Common Core Skill Domains)	56			
Group Profile – Bar Graph (Iowa Assessments Skill Domains)	58			
Group Profile – Longitudinal Line Graph	60			A series of line graphs showing the average test and composite scores of a group of students over time for up to five *Iowa Assessments* administrations
Group Profile – College Readiness Summary	62			A pie chart showing the number and percent of the students in a group (Levels 12–17/18) that are on track to enroll and succeed in postsecondary coursework for the content scope options of Reading, Language, Mathematics, and Science
Group Summary (Scoring Service Print Style)	66			Provides the average test and composite scores for the selected group
Data Export	68			A file containing the testing data for a test event exported as .txt file using a standard template or a custom template

Key to Information Type: = Individual Student, = List of Students, = Group Summary

Key to Time Span: = Today, = Yesterday and Today, = Today and Tomorrow

= Yesterday, Today, and Tomorrow

* Please check with your Riverside Assessment Consultant for report availability.

Identify Information in Online Score Reports

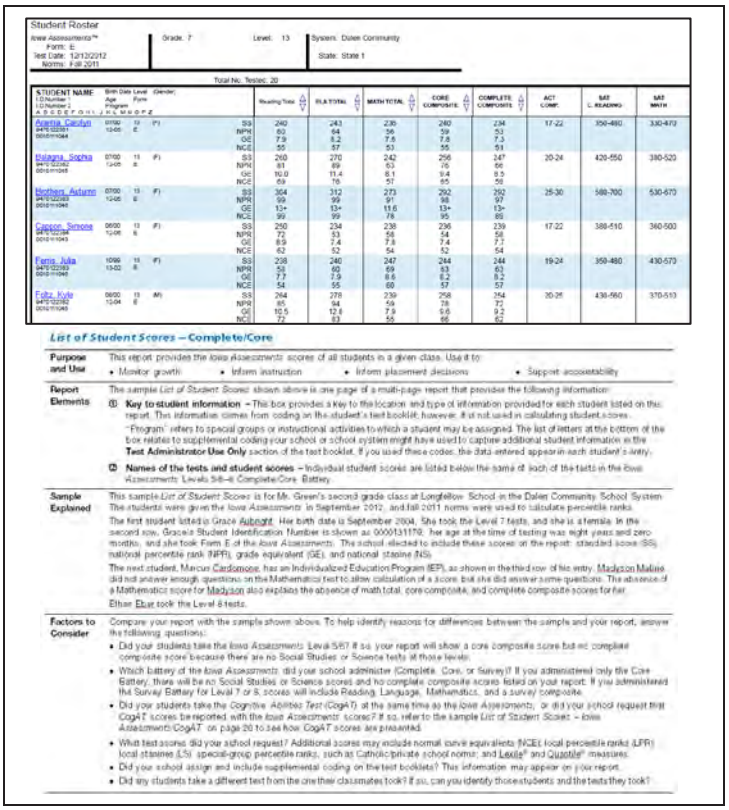
This section of the guide contains samples of score report types available for the *Iowa Assessments* Form E and F. Each report sample is presented across two (or more) pages as follows:

Report Sample

Data in these samples are for illustrative purposes only.

Description of the Report

- Purpose and Use
- Report Elements
- Sample Explained
- Factors to Consider – These questions identify factors that may cause your report contents to differ from the sample provided.


Student Roster

Iowa Assessments™ Form: E Test Date: 12/12/2012 Norms: Fall 2011 | Grade: 7 | Level: 13 | System: Dalen Community | State: State 1

Total No. Testes: 20

STUDENT NAME	Birth Date	Age	Level	Form	Program	Gender		Reading Total	ELA TOTAL	MATH TOTAL	CORE COMPOSITE	COMPLETE COMPOSITE	ACT COMP.	SAT C. READING	SAT MATH
Aranda, Carolyn	07/00 12/05	13	E			(F)	SS	240	243	230	240	234	17-22	350-480	330-470
							NPR	63	64	56	59	53			
							GE	7.9	8.2	7.6	7.8	7.3			
							NCE	55	57	53	55	51			
Malagna, Sophia	07/00 12/05	13	E			(F)	SS	260	270	242	256	247	20-24	420-550	380-520
							NPR	81	89	53	76	66			
							GE	10.0	11.4	8.1	9.4	8.5			
							NCE	69	76	57	65	58			
Northern, Autumn	07/00 12/05	13	E			(F)	SS	304	312	273	292	292	25-30	580-700	530-670
							NPR	99	99	91	98	97			
							GE	13+	13+	11.6	13+	13+			
							NCE	99	99	78	95	89			
Capper, Simone	06/00 12/06	13	E			(F)	SS	250	234	238	236	239	17-22	380-510	360-500
							NPR	72	53	58	54	58			
							GE	8.9	7.4	7.8	7.4	7.7			
							NCE	62	52	54	52	54			
Ferris, Julia	10/99 12/02	15	E			(F)	SS	238	240	247	244	244	19-24	350-480	430-570
							NPR	52	60	69	63	63			
							GE	7.7	7.9	8.6	8.2	8.2			
							NCE	54	55	60	57	57			
Foltz, Kyle	06/00 12/04	13	E			(M)	SS	264	278	239	258	254	20-26	430-560	370-510
							NPR	85	94	59	78	72			
							GE	10.5	12.6	7.9	9.6	9.2			
							NCE	72	83	55	66	62			

List of Student Scores – Complete/Core

Purpose and Use This report provides the *Iowa Assessments* scores of all students in a given class. Use it to:
- Monitor growth
- Inform instruction
- Inform placement decisions
- Support accountability

Report Elements The sample *List of Student Scores* shown above is one page of a multi-page report that provides the following information:

① **Key to student information** – This box provides a key to the location and type of information provided for each student listed on this report. This information comes from coding on the student's test booklet; however, it is not used in calculating student scores.

"Program" refers to special groups or instructional activities to which a student may be assigned. The list of letters at the bottom of the box relates to supplemental coding your school or school system might have used to capture additional student information in the **Test Administrator Use Only** section of the test booklet. If you used these codes, the data entered appear in each student's entry.

② **Names of the tests and student scores** – Individual student scores are listed below the name of each of the tests in the *Iowa Assessments* Levels 9/8–14 Complete/Core Battery.

Sample Explained This sample *List of Student Scores* is for Mr. Green's second grade class at Longfellow School in the Dalen Community School System. The students were given the *Iowa Assessments* in September 2012, and fall 2011 norms were used to calculate percentile ranks.

The first student listed is Grace Aubright. Her birth date is September 2004. She took the Level 7 tests, and she is a female in the second row. Grace's Student Identification Number is shown as 0000131170. Her age at the time of testing was eight years and zero months, and she took Form E of the *Iowa Assessments*. The school elected to include these scores on the report: standard score (SS), national percentile rank (NPR), grade equivalent (GE), and national stanine (NS).

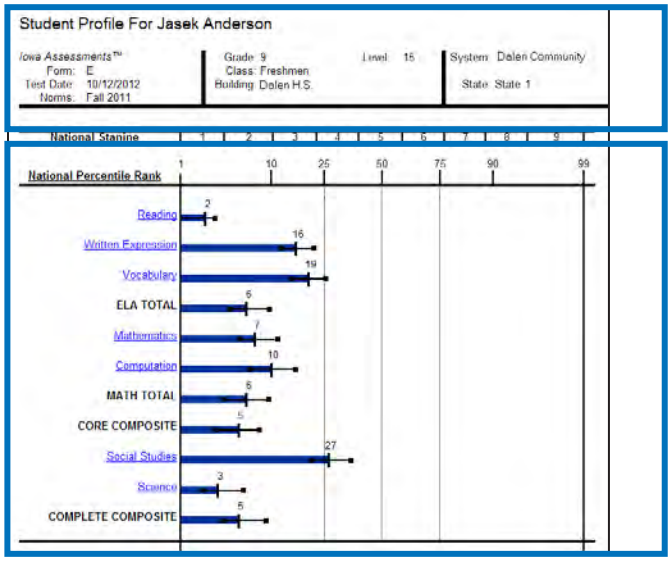
The next student, Marcus Cardomone, has an Individualized Education Program (IEP), as shown in the third row of his entry. Madyson Malone did not answer enough questions on the Mathematics test to allow calculation of a score, but she did answer some questions. The absence of a Mathematics score for Madyson also explains the absence of math total, core composite, and complete composite scores for her.

Ethan Ebur took the Level 8 tests.

Factors to Consider Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions:
- Did your students take the *Iowa Assessments* Levels 5/6? If so, your report will show a core composite score but no complete composite score because there are no Social Studies or Science tests at those levels.
- Which battery of the *Iowa Assessments* did your school administer (Complete, Core, or Survey)? If you administered only the Core Battery, there will be no Social Studies or Science scores and no complete composite scores listed on your report. If you administered the Survey Battery for Level 7 or 8, scores will include Reading, Language, Mathematics, and a survey composite.
- Did your students take the *Cognitive Abilities Test (CogAT)* at the same time as the *Iowa Assessments*, or did your school request that CogAT scores be reported with the *Iowa Assessments* scores? If so, refer to the sample *List of Student Scores – Iowa Assessments CogAT* on page 20 to see how CogAT scores are presented.
- What test scores did your school request? Additional scores may include normal curve equivalents (NCE), local percentile ranks (LPR), local stanines (LS), special-group percentile ranks, such as Catholic/private school norms, and Lexile® and Quantile® measures.
- Did your school assign and include supplemental coding on the test booklets? This information may appear on your report.
- Did any students take a different test from the one their classmates took? If so, can you identify those students and the tests they took?

Information Areas Common to All Score Reports

You will find the following information areas consistent across the *Iowa Assessments* web reports:



Report Scope and Test Information – This area specifies whose test results are being reported, which test was given, and which norms were applied to the results.

Report Graph – This area displays the graph that was selected.

Depending on the type of report, the report page in *DataManager* may provide links within the report to a related report. For example, each student name within a Student Roster report is a link that allows you to open the Student Profile report for that student.

For more information about creating and viewing online reports, refer to the *DataManager Reporting User's Guide* available within *DataManager*.

Report Scope and Test Information

If the test-taker audience is a *group of students,* the following information may be provided in the upper portion of the report. Your test administrator can select what will appear on the report (for example, region or district can be omitted if it does not apply to your school system):

Group Profile

Iowa Assessments™	Grade: 9	Level: 15	System: Dalen Commnunity
Form: E	Class: Freshman		
Test Date: 10/12/2012	Building: Dalen H.S.		State: State 1
Norms: Fall 2011			

Note: Content in the outlined boxes will reflect the specifics of your test administration.

If the test-taker audience is an *individual student,* the information in the upper-left corner of the report includes the student's name and identification (ID) number.

Student Profile For Gracie Mccall

Student ID: 9470116424			
Iowa Assessments™	Grade: 9	Level: 15	System: Dalen Community
	Class: Freshmen		
Test Date: 10/12/2012	Building: Dalen H.S.		State: State 1
Norms: Fall 2011			

Report Legend: Abbreviations and Special Indicators

The legend at the bottom of many web reports spells out abbreviations used in the report and identifies special indicators that may appear in the test score columns. For information on score types, refer to "Appendix A: Understanding Test Scores," beginning on page 125. Special indicators you may find on your reports are as follows:

#	**Too few items attempted –** Too few items were attempted to permit an estimation of a score on this test and composite. If a student leaves many items blank on one or more tests, it is likely that the student found the test too difficult or did not want to cooperate. This result is different from a score flagged as "many items omitted" (see description on the next page).
o	**Excluded from group averages by school request –** The student's scores are excluded from class, school, and district averages at the school's request. A school may choose to exclude a student's scores when there have been irregularities during the test administration that may have affected the meaningfulness of the student's scores.
<<	**Age is out-of-range; age-based scores are not reported –** Either the student's age is outside the valid range to calculate *CogAT* age scores or no date of birth was indicated.
~	**Estimated level –** Either the *CogAT* test level on the answer document was left blank or it was double-coded and had to be estimated during scoring. In certain circumstances, this may indicate that the level was selected during scoring in order to correct for a coding error.
§	**Level unusual for coded grade –** The test level marked is unusual for the grade indicated. This may also indicate that the student was purposely tested off-level.

Continued on next page…

•	**Targeted score –** The number of correct answers marked is at or below a chance level; the raw score could have been obtained by randomly marking answers to the test items.
‡	**Inconsistent response pattern –** Student's responses to items or tests were inconsistent. For example, the student may have missed many easy items but correctly answered many of the more difficult items. This indicator means the error of measurement for the student's score is unusually large, so you should not use the score for making decisions about the student's abilities.
^	**Many items omitted –** The student omitted many items but answered 80 percent or more of attempted items correctly. This situation is likely due to a very slow, but accurate, response style. Reported scores may underestimate the student's level of cognitive development. If you examine the student's answer document, look for one of two common patterns of unanswered items. In one, unanswered questions are scattered throughout the tests and across all batteries. This pattern is typical of students who are unwilling to take risks and will not mark an answer unless they feel certain of the correct response. The other pattern of unanswered questions for students with 80 percent or more of their answered items correct occurs with *CogAT* Levels 9 through 17/18, which have time limits for each subtest. Students with this pattern work diligently to answer every item and run out of time. Students showing this pattern on all the subtests either work at a pace much slower than their age or grade peers or have not learned how to use a specified amount of time effectively to complete a task. For students with either pattern of answer omission, consider their scores to be minimum estimates of their cognitive abilities.
a	**Age unusual for coded level –** The student's age is unusual for the level of *CogAT* taken. Double-check the accuracy of the age and test level information for the student. This may also indicate that the student was purposely tested off-level.
*	**Grade and test level do not match –** An asterisk (*) next to the Average %C Nat score means the grade and test level indicated on the student's answer document do not match and scores were calculated based on the grade indicated.
*	**Computation score is excluded from the Mathematics Total –** An asterisk (*) to the right of **Computation** in the column header means this calculation option was selected when score reports were created.
**	**Core and Complete Composite calculations include the Extended ELA Total –** A double asterisk (**) to the right of the **Extended ELA Total** in the column header means the Core and Complete Composite calculations include the Extended ELA Total as opposed to the default ELA Total. It indicates this calculation option was selected when score reports were created.

Continued on next page…

+ or –	**Difference score is greater than 20 or less than –20 –** When the Difference (Diff) score is greater than 20 (+) or less than –20 (–), a plus or minus sign appears next to the bar graph for that score.
¥	***CogAT* Alternative Verbal score –** For the complete *CogAT*, Levels 5/6, 7, and 8, a yen symbol **(¥)** next to the Form number **(7¥)** within a student's information indicates the Sentence Completion test is not included in the Verbal Battery score. For *CogAT* Screening, Levels 9–17/18, a yen symbol **(¥)** next to the Form number **(7¥)** within a student's information indicates the Verbal Analogies test is not included in the Total score.

Report Samples

The report samples on the following pages provide an overview of the contents of each report. The data they contain are for illustrative purposes only.

Student Roster (Test and Composite)

Student Roster

Iowa Assessments™ Form: E
Test Date: 12/12/2012
Norms: Fall 2011

Grade: 7 Level: 13 System: Dalen Community
State: State 1

Total No. Tested: 20

STUDENT NAME / I.D.Number 1 / I.D.Number 2 / A B C D E F G H I J K L M N O P Z	Birth Date / Age / Program	Level / Form	(Gender)		Reading Total	ELA TOTAL	MATH TOTAL	CORE COMPOSITE	COMPLETE COMPOSITE	ACT COMP.	SAT C. READING	SAT MATH
Aranha, Carolyn	07/00	13	(F)	SS	240	243	236	240	234	17-22	350-480	330-470
9470122381	12-05	E		NPR	60	64	56	59	53			
0010111044				GE	7.9	8.2	7.6	7.8	7.3			
				NCE	55	57	53	55	51			
Balagna, Sophia	07/00	13	(F)	SS	260	270	242	256	247	20-24	420-550	380-520
9470122382	12-05	E		NPR	81	89	63	76	66			
0010111045				GE	10.0	11.4	8.1	9.4	8.5			
				NCE	69	76	57	65	59			
Brothers, Autumn	07/00	13	(F)	SS	304	312	273	292	292	25-30	580-700	530-670
9470122383	12-05	E		NPR	99	99	91	98	97			
0010111046				GE	13+	13+	11.6	13+	13+			
				NCE	99	99	78	95	89			
Cappon, Simone	06/00	13	(F)	SS	250	234	238	236	239	17-22	380-510	360-500
9470122384	12-06	E		NPR	72	53	58	54	58			
0010111043				GE	8.9	7.4	7.8	7.4	7.7			
				NCE	62	52	54	52	54			
Ferris, Julia	10/99	13	(F)	SS	238	240	247	244	244	19-24	350-480	430-570
9470122383	13-02	E		NPR	58	60	69	63	63			
0010111046				GE	7.7	7.9	8.6	8.2	8.2			
				NCE	54	55	60	57	57			
Foltz, Kyle	08/00	13	(M)	SS	264	278	239	258	254	20-25	430-560	370-510
9470122382	12-04	E		NPR	85	94	59	78	72			
0010111045				GE	10.5	12.8	7.9	9.6	9.2			
				NCE	72	83	55	66	62			

Purpose and Use The *Student Roster (Test and Composite)* report provides the *Iowa Assessments* scores by test and composite for all students in a given class or group. Use it to:

- Identify strengths & weaknesses
- Determine college readiness
- Evaluate programs
- Inform instruction
- Inform placement decisions
- Predict future performance
- Monitor growth
- Make comparisons
- Support accountability

Note: In *DataManager*, you can click a student name to open the *Student Profile* for that student. You can click the arrows in a column to sort the report in ascending or descending order by the scores displayed in that column.

Continued on next page…

Student Roster (Test and Composite), continued

Report Elements

The *Student Roster* shown on the previous page is the top portion of a report that provides the following information:

① **Key to student information –** This box provides a key to the type of information provided for each student listed on this report. This information comes from coding specified for the student in *DataManager*.

Program refers to special groups or instructional activities to which a student may be assigned. The list of letters at the bottom of the box relates to supplemental codes your school or school system might have used to capture additional student information. If you used these codes, the data entered appear in each student's entry; however, that information is not used in calculating student scores.

② **Score types –** Column provides abbreviations for the score types displayed. Up to five score types may be included. The possible score types and their abbreviations are as follows: National Percentile Rank (NPR), National Percentile Rank (NPR)/2005 Norms, National Percentile Rank (NPR)/Predicted National Percentile Rank/DIFF, Normal Curve Equivalent, Grade Equivalent (GE), Grade Equivalent (GE)/2005 Norms, Grade Equivalent (GE)/Predicted Grade Equivalent/DIFF, Standard Score (SS), Standard Score (SS)/2005 Norms, Standard Score (SS)/Predicted Standard Score/DIFF, National Stanine (NS), National Stanine (NS)/2005 Norms, Catholic/Private Percentile Rank, High Socioeconomic Status Percentile Rank (HSES), Low Socioeconomic Status Percentile Rank (LSES), Lexile® Measure, Quantile® Measure, Local Percentile Rank (LPR), Local Stanine (LS).

③ **Names of tests and composites –** Each column lists the selected tests and composites. If the group is between the grades of 6 to 12, the final three columns will also provide the predicted ACT® composite, SAT® Reading composite, and SAT Mathematics composite score ranges.

④ **Students and scores –** The rows of the report list the individual student names and scores for each test and composite.

Group totals – Though not displayed in this example, the average scores for the group are reported in the last row of the report.

Sample Explained

This sample *Student Roster* is for a seventh grade class in the Dalen Community School System. The students were given the *Iowa Assessments* in December 2012, and fall 2011 norms were used to calculate percentile ranks.

The first student listed is Carolyn Aranha. Her birth date is July 2000. She took the Level 13 tests. In the second row, Carolyn's Student Identification Number is shown as 9470122381, her age at the time of testing was twelve years and five months, and she took Form E of the *Iowa Assessments*. The school elected to include these scores on the report: standard score (SS), national percentile rank (NPR), grade equivalent (GE), and national curve equivalent (NCE). The final columns of the report provide the predicted ACT, SAT reading and SAT mathematics composite score ranges based on the student's *Iowa Assessments* results.

Factors to Consider

Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions:

- Which battery of the *Iowa Assessments* did your school administer? This report shows a score for the Complete Composite indicating that the Complete Battery was administered.
- What test scores did your school request? Up to five score types may be included on a *Student Roster* report.
- Did any students take a different test from the one their classmates took? If so, can you identify those students and the tests they took?

Student Roster (Common Core Skill Domains)

Student Roster

Iowa Assessments™
Form: E
Test Date: 12/12/2012
Norms: Fall 2011

Grade: 7 Level: 13
Class: Kenyon
Building: Longfellow

System: Dalen Community
State 1

Reading *Total No. Tested: 20*

		Reading	Key Ideas & Details	Craft & Structure	Integration of Knowledge & Ideas
	Average Percent Correct Nation	65	65	65	61
Aranha, Carolyn	NA/NI	45/45	28/28	15/15	2/2
	%C	67	64	80	0
	RS	30	18	12	0
Balagna, Sophia	NA/NI	45/45	28/28	15/15	2/2
	%C	80	75	87	100
	RS	36	21	13	2
Brothers, Autumn	NA/NI	45/45	28/28	15/15	2/2
	%C	96	93	100	100
	RS	43	26	15	2
Cappon, Simone	NA/NI	45/45	28/28	15/15	2/2
	%C	73	79	60	100
	RS	33	22	9	2
Ferris, Julia	NA/NI	45/45	28/28	15/15	2/2
	%C	62	64	67	0
	RS	28	18	10	0
Foltz, Kyle	NA/NI	45/45	28/28	15/15	2/2
	%C	78	79	87	0
	RS	35	22	13	0

Purpose and Use

The *Student Roster (Common Core Skill Domains)* report provides the *Iowa Assessments* scores by test and skill domain for each student in the selected group. Use it to:

- Identify strengths & weaknesses
- Inform instruction
- Monitor growth
- Measure core standards
- Make comparisons
- Evaluate programs

Note: In *DataManager*, you can click a student name to open the *Student Profile* for that student. You can click the arrows in a column to sort the report in ascending or descending order by the scores displayed in that column.

Report Elements

The sample *Student Roster* shown above shows the first page of the report that provides the following information:

① **Students and scores –** The rows of the report list the individual student names and scores for each test and Common Core skill domain.

② **Score types –** Column provides abbreviations for the score types displayed. Up to three score types may be included. The possible score types and their abbreviations are Number Attempted/Number of Items (NA/NI), Percent Correct (%C), and Raw Score (RS). The top row provides the Average Percent Correct Nation, which is the national average percent correct for each test and skill domain for this level.

③ **Skill domains results –** Individual student scores are listed for the complete test and each Common Core skill domain assessed. A separate section is provided for each content scope or test area that is selected when the report is created.

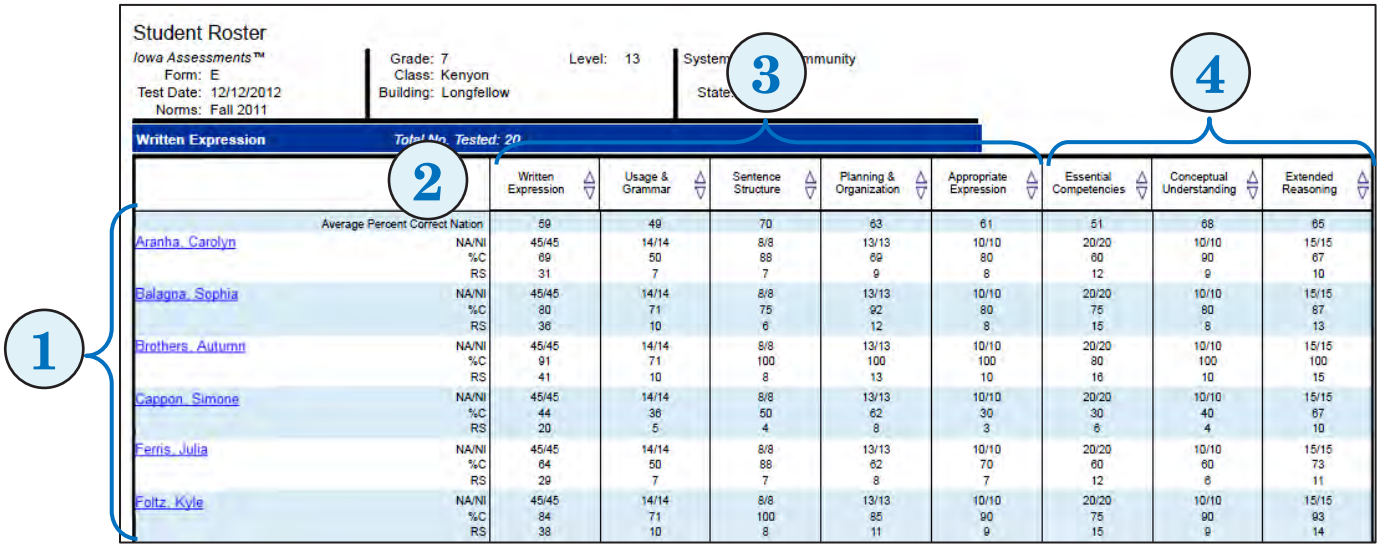
Note: This report may be created using a Common Core skill domain that does not include Math Computation. If the Computation test is not administered as part of the overall testing event, then the skill domain *without* math computation option accommodates this omission when calculating student performance. A footnote is included on the report when Computation is not included in the scores.

Continued on next page…

Student Roster (Common Core Skill Domains), continued

Sample Explained	This sample *Student Roster* is for Mrs. Kenyon's seventh grade class at Longfellow School in the Dalen Community School System. The students were given the *Iowa Assessments* in December 2012, and fall 2011 norms were used to calculate percentile ranks. The first page of the report shows the results of the Reading test and the skill domains associated with this test. The first student listed is Carolyn Aranha. The report shows that Carolyn achieved 67% correct on the Reading test. Her strongest skill domain for this content area is Craft & Structure. The report shows that 15 of the questions on the Reading test are used to measure this skill domain. Carolyn answered 12 out of these 15 items correctly, which calculates to 80% correct on this skill domain. The national average percent correct for the Craft & Structure skill domain is 65% as shown on the top row of the column.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions: • Which battery of the *Iowa Assessments* did your school administer (Complete, Core, or Survey)? • What tests and skill domains did your school request? • Did your school assign and include supplemental coding on the answer documents? This information may appear on your report.

Student Roster (Iowa Assessments Skill Domains)



Student Roster

Iowa Assessments™
Form: E
Test Date: 12/12/2012
Norms: Fall 2011

Grade: 7 Level: 13
Class: Kenyon
Building: Longfellow

System mmunity
State

Written Expression *Total No. Tested: 20*

		Written Expression	Usage & Grammar	Sentence Structure	Planning & Organization	Appropriate Expression	Essential Competencies	Conceptual Understanding	Extended Reasoning
	Average Percent Correct Nation	59	49	70	63	61	51	68	65
Aranha, Carolyn	NA/NI	45/45	14/14	8/8	13/13	10/10	20/20	10/10	15/15
	%C	69	50	88	69	80	60	90	67
	RS	31	7	7	9	8	12	9	10
Balagna, Sophia	NA/NI	45/45	14/14	8/8	13/13	10/10	20/20	10/10	15/15
	%C	80	71	75	92	80	75	80	87
	RS	36	10	6	12	8	15	8	13
Brothers, Autumn	NA/NI	45/45	14/14	8/8	13/13	10/10	20/20	10/10	15/15
	%C	91	71	100	100	100	80	100	100
	RS	41	10	8	13	10	16	10	15
Cappon, Simone	NA/NI	45/45	14/14	8/8	13/13	10/10	20/20	10/10	15/15
	%C	44	36	50	62	30	30	40	67
	RS	20	5	4	8	3	6	4	10
Ferris, Julia	NA/NI	45/45	14/14	8/8	13/13	10/10	20/20	10/10	15/15
	%C	64	50	88	62	70	60	60	73
	RS	29	7	7	8	7	12	6	11
Foltz, Kyle	NA/NI	45/45	14/14	8/8	13/13	10/10	20/20	10/10	15/15
	%C	84	71	100	85	90	75	90	93
	RS	38	10	8	11	9	15	9	14

Purpose and Use

The *Student Roster (Iowa Assessments Skill Domains)* report provides the *Iowa Assessments* scores by test, skill domain, and cognitive level for each student in the selected group. Use this report to:

- Identify strengths & weaknesses
- Inform instruction
- Monitor growth
- Measure core standards
- Make comparisons
- Evaluate programs

Note: In *DataManager*, you can click a student name to open the *Student Profile* for that student. You can click the arrows in a column to sort the report in ascending or descending order by the scores displayed in that column.

Report Elements

The sample *Student Roster* shown above shows the first page of the report that provides the following information:

① **Students and scores –** The rows of the report list the individual student names and scores for each test, *Iowa Assessments* skill domain, and cognitive level.

② **Score types –** Column provides abbreviations for the score types displayed. Up to three score types may be included. The possible score types and their abbreviations are Number Attempted/Number of Items (NA/NI), Percent Correct (%C), and Raw Score (RS). The top row provides the Average Percent Correct Nation, which is the national average percent correct for each test and skill domain for this level.

③ **Test and skill domain results –** Individual student scores are listed for the complete test and each selected *Iowa Assessments* skill domain. A separate section is provided for each content scope or test area that is selected when the report is created.

Continued on next page…

Student Roster (Iowa Assessments Skill Domains), continued

Report Elements, ***continued***	④ **Cognitive levels –** Three cognitive levels, which provide a hierarchy of critical-thinking skills, are reported: **Level 1 – Essential Competencies:** Recall of information such as fact, definition, term, or simple one-step procedure. **Level 2 – Conceptual Understanding:** Includes the engagement of some cognitive processing beyond recalling or reproducing a response. A conceptual understanding item requires students to make some decisions as to how to approach the problem or activity and may imply more than a single step. **Level 3 – Extended Reasoning:** Requires problem solving, planning, and/or using evidence. Items require students to develop a strategy to connect and relate ideas in order to solve the problem while using multiple steps and drawing upon a variety of skills.
Sample Explained	This sample *Student Roster* is for Mrs. Kenyon's seventh grade class at Longfellow School in the Dalen Community School System. The students were given the *Iowa Assessments* in December 2012, and fall 2011 norms were used to calculate percentile ranks. The first page of the report shows the results of the Written Expression test and the skill domains and cognitive levels associated with this test. The first student listed is Carolyn Aranha. The report shows that Carolyn achieved 69% correct on the Written Expression test. Her strongest skill domain for this content area is Sentence Structure. The report shows that 8 of the questions on the Written Expression test are used to measure this skill domain. Carolyn answered 7 out of these 8 items correctly, which calculates to 88% correct on this skill domain. The national average percent correct for the Sentence Structure skill domain is 70% as shown on the top row of the column. Carolyn's strongest cognitive level score is 90% correct for Conceptual Understanding. The report shows that 10 of the questions on the Written Expression test are used to measure this cognitive level skill. Carolyn answered 9 out of these 10 items correctly, which calculates to 90% correct on this cognitive level skill. The national average percent correct for the Conceptual Understanding skill is 68% as shown on the top row of the column.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions: • Which battery of the *Iowa Assessments* did your school administer (Complete, Core, or Survey)? If you administered only the Core Battery or the Survey Battery, fewer content areas will be displayed on your report. • What tests and skill domains did your school request? • Did your school assign and include supplemental coding on the answer documents? This information may appear on your report.

Multimeasure Student Roster (Test and Composite)

Multimeasure Student Roster

Class: Mrs Thomas
Building: Emerson

System: Dalen Communt
State: State 1

	1	2	3	4	5	6
	Reading Iowa Assessments Form: E Grade: 3 Level: 9 Score: NPR Test Date: 01/28/2013	Written Expression Iowa Assessments Form: E Grade: 3 Level: 9 Score: NPR Test Date: 01/28/2013	Conventions of Writing Iowa Assessments Form: E Grade: 3 Level: 9 Score: NPR Test Date: 01/28/2013	Vocabulary Iowa Assessments Form: E Grade: 3 Level: 9 Score: NPR Test Date: 01/28/2013	Reading Total Iowa Assessments Form: E Grade: 3 Level: 9 Score: NPR Test Date: 01/28/2013	CORE COMPOSITE Iowa Assessments Form: E Grade: 3 Level: 9 Score: NPR Test Date: 01/28/2013
Adams, Christop	87	87	95	66	80	95
Armenta, Beltran	49	25	16	30	39	45
Armijo, Calvina	65	87	74	76	70	90
Armstrong, Hector	46	59	82	92	73	69
Aviles, Carleigha	82	90	84	54	72	90
Caldera, James	91	94	93	86	89	96
Casey, Heaven	53	36	34	23	39	53
Fasano, Limonee	82	94	94	81	82	97
Garner, Davaria	42	62	82	71	58	57
Garner, Landen	99	94	91	99	99	99
Graves, Jayden	97	90	85	99	99	98
Hamilton, Xavier	82	94	52	61	82	95
Henderson, Vernasia	97	87	98	71	91	93
Johigan, Kevon	77	68	78	66	73	88
Johnson, Kai	46	62	63	66	58	54
Jones, Brandon	82	94	63	86	84	95
Mcclure, Zachery	97	87	99	86	94	96
Mccray, Amaya	65	47	86	54	61	69
Muella, Logan	73	94	94	86	79	95
Richard, Jerrvia	68	72	92	63	64	90
Romo, Arianna	97	87	96	99	99	97
Segovia, Joshua	91	82	86	63	93	91
Steve Non, Christop	82	90	90	71	86	95
Turn Er, Rayden	99	94	95	92	99	97
Young, Dennis	68	82	79	71	79	88

Column 1: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
Column 2: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
Column 3: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
Column 4: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
Column 5: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
Column 6: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19

Purpose and Use

The *Multimeasure Student Roster (Test and Composite)* report is a multiple-column report (up to ten columns) that provides scores by test and composite for multiple test administrations, test types, grades, and levels for each student in the selected group. This report also provides a **Performance Band** option, which allows you to specify performance indicator values that color code the test results for each student. The text identifying each Performance Band may be changed when you create the report. Use this report to:

- Identify strengths & weaknesses
- Determine college readiness
- Evaluate programs
- Inform instruction
- Make comparisons
- Monitor growth
- Implement Response to Intervention (RTI)

Report Elements

The sample report shown on the above page is a multiple-column report (up to ten columns) that provides the following information:

① **Names of the students –** This area lists the names of the students tested in the group.

② **Score reports –** Each column displays different report selections. Column headings indicate the selected test or composite, grade, score type, and test administration date of the score reported for each student.

③ **Performance band –** This area provides color-coded ranges of scores to identify student performance. These color bands are assigned when the report is created, and the values assigned for each color are identified below the report.

Continued on next page…

Multimeasure Student Roster (Test and Composite), continued

Sample Explained	This sample *Multimeasure Student Roster* is for Mrs. Thomas's third grade class at Emerson School in the Dalen Community School System. The students were given the *Iowa Assessments* in January 2013. Columns 1 through 4 show the scores for four of the *Iowa Assessments* subtests, and columns 5 and 6 show the results for the *Iowa Assessments* Reading Total and Core Composite Total, respectively. The second student listed is Beltran Armenta. While she scored in the yellow, midrange band for the Reading subtest and the Core Composite Total, the report shows that her scores on the other subtests are below the average, particularly in Conventions of Writing.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer this question: • Which tests and scores did your school request? For each selected test administration, the score type may be different. • How many tests administrations did your school include in the report? Your report may show more or fewer columns than are shown in the sample. • Is your report comparing *Iowa Assessments*, *CogAT*, *Riverside Interim Assessments*, or some combination of these tests? • Is your report comparing multiple test administration dates?

Multimeasure Student Roster (Common Core Skill Domains)

Multimeasure Student Roster

Class: Brown
Building: Emerson
District: District 1

System: Dalen Community
Region: Region 1
State: State 1

2

1

	1	2	3	4	5	6
	Mathematics	**Operations & Algebraic Thinking**	**Number & Operations in Base 10**	**Number & Operations - Fractions**	**Measurement & Data**	**Geometry**
	Iowa Assessments	Iowa Assessments	Iowa Assessments	Iowa Assessments	Iowa Assessments	Iowa Assessments
	Form: E	Form: E	Form: E	Form: E	Form: E	Form: E
	Grade: 5 Level: 11	Grade: 5 Level: 11	Grade: 5 Level: 11	Grade: 5 Level: 11	Grade: 5 Level: 11	Grade: 5 Level: 11
	Score: %C	Score: %C	Score: %C	Score: %C	Score: %C	Score: %C
	Test Date: 08/30/2011	Test Date: 08/30/2011	Test Date: 08/30/2011	Test Date: 08/30/2011	Test Date: 08/30/2011	Test Date: 08/30/2011
Adams, Christop	56	80	64	50	42	71
Caldera, James	40	47	42	13	42	43
Casey, Heaven	65	73	82	38	50	57
Garner, Davaria	67	53	73	50	65	100
Garner, Landen	63	80	76	13	50	71
Graves, Jayden	54	60	61	38	50	43
Hamilton, Xavier	56	60	61	50	50	57
Henderson, Vernasia	71	80	94	38	58	71
Johig An, Kevon	45	67	42	50	35	43
Johnson, Kai	76	80	88	50	65	86
Jones, Brandon	60	80	73	25	50	71
Mcclure, Zachery	60	67	67	13	62	57
Mccray, Amaya	62	80	52	25	81	43
Muella, Logan	51	40	45	63	62	43
Richard, Jerrvia	53	53	58	38	54	43
Romo, Arianna	45	27	48	50	46	57
Segovia, Joshua	58	80	67	38	50	71
Steve Non, Christop	40	53	42	13	38	43
Turn Er, Rayden	68	80	85	50	62	57
Young, Dennis	47	40	52	38	50	43

3

olumn 1: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
Column 2: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
Column 3: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
Column 4: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
Column 5: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
Column 6: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19

Purpose and Use

The *Multimeasure Student Roster (Common Core Skill Domains)* is a multiple-column report (up to ten columns) that provides scores by Common Core skill domain for multiple test administrations, test types, grades, and levels for each student in the selected group. This report also provides a **Performance Band** option, which allows you to specify performance indicator values that color code the test results for each student. Use this report to:

- Identify strengths & weaknesses
- Measure core standards
- Evaluate programs
- Inform instruction
- Inform placement decisions
- Monitor growth
- Make comparisons

Report Elements

The sample report shown above is a multiple-column report (up to ten columns) that provides the following information:

① **Names of the students –** This area lists the names of the students tested in the group.

② **Score reports –** Each column displays a different report. Column headings indicate the selected common core skill domain, grade, score type, and test administration date of the score reported for each student.
Note: This report may be created using a Common Core skill domain that does not include Math Computation. If the Computation test is not administered as part of the overall testing event, then the skill domain *without* math computation option accommodates this omission when calculating student performance. A footnote is included on the report when Computation is not included in the scores.

③ **Performance band –** This area provides color-coded ranges of scores to identify student performance. These color bands are assigned when the report is created, and the values assigned for each color are identified below the report.

Continued on next page…

Multimeasure Student Roster (Common Core Skill Domains), continued

Sample Explained	This sample *Multimeasure Student Roster* is for Mrs. Brown's fifth grade class at Emerson School in the Dalen Community School System. The students were given the Level 11 *Iowa Assessments* in August 2011. All of the Common Core skill domains for Mathematics are displayed. The scores are reported as percent correct (%C). At a glance, you can see that most of the skill domain scores for the class are in the yellow and blue bands, which indicates a percent correct score of 40 to 79 (yellow = 40 to 59; blue = 60 to 79). In the Numbers & Operations – Fractions skill domain, four of the students received a percent correct in the red band, indicating that their scores are between 0 to 19 percent correct.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer this question: • Which tests, scores, and skill domains did your school request? For each selected test administration, the score type may be different. • How many tests administrations did your school include in the report? Your report may show more or fewer columns than are shown in the sample. • Is your report comparing *Iowa Assessments*, *CogAT*, *Riverside Interim Assessments*, or some combination of these tests? • Is your report comparing multiple test administration dates?

Multimeasure Student Roster (Iowa Assessments Skill Domains)

Multimeasure Student Roster

Building: Emerson
District: District 1

System: Dalen Community
Region: Region 1
State: State 1

2

	1	2	3	4	5	6	7
	Science Iowa Assessments Form: E Grade: 3 Level: 9 Score: %C Test Date: 08/30/2011	Life Science Iowa Assessments Form: E Grade: 3 Level: 9 Score: %C Test Date: 08/30/2011	Earth & Space Science Iowa Assessments Form: E Grade: 3 Level: 9 Score: %C Test Date: 08/30/2011	Physical Science Iowa Assessments Form: E Grade: 3 Level: 9 Score: %C Test Date: 08/30/2011	Essential Competencies Iowa Assessments Form: E Grade: 3 Level: 9 Score: %C Test Date: 08/30/2011	Conceptual Understanding Iowa Assessments Form: E Grade: 3 Level: 9 Score: %C Test Date: 08/30/2011	Extended Reasoning Iowa Assessments Form: E Grade: 3 Level: 9 Score: %C Test Date: 08/30/2011
Alcocke, Vicki	47	50	25	60	23	67	60
Boyer, Candace	57	58	38	70	77	50	20
Carlisi, Angelina	27	17	38	30	23	25	40
Cortesnotmet, Mike	57	58	63	50	89	50	40
Crawford, Anthony	23	25	13	30	23	17	40
Emery, Shane	33	33	38	30	23	42	40
Holdsworth, Neal	67	50	75	80	69	67	60
Hooker, Jenn	60	42	75	70	62	67	40
Houston, Lois	53	42	63	60	54	50	60
Hynes, Prunella	63	42	63	90	62	58	80
Johann, Joseph	70	83	50	70	85	67	40
Kern, Vanessa	33	33	50	20	46	33	0
Kimmons, Cathryn	67	75	75	50	77	75	20
Lane, Gabriel	43	58	50	20	38	58	20
Linton, Lyndon	73	58	63	100	85	67	60
Oppenheimer, Suzan	40	42	50	30	62	33	0
Schmaltz, Kaitlyn	40	42	50	30	38	42	40
Stern, Twila	63	58	63	70	92	58	0
Tripp, Steve	60	33	88	70	89	50	60
Vanhulle, Richard	33	33	38	30	23	33	60
Ward, Jonette	53	67	38	50	54	58	40

1

3

olumn 1: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
olumn 2: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
olumn 3: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
Column 4: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
Column 5: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
Column 6: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19
Column 7: Green Category from 80 to 100, Blue Category from 60 to 79, Yellow Category from 40 to 59, Orange Category from 20 to 39, Red Category from 0 to 19

Purpose and Use

The *Multimeasure Student Roster (Iowa Assessments Skill Domains)* report is a multiple-column report (up to ten columns) that provides scores by *Iowa Assessments* skill domains and cognitive levels for multiple test administrations, test types, grades, and levels for each student in the selected group. This report also provides a **Performance Band** option, which allows you to specify performance indicator values that color code the test results for each student. The text identifying each Performance Band may be changed when you create the report. Use this report to:

- Identify strengths & weaknesses
- Measure core standards
- Evaluate programs
- Inform instruction
- Inform placement decisions
- Monitor growth
- Make comparisons

Report Elements

The sample report shown above is a multiple-column report (up to ten columns) that provides the following information:

① **Names of the students –** This area lists the names of the students tested in the group.

② **Score reports –** Each column displays a different report. Column headings indicate the selected skill domain or cognitive level, grade, score type, and test administration date of the score reported for each student.

③ **Performance band –** This area provides color-coded ranges of scores to identify student performance. These color bands are assigned when the report is created, and the values assigned for each color are identified below the report.

Continued on next page…

Multimeasure Student Roster (Iowa Assessments Skill Domains), continued

Sample Explained	This sample *Multimeasure Student Roster (Iowa Assessments Skill Domains)* is for the third grade class at Emerson School in the Dalen Community School System. The students were given the *Iowa Assessments* in August 2011. Columns 1 through 4 show the percent correct score for the *Science* subtest and skill domains—Life Science, Earth & Space Science, and Physical Science. Columns 5, 6, and 7 show the percent correct for the Science subtest's cognitive levels—Essential Competencies, Conceptual Understanding, and Extended Reasoning. The first student listed is Vicki Alcocke. For the Science subtest skill domains, the report shows that her highest score is in Physical Science. Of the cognitive levels for science, her highest score is in Conceptual Understanding. Her lowest skill domain score is 25% correct in Earth & Space Science, and her lowest cognitive level score is in Essential Competencies.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer this question: • Which tests and scores did your school request? For each selected test administration, the score type may be different. • How many tests administrations did your school include in the report? Your report may show more or fewer columns than are shown in the sample. • Is your report comparing *Iowa Assessments*, *CogAT*, *Riverside Interim Assessments*, or some combination of these tests? • Is your report comparing multiple test administration dates?

List of Student Scores (Scoring Service Print Style)

LIST OF STUDENT SCORES
Iowa Assessments™

Class: STEVENS
Building: Emerson
District: Dalen Community
System: System 1
Region: Region 1
State: State 1

Form-Level: E-14
Test Date: 08/2012
Norms: Fall 2011
Grade: 8
Page: 1

STUDENT NAME / I.D.Number 1 / I.D.Number 2 / Code / A B C D E F G H I J K L M N O P Z	Birth Date / Age / Program	Level / Form	(Gender)		English Language Arts: Reading	Written Expression	Conven. of Writing	Vocabulary	ELA TOTAL	Mathematics: Mathematics	Computation	MATH TOTAL	CORE COMPOSITE	Social Studies	Science	COMPLETE COMPOSITE	PREDICTED COLLEGE READINESS: ACT COMP.	SAT C. READING	SAT MATH
Andersen, Matthew	01/99	14	(M)	SS	239	230	254	246	240	238	228	235	238	214	242	234	16-21	350-470	340-470
	13-07	E		NPR	46	41	58	54	46	45	34	41	44	26	49	40			
				LPR	50	38	50	44	44	50	30	42	40	31	42	37			
				GE	7.8	7.0	9.2	8.4	7.9	7.7	6.9	7.5	7.6	5.8	8.0	7.3			
				NS	5	5	5	5	5	5	4	5	5	4	5	4			
				LS	5	4	5	5	5	5	4	5	4	4	5	4			
Brady, Juliet	01/99	14	(F)	SS	252	290	288	256	272	275	293	281	276	259	274	273	21-25	410-530	470-600
	13-07	E		NPR	58	79	82	66	80	79	92	86	81	63	74	76			
				LPR	60	65	82	56	69	96	98	98	81	60	74	80			
				GE	9.0	13+	13+	9.4	11.8	11.8	13+	13+	12.2	9.7	11.7	11.7			
				NS	5	7	7	6	7	7	8	7	7	6	6	6			
				LS	6	6	7	5	6	9	9	9	7	6	6	7			
Britt, Zeniyah	11/98	14	(F)	SS	314	298	256	279	293	275	267	272	282	278	291	283	22-27	540-660	480-610
	13-09	E		NPR	97	83	60	91	94	79	73	79	86	78	85	85			
				LPR	94	71	54	86	85	96	78	85	94	81	94	85			
				GE	13+	13+	9.4	12.6	13+	11.8	10.6	11.4	13+	12.4	13+	13+			
				NS	9	7	6	8	8	7	6	7	7	7	7	7			
				LS	8	6	5	7	7	9	7	7	8	7	8	7			
Cajun, Francesca	12/96	14	(F)	SS	179	164	190	212	181	179	184	181	181	147	178	175	8-13	200-300	200-300
9470123392	13-08	E		NPR	7	5	10	17	3	1	4	1	1	1	4	1			
0010111049	ELL			LPR	15	10	14	14	10	15	12	15	13	2	4	7			
				GE	3.4	2.6	4.0	5.7	3.5	3.3	3.8	3.6	3.5	1.6	3.4	3.2			
				NS	2	2	2	3	1	1	1	1	1	1	1	1			
				LS	3	2	3	3	2	3	3	3	3	1	1	2			
Carle, Simo	02/99	14	(M)	SS	239	227	220	258	235	231	233	232	234	264	252	242	15-20	360-480	320-450
	13-06	E		NPR	46	39	30	69	41	39	40	38	40	67	58	49			
				LPR	50	31	34	64	38	44	36	33	35	69	54	41			
				GE	7.8	6.8	6.2	9.6	7.5	7.1	7.3	7.2	7.3	10.2	9.0	8.0			
				NS	5	4	4	6	5	4	4	4	4	6	5	5			
				LS	5	4	4	6	4	5	4	4	4	6	5	5			
Chamberlain, Sophie	11/98	14	(F)	SS	252	315	308	243	281	245	233	241	261	264	279	265	19-24	380-500	380-510
	13-09	E		NPR	58	89	92	49	87	52	40	48	68	67	78	70			
				LPR	60	83	90	36	77	60	36	56	73	69	78	74			
				GE	9.0	13+	13+	8.1	13+	8.3	7.3	8.1	10.0	10.2	12.6	10.5			
				NS	5	8	8	5	7	5	4	5	6	6	7	6			
				LS	6	7	8	4	7	6	4	5	6	6	7	6			

SS = Developmental Standard Score NPR = National Percentile Rank LPR = Local Percentile Rank GE = Grade Equivalent NS = National Stanine LS = Local Stanine

Purpose and Use

This report provides the *Iowa Assessments* test and composite scores of all students in a given class. Use it to:

- Identify strengths & weaknesses
- Determine college readiness
- Evaluate programs
- Inform instruction
- Inform placement decisions
- Predict future performance
- Monitor growth
- Make comparisons
- Support accountability

Report Elements

The sample *List of Student Scores* shown above is one page of a multi-page report that provides:

① **Key to student information –** This box provides a key to the location and type of information provided for each student listed on this report. This information comes from coding on the student's answer document; however, it is not used in calculating student scores.

"Program" refers to special groups or instructional activities to which a student may be assigned. The list of letters at the bottom of the box relates to supplementary coding your school or district might have used in the **Test Administrator Use Only** section of the answer document to capture additional student information. If you used these codes, the data entered appear in each student's entry.

② **Names of the tests and composites and student scores –** Individual student scores are listed below the names of the subtests and composites.

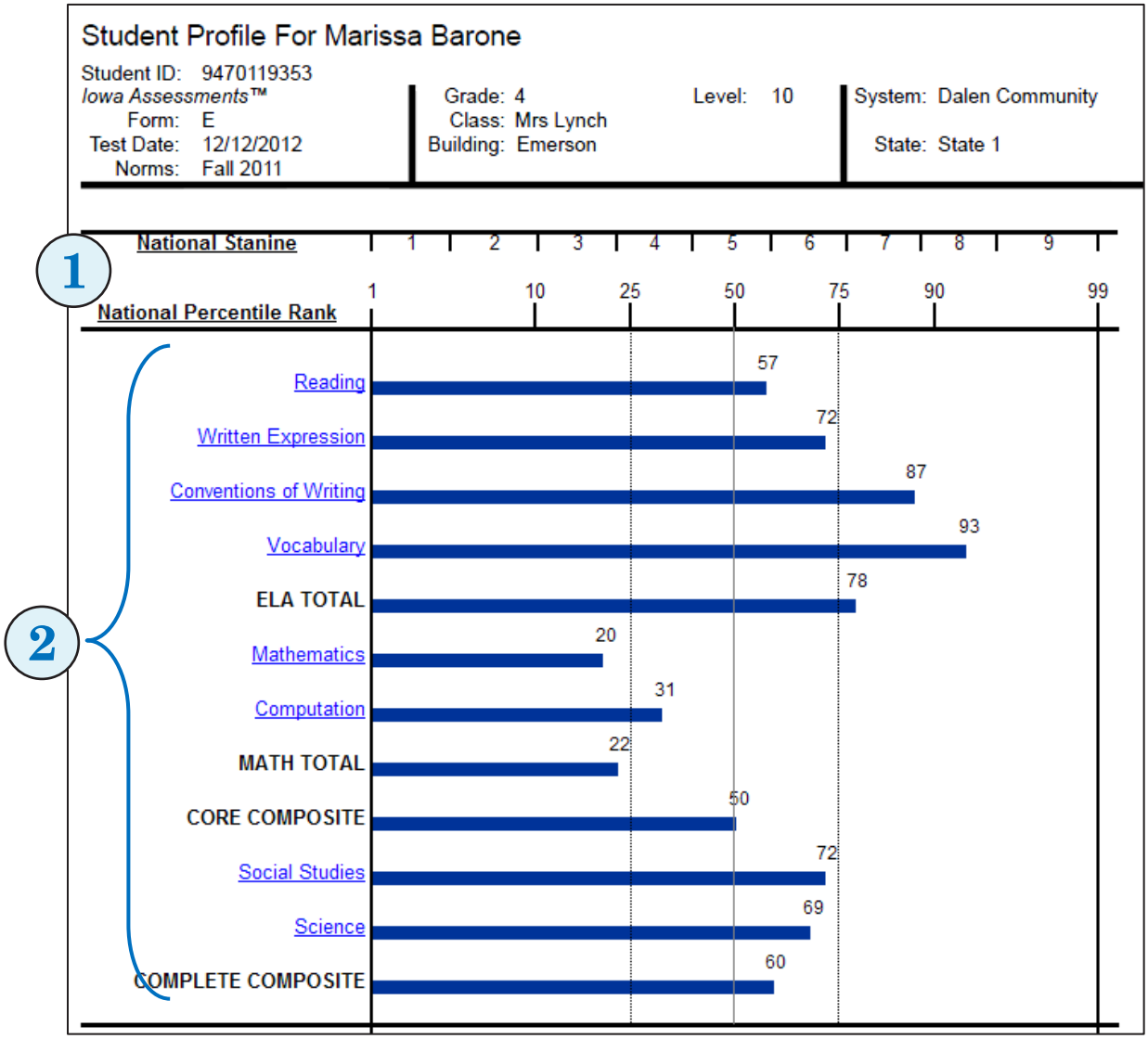
③ **Predicted college readiness –** If the group is between the grades of 6 to 12, the final three columns will also provide the predicted ACT composite, SAT Reading composite, and SAT Mathematics composite scores.

Continued on next page…

List of Student Scores (Scoring Service Print Style), continued

Sample Explained	This sample *List of Student Scores* is for Ms. Stevens' eighth grade class at Emerson School in the Dalen Community School District. The students were given the *Iowa Assessments* in August 2012, and fall 2011 norms were used to calculate percentile ranks. The first student listed is Matthew Andersen. His birth date is January 1999. He took the Level 14 tests, and he is a male. In the second row, Matthew's age at the time of testing was thirteen years and seven months, and he took Form E of the *Iowa Assessments*. The school elected to include these scores on the report: standard score (SS), national percentile rank (NPR), local percentile rank (LPR), grade equivalent (GE), national stanine (NS), and local stanine (LS).
Factors to Consider	Compare your report with the sample shown above and look across the information listed for your students. To help identify reasons for differences between the sample and your report, answer the following questions: • Did your students take the *Iowa Assessments* Core or Survey Battery instead of the Complete Battery? If so, the report will list fewer tests and composite scores across the top of the report. • What test scores did your school request? • Did your school assign and include supplemental coding on the answer documents? This information may appear on your report. • Did any of your students take a test that was different from the one the majority of their classmates took? If so, can you identify those students and the tests they took?

Student Profile – Bar Graph (Test and Composite)



Purpose and Use

This report displays individual test and composite scores for each student in the selected group. Use this report to:

- Identify strengths and weaknesses
- Determine college readiness
- Predict future performance
- Evaluate programs
- Inform instruction
- Make comparisons
- Inform placement decisions
- Monitor growth
- Implement Response to Intervention (RTI)

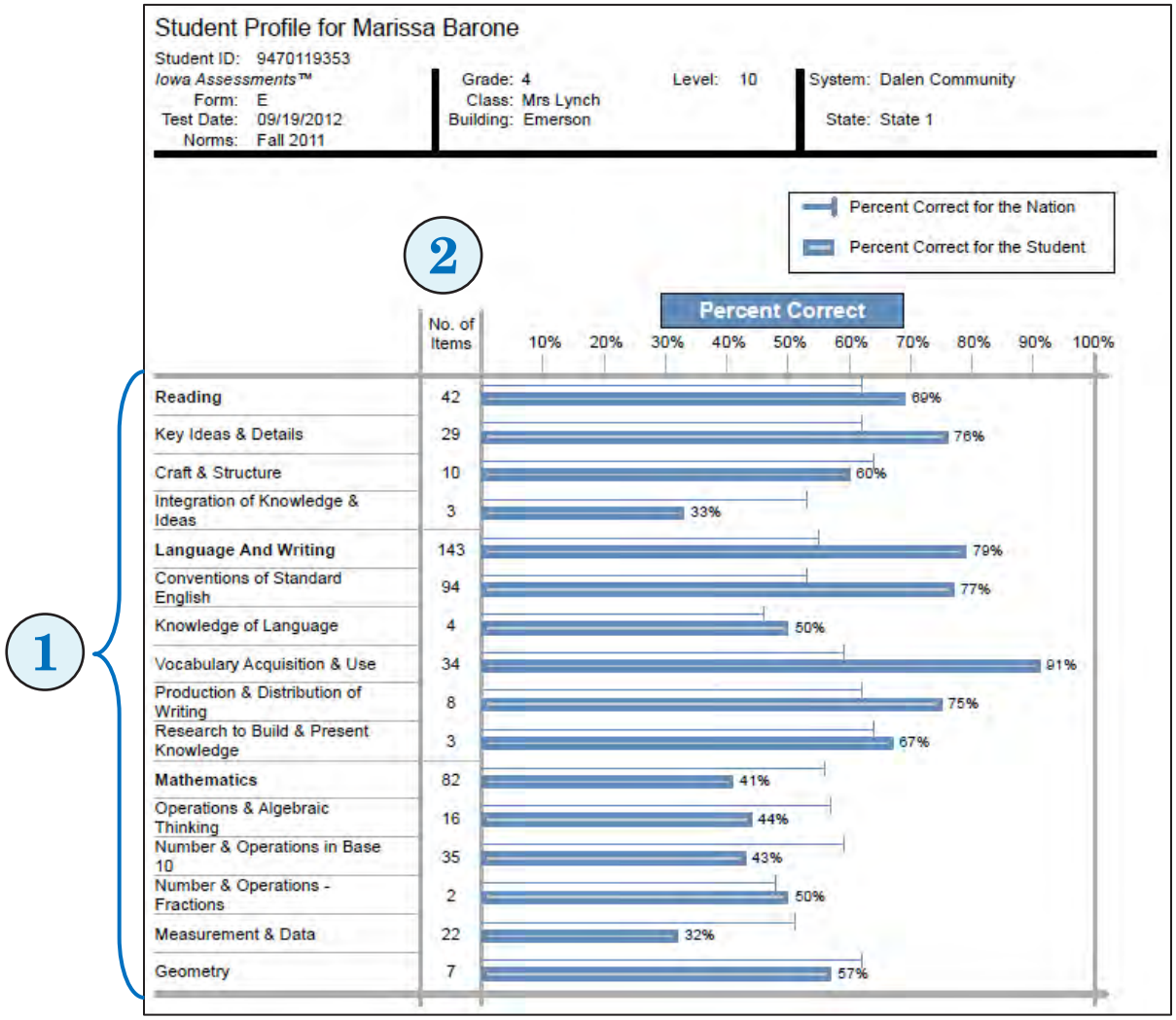
Note: In *DataManager*, you can click a subtest name to open the *Student Profile – Bar Graph (Iowa Assessments Skill Domains)* report for that subtest.

Continued on next page…

Student Profile – Bar Graph (Test and Composite), continued

Report Elements	The sample *Student Profile – Bar Graph (Test and Composite)* report shown above provides the following information: ① **Score types –** The top section of the graph identifies the score types displayed. One of the following scores may be presented: national percentile rank/national stanine, grade equivalent/standard age score, normal curve equivalent/national percentile rank, local percentile rank/local stanine. ② **Tests and composites and results –** Rows display the scores reported for each test and composite. Scores are presented in the bar graph on the right side of the box. If selected, the **confidence band** is presented around each score, which provides a visual representation of the margin of error that may apply to each test score.
Sample Explained	This report is for Marissa Barone. The upper portion of the report shows that Marissa is in Mrs. Lynch's class at Emerson School in the Dalen Community School District. She took Level 10, Form E of the *Iowa Assessments*, and the fall 2011 norms were used to determine her national percentile ranks. She is in the fourth grade and took the *Iowa Assessments* in December 2012. Marissa scored a national percentile rank of 60 on the test composite.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions: • What test scores did your school request? The following pairs of scores may be presented: national percentile rank/national stanine, grade equivalent/standard age score, normal curve equivalent/national percentile rank, local percentile rank/local stanine. • Did your school take the Core Battery or the Survey Battery of the *Iowa Assessments*? If so, the tests listed will differ from those in the sample, which shows results for administration of the Complete Battery. • What type of graphs did your school specify when creating this report? The graph can show a confidence interval for each score, which provides a visual representation of the margin of error that may apply to each test score.

Student Profile – Bar Graph (Common Core Skill Domains)



Purpose and Use

This report provides the *Iowa Assessments* percent-correct scores of an individual student for each content area and Common Core skill domain. Use this report to:

- Identify strengths & weaknesses
- Inform instruction
- Measure core standards
- Make comparisons
- Evaluate programs

Report Elements

The sample *Student Profile – Bar Graph (Common Core Skill Domain)* shown above provides the following information:

① **Skill domains and graph –** The first column presents the Common Core skill domains that were assessed by the test. The bar graph presents the student's average percent correct and the national average percent correct for each content area and skill domain.

Note: This report may be created using a Common Core skill domain that does not include Math Computation. If the Computation test is not administered as part of the overall testing event, then the skill domain *without* math computation option accommodates this omission when calculating student performance. A footnote is included on the report when Computation is not included in the scores.

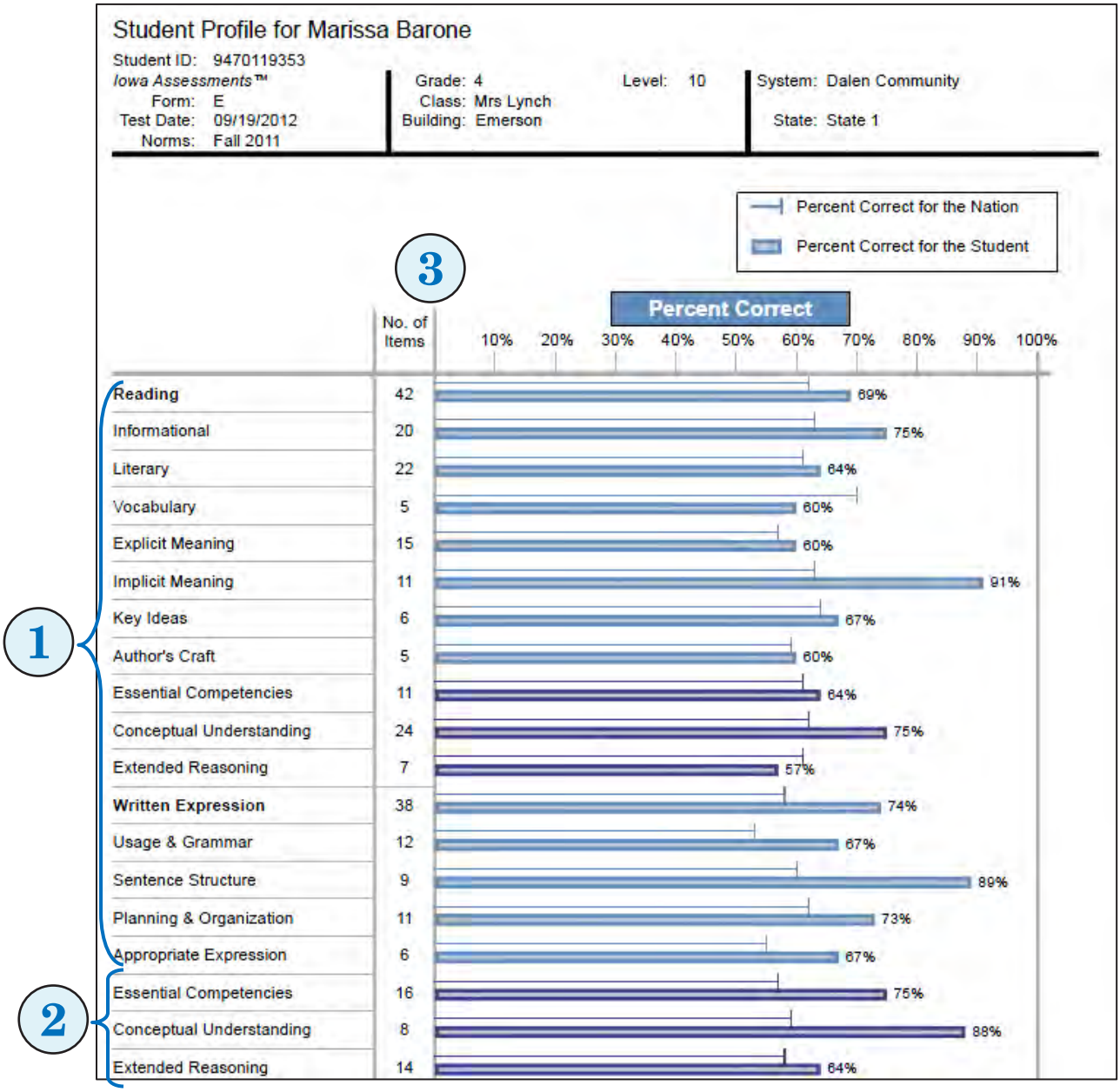
② **Number of items –** This column states the number of test items that are included in each content area and skill domain.

Continued on next page…

Student Profile – Bar Graph (Common Core Skill Domains), continued

Sample Explained	This sample *Student Profile* is for Marissa Barone, a fourth grade student in Mrs. Lynch's class at Emerson School. Marissa took Form E of the Level 10 *Iowa Assessments* in September 2012. The report shows that Marissa correctly answered 69% of the test items used to measure the Reading skill domain, 79% of the items used to measure the Language and Writing skill domain, and 41% of the items used to measure the Mathematics skill domain. Her highest skill domain score was 91% in the Vocabulary Acquisition & Use domain, which is measured using 34 of the test items within the Language and Writing skill domain. Her lowest was 32% in the Measurement & Data domain, which is measured using 22 of the questions within the Mathematics skill domain. Comparing the percent correct for the student to the bracket line showing the percent correct for students in the nation provides an indicator of how far above or below the student performed in comparison to students nationally.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions: • Which scores did your school request? Skill domain scores may be Common Core or *Iowa Assessments* domains. • Did your school take the Core Battery or the Survey Battery of the *Iowa Assessments*? If so, the skill domains listed will differ from those in the sample, which shows results for administration of the Complete Battery.

Student Profile – Bar Graph (Iowa Assessments Skill Domains)



Purpose and Use

This report provides the *Iowa Assessments* percent-correct scores of an individual student for each test, *Iowa Assessments* skill domain, and cognitive level. Use this report to:

- Identify strengths & weaknesses
- Inform instruction
- Measure core standards
- Make comparisons
- Evaluate programs

Report Elements

The sample *Student Profile – Bar Graph (Iowa Assessments Skill Domains)* shown above provides the following information:

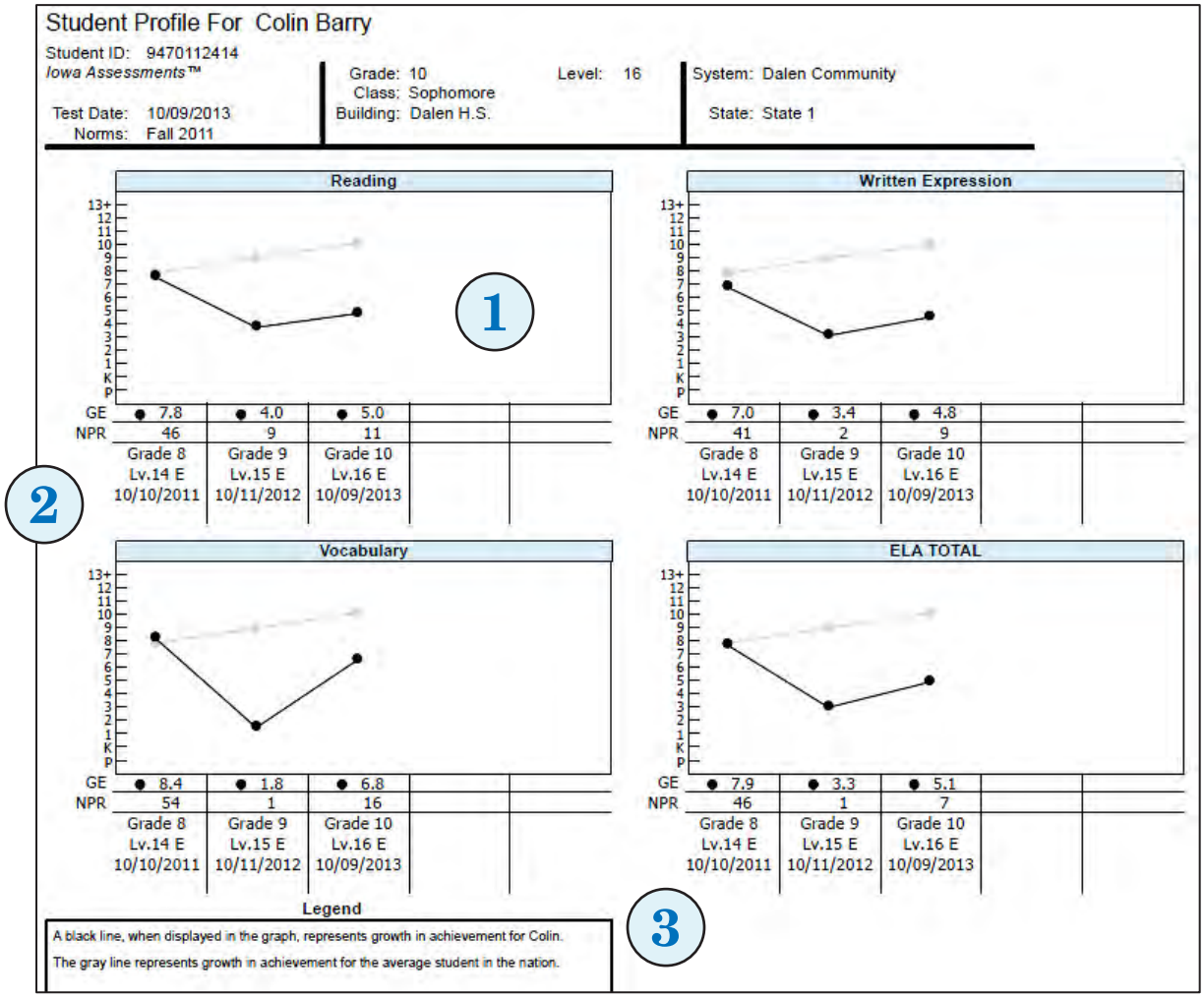
① **Test and skill domains and results –** The first column presents the individual tests and the *Iowa Assessments* skill domains that were assessed by the test. The bar graph presents the percent correct for the student and the national average percent correct for each test and skill domain.

Continued on next page…

Student Profile – Bar Graph (Iowa Assessments Skill Domains), continued

Report Elements, *continued*	The sample *Student Profile Bar Graph* shown above provides: ② **Cognitive levels –** Three cognitive levels, which provide a hierarchy of critical-thinking skills, are reported: **Level 1 – Essential Competencies:** Recall of information such as fact, definition, term, or simple one-step procedure. **Level 2 – Conceptual Understanding:** Includes the engagement of some cognitive processing beyond recalling or reproducing a response. A conceptual understanding item requires students to make some decisions as to how to approach the problem or activity and may imply more than a single step. **Level 3 – Extended Reasoning:** Requires problem solving, planning, and/or using evidence. Items require students to develop a strategy to connect and relate ideas in order to solve the problem while using multiple steps and drawing upon a variety of skills. ③ **Number of items –** This column states the number of test items that are included in each test and skill domain.
Sample Explained	This sample *Student Profile* is for Marissa Barone, a fourth grade student in Mrs. Lynch's class at Emerson School. Marissa took Form E of the Level 10 *Iowa Assessments* in September 2012. From the portion of the report shown above, we see that Marissa correctly answered 69% of the items on the Reading test and 74% of the items on the Writing Expression test. Her highest skill domain score is 91% in the Implicit Meaning domain, which is measured using 11 test items from the Reading test. Her lowest was 57% in the Extended Reasoning domain, which is measured using 7 test items from the Reading test. Comparing the percent correct for the student to the bracket line showing the percent correct for students in the nation provides an indicator of how far above or below the student performed in comparison to students nationally.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions: • Which scores did your school request? Skill domain scores may be Common Core or *Iowa Assessments* domains. The report could be created to include the test and composite scores. • Did your school take the Survey Battery of the *Iowa Assessments*? If so, the tests listed will differ from those in the sample, which shows results for administration of the Complete Battery.

Student Profile – Longitudinal Line Graph (Test and Composite)



Purpose and Use

This report displays test and composite scores for a student over time for up to five test administrations. Use it to:

- Monitor growth
- Evaluate programs
- Determine college readiness
- Predict future performance
- Make comparisons
- Support accountability

Report Elements

The sample *Student Profile – Longitudinal Line Graph (Test and Composite)* report shown above provides the following information:

① **Longitudinal Line Graph –** A series of graphs is displayed for each selected test and composite. The dark line on each graph shows the growth in achievement over time for the student. The gray line shows the growth in achievement for the average student in the nation over the same period of time.

② **Scores by test administration –** The columns list the student's grade, test level and form, and test date for up to five *Iowa Assessments* administrations. Scores for each test administration appear above each column. When you create the report, you select which test administrations to display.

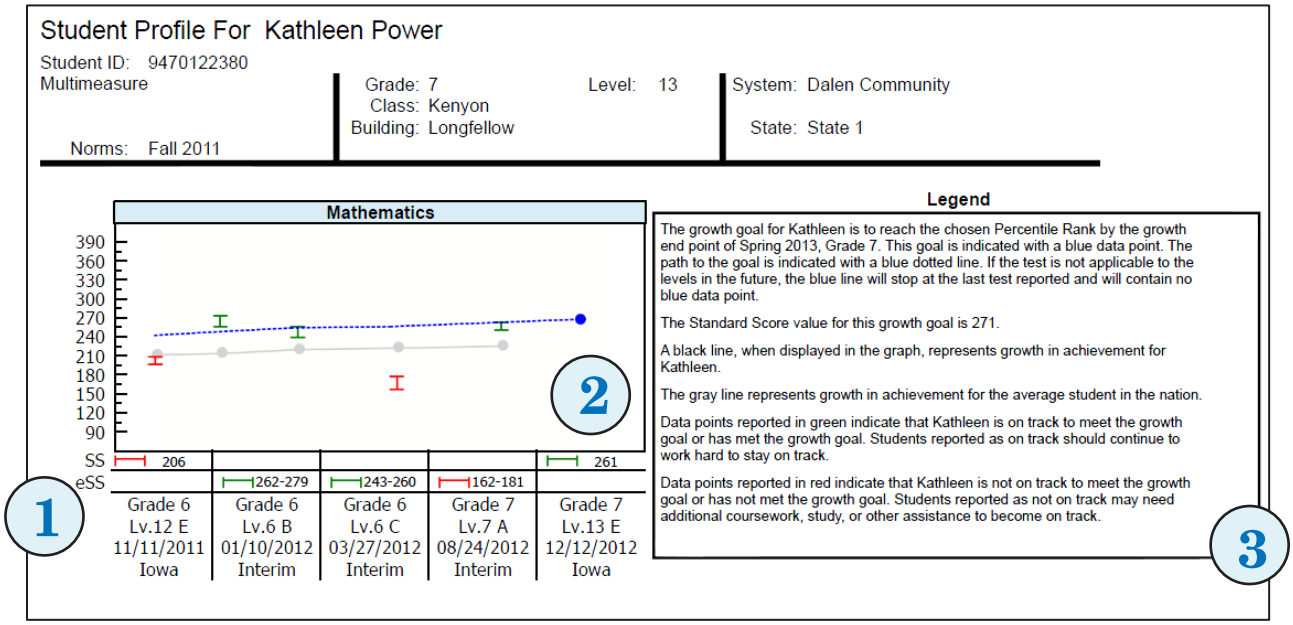
③ **Legend –** This section explains the information that appears in the report and how to use the scores and graphs presented in the report.

Continued on next page…

Student Profile – Longitudinal Line Graph (Test and Composite), continued

Sample Explained	This sample is a report for Colin Barry, a tenth grade student. In the top section, the report shows that Colin attends Dalen High School in the Dalen Community School System. He took Level 16, Form E of the *Iowa Assessments* in October 2013, and the fall 2011 norms were used to determine Colin's national percentile ranks. The graphs show Colin's Grade Equivalent (GE) scores for Reading, Written Expression, Vocabulary and the ELA Total. The results from the last three *Iowa Assessments* administrations are displayed. Under each graph, the scores for Grade Equivalent (GE) and National Percentile Rank (NPR) are shown.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions: • What test scores did your school request? The graph on the previous page displays grade equivalent/national (GE) and national percentile rank (NPR) scores. Additional pairs of score types that may be selected are standard score (SS) and national percentile rank (NPR) or normal curve equivalent (NCE) and national percentile rank (NPR). • Which battery of the *Iowa Assessments* did the student take (Complete, Core, or Survey)? If the student took the Core Battery, then Social Studies and Science scores could not be included and no complete composite scores would be listed on the report. If the student took the Survey Battery, then only the results from Reading, Written Expression, and Mathematics subtests would be displayed.

Student Profile – Balanced Assessment Line Graph (Test and Composite)



Purpose and Use

This report helps you evaluate achievement growth for an individual student by tracking historical *Iowa Assessments* and *Riverside Interim Assessments* test scores against a growth goal for up to five test administrations. Use it to:

- Identify strengths & weaknesses
- Determine college readiness
- Evaluate programs
- Inform instruction
- Measure core standards
- Predict future performance
- Monitor growth
- Make comparisons
- Support accountability

Report Elements

The sample *Student Profile – Balanced Assessment Line Graph (Test and Composite)* shown above provides the following information:

① **Scores by test administration –** The columns list the student's grade, test level and form, and test date across multiple *Riverside Interim Assessments* and *Iowa Assessments* administrations. Scores for each test administration appear above each column. For each *Riverside Interim Assessments* test administration, the score provided is the estimated *Iowa Assessments* standard score (eSS). For each *Iowa Assessments* test administration, the score provided is the *Iowa Assessments* standard score (SS).

② **Longitudinal line graph –** The graph displays the student's progress (on track, not on track) toward the set growth goal across multiple test administrations. The graph shows the following information:

- Blue dotted line – represents the growth path selected for this student
- Blue dot – represents the end date selected for the growth goal
- Gray line – represents the growth in achievement for the average student in the nation
- Data points – represent the eSS or SS test scores for each selected test administration
- Green data points – indicate scores that are on track to achieve the growth goal
- Red data points – indicate scores that are not on track to achieve the growth goal

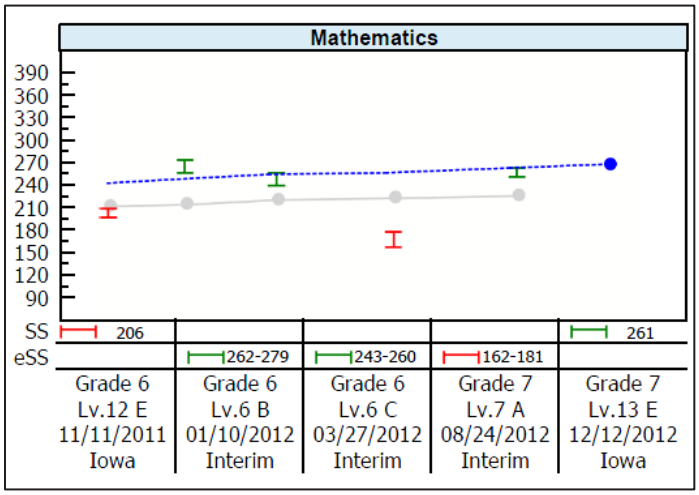
③ **Legend –** This section explains the information that appears in the graph and provides a narrative on the student's progress toward the growth goal.

Continued on next page…

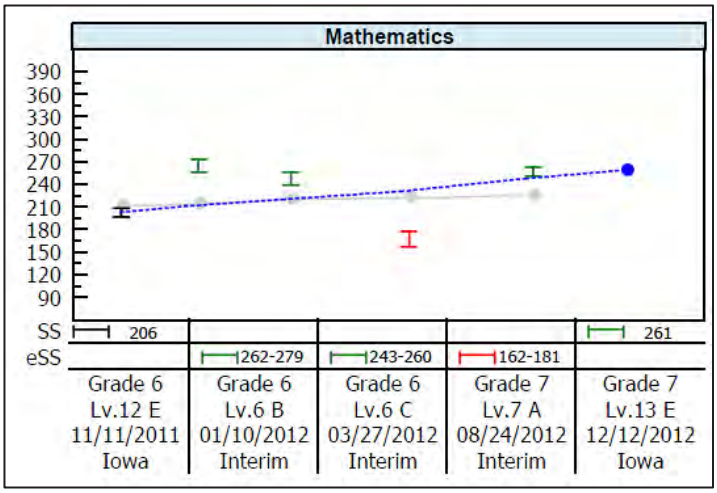
Student Profile – Balanced Assessments Line Graph (Test and Composite), continued

Report Elements, *continued*

The growth path can appear differently depending on the selections made when the report was created. The following graphs illustrate those differences.



The example to the right shows a *Student Profile – Balanced Assessment Line Graph* with a percentile rank growth goal. The growth path allows you to evaluate the achievement growth of the student based on a projected percentile rank goal (99, 90, 80, and so on) that you select. The growth path shows the selected percentile rank across all the test administrations that are plotted. A future end point (spring 2013) is selected for this report. The growth path in this graph extends beyond the test administration data points, illustrating that the end date is in the future.



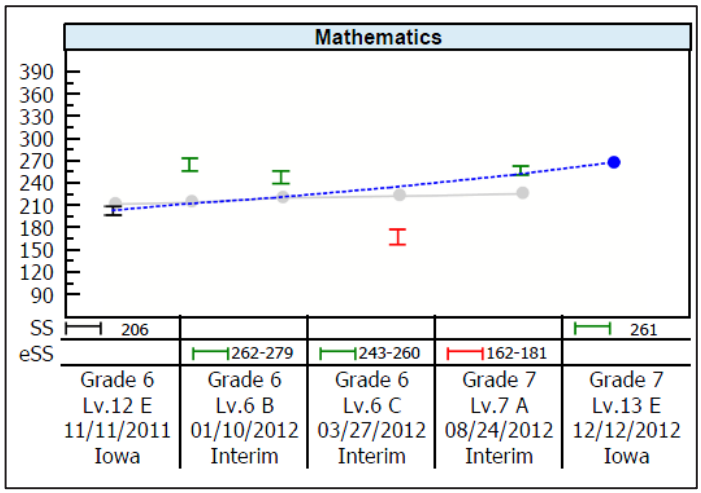
The example to the right shows a *Student Profile – Balanced Assessment Line Graph* with an *Iowa Assessments* Estimated Growth goal, which shows the expected growth path for the student given the student's test score at the selected starting point. An *Iowa Assessments* test administration date must be used as the growth starting point. In this report, the growth starting point used is the 11/11/2011 *Iowa Assessments* test administration date. The projected growth end point selected for this report is spring 2013.

Continued on next page…

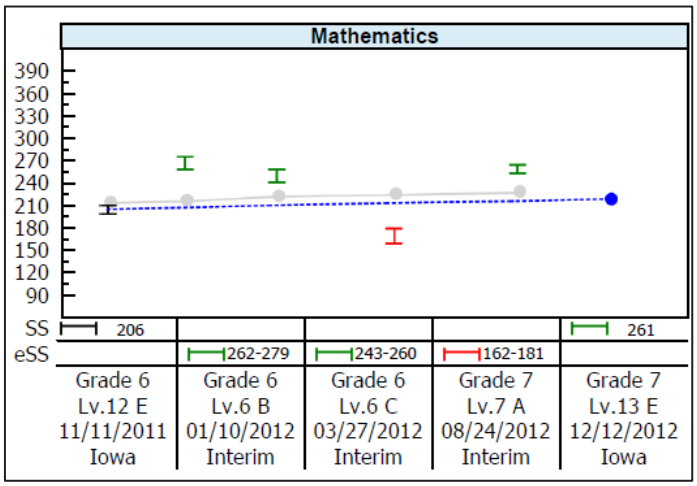
Student Profile – Balanced Assessments Line Graph (Test and Composite), continued

Report Elements, *continued*

The example to the right shows a *Student Profile – Balanced Assessment Line Graph* with an *Iowa Assessments* College Readiness growth goal, which is available for the Mathematics test at grades 6–12. The College Readiness growth path is used to help evaluate whether the student is on track to enroll and succeed in postsecondary coursework. College readiness is determined by mapping the predicted ACT score range, which is estimated using *Iowa Assessments* test results, with defined targets of readiness as determined by the ACT College Readiness Benchmarks. An *Iowa Assessments* test administration date must be used as the growth starting point. In this report, the growth starting point used is the 11/11/2011 *Iowa Assessments* test administration. The projected growth end point selected for this report is spring 2013.



The example to the right shows a *Student Profile – Balanced Assessment Line Graph* with an *Iowa Assessments* Percentile Rank growth goal. The growth goal path shows the achievement growth necessary for the student to achieve the projected percentile rank (99, 90, 80, and so on) that you select. An *Iowa Assessments* test administration date must be used as the growth starting point. In this report, the growth starting point used is the 11/11/2011 *Iowa Assessments* test administration date. The projected growth end point selected for this report is spring 2013.



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Student Profile – Balanced Assessments Line Graph (Test and Composite), continued

Sample Explained	This sample *Student Profile – Balanced Assessment Line Graph* is for Kathleen Power, a seventh grade student in Ms. Kenyon's class at Longfellow School in the Dalen Community School System. This report shows that Kathleen took the *Iowa Assessments* in November of her sixth grade year and achieved a standard score (SS) of 206 in Mathematics. The gray line represents growth in achievement for the average student in the nation. As the report shows, Kathleen's November 2011 results placed her at or below the achievement for the average student in the nation. Kathleen's teacher set a growth goal for Kathleen to achieve a score that would place her in the 80th percentile rank in Mathematics by spring 2013, and a learning program was set into place for Kathleen to help her achieve this goal. To view and track Kathleen's progress, her teacher created a *Balanced Assessment Line Graph* in *DataManager*. The blue line in the graph represents the growth path set for Kathleen. In January and March 2012, Kathleen took the *Riverside Interim Assessments* for Mathematics. The green data points show that her estimated *Iowa Assessments* standard scores (eSS) placed her at or above the 80th percentile rank growth goal. Kathleen's test results indicate that the learning program had been effective in preparing her to reach her growth goal for next spring. When Kathleen entered her seventh grade year in August 2012, the class took the *Riverside Interim Assessments* for Mathematics. On this test, Kathleen's estimated *Iowa Assessments* standard score (eSS) range was 162–181. This score placed her well below her growth goal, as illustrated by the red data point. Her teacher assessed that Kathleen had a setback in her knowledge of mathematics over the summer. Ms. Kenyon immediately set an aggressive mathematics review program into place for Kathleen. When the class took the *Iowa Assessments* in December 2012, Kathleen obtained a standard score (SS) of 261 in Mathematics, which placed her at the 80th percentile rank. The green data point shows that in December 2012 Kathleen was once again on track to meet the growth goal.

Student Profile Narrative (Scoring Service Print Style)

PROFILE NARRATIVE FOR MARISSA BARONE

Iowa Assessments™

Iowa Assessments™

Class: Mrs. Lynch
Building: Emerson
System: Dalen Community
State: State 1

Student: Barone, Marissa
Student ID: 9470119353
Form-Level: E-10
Test Date: 09/19/2012
Norms: Fall 2011
Grade: 4

1

Iowa Assessments	Test Scores				NPR Graph
	SS	GE	NS	NPR	1 10 25 50 75 90 99
Reading	197	4.5	5	57	
Written Expression	210	5.5	6	72	
Conventions of Writing	223	6.4	7	87	
Vocabulary	223	6.5	8	93	
ELA TOTAL	**210**	**5.4**	**7**	**78**	
Mathematics	172	3.0	3	20	
Computation	180	3.6	4	31	
MATH TOTAL	**175**	**3.2**	**3**	**22**	
CORE COMPOSITE	**192**	**4.2**	**5**	**50**	
Social Studies	206	5.2	6	72	
Science	205	5.1	6	69	
COMPLETE COMPOSITE	**197**	**4.5**	**6**	**60**	

Legend

GE = Grade Equivalent
NPR = National Percentile Rank
NS = National Stanine
SS = Developmental Standard Score

2

Marissa was recently given the Iowa Assessments. This report is designed to give you information about Marissa's achievement level in core subject areas. Along with the results of this assessment, classroom work, grades, and other test results should also be reviewed for a more complete picture of academic progress.

Marissa's Achievement Today

The graph to the left provides the National Percentile Rank (NPR) for each test and test composite in the assessment. The NPR indicates the percent of students in the same grade who obtained a lower score than Marissa.

Scores from 75-99 are in the above average range. Students with ELA Total and/or Mathematics Total scores in this range may be ready for more advanced work including extending ideas when reading, developing an advanced reading vocabulary, or writing with logic and clarity, as well as expanding on higher level problem solving and data analysis skills in mathematics.

Scores from 25-74 are in the low average to high average range. Students with ELA Total and/or Mathematics Total scores in this range may continue to improve by developing such skills as drawing conclusions when reading, expanding reading vocabulary, or writing with attention to sentence structure and purpose, as well as solving number sentences and reading basic charts and graphs.

Scores from 1-24 are in the below average range. Students with ELA Total and/or Mathematics Total scores in this range may require reinforcement in such areas as understanding stated information when reading, developing a basic reading vocabulary, or writing with standard usage and grammar, as well as understanding number properties or solving simple number sentences.

Marissa's Achievement Yesterday and Today

The Iowa Assessments measure student achievement and growth. The Standard Score (SS) describes a student's location on an achievement continuum from elementary through high school. The Grade Equivalent (GE) describes student performance in terms of grade level and month. Both SS and GE make it possible to follow Marissa's educational growth from year to year by comparing this year's scores to those from earlier years.

Please contact your child's teacher if you need assistance with score interpretation.

Purpose and Use

This report presents essential scores and information about a student's performance on the *Iowa Assessments*. Use this report to:

- Identify strengths & weaknesses
- Implement Response to Intervention (RTI)
- Inform instruction
- Inform placement decisions
- Monitor growth

Report Elements

The sample *Student Profile Narrative* shown above is a one-page report that includes:

① **Score profile and graph –** This table lists the student's scores for each of the tests taken. The types of scores listed are chosen when the report is created. The student's national percentile rank (NPR) for each test is displayed in the bar graph, which is a convenient way to view the student's score profile to determine in which areas the student's achievement seems strongest and weakest.

② **Interpretive information –** The narrative provides information to help teachers and parents understand the information presented in the report. A description of the meaning of three ranges of national percentile ranks (NPR) is presented. The last paragraph explains how standard score (SS) can be used to follow the student's educational growth from year to year.

Continued on next page…

Student Profile Narrative (Scoring Service Print Style), continued

Sample Explained	This sample is a report for Marissa Barone, a fourth grade student. In the upper right-hand corner of the page, the report shows that Marissa is in Mrs. Lynch's class. She took Level 10, Form E of the *Iowa Assessments* in September 2012, and the fall 2011 norms were used to determine her national percentile ranks. The table on the left side of the page shows that Marissa took all of the tests in the *Iowa Assessments*. Her scores for each test and test total and the Core and Complete Composites are listed. Scores reported for Marissa include developmental standard score (SS), grade equivalent (GE), normal stanine (NS), and national percentile rank (NPR). Marissa's NPR scores are also displayed in the bar graph. The narrative on the right side of the page provides guidance about how to interpret the NPR scores. Marissa's ELA score falls in the above average (76–99) range, suggesting that she may be ready for more advanced work in this area.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions: • What test scores did your school request? Additional scores may include normal curve equivalents (NCE) and Lexile and Quantile measures. • Does your report show a Reading Total? The example does not show this, but you may see it if the "Show Reading Total" option was selected when the report was created. • Did your school take the Survey Battery of the *Iowa Assessments*? If so, the tests listed will differ from those in the sample, which shows results for administration of the Complete Battery.

Group Roster (Test and Composite)

Group Roster

Iowa Assessments™
Form: E
Test Date: 09/19/2012
Norms: Fall 2011

Grade: 3 Level: 9
Building: Emerson

System: Dalen Community
State: State 1

1

2

GROUP NAME Number Tested		Reading	Written Expression	Spelling	Capitalization	Punctuation	Convention Writing
Ciciarelli Number Tested = 13	NPR of Avg. SS	79	81	75	64	76	70
Lawrence Number Tested = 13	NPR of Avg. SS	52	69	51	42	35	40
Group Total	NPR of Avg. SS	67	75	64	53	57	56

NPR = National Percentile Rank

Purpose and Use

The *Group Roster (Test and Composite)* provides selected *Iowa Assessments* test and composite scores for each selected group—class, building, or school system. Use this report to:

- Identify strengths & weaknesses
- Inform instruction
- Make comparisons
- Implement Response to Intervention (RTI)
- Evaluate programs

Note: In *DataManager*, you can click a group name to open the *Group Profile* for that group, or you can click **Group Total** at the bottom of the report to open a *Group Profile* that combines all the selected groups. You can click the arrows in a column to sort the report in ascending or descending order by the scores displayed in that column.

Report Elements

The sample *Group Roster* shown above provides the following information:

① **Tests and composites –** Group scores are listed for each test and composite.

② **Groups –** Groups are displayed by row. When you create the report, you select which groups and scores to display. The name of each group is shown in the first column; the remaining columns provide the group's score(s) for each test and composite. Under each **Group Name**, the number of students tested in that group is provided. The **Group Total**, displayed on the bottom row, provides average scores for all the groups for each test and composite.

Sample Explained

This sample *Group Roster* is for two third grade classes at Emerson School in the Dalen Community School System. The students were given the Level 9 version of the *Iowa Assessments* in September 2012, and fall 2011 norms were used to calculate percentile ranks.

The report shows the test and composite scores for the two third grade classes. The first group listed is Mrs. Ciciarelli's class in which 13 students were tested. The second group listed is Mr. Lawrence's class, which also included 13 students.

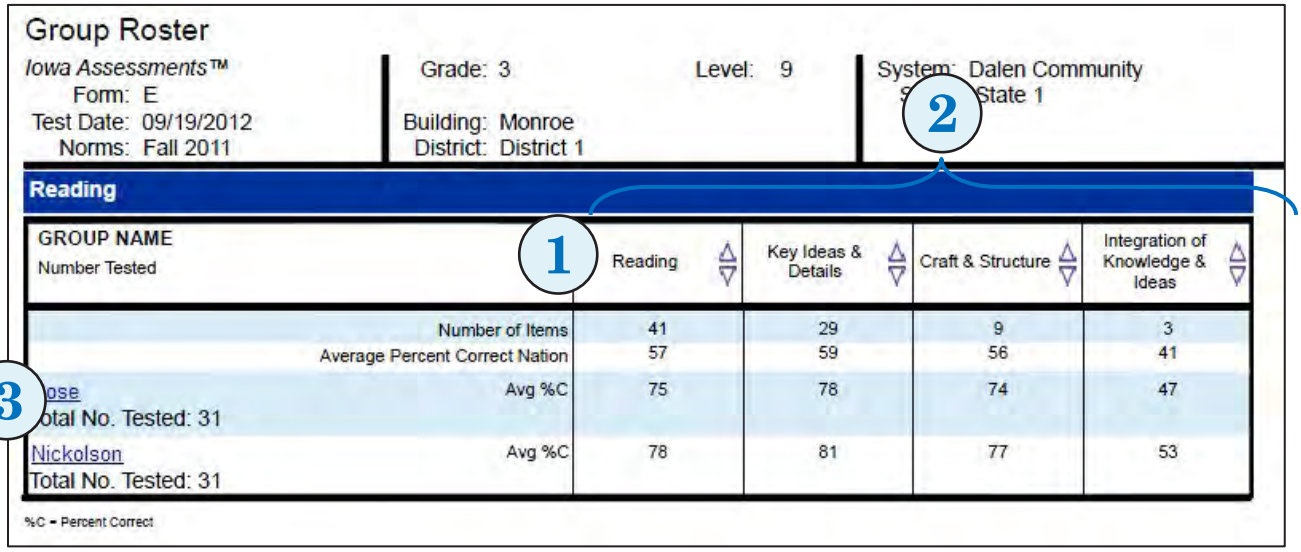
The score that is included in this report is the national percentile ranking of the average standard score (NPR of Avg. SS). Of the results shown above, we see that Mrs. Ciciarelli's class achieved higher scores on all tests compared to Mr. Lawrence's class.

Continued on next page…

Group Roster (Test and Composite), continued

Factors to Consider	Compare your report with the sample shown above and look across the information listed for your class. To help identify reasons for differences between the sample and your report, answer the following questions: • Which battery of the *Iowa Assessments* did your school administer (Complete, Core, or Survey)? If you administered only the Core Battery or the Survey Battery, fewer content areas will be displayed on your report. • Which test scores did your school request? Up to five scores may be reported on a *Group Roster* report, including normal curve equivalents of average standard score (NCE of Avg. SS), grade equivalent of average standard score (GE of Avg. SS), national stanine of average standard stanine (NS of Avg. SS), among other score types. • Which norms were applied to your reports? Did your school or school system request Catholic/private school norms instead of the national norms?

Group Roster (Common Core Skill Domains)



Group Roster

Iowa Assessments™
Form: E
Test Date: 09/19/2012
Norms: Fall 2011

Grade: 3
Building: Monroe
District: District 1

Level: 9

System: Dalen Community
State 1

Reading

GROUP NAME / Number Tested		Reading	Key Ideas & Details	Craft & Structure	Integration of Knowledge & Ideas
	Number of Items	41	29	9	3
	Average Percent Correct Nation	57	59	56	41
ose otal No. Tested: 31	Avg %C	75	78	74	47
Nickolson Total No. Tested: 31	Avg %C	78	81	77	53

%C = Percent Correct

Purpose and Use

The *Group Roster (Common Core Skill Domains)* provides Common Core skill domain scores for each selected group—class, building, district, system, region, or state. Use it to:

- Identify strengths & weaknesses
- Inform instruction
- Measure core standards
- Make comparisons
- Evaluate programs

Note: In *DataManager*, you can click a group name to open the *Group Profile* for that group. You can click the arrows in a column to sort the report in ascending or descending order by the scores displayed in that column.

Report Elements

The sample *Group Roster* report shown above provides the following information:

① **Score types –** Column provides abbreviations for the score types displayed. The possible score types included are Number of Items and Average Percent Correct (Avg %C). The Average Percent Correct Nation, which is the national average percent correct for each test and skill domain for this level, is also included.

② **Skill domain results –** The average group scores are listed for the complete content area and each selected Common Core skill domain. A separate section is provided for each content area that is selected when the report is created.

Note: This report may be created using a Common Core skill domain that does not include Math Computation. If the Computation test is not administered as part of the overall testing event, then the skill domain *without* math computation option accommodates this omission when calculating student performance. A footnote is included on the report when Computation is not included in the scores.

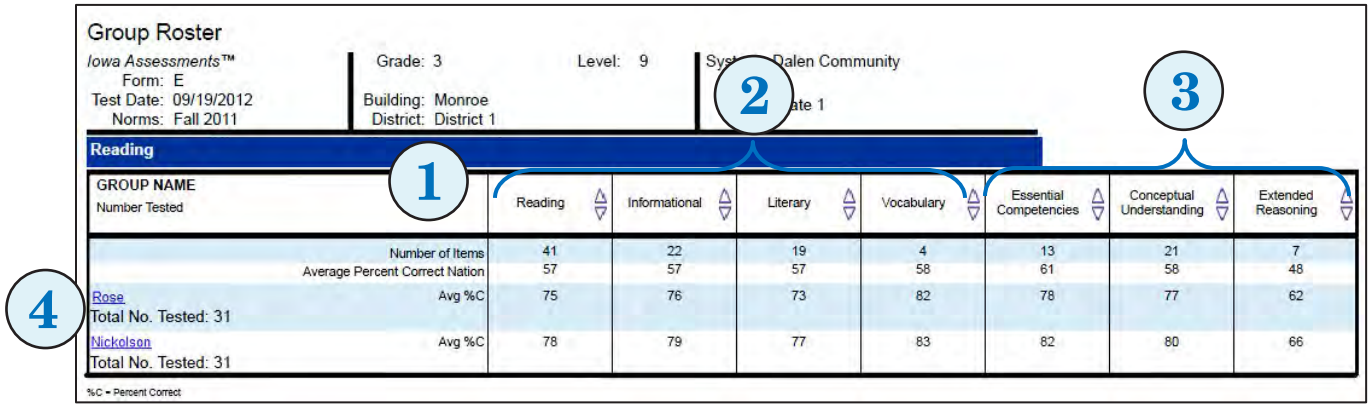
③ **Groups –** Groups are displayed by row. When you create the report, you select which groups and skill domains to display. The name of each group is shown in the first column; the remaining columns provide the group's score(s) for each test and skill domain. Under each **Group Name**, the number of students tested in that group is provided.

Continued on next page…

Group Roster (Common Core Skill Domains), continued

Sample Explained	This sample *Group Roster* is for two third grade classes at Monroe School in the Dalen Community School System. The students were given the Level 9 version of the *Iowa Assessments* in September 2012, and fall 2011 norms were used to calculate percentile ranks. The report shows the Common Core skill domain results for two third grade classes. The first group listed is Mrs. Rose's class in which 31 students were tested. The second group listed is Mr. Nickolson's class, which also included 31 students. Mrs. Rose's class achieved an average percent correct in Reading of 75. Mr. Nickolson's class achieved an average percent correct in Reading of 78. Mrs. Rose's class achieved their lowest average Reading skill domain score of 47% correct for Integration of Knowledge & Ideas. Mr. Nickolson's class achieved their highest average skill domain score of 81% correct for Key Ideas & Details.
Factors to Consider	Compare your report with the sample shown above and look across the information listed for your students. To help identify reasons for differences between the sample and your report, answer the following questions: • Which battery of the *Iowa Assessments* did your school administer (Complete, Core, or Survey)? If you administered the Core Battery or the Survey Battery, fewer tests will appear on your report. • Which content area and skill domains appear on your report?

Group Roster (Iowa Assessments Skill Domains)



Group Roster

Iowa Assessments™
Form: E
Test Date: 09/19/2012
Norms: Fall 2011

Grade: 3 Level: 9
Building: Monroe
District: District 1

Sys Dalen Community
ate 1

Reading

GROUP NAME / Number Tested		Reading	Informational	Literary	Vocabulary	Essential Competencies	Conceptual Understanding	Extended Reasoning
	Number of Items	41	22	19	4	13	21	7
	Average Percent Correct Nation	57	57	57	58	61	58	48
Rose	Avg %C	75	76	73	82	78	77	62
Total No. Tested: 31								
Nickolson	Avg %C	78	79	77	83	82	80	66
Total No. Tested: 31								

%C = Percent Correct

Purpose and Use

The *Group Roster (Iowa Assessments Skill Domains)* provides skill domain and cognitive level scores for each selected group—class, building, district, system, region, or state. Use it to:

- Identify strengths & weaknesses
- Inform instruction
- Measure core standards
- Make comparisons
- Evaluate programs

Note: In *DataManager*, you can click a group name to open the *Group Profile* for that group. You can click the arrows in a column to sort the report in ascending or descending order by the scores displayed in that column.

Report Elements

The sample *Group Roster* report shown above provides the following information:

① **Score types –** Column provides abbreviations for the score types displayed. The possible score types included are Number of Items and Average Percent Correct (Avg %C). The Average Percent Correct Nation, which is the national average percent correct for each test and skill domain for this level, is also included.

② **Test and skill domain results –** The average group scores are listed for the complete test and each selected *Iowa Assessments* skill domain. A separate section is provided for each content area that is selected when the report is created.

③ **Cognitive levels –** Three cognitive levels, which provide a hierarchy of critical-thinking skills, are reported:

Level 1 – Essential Competencies: Recall of information such as fact, definition, term, or simple one-step procedure.

Level 2 – Conceptual Understanding: Includes the engagement of some cognitive processing beyond recalling or reproducing a response. A conceptual understanding item requires students to make some decisions as to how to approach the problem or activity and may imply more than a single step.

Level 3 – Extended Reasoning: Requires problem solving, planning, and/or using evidence. Items require students to develop a strategy to connect and relate ideas in order to solve the problem while using multiple steps and drawing upon a variety of skills.

④ **Groups –** Groups are displayed by row. When you create the report, you select which groups and skill domains to display. The name of each group is shown in the first column; the remaining columns provide the group's score(s) for each test, skill domain, and cognitive level. Under each **Group Name**, the number of students tested in that group is provided.

Continued on next page…

Group Roster (Iowa Assessments Skill Domains), continued

Sample Explained	This sample *Group Roster* is for two third grade classes at Monroe School in the Dalen Community School System. The students were given the Level 9 version of the *Iowa Assessments* in September 2012, and fall 2011 norms were used to calculate percentile ranks. The report shows the *Iowa Assessments* skill domain results for two third grade classes. The first group listed is Mrs. Rose's class in which 31 students were tested. The second group listed is Mr. Nickolson's class, which also included 31 students. Mrs. Rose's class achieved an average percent correct in Reading of 75. Mr. Nickolson's class achieved an average percent correct in Reading of 78. Of the Reading skill domains displayed, Mrs. Rose's class achieved their highest average score of 82% correct in the Vocabulary skill domain; their highest average cognitive level is 78% in Essential Competencies. Mr. Nickolson's class achieved an average score of 83% correct in Vocabulary and 82% correct in Essential Competencies. All the average scores displayed for both classes are above the national average scores.
Factors to Consider	Compare your report with the sample shown above and look across the information listed for your students. To help identify reasons for differences between the sample and your report, answer the following questions: • Which battery of the *Iowa Assessments* did your school administer (Complete, Core, or Survey)? If you administered the Core Battery or the Survey Battery, fewer tests will appear on your report. • Which content areas and skill domains were selected to be included in your report? • Which content area and skill domains appear on your report?

Subgroup Roster (Test and Composite)

Subgroup Roster

Iowa Assessments™
Form: E
Test Date: 09/19/2012
Norms: Fall 2011

Grade: 5 Level: 11
Class: Stevenson
Building: Longfellow

System: Dalen Community
State: State 1

Subgroup Name / Number Tested		Reading
Programs: IEP Number Tested = 1	Avg. SS NPR of Avg. SS	219.0 66
Programs: Section 504 Number Tested = 2	Avg. SS NPR of Avg. SS	225.0 73
Programs: Free/Reduced Lunch Number Tested = 1	Avg. SS NPR of Avg. SS	219.0 66
Programs: Gifted/Talented Number Tested = 2	Avg. SS NPR of Avg. SS	227.5 75
Programs: Eng. Lang. Learner Number Tested = 1	Avg. SS NPR of Avg. SS	219.0 66
Programs: Migrant Student Number Tested = 2	Avg. SS NPR of Avg. SS	210.5 57
Programs: Title I Language Number Tested = 1	Avg. SS NPR of Avg. SS	219.0 66
Programs: Title I Math Number Tested = 2	Avg. SS NPR of Avg. SS	244.5 87
Programs: Other 1 Number Tested = 1	Avg. SS NPR of Avg. SS	219.0 66
Programs: Other 2 Number Tested = 2	Avg. SS NPR of Avg. SS	225.0 73
Programs: No Program Coded Number Tested = 14	Avg. SS NPR of Avg. SS	211.6 58

SS = Developmental Standard Score NPR = National Percentile Rank

Purpose and Use

The *Subgroup Roster (Test and Composite)* provides selected test or composite scores for all subgroups or a selected subgroup—gender, race/ethnicity, programs, and/or administrative codes. Use it to:

- Identify strengths & weaknesses
- Implement Response to Intervention (RTI)
- Make comparisons
- Determine college readiness
- Evaluate programs
- Support accountability

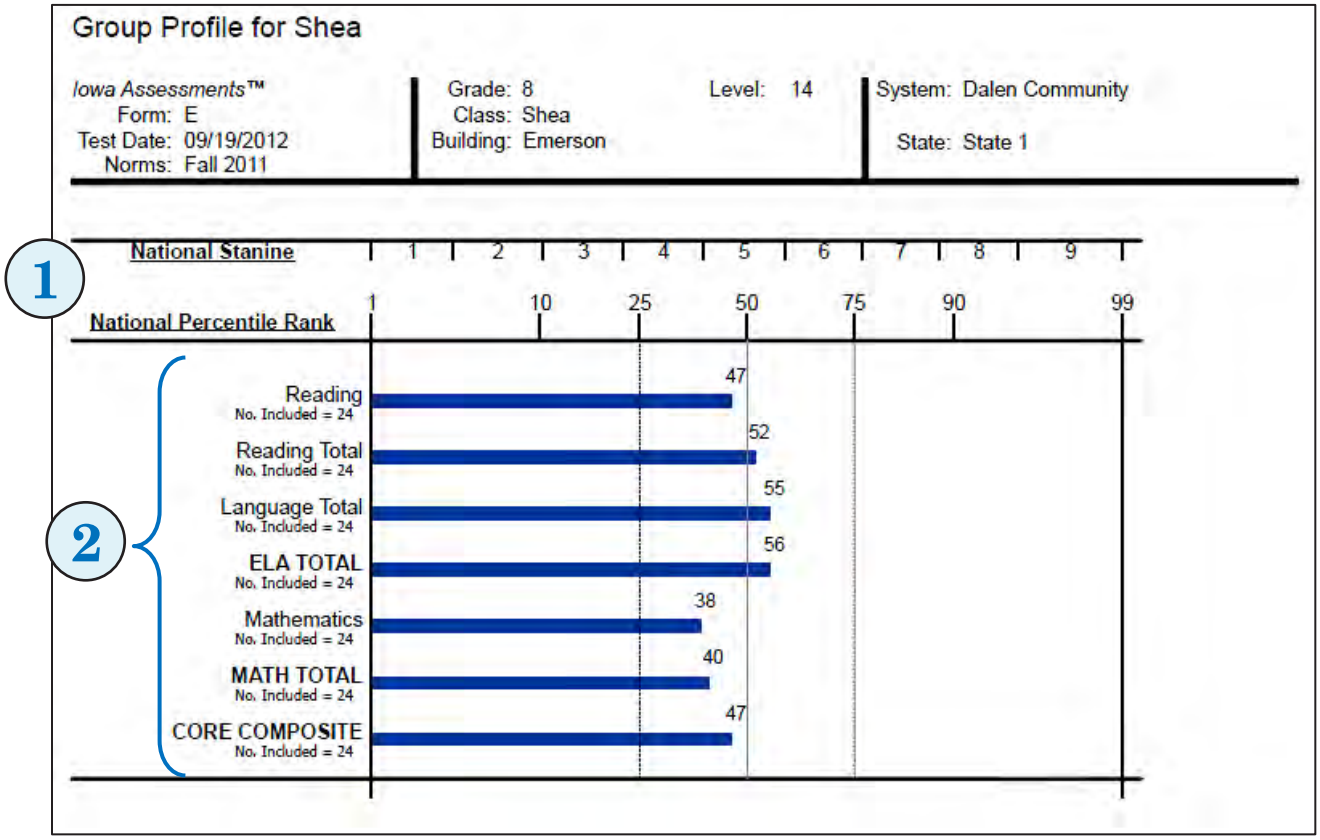
Note: In *DataManager*, you can click a subgroup name to open the *Group Profile* for that subgroup. You can click the arrows in a column to sort the report in ascending or descending order by the scores displayed in that column.

Continued on next page…

Subgroup Roster (Test and Composite), continued

Report Elements	The sample *Subgroup Roster (Test and Composite)* report shown on the previous page provides the following information: ① **Names of Subgroups –** Subgroups are displayed by row. The name of each subgroup is shown in the first column. Under each subgroup name, the number of students tested in that subgroup is provided. ② **Score types –** Column provides abbreviations for the score types displayed. Up to five score types may be included. ③ **Test or composite results –** This column provides the name of the selected *Iowa Assessments* test or composite included in the report. The subgroup scores displayed are the subgroup's average scores for the selected test or composite.
Sample Explained	This sample *Subgroup Roster* is for Ms. Stevenson's fifth grade class at Longfellow School in the Dalen Community School System. The students were given the *Iowa Assessments* Reading test in September 2012. The report shows each program subgroup in Ms. Stevenson's class displayed in a separate row and lists each subgroup's average standard score (Avg. SS) and national percentile rank of the average standard score (NPR of Avg. SS) for the Reading test. The report shows that one student is included in an IEP program, and that student received an average standard score of 219 on the Reading test and a national percentile rank of the average standard score of 66. The report also shows that two students are in the Gifted/Talented program. These students received an average standard score of 227.5 and a national percentile rank of average standard score of 75.
Factors to Consider	Compare your report with the sample shown above and look across the information listed for your students. To help identify reasons for differences between the sample and your report, answer the following questions: • Which test or composite did your school select for this report? One of the tests or composites from the *Iowa Assessments* may be included in the report. • Which test scores did your school request? Up to five scores may be reported on a *Subgroup Roster* report, including normal curve equivalents of average standard score (NCE of Avg. SS), grade equivalent of average standard score (GE of Avg. SS), national stanine of average standard stanine (NS of Avg. SS), among other score types. • Did your school provide a *Group Profile*? If so, compare the overall group averages to the subgroup averages.

Group Profile – Bar Graph (Test and Composite)



Purpose and Use

The *Group Profile – Bar Graph (Test and Composite)* report provides displays the average test and composite scores for the selected group(s)—class, building, district, system, region, or state. Use it to:

- Identify strengths & weaknesses
- Determine college readiness
- Inform instruction
- Implement Response to Intervention (RTI)
- Make comparisons
- Predict future performance

Report Elements

The sample report shown above provides the following information:

① **Score types –** This section identifies the score types shown in the graph. One of the following scores may be presented: national percentile rank/national stanine, grade equivalent/standard score, or normal curve equivalent/national percentile rank.

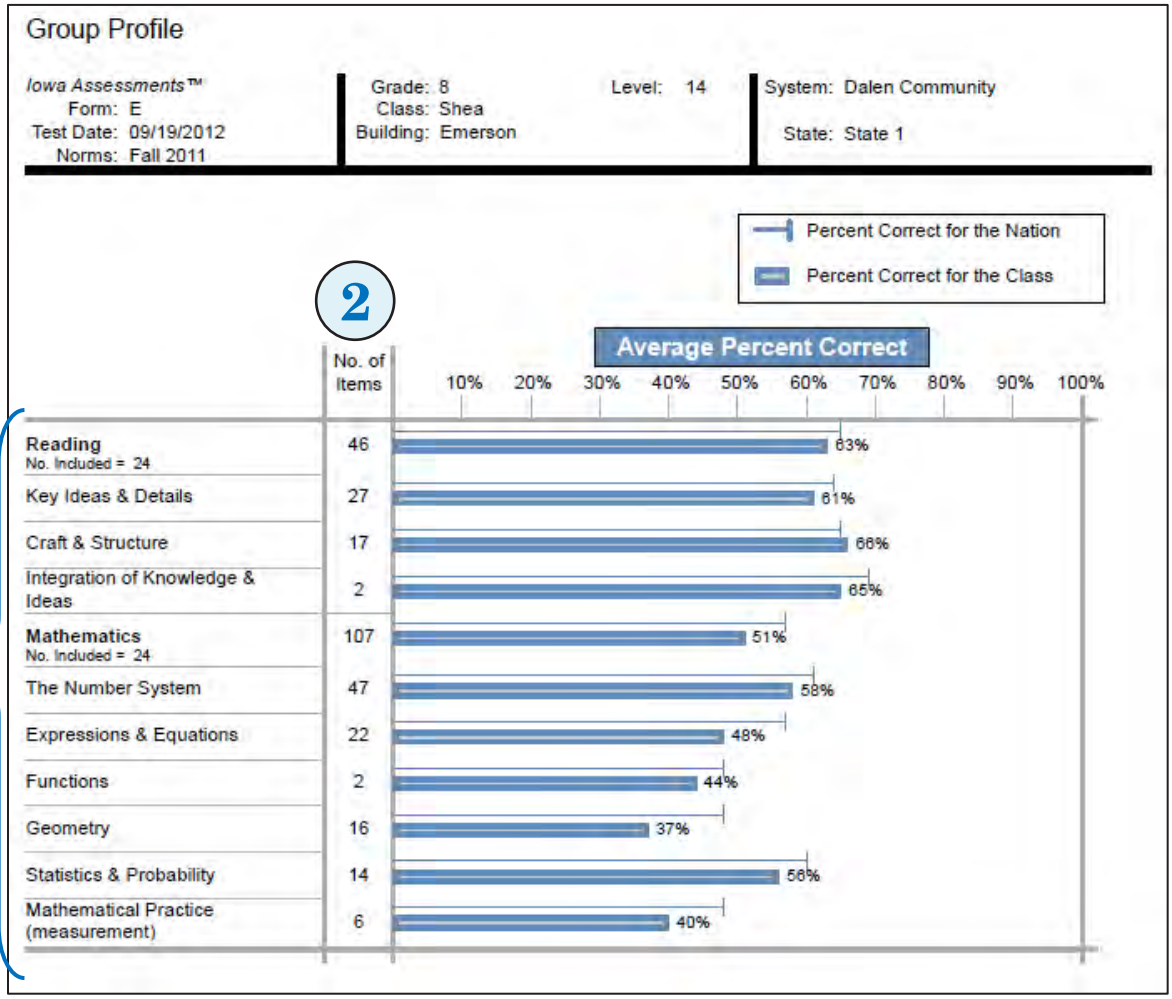
② **Tests and composites and results –** The group's average scores are displayed for each test and composite selected. The number of students whose scores were used to calculate the average is listed below each test and composite.

Continued on next page…

Group Profile – Bar Graph (Test and Composite), continued

Sample Explained	The top section shows that this report is for Mrs. Shea's eighth grade class at Emerson School in the Dalen Community School System. The class took Level 14, Form E of the *Iowa Assessments* in September 2012, and the fall 2011 norms were used to determine the class's national percentile ranks. The scores of 24 students were used to calculate the results for all of the tests. The report shows the test and composite totals for Reading, Reading Total, Language Total, ELA Total, Mathematics, Mathematics Total, and Core Composite. The highest national percentile rank (NPR) for the group is 56 for the ELA Total, and the lowest national percentile rank is 38 for the Mathematics test. The group scored a national stanine (NS) of 4 or 5 for all tests and composites.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions: • What tests and composites did your school request? You may have selected more or fewer tests and composites than are shown in the sample. • What test scores did your school request? The selected scores may be any of the following pairs: national percentile rank/national stanine, grade equivalent/standard score, or normal curve equivalent/national percentile rank. • Which battery of the *Iowa Assessments* did the group take (Complete, Core, or Survey)? If the class took the Complete Battery, additional test may be included in the report, such as Social Studies or Science scores. If the class took the Survey Battery for Level 14, scores may include Reading, Written Expression, Mathematics, and a survey composite.

Group Profile – Bar Graph (Common Core Skill Domains)



Purpose and Use

The *Group Profile – Bar Graph (Common Core Skill Domains)* report provides displays the average percent correct for tests and Common Core skill domains for the selected group(s)—class, building, district, system, region, or state. Use it to:

- Identify strengths & weaknesses
- Inform instruction
- Measure core standards
- Make comparison
- Evaluate programs

Report Elements

The sample report shown above provides the following information:

① **Skill domains and results –** The first column presents the individual content areas and the Common Core skill domains that were assessed. The bar graph presents the group's average percent correct and the national average percent correct for each content area and skill domain.

Note: This report may be created using a Common Core skill domain that does not include Math Computation. If the Computation test is not administered as part of the overall testing event, then the skill domain *without* math computation option accommodates this omission when calculating student performance. A footnote is included on the report when Computation is not included in the scores.

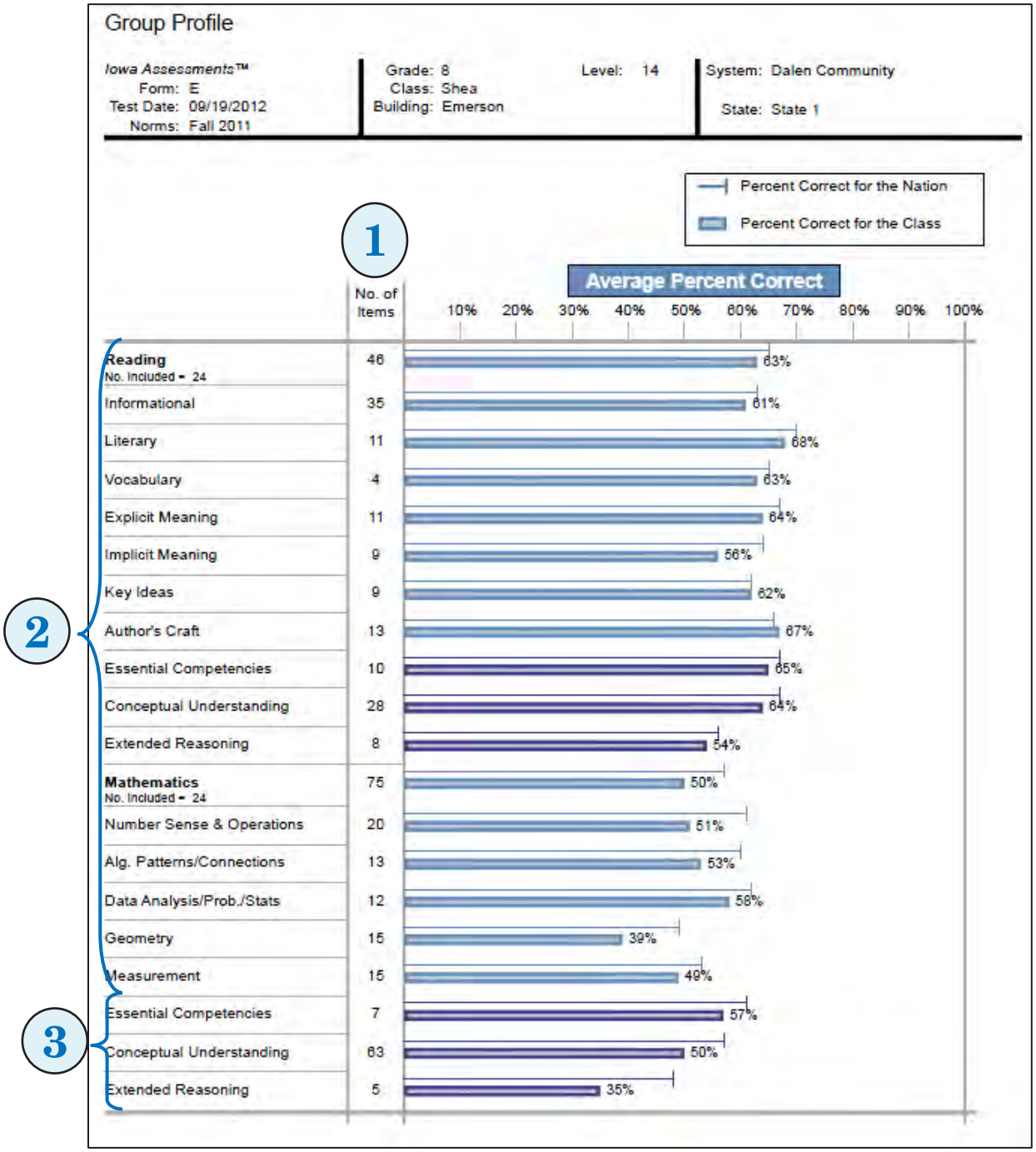
② **Number of items –** This column states the number of test items that are included in each content area and skill domain.

Continued on next page…

Group Profile – Bar Graph (Common Core Skill Domains), continued

Sample Explained	The top section shows that this report is for Mrs. Shea's eighth grade class at Emerson School in the Dalen Community School System. The class took Level 14, Form E of the *Iowa Assessments* in September 2012, and the fall 2011 norms were used to determine the class's national percentile ranks. The report shows the content area and skill domain totals for the Reading and Mathematics tests. The scores of 24 students were used to calculate the results. The top line in each row displays the national average percent correct on items used to measure the content area or skill domain, and the darker bar below each line displays the selected group's average percent correct for the content area or skill domain. The highest skill domain score for the group is 66% correct for the Craft & Structure skill domain in the Reading content area; this score is slightly higher the national average percent correct for this skill domain. This skill domain is calculated using 17 items from the Reading test. The group's lowest score on this report is 37% correct on the Geometry skill domain, which is calculated using 16 items in the Mathematics test. Comparing the percent correct for the group to the bracket line showing the percent correct for students in the nation provides an indicator of how far above or below the group performed in comparison to students nationally.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions: • What test and skill domains did your school request? You may have selected more or fewer skill domains than are shown in the sample. • How do the skill domain scores for the group compare with the test scores? Which skill domains are strongest for the group? Which skill domains are weakest for the group?

Group Profile – Bar Graph (Iowa Assessments Skill Domains)



Purpose and Use

The *Group Profile – Bar Graph (Iowa Assessments Skill Domains)* report provides displays the average percent correct for tests and *Iowa Assessments* skill domains and cognitive levels for the selected group(s)—class, building, district, system, region, or state. Use it to:

- Identify strengths & weaknesses
- Inform instruction
- Measure core standards
- Make comparison
- Evaluate programs

Continued on next page…

Group Profile – Bar Graph (Iowa Assessments Skill Domains), continued

Report Elements

The sample report shown on the previous page provides the following:

① **Number of items –** This column states the number of test items that apply to each test and skill domain.

② **Test and skill domains and results –** The first column presents the individual tests and the *Iowa Assessments* skill domains that were assessed by the test. The bar graph presents the group's average percent correct and the national average percent correct for each test and skill domain.

③ **Cognitive levels –** Three cognitive levels, which provide a hierarchy of critical-thinking skills, are reported:

Level 1 – Essential Competencies: Recall of information such as fact, definition, term, or simple one-step procedure.

Level 2 – Conceptual Understanding: Includes the engagement of some cognitive processing beyond recalling or reproducing a response. A conceptual understanding item requires students to make some decisions as to how to approach the problem or activity and may imply more than a single step.

Level 3 – Extended Reasoning: Requires problem solving, planning, and/or using evidence. Items require students to develop a strategy to connect and relate ideas in order to solve the problem while using multiple steps and drawing upon a variety of skills.

Sample Explained

The top section shows that this report is for Mrs. Shea's eighth grade class at Emerson School in the Dalen Community School System. The class took Level 14, Form E of the *Iowa Assessments* in September 2012, and the fall 2011 norms were used to determine the class's national percentile ranks.

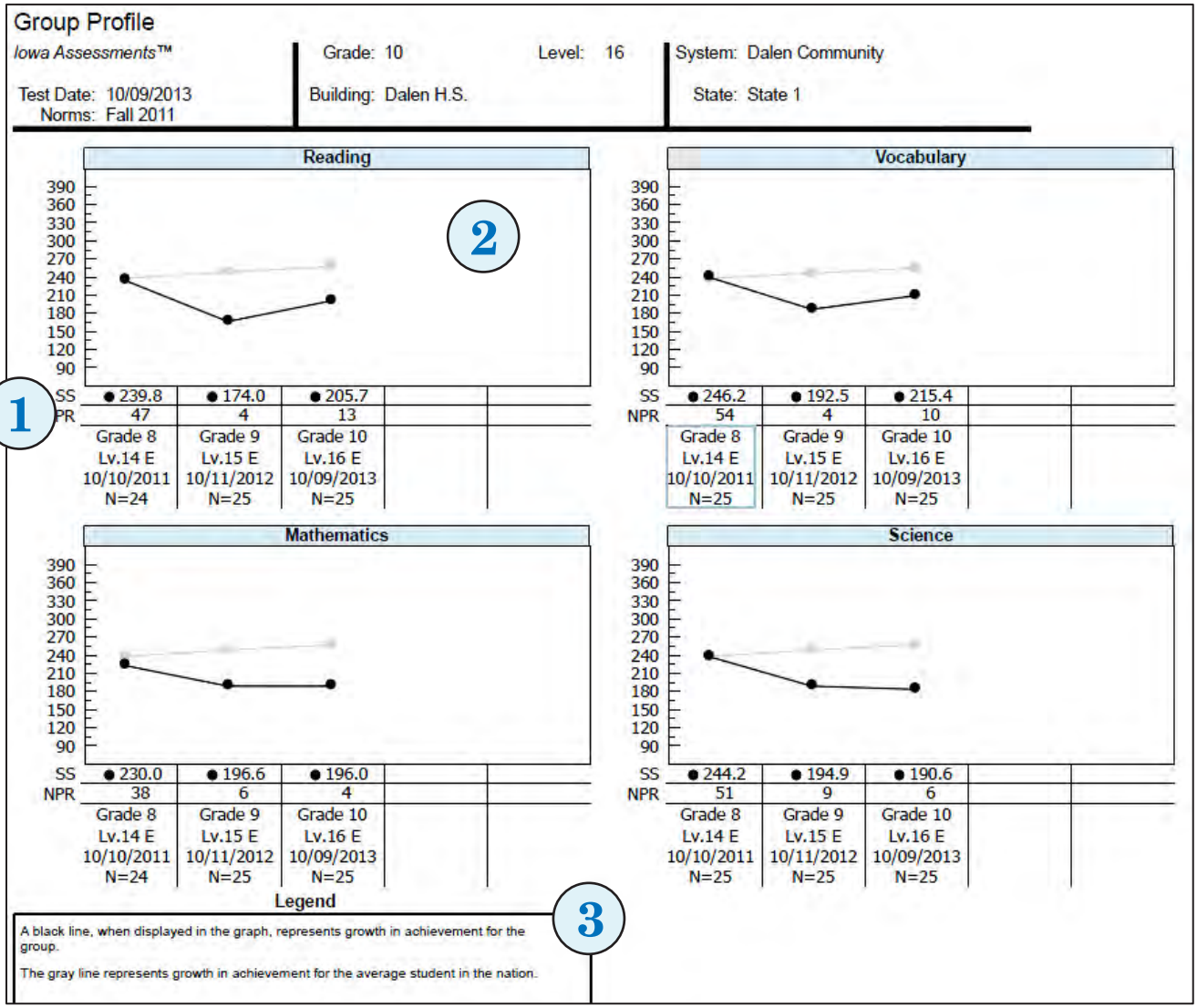
The report shows test, skill domain, and cognitive level totals for the Reading and Mathematics tests. The scores of 24 students were used to calculate the results. The top line in each row displays the national average percent correct on items used to measure the test, skill domain, or cognitive level, and the darker bar below each line displays the selected group's average percent correct for the test, skill domain, or cognitive level. The highest skill domain score for the group is 68% correct for the Literary skill domain in the Reading test; this score is slightly lower the national average percent correct for this skill domain. This skill domain is calculated using 11 items on the Reading test. The group's lowest score on this report is 35% correct on the Extended Reasoning cognitive level skill, which is calculated using 5 items in the Mathematics test. Comparing the percent correct for the group to the bracket line showing the percent correct for students in the nation provides an indicator of how far above or below the group performed in comparison to students nationally.

Factors to Consider

Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions:

- What test and skill domains did your school request? You may have selected more or fewer skill domains than are shown in the sample.
- How do the skill domain scores for the group compare with the test scores? Which skill domains are strongest for the group? Which skill domains are weakest for the group?
- Which cognitive level skill is the strongest for the group? Which is the weakest?

Group Profile – Longitudinal Line Graph (Test and Composite)



Purpose and Use

The *Group Profile – Longitudinal Line Graph (Test and Composite)* report tracks a group's average test and composite scores over time for up to five *Iowa Assessments* administrations. Use it to:

- Inform instruction
- Determine college readiness
- Implement Response to Intervention (RTI)
- Monitor growth
- Evaluate programs
- Predict future performance
- Make comparisons
- Support accountability

Report Elements

The sample report shown above provides the following information:

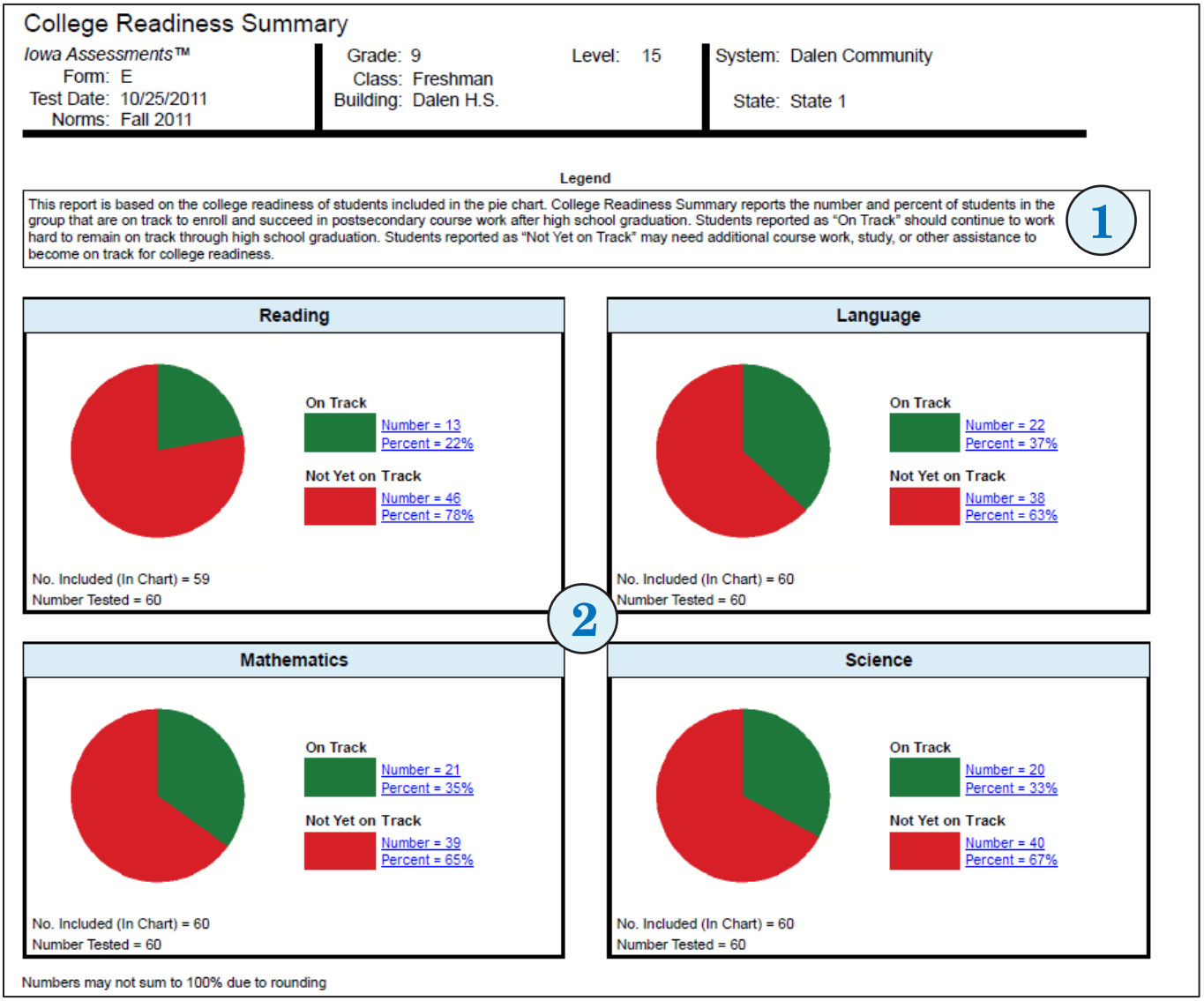
① **Scores by test administrations –** The columns below each line graph list the grade, test level and form, test date, and number of students in the group for up to five *Iowa Assessments* test administrations.

Continued on next page…

Group Profile – Longitudinal Line Graph (Test and Composite), continued

Report Elements, *continued*	② **Longitudinal line graphs –** A line graph is presented for each test that was selected for the report. The graphs display a black line representing the group's growth in achievement over multiple test administrations. The gray line represents the growth in achievement for the average student in the nation. ③ **Legend –** This section explains the information that appears in the report and how to use the scores and graphs presented in the report.
Sample Explained	The upper portion of the report shows that this report is for the tenth grade class at Dalen High School in the Dalen Community School System. The report shows three test administrations for the group from grade 8 to grade 10. The most recent test administration for the class was the Level 16, Form E of the *Iowa Assessments*, which they took in October 2013. The fall 2011 norms were used to determine the class's national percentile ranks. The report shows that 25 students took this test. The score results for this report are displayed as standard score (SS) and national percentile rank (NPR). When creating a *Group Profile – Longitudinal Line Graph*, one pair of score types may be selected for the report; possible score types include: grade equivalent/national percentile rank, standard score/national percentile rank, or normal curve equivalent/national percentile rank. This report shows that the average scores for this group were at or close to the national average score for all of the subtests in the grade 8 test administration. In the last two test administrations, the report shows that the average group scores were below the national average score across all the subtests.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions: • What test scores did your school request? • Which battery of the *Iowa Assessments* did the class take (Complete, Core, or Survey)? If the class took the Core Battery, there will be no Social Studies or Science scores and no complete composite scores listed on the report. If the class took the Survey Battery for Level 16, scores will include Reading, Written Expression, Mathematics, and a survey composite.

Group Profile – College Readiness Summary (Test and Composite)



Purpose and Use

The *Group Profile – College Readiness Summary (Test and Composite)* displays pie charts showing the number and percent of the students in the group that are on track to enroll and succeed in postsecondary coursework. This option is available for Grades 6–12. The report displays charts for each of the selected subtests that can be used to report college readiness, which includes Reading, Language, Mathematics, and Science.

College Readiness is determined by mapping the predicted ACT score range, which is estimated using *Iowa Assessments* test results, with defined targets of readiness as determined by the ACT College Readiness Benchmarks. Use this report to:

- Inform instruction
- Evaluate programs
- Support accountability
- Determine college readiness
- Predict future performance

Note: Within the chart of any test, you can click the **Number** or **Percent** link for either group of students—**On Track** or **Not Yet on Track**—to open the *Student Roster* for that group of students.

Continued on next page…

Group Profile – College Readiness Summary (Test and Composite), continued

Report Elements	The sample report shown on the previous page provides the following information: ① **Legend –** This section explains what information appears in each part of the report and how to use the scores and charts presented in the report. ② **Pie charts by test –** This section shows charts for each of the selected test options, which includes Reading, Language, Mathematics, and Science. For each test, this report shows the following data: **No. Included (In Chart) –** Total number of students whose scores were used to calculate the group average **Number Tested –** Total number of students who took the test that was used to calculate the results in the report
Sample Explained	The top portion of the page shows that this report is for the freshman class at Dalen High School in the Dalen Community School System. The class took Level 15, Form E of the *Iowa Assessments* in October 2011, and the fall 2011 norms were used to determine the class's national percentile ranks. The pie charts show the percentages of the freshman class that are currently on track to succeed in postsecondary coursework for each of four content areas. The charts indicate that 22% of the class is considered on track to succeed in postsecondary coursework in Reading, 37% in Language, 35% in Mathematics, and 33% in Science. Beneath each chart, the number of students whose scores are used to calculate the group averages is displayed. Sixty students took the *Iowa Assessments*, and all of these student's scores were used to calculate the averages for Language, Mathematics and Science. Only 59 students' scores were included in the average for Reading, which indicates that one of the scores was not included in the group average for this test.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions: • What content areas did your school specify when creating this report? The report can show any or all of the following content areas: Reading, Language, Mathematics, and Science.

Group Profile – Estimated Growth Summary (Test and Composite)

Purpose and Use

The *Group Profile – Estimated Growth Summary (Test and Composite)* provides pie charts for each content area displaying the number and percent of the students in the group that exceed, meet, or do not meet an estimated rate of growth. For each student in the group, the test and composite results of the current test administration are compared to a previous *Iowa Assessments* test administration to determine if that student met the estimated rate of growth. The results for all students in the group are combined to provide the group total. Note that only those students who took the current and previous test administrations are included in the group totals displayed in each pie chart. Use this report to:

- Identify strengths & weaknesses
- Implement Response to Intervention (RTI)
- Monitor growth
- Evaluate programs
- Make comparisons
- Support accountability

Note: Within the chart of any test, you can click the **Number** or **Percent** link for any group of students—**Exceeds Estimated Growth**, **Meets Estimated Growth**, or **Does Not Meet Estimated Growth**—to open the *Student Roster* for that group of students.

Continued on next page…

Group Profile – Estimated Growth Summary (Test and Composite), continued

Report Elements	The sample report shown on the previous page provides the following information: ① **Legend –** This section explains what information appears in each part of the report and how to use the scores and charts presented in the report. ② **Pie charts by test –** This section shows the following data: **No. Included (In Chart) –** Total number of students whose scores were used to calculate the group average for each test; only students who took the current and previous test administrations may be included **Number Tested –** Total number of students who took the test that was used to calculate the results in the report
Sample Explained	The top portion of the page shows that this report is for Mrs. Dillon's fourth grade class at Emerson Elementary School in the Dalen Community School System. The class took Level 10, Form E of the *Iowa Assessments* in August 2011, and the fall 2011 norms were used to determine the class's national percentile ranks. The pie charts show the percentages of the fourth grade class that met their estimated growth for each of the content areas selected. The first pie chart indicates that 35% of the class exceeded their estimated rate of growth in Reading; 13% of the class met their estimated rate of growth; 52% did not meet their estimated rate of growth. Note that the estimated growth for each student is not an indication of the test scores—only the growth in test scores from a previous test administration to the current test administration. To view the test scores, click one of the groups in the chart, such as **Exceeds Estimated Growth**, and the *Student Roster* displays, showing the test scores for the students included in that group. Of the 25 students who took the current administration of the Reading test, 23 students were included in the estimated growth chart. To be included in the group totals, a student must have a score from the current and the selected previous administration of the *Iowa Assessments*.
Factors to Consider	Compare your report with the sample shown above. To help identify reasons for differences between the sample and your report, answer the following questions: • What content areas did your school specify when creating this report? The report can show any or all of the *Iowa Assessments* content areas for which a current and previous test administration exist.

Group Summary (Scoring Service Print Style)

Iowa Assessments™

CLASS SUMMARY

Iowa Assessments™

1

Class: COLE
Building: Bldg 1
District: Dalen Community
System: System 1
Region: Region 1
State: State 1

Form-Level: E-13
Test Date: 08/2012
Norms: Fall 2011
Grade: 7
Page: 1

2

	English Language Arts					Mathematics						
	Reading	Written Expression	Conventions of Writing	Vocabulary	ELA TOTAL	Mathematics	Computation	MATH TOTAL	CORE COMPOSITE	Social Studies	Science	COMPLETE COMPOSITE
Cole Level: 13												
Number of Students Tested = 21												
Number of Students Included	20	20	20	20	20	20	20	20	20	20	20	20
Average Standard Score (SS)	251.4	268.7	266.4	263.6	261.8	248.3	247.4	248.0	254.8	252.9	245.0	252.7
National Percentile Rank of Average SS	69	75	78	88	83	67	70	70	75	69	63	71
Percent of Students in NPR Range 75-99	40	50	60	65	55	35	40	30	50	45	30	35
50-74	25	25	15	20	25	50	35	55	25	20	30	40
25-49	25	20	25	15	15	5	15	10	25	35	25	25
1-24	10	5			5	10	5	5			10	
Grade Equivalent of Average SS	8.9	10.9	10.6	10.3	10.2	8.6	8.6	8.6	9.3	9.1	8.3	9.1
National Stanine of Average SS	6	6	7	7	7	6	6	6	6	6	6	6

Purpose and Use

The *Group Summary* report provides the average test and composite scores for the group. Use it to:

- Identify strengths & weaknesses
- Inform instruction
- Make comparisons
- Implement Response to Intervention (RTI)
- Evaluate programs
- Support accountability

Report Elements

The sample *Class Summary* report shown above is a one-page report that provides:

① **Names of the subtests and composites –** These are the names of the subtests and composites.

② **Data descriptors –** These indicate the total number of students tested and the number of students whose scores are included in the calculations listed for each test. Other descriptors presented are the score types that were selected when the report was created.

Sample Explained

This sample *Class Summary* is for Ms. Cole's seventh grade class in Building 1 of the Dalen Community School District. The students were given the *Iowa Assessments* in August 2012, and fall 2011 norms were used to calculate percentile ranks.

The top row of numbers across the page indicates how many students' scores were used to calculate each average score that is reported. In this example, the number of students tested was 21, and the number of students' scores used to calculate each average score was 20. That means that 1 of the 20 students tested was not included in the average scores reported for the class.

The second row of numbers shows the average standard scores (SS) (computed to the nearest tenth) for each test and composite. The third row shows the national percentile rank that corresponds to the average SS above it.

The next four rows show the percentage of students in each of four national percentile rank ranges (75–99, 50–74, 25–49, 1–24). The last two rows show the grade equivalent and the national stanine of the average SS reported in row two.

Note: Because there are no norms for class groups as there are for individual students and for school buildings, remember that class averages like these need to be interpreted as if they were the scores for the average student in the class. Thus, in this case we would say that the average student in Ms. Cole's seventh grade class has a composite national percentile rank of 71 and a grade equivalent of 9.1.

Continued on next page…

Group Summary (Scoring Service Print Style), continued

Factors to Consider	Compare your report with the sample shown above and look across the information listed for your students. To help identify reasons for differences between the sample and your report, answer the following questions: • Which battery of the *Iowa Assessments* did your school administer (Complete, Core, or Survey)? If you administered the Core or Survey Battery, there will be fewer tests listed than are shown in the sample report. • What test scores did your school request? Additional scores may include normal curve equivalents (NCE), local percentile ranks (LPR), and local stanines (LS). • Did your school or district request Catholic/private school norms instead of the national norms?

Data Export

1

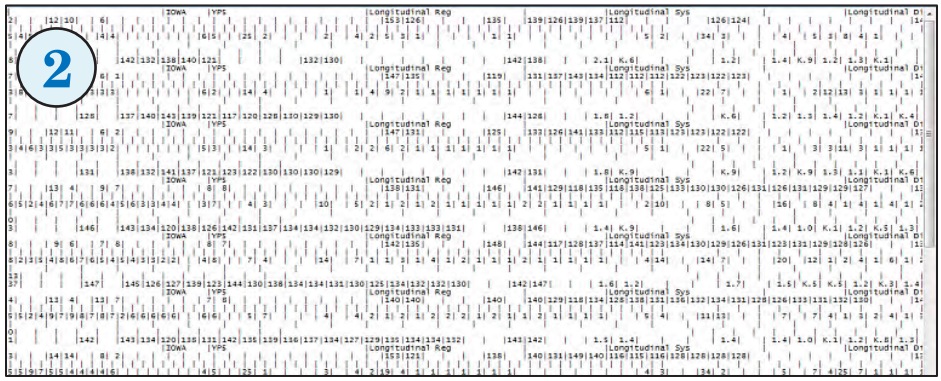
Riverside
Iowa Assessments, Form E & F
Data Record Description
Balanced Assessment

RPC06
Student Data on Disk or CD-ROM — Fixed Width Length = 5139
IOWA E & F — Delimited Positions (slots delimited) = 1422

Delimited Position (slots delimited)	Fixed Width Start Position	Fixed Width End Position	Field Length	Description	Comments	Notes
1	1	30	30	Order Number		
2	31	38	8	Test	IOWA	
3	39	68	30	State Name		
4	69	98	30	Region Name		
5	99	113	15	Region Code		
6	114	143	30	System Name		
7	144	158	15	System Code		
8	159	188	30	District Name		
9	189	203	15	District Code		
10	204	233	30	Building Name		
11	234	248	15	Building Code		
12	249	278	30	Class Name		
13	279	293	15	Class Code		
14	294	295	2	Class Grade	0 (K), 1, 2, . . . 12. Right justified. No leading zeroes.	
15	296	303	8	Date Tested	MMDDYYYY	
16	304	323	20	Student Last Name	Left-justified	
17	324	343	20	Student First Name	Left-justified	

Iowa | CogAT | Appendix A | Appendix B | Appendix C Complete | Appendix C Survey | Appendix D

2



3

Riverside
Iowa Assessments, Forms E & F
Custom Data Record Description

Group Hierarchy	Field Length	Description	Comments	Notes
	30	State Name		
	30	Region Name		
	15	Region Code		
	30	System Name		
	15	System Code		
	30	District Name		
	15	District Code		
	30	Building Name		
	15	Building Code		
	30	Class Name		
	15	Class Code		
	2	Class Grade	0 (K), 1, 2, . . . 12. Right justified. No leading zeroes.	

Iowa Custom | CogAT Custom | Appendix A | Appendix B | Appendix C Complete | Ap

Purpose and Use The *Data Export* files contain the *Iowa Assessments* testing data for a test event and can be exported as .txt files in the following formats: ASCII Fixed-Width, ASCII Tab-Delimited, ASCII Comma-Delimited, ASCII Pipe-Delimited. When you create a *Data Export* file, you can choose to export it using a standard template or a custom template. The custom template allows you to select fields to include, specify the order of the fields, and rename the fields. When the *Data Export* file has been created and has completed running, it is available to be exported on the report page. The files created using the standard template are the same student data files provided by Riverside Scoring Service on CD ROM.

Note: *Data Export* files are available to users with Account Holder or Administrator roles.

Continued on next page…

Data Export, continued

Export Files	① **Standard Export Balanced Assessments File Format –** The standard file template details how information is organized in the *Data Export* file. This Excel file is available from *DataManager*'s Digital Resources page.
	② **Standard Data Export file –** This *Data Export* file shows the top of an ASCII Pipe-Delimited .txt file containing the full *Iowa Assessments* results using the standard template.
	③ **Custom Export Balanced Assessments File Format –** The custom file template lists all the fields that are available for selection in the custom *Data Export* file. This Excel file is available from *DataManager*'s Digital Resources page.

Part 4 Using Test Results

In Brief

The *Iowa Assessments* score reports provide unique information intended to supplement the observations and other assessment information that teachers typically collect.

This part of the guide provides information to help you use results from the *Iowa Assessments* to accomplish the various purposes for testing.

- "Before You Interpret Results" summarizes steps to take before using test results.
- "Considerations for Accommodations and Modifications" provides guidance on interpreting scores for any of your students whose test administration included accommodations or modifications.
- "Guidelines for Interpreting Report Data" offers considerations and suggestions on interpreting test results with a specific testing purpose in mind

The rest of this part of the guide consists of examples of how reports can be used. Each example shows how to interpret test results using one of the reports well suited for the specified testing purpose.

Testing Purpose	Report Featured in Scenario	Page
Identify Individual Student Strengths and Weaknesses	*Student Profile Bar Graphs (Test and Composite and Skill Domains)*	85
Inform Instruction	*Student Roster, Student Profile Bar Graph (Skill Domains)*	89
Monitor Individual Student Growth	*Student Profile Longitudinal Line Graph*	92
Measure Core Standards	*Student Profile Bar Graphs (Test and Composite and Skill Domains)*	96
Implement Response to Intervention (RTI)	*Student Profile Narrative, Student Roster (Skill Domains)*	100
Determine College Readiness	*List of Student Scores, Student Profile Longitudinal Line Graph*	103
Predict Future Performance	*Student Profile Longitudinal Line Graph, Student Profile Bar Graph (Skill Domains)*	105
Make Comparisons	*Group Roster (Test and Composite and Skill Domains)*	109
Inform Placement Decisions	*Student Profile Bar Graph (Skill Domains), Student Roster (Test and Composite)*	112
Support Accountability	*Group Summary*	115

Before You Interpret Results

Before interpreting and using test results, confirm you have completed the four preparatory steps described in "Before You Begin" on page 4. The next step is to identify students tested with accommodations or modifications. The following section of this guide explains how to identify students who were so tested and how to work with their test results.

Considerations for Accommodations and Modifications

The Purpose of Accommodations and Modifications

A **testing accommodation**, as the term is used here, refers to a change in the procedures for administering an assessment. The accommodation is intended to reduce as much as possible the effect of a student's special needs or limited English language proficiency on the assessment process so that the student is assessed on an equal footing with all other students. Testing accommodations do not change the **kind** of achievement being measured; they change **how** that achievement is measured. If chosen appropriately, an accommodation will provide neither too much nor too little help to the student who receives it.

A testing **modification** is a change in the procedures for administering a test that may affect the constructs being measured. For example, reading aloud the Reading test represents a modification. A modification is sometimes necessary when an accommodation is not possible. Local, district, or state policy usually determines whether these scores should be interpreted differently. For guidance, refer to "Interpret and Use These Scores" on page 74.

Students with Special Needs

Some students have special needs that may make it difficult for them to demonstrate their true achievement through standard testing procedures. Nearly all of these students will have been identified as eligible for special education services and will have an Individualized Education Program (IEP), an Individualized Accommodation Plan (IAP), or a Section 504 plan. The IEP or other plan ordinarily indicates whether the student should receive testing accommodations during district-wide assessments and what the nature of those accommodations should be. If the primary goal of using the *Iowa Assessments* is to obtain information that will have value for planning and implementing instruction, aspects of testing that might provide false readings of a student's achievement should be altered so that the best possible information can be obtained. That is the goal of providing testing accommodations to students.

English Language Learners (ELLs)

The purpose of using accommodations with English language learners is to be able to measure skills and knowledge related to the curriculum without significant interference from students' limited opportunity to learn English and use it during assessment. Local, district, or state guidelines should be followed when making decisions related to testing accommodations for ELL students.

Using the Braille Edition

Students who use brailled materials regularly with their classroom instruction may benefit from testing with the Braille Edition of the *Iowa Assessments*. The Braille Edition of the *Iowa Assessments* Form E is equivalent to the regular edition. You can, therefore, interpret test results in the same manner for students tested with either edition.

Typical Accommodations

The table below describes testing accommodations most frequently provided to students with

IEPs or Section 504 plans and accommodations sometimes provided to ELL students. This is **not** intended to be a complete listing of all possible testing accommodations.

Accommodation	Description
Read Aloud	Students with reading disabilities may need to have parts of tests or some complete tests read to them so their disabilities do not interfere with the measurement of their achievement. Under no circumstances should the Reading test be read aloud or signed to a student as an accommodation. To do so would drastically change what the test measures and what the student's score means. There are other exceptions that vary by level; see the *Directions for Administration* for details. Test administrators should read all or part of other tests aloud when the student's IEP specifies this as an accommodation.
Tested Off Level	Out-of-level testing should be considered for students who, in most curricular areas, are working at an instructional level different from that of their grade peers. For example, a lower-level test may align better with some students' learning opportunities and experiences than the on-level test for their grade.
Assistance with the Test Booklet or Answer Document	An assistant or proctor may record a student's answers in the test booklet or answer document if the student is unable to do so because of physical impairment.
Repeated Directions	Directions may be read aloud as many times as is necessary to ensure that students understand what they are supposed to do. There are exceptions that vary by level; see the *Directions for Administration* for details. In addition, a test administrator who is fluent in the signing or cueing methods used by the student may need to repeat certain portions of the test directions to clarify procedures for the student.
Extended Time	Some students may need to have the time limits on some tests extended to reduce the effect of a slow work rate on their test performance. Those who use magnifiers, have attention disorders, or need help with word identification are examples of students who may need additional time. Follow guidance from the student's IEP about when extended time is appropriate.
Separate Location	A separate room should be made available for students who might be distracted by the pace at which their peers work, who may need extra breaks, or who might be disruptive in a larger group.
Test Administered by ELL Teacher or Individual Providing Language Services	Because the student can communicate with the test administrator, this accommodation allows students to be tested in a comfortable, familiar environment. It also makes other accommodations more readily available if the need for them was not anticipated at the outset of the test administration.
Provision of English/Native Language Word-to-Word Dictionary	Students may be permitted to use a glossary (no definitions) that translates an English word into the corresponding word in their home language. The need for this assistance is determined by the student's teacher and depends on whether such glossaries are routinely used by the student during classroom assessments.
Large-Print Edition	Students with visual impairments may benefit from the use of a large-print version of the test.
Other	Accommodations noted in a student's IEP but not included in this list may be used. However, they should be used only if doing so will not alter the nature of the achievement the test is intended to measure.

Determine Whether Accommodations or Modifications Were Made

Local, district, or state policy may require tracking the use of accommodations and modifications provided during testing. If your school used supplemental coding to identify test accommodations or modifications, codes marked on a student's answer document or indicated within the roster file appear in many *Iowa Assessments* score reports in the student information area (code letters A–T).

Your test coordinator can provide information on how your district will use the data gathered and what additional information may be available to you (for example, notes in the student's permanent record) per applicable regulations or school policy.

Interpret and Use These Scores

When students have been tested with accommodations or modifications, you may wonder, "Should I interpret their scores differently than those of the other students?"

School policy or state requirements may determine how scores for such students should be handled. In the absence of such regulations, consider the following ideas about how to interpret and use these scores:

Accommodations – The purpose of an accommodation is to reduce the impact of that student's special needs on the assessment process. That is, the student's responses are like those you would expect the student to make if that student had no special needs. Consequently, it seems reasonable to use that student's scores in the same way you would use the scores of all other students.

Modifications – While accommodations are changes in the test administration process, modifications refer to changes in the test itself. As a result, modifications often change what is being measured. When changes are significant or a modification is used extensively, the published norms may not be applicable, or the interpretations made when using them might need to be qualified. For example, if an English language learner (ELL) was given help with the meaning of a few words on the Mathematics test, the impact would be much different than if the student was given help with a few words on the Vocabulary test. If a student was allowed to use a calculator on the Computation test, you would interpret that score differently than the scores of other students.

Modifications may substantially change the meaning of the scores; therefore, the results of the test cannot be compared with the performance of students in the national norm group. In such cases, you can still make useful score interpretations. Use percentile ranks to identify relative strengths and weaknesses, and use grade equivalents or standard scores from annual administrations of the *Iowa Assessments* to monitor growth—as long as the same modifications were used in the previous year. Be aware that test modifications might most affect interpretations of the student's status among his or her grade peers based on percentile ranks or interpretations of the student's developmental level based on grade equivalents.

Guidelines for Interpreting Report Data

Below are some suggestions for interpreting test results for specific testing purposes. Detailed, scenario-based procedures that demonstrate how to interpret score data to inform a particular testing purpose begin on page 85.

Compare Results across Test Forms

Before you compare individual or group results, review the considerations described below to ensure your score interpretation is accurate and meaningful.

When comparing scores from two or more administrations, begin by noting the **Form** indicated in your score reports and the **Norms** that were applied. The *Iowa Assessments* may be Form E or F, and The Iowa Tests® may be Form A, B, or C. For Form E or F reports, the 2011 norms are applied. For Form A, B, or C reports, either the 2000 norms or 2005 norms may be applied. Note that for certain Form E or F reports, the 2005 norms may be applied to specific scores for comparison purposes. When a comparison of scores is required, this scoring option aids in the interpretation.

Direct comparisons can be made between the results of *Iowa Assessments* Form E and F or between the results of The Iowa Tests, Form A, B, and C because these forms were explicitly designed to allow comparisons across forms. However, discretion must be used when comparing the results of the *Iowa Assessments* Form E or F with the results of The Iowa Tests, Form A, B, or C.

While the guidelines for interpreting scores such as the standard score, national percentile rank, and grade equivalent remain consistent across test forms, the content and the normative data for the *Iowa Assessments* Form E and F reflect the most up-to-date research on the achievement of students throughout the United States. This research, completed in 2010–2011, reveals that student achievement in core areas such as reading and mathematics has improved during the past five to ten years, especially in the early elementary grades. This finding is consistent with results reported from the National Assessment of Educational Progress.

In general, national percentile rank (NPR) scores reported for students who took Form E or F of the *Iowa Assessments* will be lower than their scores from past test administrations of The Iowa Tests. As the normative population improves over time (as it has), NPRs go down because students are being compared with a higher scoring group. The specific decrease will differ, but decreases of 5–10 NPR points are typical in light of the improvement in performance nationally. Individual results will vary based on content area, grade, and relative standing. Changes in other reported scores, such as the standard score and grade equivalent, will follow this same pattern.

Identify Strengths and Weaknesses

One aspect of reviewing scores to gain an overall impression about achievement involves noting areas of strength and weakness for individual students or grade groups. Any report that contains percentile ranks can be used for this purpose.

The basic method for identifying relative strengths and weaknesses—whether for individual or group analysis—is to look for the test-score percentile ranks that are most different from the percentile rank (PR) of the composite score (or the core total or survey battery total if the composite score is not available). For a step-by-step example, refer to "Identify Individual Student Strengths and Weaknesses" beginning on page 85.

When group performance is being reviewed and analyzed, school norms are preferred over student norms because schools are more similar to one another than students are. As a result, the averages that make up school norms are less variable than the scores that make up student norms. With school norms, small changes in average standard scores can be accompanied by relatively larger changes in percentile ranks, making relative strengths and weaknesses easier to identify. Note that the percentile ranks printed on the *Group Profile* (class-, school-, and district-level) score reports are based on student, not school, norms. Tables for converting average standard scores of buildings to percentile ranks are included in the *Iowa Assessments* Form E *Norms and Score Conversions Guide*. (For more information, refer to "School Norms versus Student Norms," on page 155.)

Monitor Growth

Educational growth occurs when a student or group moves from one developmental level to a higher level. To monitor and estimate growth, compare grade equivalents or standard scores from each of two consecutive years for the student or group. In general, grade equivalents are easier to interpret than developmental standard scores.

Note: To ensure meaningful score interpretation across different test forms, refer to "Compare Results across Test Forms" on page 75.

Monitor Individual Student Growth

How much growth should be expected for each student from year to year? The answer to this important question will help you determine whether a student is making adequate progress.

Grade equivalent (GE) scores and standard scores are the scores most appropriate to use to monitor individual student growth. For example, you can review the student's GE for each test and for the composite from two consecutive years of testing. By subtracting the previous year's GE from that of the current year, you can determine how much the student's score has changed. Positive changes in GE scores from year to year are evidence of growth. Average growth in a year is a grade equivalent of 1.0; changes greater than 1.0 are above average.

Slow growth or even steady declines in student performance are most apparent when reviewing student scores across several annual test administrations. Educators can then take the steps needed to get each student back on track.

Reviewing a student's scores across annual test administrations provides important information about both the student and the instructional programs. After answering questions such as those below, educators can take steps to optimize educational growth for each student.

- Based on the student's previous test performance, how much growth should be reasonably expected in future years?
- If the student participated in an individualized instructional program, do his or her test scores indicate that there was a positive effect on student learning?

By comparing the growth indicated by the change in GE scores with the NPR scores for each test, you can determine whether the rate of growth is appropriate for that student. For example, if Ralph has an NPR in Reading of 80 (in the high range) and an NPR of 65 in Math (in the average range), then it is reasonable to expect that the change in his GE score in Reading will be higher than average while his growth in Math will be average.

Interpret Growth Estimates for Groups

When reviewing scores for a group, it is common to ask, "How much should a grade group grow in a year?" This important question arises in the context of two particular uses of test scores: trying to interpret annual growth and trying to establish a reasonable annual goal for improvement. Like any other score, growth estimates (or "gain scores") need to be compared with something to obtain meaning. In this case, comparisons between the class, building, or district, and the following groups are helpful:

- the national norm group
- the average performance over the past 4–5 years of the other local groups in that grade

Using the National Norm Group – Suppose the Dalen Community School District's fourth grade class tested in the spring and had a Reading grade-equivalent (GE) score of 4.7 this year. This same group's Reading GE last spring was 3.8. The GE difference of 0.9 means the group grew nine months during a 10-month school year. How should this growth be interpreted?

On the grade-equivalent score scale, average growth is 1.0, or one year, where one year equals 10 months. This means that the average student or group is likely to grow about 10 months (1.0) in a school year, regardless of the grade level. Students whose achievement levels are well below average would be expected to show less growth in a year, perhaps 6–7 months or less. High-achieving students might be expected to grow 13–14 months or more. On average, for all students in the national norm group in a given grade, growth will be a grade equivalent of 1.0. In the case of the fourth grade students from the Dalen Community School District, their growth was about what would be expected from a group whose achievement is average. (In grade 3, a score of 3.8 in the spring is at about the 50th percentile.)

Note that the use of the national norm group helps to describe what performance in the Dalen Community School District is like, but it does **not** indicate how good that performance is or whether it ought to be higher. What is reasonable to expect of Dalen students cannot be determined simply by making comparisons with the national norm group.

Using Local District Scores – Another way to determine growth is to use the growth scores of several previous groups of students from your school. The same principles described above for using the national norm group to interpret growth can be applied using local data. School districts can review growth from previous years when setting expectations for future years.

For example, the Dalen Community school administrators plan to review growth from third grade to fourth grade for the past three years. They will use the pattern of growth for these three years to help establish growth expectations for the next group of students moving from third grade to fourth grade. If the average of the past three years exceeds the national norm of 1.0 on the GE score scale, expectations for next year may be set higher than the national norm growth. If the average is less than the national norm, expectations may be less for next year with the goal of attaining the national norm growth of 1.0 within the next two years.

Districts can also easily monitor the average gain, based on group average GE scores, for each grade-level group. For example, to determine the average—or typical—gain for students moving from grade 3 to grade 4, the test coordinator subtracts the group average GE for last year's third grade students from the group average GE for this year's fourth grade students. The result is the average gain from third to fourth grade in the district. If this same calculation is done for at least three consecutive scores, the test coordinator can determine the district's average gain score from third to fourth grade. Comparison of the current year's gain with the district's historical average indicates whether the group is growing at the same rate.

Make Comparisons for Groups

Information from the *Iowa Assessments* allows you to make valid comparisons across groups and within groups. Metrics such as standard scores (SS) and grade equivalents (GE) allow you to monitor growth and make comparisons for a group of students across years. National percentile ranks (NPR) and, for lower levels, grade equivalents (GE) allow you to compare group achievement with that of a norm group—either a nationally representative group of students (NPR scores) or a locally representative group of students (LPR scores).

The table below provides examples of some comparisons you might make for a group and identifies the score types that aid in making the comparisons.

Type of Comparison	NPR	SS	GE
How do my third grade students compare with third grade students nationally?	✓		✓
How do my females in third grade compare with my third grade males in mathematics?	✓	✓	✓
How have my fourth grade students changed since third grade?		✓	✓
In which test areas are my fifth graders the strongest? Weakest?	✓		
How have my sixth graders changed since fifth grade compared with sixth graders across the nation?		✓	✓

Following are some examples of comparisons you might make:

- **Compare this year's scores with the scores from the previous year.**
  The standard scores from a group can be compared from year to year. To obtain a general indication of whether past achievement levels have been maintained or improved, compare this year's results with either last year's school- or district-level *Group Summary* report or the *Group Profile Longitudinal Line Graph*.
- **Compare performance of one group of students with another.**
  Using class-level *Group Summary* reports or *Group Roster* reports, the standard scores of classes at the same grade level can be compared with each other, as can the NPR of those average standard scores. The class grade equivalents can also be compared to give an indication of how the groups performed. Comparisons also allow you to monitor differences in performance between groups over time. For example, you can use standard scores to monitor gaps in mathematics achievement between males and females over time.
- **Compare relative performance of students within a particular group.**
  The NPR allows for a comparison of the relative performance of students within a group. For example, you could monitor the relative standing of students selected for inclusion in a special reading program by comparing their NPR prior to inclusion in the program to their NPR after some time in the program.
- **Compare test results with the targeted results.**
  If your school system implemented achievement improvement programs, compare the achievement goals set for certain subgroups in particular areas with test results using *Subgroup Roster* reports from the beginning of the school year to the end of the school year. If goals were established for skill improvement (for example, geometry concepts) rather than a broad subject area (for example, mathematics), these comparisons might require further analysis before making detailed interpretations.

Evaluate Programs

Over time, scores from the *Iowa Assessments* supplemented by other information gathered during program evaluation can be useful in assessing the impact of curricular changes on student achievement. Sometimes program evaluations must be conducted in response to requirements imposed by a funding agency. However, any time you implement new instructional strategies or materials, you should plan to evaluate the effects of those changes on student achievement.

When evaluating the effects of program and curricular changes, consider the following:

- **Program modifications and implementations intended to improve achievement often affect students in other ways as well.**
  For example, the introduction of a writers' workshop approach in language arts may be designed to improve language skills in general and writing in particular. But it will also likely affect students' motivation, effort, interest, and attitude. That is, there may be many possible types of effects, not all of which can be measured by the tests in an achievement battery. As a result, test scores should be only one source of information

used in assessing program effectiveness. For example, you need other instruments to obtain information about interests and attitudes.

- **Program evaluation might involve the use of skill scores from several test areas.**
  For example, Written Expression scores are not the only data useful in trying to gauge the impact of a writers' workshop. Writing skills are also measured in the Reading, Spelling, Capitalization, Punctuation, and Vocabulary tests.
- **It is difficult to isolate and attribute the effects of a program or curricular change.**
  Results of the *Iowa Assessments* should be one, but not the only, measure of an instructional program's effectiveness. A number of factors influence how well any one test can measure progress resulting from curricular changes. When achievement is low to begin with, changes are easier to detect. It is more difficult for assessment results to identify small improvements than large ones or changes made by high-achieving groups as opposed to those of low achievers. Test length is also a factor; a shorter test will be less able to furnish dependable information about change.
- **The degree to which test scores may reflect the effects of program changes depends on the extent of the match between the skills measured by the test and the skills for which instruction has been designed.**
  The closer the match, the more likely it is that the scores can reflect whatever influence the curricular changes have had on achievement. It is important to realize, however, that this matching is best done at the skill-domain level and not at the level of test items or of the detailed objective each item measures.

  For example, in Social Studies, one geography skill that could serve as the basis for matching might be "understanding physical features." "Differentiating an isthmus from a peninsula," on the other hand, is too detailed an objective for matching. It is one of many objectives in the broader skill area that could serve as a basis for test items measuring the skill. The actual items used on the test are intended to be a representative sample of the set of all possible items that could be written.

Testing Purpose and Report Matchups

The table on the following pages maps the purposes for testing to the score reports most useful for each purpose. Although most of the score reports could be used for all testing purposes to some degree, certain reports provide information that most readily helps you meet your desired purpose for administering the *Iowa Assessments* to your students.

Purposes for Testing and Score Reports

	Reports for Individuals				
	Student Profile – Bar Graph (Test and Composite)	***Student Profile – Bar Graph (Skill Domains)***	***Student Profile – Longitudinal Line Graph***	***Student Profile – Balanced Assessment Line Graph***	***Student Profile Narrative (Scoring Service Print Style)***
Identify Strengths and Weaknesses	✓ Page 85	✓ Page 85		✓	✓
Inform Instruction	✓	✓ Page 89		✓	✓
Monitor Growth	✓		✓ Page 92	✓	✓
Determine College Readiness	✓		✓	✓	✓
Measure Progress to Common Core State Standards	✓ Page 96	✓ Page 96		✓	✓
Implement Response to Intervention (RTI)	✓				✓ Page 100
Inform Placement Decisions	✓	✓ Page 112			✓
Make Comparisons	✓	✓	✓	✓	✓
Evaluate Programs	✓	✓	✓	✓	✓
Predict Future Performance	✓	✓ Page 105	✓ Page 105	✓	✓
Support Accountability			✓	✓	

Continued on next page…

Note: Although most of the reports listed in this table could be used for all assessment purposes to some degree, the check marks indicate which reports provide specific information that can be used to meet your desired purpose for assessing students.

Circled check marks ✓ indicate that you can find an example of how to use a specific report for a given testing purpose on the page noted beside the check mark.

Purposes for Testing and Score Reports, *continued*

	Reports for Groups of Students				
	List of Scores for Each Student in the Group				
	Student Roster (Test and Composite)	***Student Roster (Skill Domains)***	***Multimeasure Student Roster (Test and Composite)***	***Multimeasure Student Roster (Skill Domains)***	***List of Student Scores (Scoring Service Print Style)***
Identify Strengths and Weaknesses	✓	✓	✓	✓	✓
Inform Instruction	(✓) Page 89	✓	✓	✓	✓
Monitor Growth	✓	✓	✓	✓	✓
Determine College Readiness	✓		✓		(✓) Page 103
Measure Progress to Common Core State Standards		✓		✓	
Implement Response to Intervention (RTI)		(✓) Page 100		✓	
Inform Placement Decisions	(✓) Page 112		✓		✓
Make Comparisons	✓	✓	✓	✓	✓
Evaluate Programs	✓	✓	✓	✓	✓
Predict Future Performance	✓				✓
Support Accountability	✓				✓

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Note: Although most of the reports listed in this table could be used for all assessment purposes to some degree, the check marks indicate which reports provide specific information that can be used to meet your desired purpose for assessing students.

Circled check marks (✓) indicate that you can find an example of how to use a specific report for a given testing purpose on the page noted beside the check mark.

Purposes for Testing and Score Reports *continued*

	Reports for Groups of Students, *continued*			
	Summary of Scores for All Students in the Group			
	Group Roster (Test and Composite)	***Group Roster (Skill Domains)***	***Subgroup Roster***	***Group Summary (Scoring Service Print Style)***
Identify Strengths and Weaknesses	✓	✓	✓	✓
Inform Instruction	✓	✓		✓
Monitor Growth				
Determine College Readiness			✓	
Measure Progress to Common Core State Standards		✓		
Implement Response to Intervention (RTI)	✓		✓	✓
Inform Placement Decisions				
Make Comparisons	(✓) Page 109	(✓) Page 109	✓	✓
Evaluate Programs	✓	✓	✓	✓
Predict Future Performance				
Support Accountability			✓	(✓) Page 115

Continued on next page…

Note: Although most of the reports listed in this table could be used for all assessment purposes to some degree, the check marks indicate which reports provide specific information that can be used to meet your desired purpose for assessing students.

Circled check marks (✓) indicate that you can find an example of how to use a specific report for a given testing purpose on the page noted beside the check mark.

Purposes for Testing and Score Reports *continued*

	Reports for Groups of Students, *continued*				
	Summary of Scores for All Students in the Group, *continued*				
	Group Profile – Bar Graph (Test and Composite)	*Group Profile – Bar Graph (Skill Domains)*	*Group Profile – Longitudinal Report*	*Group Profile – College Readiness Summary*	*Group Profile – Estimated Growth Summary*
Identify Strengths and Weaknesses	✓	✓			
Inform Instruction	✓	✓	✓	✓	
Monitor Growth			✓		✓
Determine College Readiness	✓		✓	✓	
Measure Progress to Common Core State Standards		✓			
Implement Response to Intervention (RTI)	✓		✓		✓
Inform Placement Decisions					
Make Comparisons	✓	✓	✓		✓
Evaluate Programs		✓	✓	✓	✓
Predict Future Performance	✓		✓	✓	
Support Accountability			✓	✓	✓

Note: Although most of the reports listed in this table could be used for all assessment purposes to some degree, the check marks indicate which reports provide specific information that can be used to meet your desired purpose for assessing students.

Circled check marks ✓ indicate that you can find an example of how to use a specific report for a given testing purpose on the page noted beside the check mark.

Examples: Using Test Results to Make Educational Decisions

This section presents several examples of how you can use test results from the *Iowa Assessments* to understand how students are performing and make important educational decisions about those students and curricular programs. Note that while one report is featured in each example, in some cases the same information can be found on multiple *Iowa Assessments* reports. Those reports are listed at the end of each example, where appropriate.

Identify Individual Student Strengths and Weaknesses

It happens time and again—a student is falling behind and current classroom instruction does not seem to improve the student's performance. Results from the *Iowa Assessments* allow you to analyze a student's strengths and weaknesses in the content areas tested. This information can drive informed decisions on how best to improve the student's performance in the following ways:

- Identify additional resources specific to the weaknesses.
- Target a specific curriculum to address the weaknesses.
- Create a customized learning path that will build on student strengths to improve areas of weakness.

What report can I use?	***Student Profile Bar Graph (Test and Composite* and *Skill Domains)***
What key concepts will help me use this report?	Understanding a student's relative strengths and weaknesses is key when designing instruction to improve student performance. Weaknesses help explain learning difficulties in related areas, and they form the basis for plans to improve instruction and increase achievement. Strengths form a foundation on which to build and to address weaknesses. Identifying a student's **relative strengths and weaknesses** begins with a comparison of that student's test scores—how high or low one test score is compared with the scores of other tests the student took at the same time. Because you are not comparing a student's scores with the scores of other students, you can identify relative strengths and weaknesses for any student, even one who scores low or high on every test. Once you identify the student's content areas of greatest relative strength and weakness, examine the **skill domains** for those areas. Skill domains refer to specific skill sets within a test. Look for a student's high and low scores within a test to determine relative strengths and weaknesses on particular skills. This detailed analysis helps explain student test performance and enables you to plan instruction that builds on strengths and shores up weaknesses.

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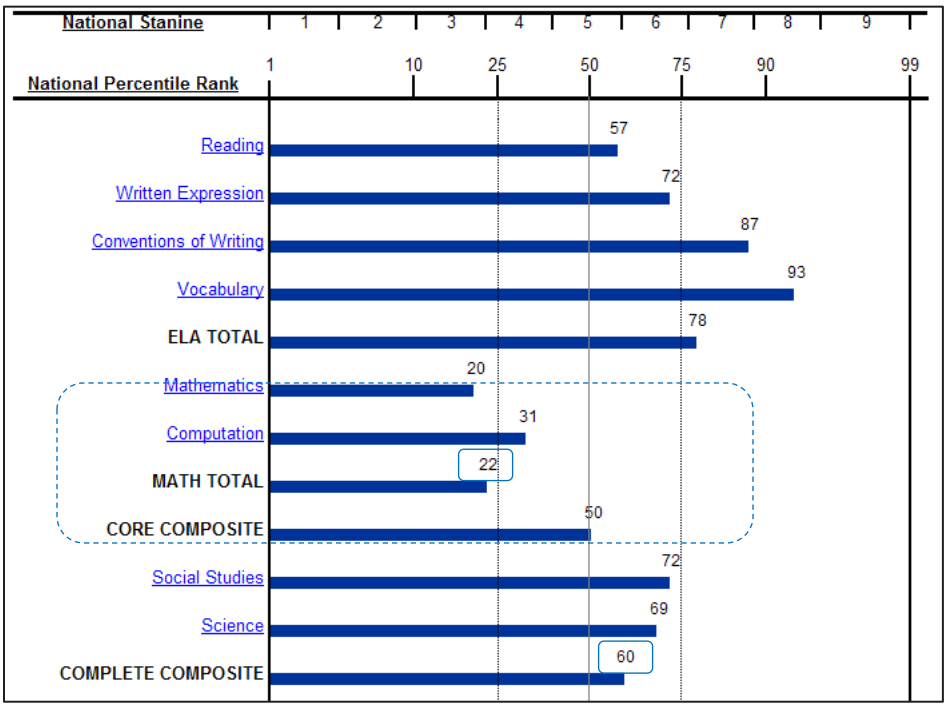
What is an example of when this testing purpose might be needed?	During Marissa's time in Mrs. Lynch's fourth grade classroom, she has noticed a continual decline in her math performance. She seemed to be doing well at the beginning of the school year, but as the year has progressed, Marissa's performance in math has been below expectations. Mrs. Lynch cannot quite determine where Marissa's math challenges lie. To develop a plan to improve her performance, Mrs. Lynch needs to know the specific skill areas in which Marissa needs help. By reviewing Marissa's *Student Profile*, Mrs. Lynch can identify which skill domains are Marissa's relative strengths and weaknesses in math.
How do I locate data and interpret my findings?	To identify strengths and weaknesses for a given student, follow these steps: 1. On the *Student Profile Bar Graph*, view the NPR bar graph.  2. Review the national percentile rank (NPR) for the Math Total, an indicator of overall performance in Math, which is a total score for Mathematics and Computation tests combined. In this sample report, the Math Total NPR of 22 means that this student had a composite mathematics score that is higher than 22% of students in the nation. When compared with the other content area NPR scores, it is clear that math is a weakness for this student. 3. Review the Complete Composite NPR. The complete composite is derived from the scores for all of the tests taken.

Continued on next page…

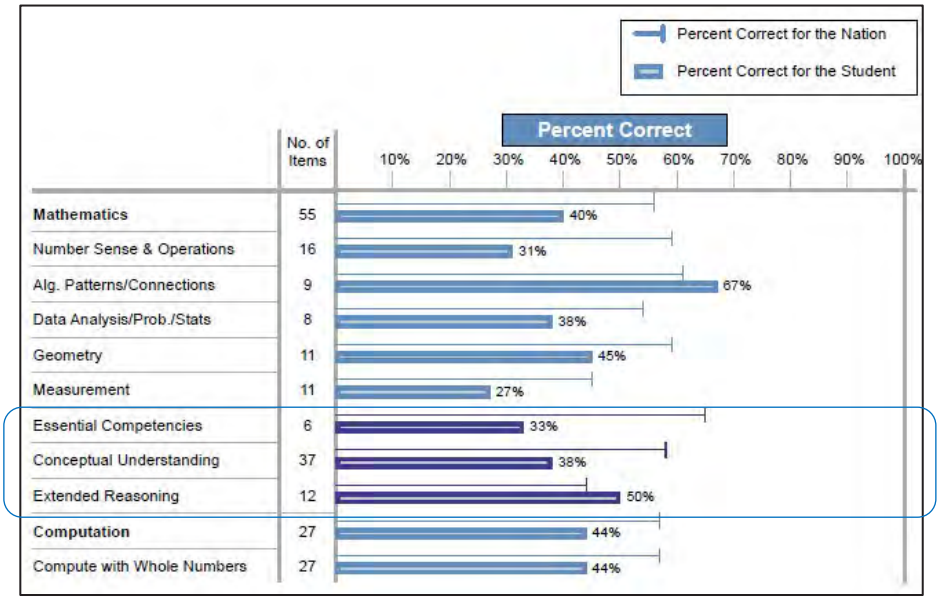
How do I locate data and interpret my findings? *(continued)*

4. Compare the Math Total NPR with the Complete Composite NPR.

   In this sample report, Marissa's math score is significantly lower when compared with her overall performance in all content areas, indicating that math is her weakest content area. Identify which skill domains are Marissa's relative strengths and weaknesses within the Mathematics and Computation tests.

5. In the *Student Profile Bar Graph (Iowa Assessments Skill Domains)* report, locate the Mathematics domains, scores, and bar graphs. Examine the bar graphs for the Mathematics domains to identify the student's relative strengths and weaknesses within the same test. Then do the same for the Computation domains.

   In this sample report, the domain **Algebraic Patterns and Connections** would be considered a relative strength for this student.



   In this sample report, **Measurement**, **Number Sense & Operations**, and **Data Analysis, Probability, and Statistics** are Marissa's weakest domains—areas where immediate instructional decisions and changes should be made.

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What questions should I ask during this process? **What are some possible next steps?**	The *Student Profile* provides a detailed analysis of score data by test and skill area, allowing you to identify student strengths and weaknesses. With this information, you can make informed decisions about instructional strategies that will positively impact the student's performance. When reviewing the *Student Profile*, consider the following questions: • What are the student's relative strengths and weaknesses? • Did this student perform as expected? • How can a student's strength in one domain be leveraged to improve an area of weakness? Suggested next steps might include the following actions: • In the Math portion of the *Student Profile (Iowa Assessments Skill Domains)*, locate the cognitive levels that are reported. This information tells you at what level of cognitive demand the student is performing. In this sample report, the student appears to be performing far lower in Essential Competencies for math. Ask yourself whether there is a correlation between the performance for a domain and the results of the cognitive demand for that test. How will this information impact your instructional planning? • Use the results from this report, as well as classroom findings and observations, to create a plan of action for this student. Communicate that plan to the student, parents or guardians, and colleagues. Data gathered from various sources provide a complete multi-dimensional picture of each student's achievement and readiness for learning specific skills. • Use the *Student Profile Narrative* report, if available, to assist in communicating student strengths and weaknesses to parents or guardians. Keep in mind that the skill data on this report are not as detailed as on the *Student Profile* reports.

Inform Instruction

Teachers and school administrators want to know how their students are performing so that they can make decisions about how to focus or change instruction for the class and for individual students. In which areas is the class struggling? In which areas have students mastered content? Teachers can use results from the *Iowa Assessments* to determine how well their students are performing on each test, and within the domains assessed on each test, so that they can target instruction to support students' strengths and weaknesses.

What reports can I use?	***Student Roster (Test and Composite)*** ***Student Profile Bar Graph (Iowa Assessments Skill Domains)***
What key concepts will help me use this report?	The **national percentile rank (NPR)** score indicates relative strengths and weaknesses for an individual student by showing the student's overall performance on a test compared with that of the national standardization sample of students. **Percent correct** is the result of dividing the number of questions the student answered correctly on each domain or cognitive level by the total number of test questions. This score helps educators pinpoint the domains/reporting categories in which a student performs well and where additional instruction may be needed.
What is an example of when this testing purpose might be needed?	Ms. Stevens, a reading teacher at Emerson Middle School, wants to ensure that the reading instruction is meeting the needs of her eighth grade students. She has new materials and instructional practices that can be used with students who need additional help, and she wants to determine which students may benefit from their use.
How do I locate data and interpret my findings?	Use the *Student Roster* and the *Student Profile* reports to determine how students are performing on the Reading test and on the domains assessed in that test. 1. Using the *Student Roster (Test and Composite)*, locate each test's NPR score for all students. Note which students performed at or below the national average (NPR = 50). In this example, locate the NPR score for Reading for each student in the column labeled **Reading**. This review reveals that one of the students performed below 50 on the reading test, indicating that this student may benefit from additional instruction in reading.

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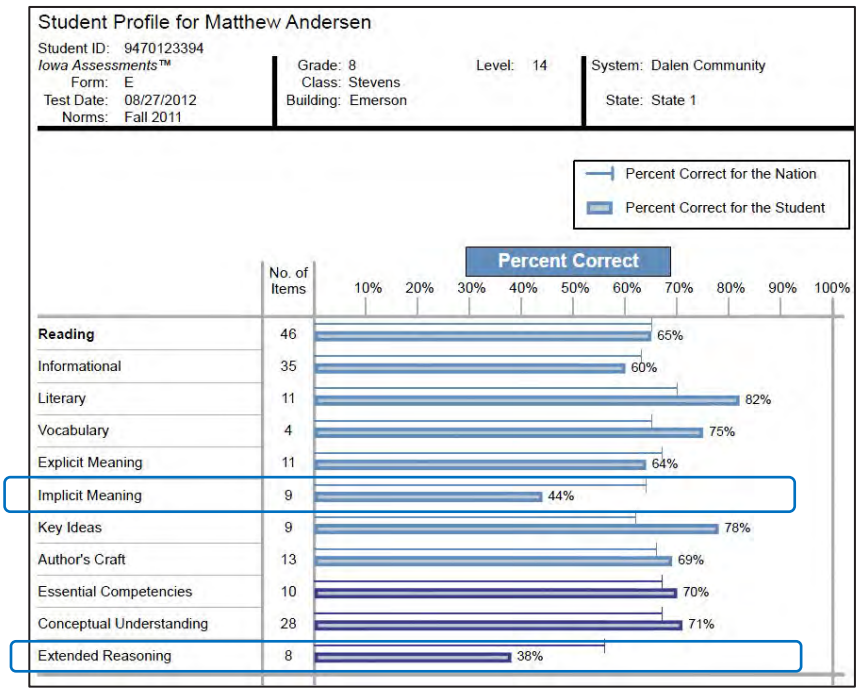
How do I locate data and interpret my findings?

(continued)

STUDENT NAME / I.D.Number 1 / I.D.Number 2 / A B C D E F G H I J K L M N O P Z	Birth Date / Age / Program	Level / Form / Admin Mode	(Gender)		Reading
Andersen, Matthew 9470123394 0010111047	01/99 13-07	14 E Print	(M)	SS NPR GE NS Lexile	239 46 7.8 5 930L -1030L
Brady, Juliet 9470123393 0010111050	01/99 13-07	14 E Print	(F)	SS NPR GE NS Lexile	252 58 9.0 5 1010L -1110L
Britt, Zeniyah 9470123392 0010111049	11/98 13-09	14 E Print	(F)	SS NPR GE NS Lexile	314 97 13+ 9 1280L -1380L

2. The *Student Profile Bar Graph (Iowa Assessments Skill Domains)* report can be used to determine specific categories where students may need additional instruction. To do so, review the skill domains and cognitive areas for the Reading content scope for the student.

   In the following sample *Student Profile Bar Graph (Iowa Assessments Skill Domains)* report, locate the percent of items correct within each domain and cognitive area of the Reading test for the student needing additional help.



3. Determine in which domain skills and cognitive areas the student showed a relative weakness.

   A review of the sample *Student Profile Bar Graph (Iowa Assessments Skill Domains)* report shows that this student had low percent correct scores in the **Implicit Meaning** skill domain and **Extended Reasoning** cognitive level, indicating that these are areas where targeted instruction may benefit this student.

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What questions should I ask during this process? **What are some possible next steps?**	Using data from the *Iowa Assessments* to determine areas in which students do not perform well helps teachers determine if and where targeted instruction may be needed. Consider the following questions while reviewing test data: • How is each student performing on each test? Where are the student's low scores? • Is a group of students performing lower on a particular test? • In which domains does each student need additional work? • Are those domains also a weakness for a group of students or for the class as a whole? Are these weaknesses present in other classes as well? • What instructional practices and materials can I use to help strengthen student learning in those domains? Suggested next steps might include the following actions: • Review the performance of the entire class across domains to determine if additional instruction is needed for the group. • Review the materials and practices used to introduce and teach the domains in which students did not perform well to determine and plan revisions or modifications to the instructional approach. • Compare the performance of one class with another. Determine if the instructional practices or materials differed across classes and if the materials or practices should be revised to better help students learn. • Provide focused instruction and supplemental practice in specific areas/domains for individual students or groups of students to bolster student learning. • Set targets for instruction in these areas and review student performance in terms of those targets.

Monitor Individual Student Growth

How do we know if current instructional strategies and interventions are promoting student growth and learning? The *Iowa Assessments* provides a developmental scale based on empirical data that allows you to measure change in student performance over time, both at the group and individual levels. By tracking student performance against specific learning objectives, you can make data-based decisions on current levels of instruction and support and plan curricular and instructional changes to enhance future student progress.

What report can I use?	***Student Profile Longitudinal Line Graph***
What key concepts will help me use this report?	Measuring individual progress requires a record of an individual student's performance over time. To make meaningful comparisons, review scores from the same tests administered at the same time of year. For example, if you are comparing growth from one school year to the next and the latest test scores are from a spring test administration scored with spring norms, then the other scores should be from a spring administration as well. **Grade equivalent (GE) scores** are useful for measuring individual year-to-year growth. A GE score is a decimal number that describes a student's location on an achievement continuum in terms of grade level and months. The first digit is the grade level and the digit(s) following the decimal is the month. For example, a GE of 2.3 means a grade equivalence of grade two, third month. **Standard scores (SS)** can also be used to gauge individual growth. The standard score describes a student's location on an achievement continuum, a scale built for the *Iowa Assessments*. A rise in a student's SS for a test over multiple test administrations at the same time of year indicates growth in that content area.
What is an example of when this testing purpose might be needed?	Joel has participated in a reading program for the past year for the purpose of increasing his achievement level in reading. The team of teachers working with Joel needs to determine whether he is progressing at the rate expected for the type of instruction he is receiving and whether the current program is effective. The teachers review his Reading test results from the past three April administrations of the *Iowa Assessments*.

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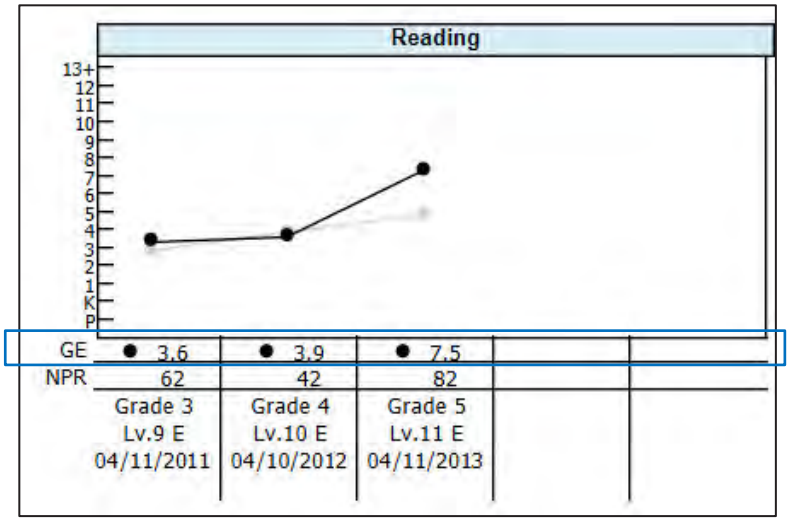
How do I locate data and interpret my findings?	To monitor growth for a given student using the *Student Profile Longitudinal Line Graph*, determine whether your reports show GE scores or SS scores. Based on which score types you have in your reports, follow one or both of the procedures below.

Using GE Scores

1. Identify the GE composite score for the content area being analyzed on the student's score reports for two or more consecutive years.



2. Compare the GE scores from year to year. An increasing rate of positive change indicates an increasing rate of growth.

   Note: Before you interpret results from multiple test administrations, refer to "Compare Results across Test Forms," on page 75.

   In this example, Joel's teachers analyze his Reading scores as follows:

   The grade 3 to grade 4 rate of increase from 3.6 to 3.9 is 0.3. The grade 4 to grade 5 rate of increase from 3.9 to 7.5 is 3.6. These results show that Joel's rate of growth increased significantly increased over the past year since the reading program was put in place in his fourth grade year.

   If, on the other hand, a student's rate of change from year to year decreases, then limited growth is taking place. For example, if a student scored a GE of 1.3 on the first administration, a GE of 2.4 on the second administration, and a GE of 3.0 on the third administration, between-year growth decreased from 1.1 to 0.6, so the student's rate of growth seems to be decreasing.

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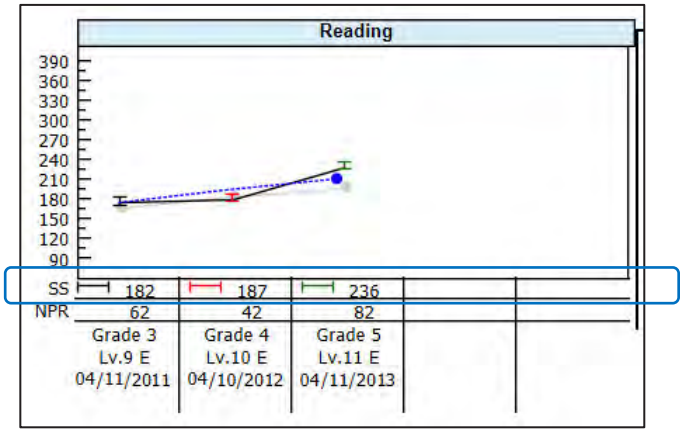
How do I locate data and interpret my findings? *(continued)*

Using Standard Scores (SS)

1. Identify the SS for the content area being analyzed on the student's score reports for two or more consecutive years.



2. Calculate the change from year to year using the SS.

   Note: Before you interpret results from multiple test administrations, refer to "Compare Results across Test Forms," on page 75.

   In this example, subtract the grade 3 SS from the grade 4 SS; the difference is 5. Next, subtract the grade 4 SS from the grade 5 SS; the difference is 49.

3. Determine how the student's grade-to-grade score differences compare with the average annual growth on the standard score scale.

   In reviewing the table below, which shows "on grade level" definitions and (in parentheses) SS values corresponding to the 50th percentile for spring Reading test results, notice that the average annual growth is 15 from grade 3 to grade 4 and 14 from grade 4 to grade 5. (For a table showing more scores, see page 132.)

Grade	Standard Scores	Annual Diff.
1	142–161 (150)	18
2	157–183 (168)	17
3	170–204 (185)	15
4	181-223 (200)	14
5	191-239 (214)	

Note: Values in parentheses correspond to a national percentile rank of 50. Average annual growth on the SS scale decreases as students move up in grade.

The student in our example showed a gain in his Reading SS of 49 points from grade 4 to grade 5. Using the table above, we see this student has progressed much faster in the last year than the average annual growth rate.

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What questions should I ask during this process? **What are some possible next steps?**	The *Student Profile Longitudinal Line Graph* allows educators to monitor student achievement related to expected curriculum outcomes by comparing the current GE or SS with previous years' scores. When reviewing the difference in a score from year to year, consider the following questions: • Is the student's performance growing as expected? Educators familiar with the student must determine if annual growth indicated by standard scores is appropriate for that student in the context of their school (local grade-level standards and/or local percentile ranks). • If the student is not growing as expected, are there any program changes that are necessary? Suggested next steps might include the following actions: • Establish individualized instructional goals and communicate this information to the student, parents or guardian, and colleagues. • If students are not reaching their goals, modify instruction to accelerate student progress.
What other reports can be used for these analyses?	• *List of Student Scores* • *Student Profile Balanced Assessments Line Graph*

Measure Progress to Common Core State Standards

Most states have adopted the Common Core State Standards (CCSS) and are incorporating them into the curricula and instructional practice used in classrooms. Teachers need to know how well their students are performing in terms of these standards to make sure that both they and their students are prepared for the assessments that will be based on the CCSS. Teachers can use results from the *Iowa Assessments* to determine in what areas instruction should be adjusted to ensure that these new standards are fully incorporated into the curricula and daily practice.

What reports can I use?	***Student Profile Bar Graph (Test and Composite* and *Common Core Skill Domains)***
What key concepts will help me use this report?	The Common Core State Standards broadly address English Language Arts and Mathematics. Several tests in the *Iowa Assessments* are needed to fully measure the content in the CCSS. The Reading, Language, Vocabulary, Word Analysis, and Listening tests in the *Iowa Assessments* are aligned with the Common Core State Standards in English Language Arts; the Math and Computation tests are aligned with the CCSS in Mathematics. Results from these tests, reported as the percent of questions the student answered correctly within each Common Core Standard domain, provide information about how the student performed in terms of these standards.
What is an example of when this testing purpose might be needed?	Mrs. Shea, a teacher at Emerson Elementary School, needs to know how her students are doing in terms of the CCSS to ensure the new instructional practices that incorporate these standards are effective and that the students are learning the content and skills in the CCSS. She wants to know which students need help and in which Common Core Standards domains additional instruction is needed. She also needs to confirm where the curricula are effective by determining in which domains students are doing well.
How do I locate data and interpret my findings?	Use the *Student Profile Bar Graphs* for *Test and Composite* and *Common Core Skill Domains* to determine how each student is performing in each Common Core Standards domain: 1. Review the *Student Profile Bar Graph (Test and Composite*) to determine how the student performed on each of the tests that are aligned with the CCSS. Review the national percentile rank (NPR) score for each test.

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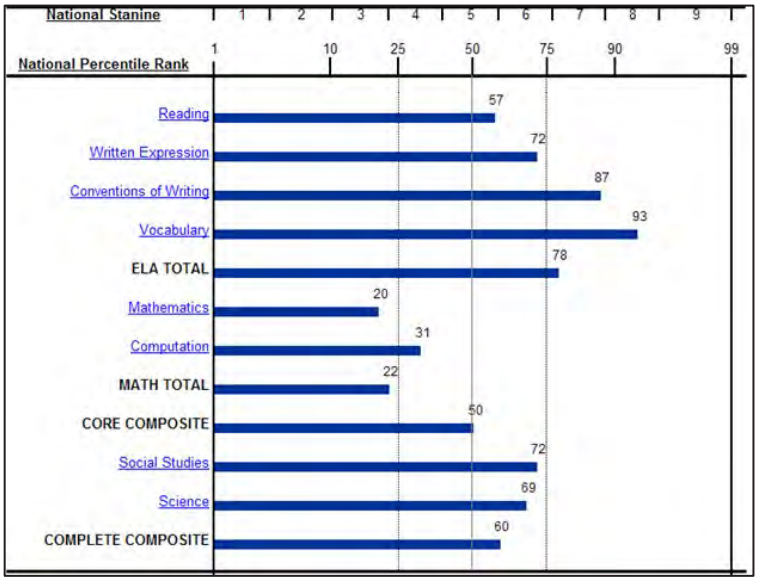
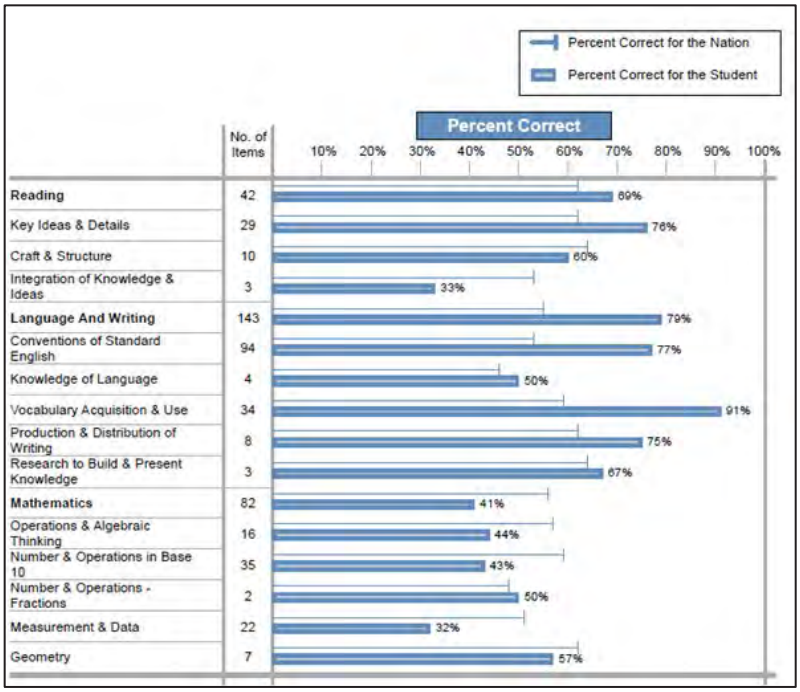
How do I locate data and interpret my findings? *(continued)*



The student's scores in this sample indicate that **Vocabulary**, **Conventions of Writing**, **Written Expression**, **Social Studies**, and **Science** are the tests in which the student performed highest. NPR scores on the other tests are near or below the national average (NPR = 50).

2. The *Student Profile Bar Graph (Common Core Skill Domains)* can be used to determine in which Common Core Standards domains the student did not perform well. To do so, review the Common Core Skill Domains percent correct scores.



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How do I locate data and interpret my findings? *(continued)*	3. Compare the student's % correct scores in each domain with the % correct scores for the nation. The bar graph is a visual presentation of the differences. 4. Scan the bar graphs to identify the domains that are relative weaknesses for the student. In this sample, the student did not perform well in the domain **Integration of Knowledge and Ideas** in **Reading**, and **Measurement and Data**, **Operations and Algebraic Thinking**, and **Numbers & Operations in Base 10** in **Mathematics**. These are domains where additional help may be needed. 5. Scan the bar graphs to identify the domains that are relative strengths for the student. In this sample, the student performed best in the domains **Vocabulary Acquisition and Use** and **Conventions of Standard English** within **Language and Writing**. These may be areas where the curricula and instruction have effectively incorporated the CCSS.
What questions should I ask during this process?	Using data from the *Iowa Assessments* to determine student performance in terms of the Common Core Standards ensures that educators are using a reliable data source to make informed decisions about how well these standards are being incorporated into instruction, and how students are learning the information. Consider the following questions while reviewing test data: • In which Common Core Standards domains are my students performing well? • In which Common Core Standards domains do my students need additional work? • Which students are performing highest and lowest in each domain? • What instructional practices and materials am I using to teach each domain? What adjustments can or should I make to those practices and materials?

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What are some possible next steps?	Suggested next steps might include the following actions: • Review the materials and practices used to introduce and teach the Common Core Standards domains in which students did not perform well to determine possible reasons for the low scores and to plan revisions or modifications to the instructional approach. • With other teachers and school administrators, compare the performance of students across classes. If it is available, review the *Group Profile Bar Graph (Common Core Skill Domains)* report for each class. Investigate any significant variations across classes between the differences of the % correct for each class and the % correct for the nation on each domain. • Determine if the instructional practices or materials differed from one class to another and if the materials or practices should be revised to better help students learn the content in the Common Core domains. • Set specific goals that improve student's ability to meet the Common Core State Standards.
What other reports can be used for these analyses?	• *Group Profile Bar Graph (Common Core Skill Domains)* • *Group Profile Bar Graph (Test and Composite)* • *List of Student Scores* • *Group Summary*

Implement Response to Intervention (RTI)

Results from the *Iowa Assessments* can help you identify students who may benefit from intensive systematic learning interventions. RTI applies to students who may benefit from intervention services—students at risk for poor learning outcomes as well as those capable of more academically challenging instruction than their peers. By analyzing test data, you can place students appropriately in RTI Tier 2 and Tier 3 intervention groups.

What report can I use?	***Student Profile Narrative*** ***Student Roster (Iowa Assessments Skill Domains)***
What key concepts will help me use this report?	The **local percentile rank (LPR)** indicates how a student performed in a test area compared with other students in the same school system. For example, a student who receives an LPR of 47 has scored better than 47% of other students from the same school system. Using the LPR for making RTI decisions is useful because it takes into consideration the student population for just that school system—students exposed to the same educational curricula. Tier 2 and Tier 3 intervention groups receive targeted instructional time on a particular skill. After the local RTI team establishes a score range for each of the three RTI tiers, you can identify students who may benefit from learning interventions. For example, suppose a school's RTI team determines the LPR range for the Reading test is 0 to 30 for Tier 3, 31 to 60 for Tier 2, and 61 to 99 for Tier 1. In this example, a student with a Reading LPR of 32 would be placed in the Tier 2 RTI group. To make appropriate instructional grouping decisions, you also need to understand a student's current skill levels. That information is found in the **skill domain** level results, which provide skill-level scores within each test. Reviewing domain scores allows you to gain a deeper understanding of the student's *Iowa Assessments* scores for each content-area test.
What is an example of when this testing purpose might be needed?	Ms. Kron is gathering multiple pieces of information regarding her students' performance in Word Analysis. She is looking for data-based information to include in each student's portfolio. The *Iowa Assessments* provides the information she is seeking, and she will use the scores to make informed decisions about students' placement into intervention groups. The school system's RTI team has established the following LPR ranges for Word Analysis: Tier 3: 0–30 Tier 2: 31–60 Tier 1: 61–99

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How do I locate data and interpret my findings?

To determine RTI placement for each student, follow these steps:

1. In the top-left section of the student's *Student Profile Narrative* report, locate the LPR score for Word Analysis.

Iowa Assessments	Test Scores				
	SS	LPR	GE	NS	NPR
Reading	147	55	1.6	4	24
Language	125	17	K.3	1	1
Vocabulary	131	48	K.9	2	8
ELA TOTAL	**133**	**20**	**1.0**	**1**	**3**
Word Analysis	126	25	K.5	1	4
Listening	141	62	1.3	3	15

   a. Based on the system's LPR ranges, determine the student's RTI tier for this content area. In this scenario, an LPR of 25 places the student in the Tier 3 intervention group at this school.

   b. Compare the student's Word Analysis LPR score with his or her scores for the ELA tests, such as Reading, Language, and Vocabulary. See whether those scores are in a similar range and decide whether there may be a correlation between the student's results on the ELA tests and the student's results on the Word Analysis test.

2. For students with scores in the Tier 2 or 3 ranges, review their results at the domain level, using the scores reported in the *Student Roster (Iowa Assessments Skill Domains)*.

   a. Locate the %C score (percent correct for the student) for each domain under Word Analysis.

	Word Analysis	Phono. Awareness/Decoding	Identify & Analyze Word Parts
Average Percent Correct Nation	69	72	67
%C	36	42	33
RS	12	5	7

   b. Compare the %C scores to see whether they are significantly higher or lower than the student's other scores in any domain(s). Consider how the %C score for each domain contributed to the student's Word Analysis LPR score and use this skill-level analysis to make decisions about targeted instructional interventions for the student.

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What questions should I ask during this process? **What are some possible next steps?**	Using the scores from the *Iowa Assessments* as a reliable data source for placing students in RTI groups helps ensure that students receive the level of instruction necessary to achieve skill mastery. Questions to consider while reviewing a student's data might include the following: • For the part of the test related to the scores you analyzed: When compared with other resources included in this student's instructional portfolio, did the student perform as expected in each domain of that test? • What are some intensive and targeted interventions that can be used to address the needs of students in Tiers 2 and 3? Suggested next steps might include the following actions: • Share results of groupings with colleagues, such as the Special Education and Title I teachers. • Create instructional plans and strategies to address the educational needs of students in Tiers 2 and 3. • Continue monitoring student growth and evaluate the rate of improvement. No matter what time of year you administer the *Iowa Assessments,* you can use test results to assist in implementing RTI. For fall administrations, use test results to make decisions for the rest of that school year. If your students participate in a spring administration of the *Iowa Assessments,* use results to plan student instructional strategies for the coming school year.

Determine College Readiness

A junior in high school who is ill-prepared for the academic rigors of post-secondary education is at a serious disadvantage when compared with students who are ready. To ensure that all students know whether they are ready for college and careers, *Iowa Assessments* results allow educators to begin tracking the academic preparedness of sixth graders (students taking the *Iowa Assessments* Level 12 or higher) by comparing student achievement on the tests with established benchmarks. If identified early, students who are underperforming have time to receive targeted instruction that can help prepare them for a successful college career.

What report can I use?	***List of Student Scores (Scoring Service Print Style)***
What key concepts will help me use this report?	College readiness scores from the *Iowa Assessments* are prediction scores based on a student's standard score (SS) in major content areas. The standard score describes a student's location on an achievement continuum on a scale built for the *Iowa Assessments*. The college readiness benchmark scores and predicted ACT/SAT scores available on a *List of Student Scores (Scoring Service Print Style)* reports for grades 6 through 12 indicate whether a student is academically on track to be successful with first-year college courses.
What is an example of when this testing purpose might be needed?	Mrs. Doss, a junior high school counselor, is preparing to assist the eighth graders with their schedules for their freshman year in high school. She needs reliable data to help her determine who is ready for a full college-preparatory curriculum and who needs courses providing more basic skill development. Reviewing a list of freshman course descriptions from the district high school, Mrs. Doss considers the cognitive demand and content expectations of each course. She identifies the courses that would benefit students who are not yet on track in each subject area. Then she is ready to look at the college readiness scores on the eighth grader's *List of Student Scores (Scoring Service Print Style)* report to help guide students in planning their freshman class schedules.
How do I locate data and interpret my findings?	To determine college readiness using the *List of Student Scores (Scoring Service Print Style)* report, follow these steps: 1. Locate the College Readiness scores in the last columns of the report. PREDICTED COLLEGE READINESS ACT COMP. | SAT C. READING | SAT MATH 16-21 | 350-470 | 340-470

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How do I locate data and interpret my findings? *(continued)*	2. Review the predicted ACT/SAT scores. By using a locally determined range of scores for each test, Mrs. Doss can place students in recommended course tracks that will address the improvement of these scores. **Note:** College readiness information reported as part of the *Iowa Assessments* results is an indicator of only academic preparedness. It does not take into consideration factors such as motivation and time management skills, which are both important when determining whether a student is ready for college.
What questions should I ask during this process? **What are some possible next steps?**	College readiness scores on the *List of Student Scores (Scoring Service Print Style)* report provide reliable data useful in ensuring that students receive the level of instruction necessary to prepare them for post-secondary academic success. Consider the following questions while reviewing student test data: • What previous courses has the student participated in and what was the outcome? • Is there a correlation between the student's participation in previous programs, such as remediation courses or special courses, and his or her scores on the *Iowa Assessments*? • Are there any other factors that have impacted the student's college readiness (for example, participation in special programs such as Title I or special education)? Suggested next steps include the following actions: • Review the domain scores for the benchmarks that fell below average. Identify specific skills (strengths and weaknesses) that can help when choosing classes and/or other instructional strategies. • Communicate to the student and parents or guardian the importance of tracking and responding to college readiness indicators to increase the likelihood of future academic success. • Discuss your course recommendations for the following school year with the student and show how each course addresses the *Iowa Assessments* results.
What other reports can be used for these analyses?	• *Student Profile Longitudinal Line Graph* • *Student Profile Balanced Assessment Line Graph* • *Group Summary – College Readiness* • *Student Profile Narrative (Scoring Service Print Style)*

Predict Future Performance

Educators who have a good understanding of what their students' performance once was, what it is now, and where it seems to be going tend to have greater success in closing achievement gaps, improving overall student performance, and implementing a school improvement plan that is effective and meaningful and shows positive results. By reviewing score reports, you can locate and use data to understand both where student performance has been in the past and where student performance is today. But how do you get data that suggest future student performance so that you know if you are adequately preparing students for success?

What report can I use?	***Student Profile Longitudinal Line Graph*** ***Student Profile Bar Graph (Iowa Assessments Skill Domains)***
What key concepts will help me use this report?	The **standard score (SS)** on the *Student Profile Longitudinal Line Graph* can be used to make some projections about student performance in the school year that follows the test administration. The **SS** describes a student's location on an achievement continuum, which is a scale built for the *Iowa Assessments*. One of the best measures of a school's impact on student achievement is an analysis of an individual student's standard scores from several years because this analysis involves reviewing individual student growth and proficiency over time.
What is an example of when this testing purpose might be needed?	Mr. Jackson, an eighth grade teacher, is responsible for making sure that current instructional strategies align with what the score data indicate is needed to increase student growth and achievement in his classroom. He wants to review his incoming students' English Language Arts (ELA) data from the *Iowa Assessments* and make some predictions about what the results might be on the upcoming school year's assessment. He plans to use this information to make remediation plans for those students who appear to be at the lower end of his performance predictions.

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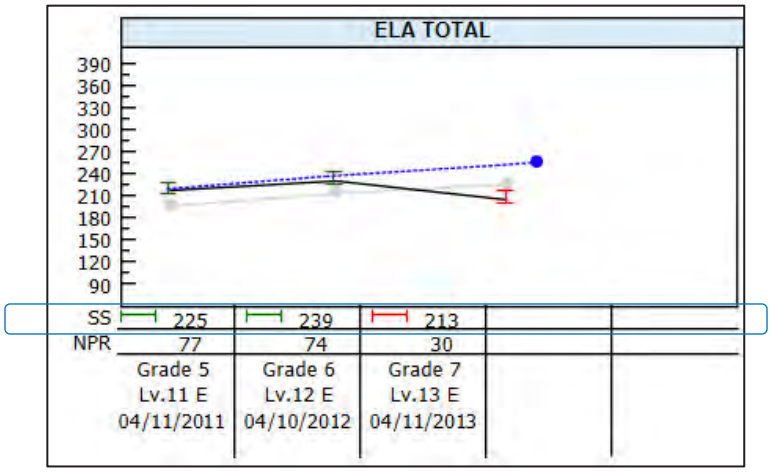
How do I locate data and interpret my findings?

To review scores across years and make some projections for future performance using standard scores, follow these steps:

1. Review the *Student Profile Longitudinal Line Graph* across several administrations, using a minimum of two to three years. Each test administration should have occurred at the same time in the school year.
2. Locate the standard score for the content area you want to review, such as the ELA Total. The black line represents the student's scores for the last three test administrations; the gray line represents the score for the average student in the nation. The blue dotted line represents a 75th percentile rank growth goal that Mr. Jackson set for this student when he created this report.



3. Compare the student's standard scores with the typical (median) performance of grade groups given the *Iowa Assessments* at the same time of year.

   Note: Before you interpret results from multiple test administrations, refer to "Compare Results across Test Forms," on page 75.

   Based on the table below, an excerpt from the standard score scale of median performance of grade groups (see table for grades K–12 on page 132), Mr. Jackson finds this student performed below grade level in ELA in grade 7 and above grade level in ELA in grade 5 and grade 6.

Grade:	5	6	7
SS:	214	227	239

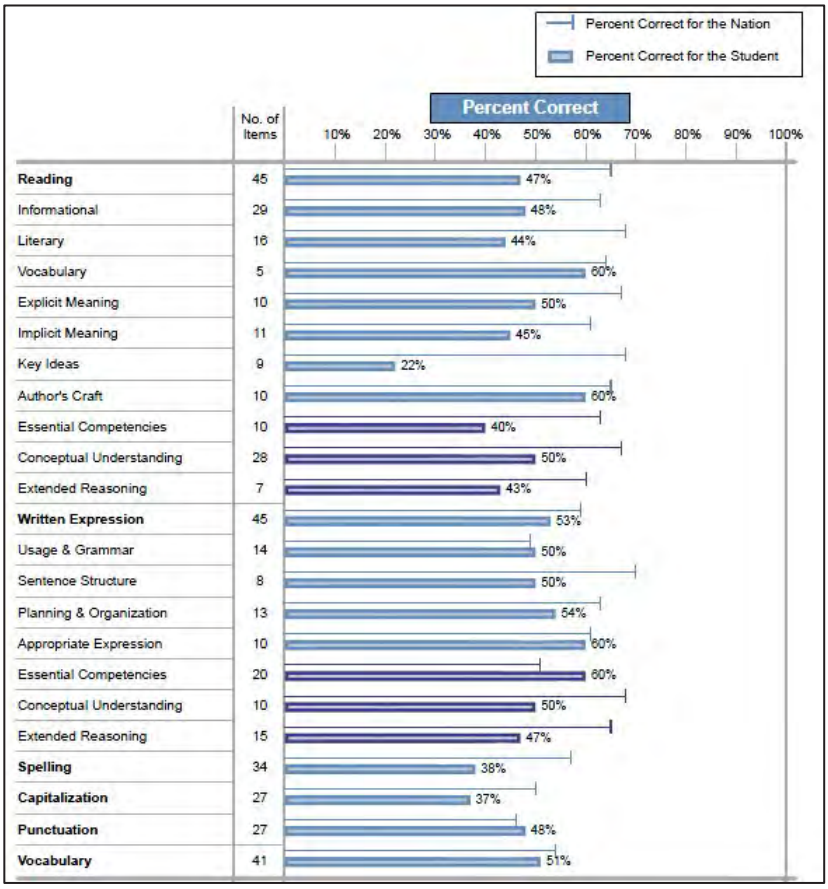
4. Compare the student's ELA Total SS from one year to the next and determine the amount of change that has taken place.

Continued on next page…

How do I locate data and interpret my findings? *(continued)*

In this example, the student's standard score increased between grade 5 through grade 6. However, the scores indicate a downward trend between grade 6 and grade 7. Based on these data, if current instructional strategies remain the same for this student, Mr. Jackson predicts the student's ELA score for grade 8 will continue to remain below the median score for the student's grade and will remain well below the growth goal of the 75th percentile rank that was set for this student.

5. On the *Student Profile Bar Graph (Iowa Assessments Skill Domains)*, review the student's percent-correct scores for the domains under ELA. Use this information to confirm which skills are the most problematic.



The scores in the example above indicate that this student's relative strengths are in the Reading domains of **Vocabulary** and **Author's Craft** and in the Written Expression cognitive level of **Essential Competencies** and the domain of **Appropriate Expression**. The low scores in all ELA domains, however, indicate that this student needs additional instruction in all those domains to improve his or her Reading, Language, and Vocabulary scores.

Continued on next page…

What questions should I ask during this process? **What are some possible next steps?**	Since academic knowledge is cumulative, a student's past performance can usually predict future results. The *Student Profile Longitudinal Line Graph* is a reliable source of score data to use when making these score predictions. Questions to consider while reviewing the data might include: • Did past scores fall into the on-grade-level, or acceptable, range? How do they compare with current scores? • Is the student's rate of growth the same from one year to the next? • Are current test scores a result, at least in part, of skill deficits apparent in earlier years that were never remedied? • Is this student already in a remedial program? Is that program having any positive effect on student achievement? • Based on previous scores, what scores do you predict the student will receive on the next administration of the test? What remediation can the student receive now to improve future scores? Suggested next steps might include the following actions: • Look for cause and effect connections between the student's strengths and weaknesses and subsequent academic performance. • Implement a remediation plan for a student whose projected score does not fall into the acceptable range. • Use the *Student Profile Narrative* to communicate test results and remediation decisions to the student's parents or guardian.
What other reports can be used for these analyses?	• *List of Student Scores* • *Student Profile Narrative*

Make Comparisons

The *Iowa Assessments* allows school administrators to compare student performance with that of local, state, and national groups based on empirical research studies. Administrators can use their findings from the comparisons when they make data-based decisions to improve performance in their school or school system. For example, building principals can review class performance within their respective buildings and make informed decisions such as the following:

- Identify strengths and weaknesses within grade levels.
- Leverage staff and other resources in response to educational needs.
- Support instructional strategies needed to increase student achievement.
- Determine in what areas to offer professional development.

What report can I use?	***Group Roster (Test and Composite* and *Iowa Assessments Skill Domains)***
What key concepts will help me use this report?	Depending on their reporting needs, school systems can order *Group Roster* reports at the class, grade, building, and/or school-system level. Reviewing this report, two score types are particularly useful in making group comparisons. **Average percent correct** for a class (Avg %C) is the average of individual student percent-correct scores (the result of dividing the number of questions the student answered correctly on a test by the total number of test questions, and then multiplying by 100). This score is useful when comparing classes that took the same level of the *Iowa Assessments* because the class data are based on the same test content, level of difficulty, and cognitive demand. **Average percent correct nation** shows the national average percent-correct score for all students who took this test in the same time period. This provides a quick and easy way to compare the performance of a class with the national average.
What is an example of when this testing purpose might be needed?	Ms. Phillips, curriculum director for the Dalen Community middle schools, is responsible for planning and evaluating continuous academic improvement in each grade level. Last year, based on results of the *Iowa Assessments,* she identified a trend in social studies scores declining from sixth grade to seventh grade. After deeper analysis revealed a specific weakness in seventh grade geography, one team member attended a training course on experiential methods for teaching geography and then implemented many new teaching practices in her classroom. With results from this year's administration of the *Iowa Assessments* in hand, Ms. Phillips wants to compare domain-level results in geography for each seventh grade class. She plans to use the data, along with feedback from the teacher trained on new geography teaching practices, to decide whether funding the same professional development for other seventh grade teachers will provide the desired improvement in student achievement.

Continued on next page…

How do I locate data and interpret my findings?

To compare class results using domain-level results from the *Group Roster* (*Iowa Assessments Skill Domains)* report, follow these steps:

1. Create the *Group Roster* report that includes each class within the same grade level.

   In our scenario, Ms. Phillips would run a *Group Roster* for every seventh grade class at the Dalen Community middle schools.

2. Locate the skill domains section for the Geography domain.

3. Compare the scores for each class.

Social Studies

GROUP NAME Number Tested			Social Studies	History	Geography	Economics	Civics & Government
		Number of Items	41	11	10	9	11
		Average Percent Correct Nation	57	55	60	60	54
CLASS 1 Total No. Tested: 32	1	Avg %C	87	84	92	88	86
CLASS 2 Total No. Tested: 33		Avg %C	81	83	80	85	80

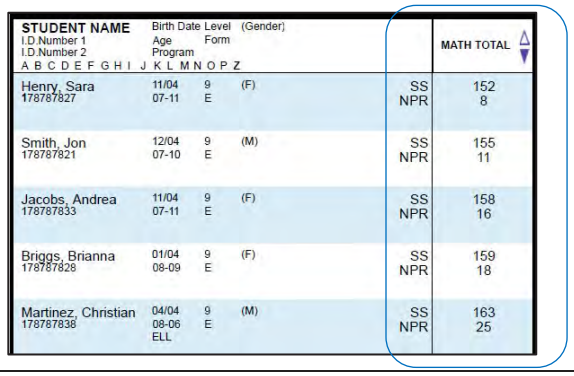
In the report samples shown above, the class with a Geography score of 92 performed better than the class with a Geography score of 80. Ms. Phillips reviews all the seventh grade geography scores and finds that Class 1, whose teacher implemented new teaching practices for geography, outperformed all the other seventh grade classes in the school. That class also performed better than the national percent-correct average. Therefore, Ms. Phillips concludes that the teacher training had a positive impact on student achievement and uses these results to justify funding professional development in geography teaching methods for the other teachers.

Continued on next page…

What questions should I ask during this process? **What are some possible next steps?**	The *Group Roster* is a source of reliable data that can be used to compare class performance, allowing you to make informed decisions regarding instructional needs and professional development needs. Consider the following questions while reviewing test data: • If new instructional strategies were implemented in the past year, do the scores reflect a significant improvement in student performance? (You will need the previous year's *Iowa Assessments* scores to answer this question.) • Was the increase significant enough to invest funds to expand the program to more students? • If scores are lower than expected, what might have caused this? Suggested next steps might include the following actions: • Analyze the cognitive-level Diff scores for the content-area test and look for any differences in how classes performed on each level of cognitive demand. Look for a relationship between the increase in Geography scores and the increase or decrease in cognitive scores. If the level of instruction was more cognitively demanding, the content-area specific scores and the cognitive-level scores should also be higher. • Share grade-level results with the team of teachers (keeping class identities anonymous). Seek teachers' suggestions on what worked well in relatively strong domains and what might be done to bolster weak domains. • Use this report to identify other content areas on which to focus in order to improve areas of weakness; use that information when planning instructional strategies. • Use the *Group Summary* report to identify other content areas on which to focus by reviewing the Percent of Students in NPR Range data and determining in which areas most students received a lower NPR.

Inform Placement Decisions

Placing students in appropriate groups, levels, courses, or programs can be a daunting task for any educator. The right decisions result in optimal performance improvement, while poor assignments can leave students unchallenged or demoralized. Using dependable data about student achievement can make any placement process more reliable and efficient. School administrators and counselors can rely on results from the *Iowa Assessments* when making critical placement decisions for their students.

What report can I use?	***Student Roster (Test and Composite)*** ***Student Profile Bar Graph (Iowa Assessments Skill Domains)***
What key concepts will help me use this report?	Two particular scores reported on the *Student Profile Bar Graph* are useful in guiding placement decisions. The **national percentile rank (NPR)** score indicates relative strengths and weaknesses for an individual student; the **standard score (SS)** describes a student's location on an achievement continuum, which is a scale built for the *Iowa Assessments*.
What is an example of when this testing purpose might be needed?	Ms. Olson and Ms. Hutter, an elementary school counselor and a special education teacher, respectively, are responsible for deciding which students will participate in the afterschool math program. They have score reports from a spring administration of the *Iowa Assessments* and want to select students who are struggling with mathematics in the regular classroom. They have a set of guidelines to help them successfully place students in programs. Last year they reviewed student records and reports from past years. They identified SS and NPR scores that historically have been strong indicators of success or failure in mathematics and created guidelines for student placement in this program, including suggested cutoff scores.
How do I locate data and interpret my findings?	To determine placement for students based on pre-established cutoff scores, follow these steps: 1. Review the Math Total SS and NPR scores for the content area of interest on a Student Roster report. If possible, use a *Student Roster* that is sorted from low to high in order to more easily identify the students whose scores fall below the pre-established cutoff scores. 

STUDENT NAME I.D.Number 1 I.D.Number 2 A B C D E F G H I J K L M N O P Z	Birth Date Age Program	Level Form	(Gender)		MATH TOTAL
Henry, Sara 178787827	11/04 07-11	9 E	(F)	SS NPR	152 8
Smith, Jon 178787821	12/04 07-10	9 E	(M)	SS NPR	155 11
Jacobs, Andrea 178787833	11/04 07-11	9 E	(F)	SS NPR	158 16
Briggs, Brianna 178787828	01/04 08-09	9 E	(F)	SS NPR	159 18
Martinez, Christian 178787838	04/04 08-06 ELL	9 E	(M)	SS NPR	163 25

Continued on next page…

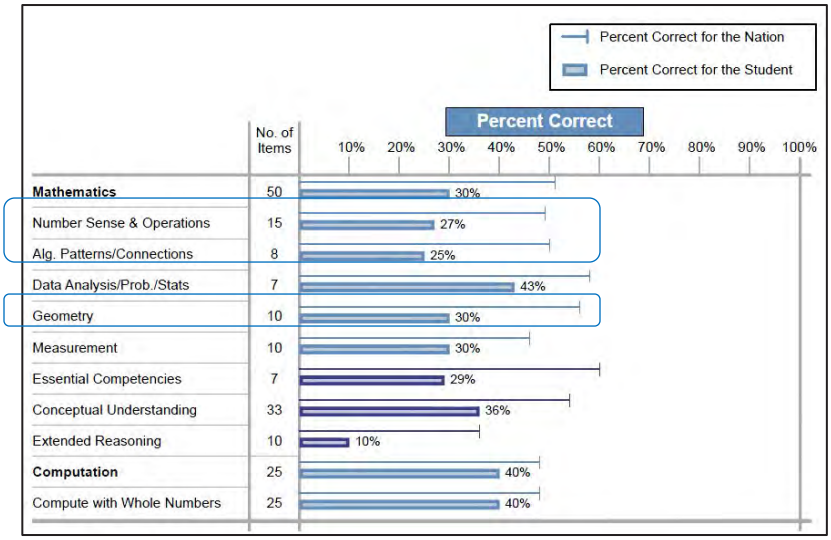
How do I locate data and interpret my findings? *(continued)*

In this example, the team identifies the students with lowest Math Total SS and NPR scores.

2. Compare the students' scores with the locally established cutoffs and make a preliminary placement decision.

   The team notes that these students' NPR scores are below the local cutoff of 40, making them candidates for the afterschool math program.

3. For each of these students, refer to the *Student Profile Bar Graph (Iowa Assessments Skill Domains)* report and review the student's percent-correct (%C Stu.) scores for the domains under the test area of interest. Use this skill-level information to confirm or reconsider placement decisions.



In this example, the placement team reviews the scores for the Mathematics domains using the *Student Profile Bar Graph (Iowa Assessments Skill Domains)* report for Andrea Jacobs. The skill breakdowns provide more detailed data that can help educators customize instruction in the afterschool math program for this student.

Based on these results, the team does recommend this student for the afterschool math program. They consider the type of curriculum that can bolster the student's performance in **Geometry**, **Number Sense and Operations**, and **Algebraic Patterns and Connections**.

Continued on next page…

What questions should I ask during this process? **What are some possible next steps?**	The *Student Roster* and *Student Profile* reports provide reliable data sources when placing students in courses and programs at a level of instruction that allows them to achieve skill mastery. Consider the following questions while reviewing test data: • Are student scores in each test's domains comparable to the test total SS and NPR scores? • Do high or low domain scores suggest placement in classes or programs that might raise the student's skill level through enrichment or remediation? Suggested next steps might include the following actions: • Share overall results with the building administration team and establish or revise level of achievement goals for the coming year. • Establish a process to monitor student growth on a regular basis. • Implement interventions and programs that build on strengths and shore up weaknesses. For example, an elementary school may create an algebra readiness program for lower-performing students. • Use the *Student Profile Narrative* to communicate test results and placement decisions to the student's parents or guardian.

Support Accountability

Accountability systems that are based on student performance are a common part of today's educational systems. Generally, they require that school systems and schools show growth in student achievement over a period of time. School administrators can use the *Iowa Assessments* to provide information that helps answer the question, "Will our students and schools meet state accountability requirements?" Administrators can use the data from the *Iowa Assessments* to demonstrate their school's progress toward a variety of goals such as these:

- continuous school improvement
- student achievement

<table>
<tr><td>What report can I use?</td><td>Group Summary (Scoring Service Print Style)</td></tr>
<tr><td>What key concepts will help me use this report?</td><td>To create performance goals for a group of students, it is imperative first to understand how test results will be reported—that is, what score type and score range define each performance level. The Iowa Assessments uses the national percentile rank (NPR) to indicate levels of performance. The NPR compares the overall performance of a group of students with that of other students across the nation who took the same test at the same time of year. Remember that the Iowa Assessments has norms for individual students and for school buildings, but there are no norms for class groups. Therefore, class averages need to be interpreted as though they were the scores for the average student in the class.</td></tr>
<tr><td>What is an example of when this testing purpose might be needed?</td><td>Mr. Tucker, a principal at Longfellow Elementary School, is required to set performance goals in each content area for all the classes in his building. He then must prepare a report each year that specifically shows the performance levels for each classroom and how those compare with the goals he set. Earlier this year, Mr. Tucker created the following goals for the NPR scores his first grade students would receive in Reading:
<table>
<tr><th>NPR Range</th><th>Students in Range</th></tr>
<tr><td>75–99</td><td>20%</td></tr>
<tr><td>50–74</td><td>40%</td></tr>
<tr><td>25–49</td><td>35%</td></tr>
<tr><td>1–24</td><td>5%</td></tr>
</table>
Reviewing results from the latest administration of the Iowa Assessments, Mr. Tucker needs to determine how the first grade classes performed.</td></tr>
</table>

Continued on next page…

How do I locate data and interpret my findings?

To identify performance levels for a class using the *Group Summary* report, follow these steps:

1. Locate the percent of students in each NPR range for each of the tests on a *Class Summary* report.

		English Language Arts				
		Reading	Language	Vocabulary	ELA TOTAL	Word Analysis
Class 1	Number of Students Tested = 25					
	Number of Students Included	25	25	25	25	25
	Average Standard Score (SS)	155.1	152.3	157.8	154.2	152.4
	National Percentile Rank of Average SS	63	58	67	66	55
	Percent of Students in NPR Range 75-99	32	28	36	32	28
	50-74	24	32	28	28	36
	25-49	40	32	32	32	24
	1-24	4	8	4	8	12
	Grade Equivalent of Average SS	2.1	1.9	2.2	2.0	1.9
	National Stanine of Average SS	6	5	6	6	5
	Normal Curve Equivalent of Average SS	57	54	59	59	53

2. Compare the percent of students in each NPR range with local goals.

   In this scenario, the goal for Reading for first graders in the 75–99 NPR range was 20%. This report shows 32% of the students in this class scored in that top range, exceeding the performance goal by 12%.

What questions should I ask during this process? What are some possible next steps?

Using the data from the *Iowa Assessments* to support accountability requirements ensures that administrators are using a reliable data source to report results and make informed decisions. Consider the following questions while reviewing test data:

- Which performance range encompasses the highest percentage of our students?
- Where are the largest achievement gaps occurring?
- What resource changes took place over the past school year that might have affected the percentage of students in a given range?

Suggested next steps might include the following actions:

- Perform a diagnostic review to determine causes for underperforming classes and plan targeted interventions.
- Compare the performance of one class with another. Investigate any significant differences between the NPR-range distributions to determine what strategies or resources might need to be changed to increase student achievement in all classes.
- Locate the *Group Summary* from the previous year. Use the two sets of reports to determine how much growth took place during the past year by comparing the average standard score (SS) or grade equivalent (GE) of the average SS of a class for this school year with the same score from last year.

Based on current data, set specific goals for the following school year that encourage continuous student growth and improvement in closing achievement gaps.

Part 5 Communicating Test Results

In Brief

Much of this guide focuses on how to read and interpret results of the *Iowa Assessments*, enabling you to make informed decisions that support your purposes for testing. Discussions about interpreting test results are primarily internal and take place among educators in your school district.

This part of the guide offers suggestions on external communications—how to communicate test results to other people. Students, their parents or guardians, and the public are audiences to consider when preparing messages about local educational performance. Topics to assist you are as follows:

- "Preparing to Report Test Results to Others"
  - "Before You Begin" – Suggested steps to take before communicating test results
  - "Plan Your Reporting Strategies" – Consider your audience and your purpose
  - "Communication Guidelines" – Tips on sharing test results
- "Discussing Test Results with Students"
- "Reporting to Parents"
- "Reporting to the School Board"

Preparing to Report Test Results to Others

Before You Begin

To help ensure that you are working with the best information possible, take the following steps before planning your reporting strategies:

1. Verify the accuracy and completeness of the scores shown on the reports. Errors may have been made when coding or handling answer documents, when returning documents to Riverside Scoring Service™, or during report processing. Before expending significant effort analyzing and acting on test results, check the accuracy and completeness of your data. (See "Appendix C: Confirm Score Report Integrity," beginning on page 159.)
2. Study the reports (and this guide) to learn what is being reported.
3. Review how to interpret the particular types of scores being reported. (See "Appendix A: Understanding Test Scores," beginning on page 125.)

Plan Your Reporting Strategies

Before communicating test results, prepare to deliver an appropriate message based on your audience and your reasons for providing this information. When planning your reporting strategy for each audience:

- Be sure you understand the contents of the *Iowa Assessments* score reports you have.
- Clarify your purpose for reporting test results to others and any intended outcomes.
- Consider the characteristics of the audience.
- Identify key findings based on the score report data.
- Structure the content you plan to communicate.
- Decide what communication methods to use.
- Consider how to determine the success of your communication efforts.

Communication Guidelines

The following guidelines can help make communications about test results more effective:

- Use simple, everyday language.
- Use visual displays to describe performance.
- Address anticipated points of confusion from your audience.
- Emphasize instructional purposes and uses.
- Describe the norm group. (For information on using different types of norms, see "Appendix B: Types of Score Interpretation," beginning on page 151.)
- Give equal time to strengths and weaknesses.
- Be forthright in explaining results.

Discussing Test Results with Students

Rationale

There are many good reasons to report test scores to students, and they vary somewhat from grade to grade. For most students, the scores provide feedback about how much they know and how effective their efforts to learn have been.

Discussing test results with students can inform and influence them in the following ways:

- Reinforce the idea that testing done routinely year after year is a meaningful and helpful activity.
- Let students know that educators value and act on test results.
- Encourage students to take testing seriously because results will influence educational decisions affecting them.
- Begin developing student self-awareness of how they are growing in various areas of the curriculum.
- Cause students to gain new insights into their own abilities and stimulate self-motivation and self-evaluation.
- Provide feedback on how much students know and how effective their efforts to learn have been.
- Prepare students to monitor their own efforts, reassess their own learning goals, and think about how their particular academic strengths can help them in future educational and vocational endeavors.

Methods of Reporting

At all grade levels, reporting test results to individual students can be a one-on-one discussion or part of a teacher-parent-student conference. Several *Iowa Assessments* score reports have been designed to facilitate reporting individual test results. Following are suggestions for using one of these reports:

Using the *Student Profile Bar Graph (Iowa Assessments Skill Domains)* and the *Student Profile Narrative* reports – These reports, illustrated on pages 36 and 44, are useful for reporting and interpreting scores with a student individually or in conference with the student and his or her parents or guardian. The following sequence of steps is recommended for a test-score interpretation session using these reports to help communicate test results:

1. Talk about the test scores in both reports first. Look at the percentile-rank graphs to identify test areas of greatest relative strength and weakness. (If there are confidence bands on the *Student Profile Narrative*, you can discuss the idea of accounting for a margin of error.) Ask the student whether the results seem surprising or unexpected.
2. For each test area reported in the *Student Profile Narrative*, look at the corresponding skill-domain scores in the *Student Profile Bar Graph (Iowa Assessments Skill Domains)* and review how the student performed in each. Talk about the need to maintain areas

of strength, whether there is room for improvement, and how the strength might be used to address any areas of weakness.

3. For each test area, find the skill-domain scores that are particularly weak and that might help explain any low percentile-rank scores. Talk about these—why they might be weak and what might be done to improve them.
4. Look at the cognitive level scores for each test. Explain how those scores relate to the skill-domain and overall test scores. Point out areas where the student performed well and discuss areas in which improvement is needed.
5. Discuss changes the student can make in his or her study habits and identify at-home or out-of-school activities the student might pursue to improve particular skill domains.

Reporting to Parents

A parent-teacher or parent-student-teacher conference offers an excellent opportunity for you to provide and interpret test results, answer questions, and gain buy-in on educational plans for the student. Be prepared to discuss the following topics:

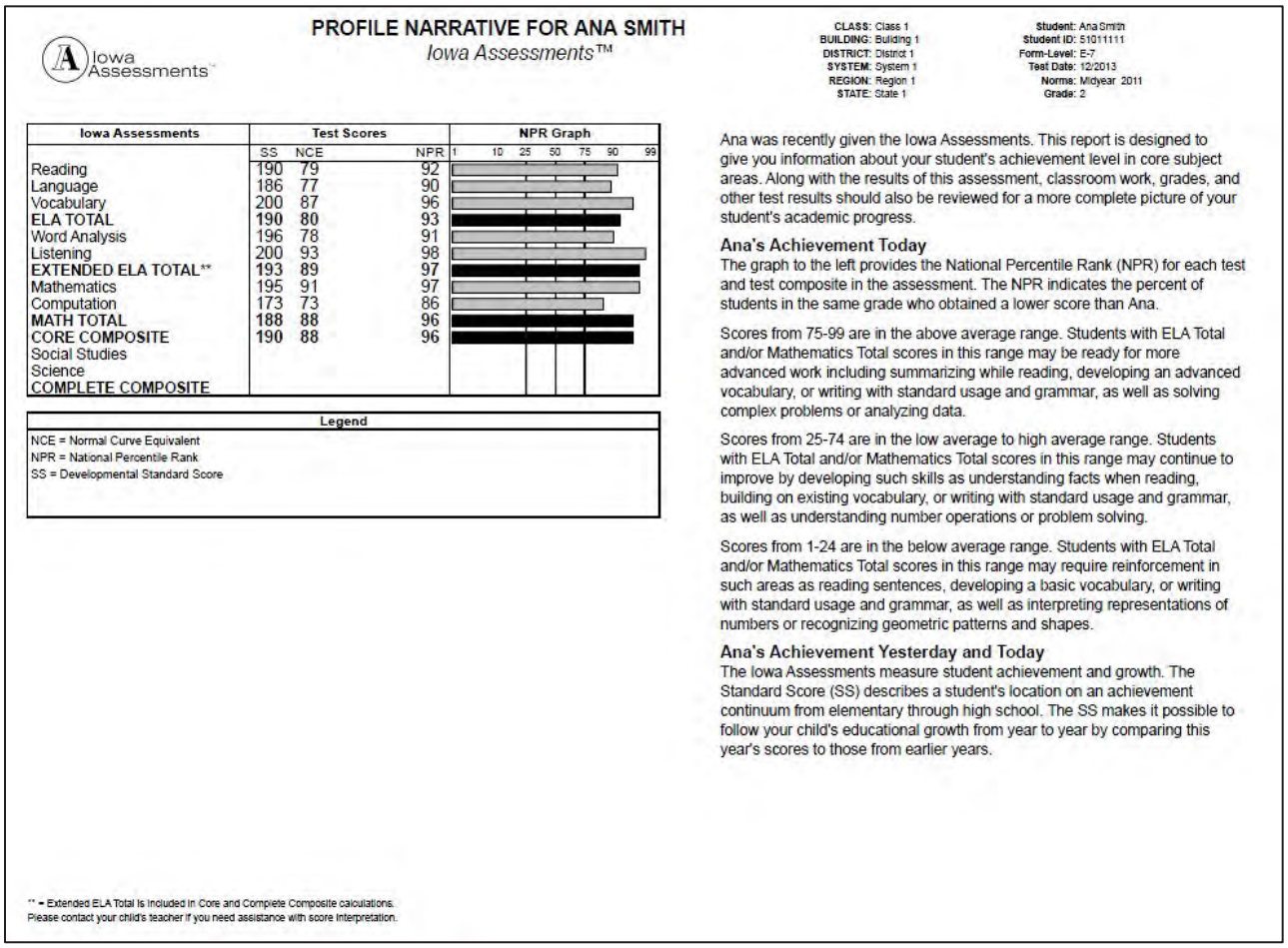
- Provide a brief description of the *Iowa Assessments*, including the content area tests, when the test was administered, and so on.
- Present the scores and explain what they mean. Listen for and correct misunderstandings about the scores.
- Talk about the student's progress using whatever historical test score information you have (ideally, the *Student Profile Narrative*, *Student Profile Bar Graphs*, or *Student Profile Line Graph* displaying several consecutive years of testing).
- Supplement and substantiate results with numerous observations about the student and his or her work. Use portfolios, for example, to indicate strengths and explain where improvements are needed. Note and discuss inconsistencies between the test scores and classroom performance.
- Discuss any extenuating circumstances that may have influenced the scores either positively or negatively. Give parents (and students, if present) a chance to contribute to the discussion and to ask questions about the scores, their interpretation, and their use.
- Discuss how to work together and with the student in addressing apparent weaknesses and in capitalizing on strengths.

Using the *Student Profile Narrative*

In a conference with parents, the narrative section of the *Student Profile Narrative* provides a convenient outline of topics to discuss. If possible, identify selections of the student's classroom work—homework, projects, results from classroom assessments, and portfolios of work over a period of several months—to provide evidence to support or raise questions about what the profile of scores says about the student's achievement. When the student participates in the conference, he or she can be prepared to show some of this work.

Although some students might have difficulty interpreting their test scores, student participation in conferences can help the student understand which areas are in greatest need of improvement and strengths on which they can build.

In situations in which it is not possible to have a parent-teacher conference, it might be necessary to send a report of test results to a student's parents or guardian without the benefit of an oral explanation or opportunity for questioning. The *Student Profile Narrative* report was designed for providing *Iowa Assessments* results to parents with accompanying interpretive assistance when a face-to-face meeting is not possible. The report is available with NPR scores graphed in one of two different formats, but the score and interpretive information is the same on each.



PROFILE NARRATIVE FOR ANA SMITH

Iowa Assessments™

Iowa Assessments™

CLASS: Class 1
BUILDING: Building 1
DISTRICT: District 1
SYSTEM: System 1
REGION: Region 1
STATE: State 1

Student: Ana Smith
Student ID: 51011111
Form-Level: E-7
Test Date: 12/2013
Norms: Midyear 2011
Grade: 2

Iowa Assessments	Test Scores SS	NCE	NPR
Reading	190	79	92
Language	186	77	90
Vocabulary	200	87	96
ELA TOTAL	**190**	**80**	**93**
Word Analysis	196	78	91
Listening	200	93	98
EXTENDED ELA TOTAL**	**193**	**89**	**97**
Mathematics	195	91	97
Computation	173	73	86
MATH TOTAL	**188**	**88**	**96**
CORE COMPOSITE	**190**	**88**	**96**
Social Studies			
Science			
COMPLETE COMPOSITE			

NPR Graph: 1 10 25 50 75 90 99

Legend

NCE = Normal Curve Equivalent
NPR = National Percentile Rank
SS = Developmental Standard Score

Ana was recently given the Iowa Assessments. This report is designed to give you information about your student's achievement level in core subject areas. Along with the results of this assessment, classroom work, grades, and other test results should also be reviewed for a more complete picture of your student's academic progress.

Ana's Achievement Today

The graph to the left provides the National Percentile Rank (NPR) for each test and test composite in the assessment. The NPR indicates the percent of students in the same grade who obtained a lower score than Ana.

Scores from 75-99 are in the above average range. Students with ELA Total and/or Mathematics Total scores in this range may be ready for more advanced work including summarizing while reading, developing an advanced vocabulary, or writing with standard usage and grammar, as well as solving complex problems or analyzing data.

Scores from 25-74 are in the low average to high average range. Students with ELA Total and/or Mathematics Total scores in this range may continue to improve by developing such skills as understanding facts when reading, building on existing vocabulary, or writing with standard usage and grammar, as well as understanding number operations or problem solving.

Scores from 1-24 are in the below average range. Students with ELA Total and/or Mathematics Total scores in this range may require reinforcement in such areas as reading sentences, developing a basic vocabulary, or writing with standard usage and grammar, as well as interpreting representations of numbers or recognizing geometric patterns and shapes.

Ana's Achievement Yesterday and Today

The Iowa Assessments measure student achievement and growth. The Standard Score (SS) describes a student's location on an achievement continuum from elementary through high school. The SS makes it possible to follow your child's educational growth from year to year by comparing this year's scores to those from earlier years.

** = Extended ELA Total is included in Core and Complete Composite calculations.
Please contact your child's teacher if you need assistance with score interpretation.

Sample of a *Student Profile Narrative*

The report sample above shows a report for Ana Smith, a second grade student in Class 1. The left side of the page contains test scores and a graph useful in explaining what the scores mean. The right side of the page provides information to help parents understand and interpret the student's test results. The meaning of the three ranges of national percentile ranks (NPR) is presented. The last paragraph explains how to use standard scores (SS) to follow the student's educational growth from year to year.

Interpreting Test Scores

Percentile ranks are likely to be the easiest scores to explain and understand when providing score information to parents. However, when percentile ranks are the primary score you use, make the difference between percentile ranks and percent-correct scores clear. Depending on which score report you use, explain other scores—such as grade equivalents—during the conference or on a supplemental interpretive sheet prepared by the school.

As part of your preparation, refer to "Appendix A: Understanding Test Scores," beginning on page 125. Misinterpretation, misunderstanding, or incorrect inferences can occur if an incorrect score type is used for a specific purpose or interpretation. For example, when diagnosing strengths and weaknesses, status scores such as percentile ranks (NPR or LPR) should be used instead of growth scores such as grade equivalents (GE). But when growth is the focus, grade equivalents or a standard score (SS) should be used.

It is essential that parents understand that the scores need to be interpreted as a score range rather than as a precise score point. An individual student score report that shows confidence bands (ranges) on the NPR graph provides visual reinforcement of the idea that test scores contain a certain amount of error. Parents might be able to relate this idea to results from public opinion or voter polls, which generally include a qualifier such as "plus or minus 3 percentage points." Test scores need to be interpreted with similar caution.

Many parents have the mistaken notion that test scores provide a comprehensive picture of how well their child has progressed in school. They may view a composite or a total score as the only indicator of school achievement. One way to prevent or address such misconceptions is to include other types of information in the score-interpretation session. For example, review student work samples and portfolios to discuss development in skills not measured directly by the tests. Writing samples, dictated stories, artwork, science projects, or recordings from speaking or reading activities are other useful adjuncts to test-score reports for describing student progress.

Reporting to the School Board

School boards vary considerably in the amount and type of information they want. Nearly all districts present an oral report of test results accompanied by a written report. Ideally, the written version should be the comprehensive basis from which the oral report is taken. The written report then provides convenient documentation to which both administrators and board members can refer throughout the year.

Consider the planning strategies outlined in the previous section when planning a report to the school board. Include sufficient information to enable board members to understand what the results mean and what the implications for action, if any, might be. The list below offers a sequence of topics for such a report:

Part 1: Descriptive Information

Indicate the name and form of the test battery given, the dates of administration, the names of the tests given (if some were not), and the grades in which tests were administered. Describe the purposes for testing that are most important to your district.

Part 2: Changes and Their Anticipated Effects

If there have been changes in the test battery administered, the score scales, or the norms since last year, these should be described. Some of these kinds of changes may make comparison with scores from the previous year misleading and illogical. If there have been changes in local testing policy, these should also be made known. For example, a change in who is required to test or whose scores will be included in the system averages may affect interpretations. Change in the time of year for testing should be noted because certain scores (standard scores and grade equivalents) would be affected but others (percentile ranks and stanines) probably would not be. If changes in the student population, curriculum, staff, or schedule have occurred, the expected impact on achievement in the areas tested should also be noted.

Part 3: Comparisons with Previous Years

The first kind of data presented should be understood by the school board to be the most worthwhile for its members to know about. Self-referencing helps place the primary focus on improvement and diffuses the often narrow and undue emphasis on local-national comparisons. For example, present the scores from the current year, preferably in comparison with those from each of the past 2–3 years. Ideally, these comparisons should involve the total score distributions for the group to show the full range of scores students obtained, rather than just the mean scores, such as those presented on the *Group Summary*.

Note: Before you interpret results from multiple test administrations, refer to "Compare Results across Test Forms," beginning on page 75.

Part 4: Discussions of Growth

Begin with an overall indicator—Composite, Core Total, or Survey Battery Total score. Use the *Group Profile Longitudinal Line Graph* displaying the grade-group averages from last year or the grade-group averages from the past 2–3 years (whichever give a more stable achievement estimate) to describe overall growth. If there are important changes, identify potential explanations that have been considered to date. Then move to the basic areas of Reading, Language, and Mathematics to do the same. Finally, describe growth in other areas that were tested. Use standard scores or grade equivalents to describe and compare growth rather than percentile ranks. For more information on the use of various score types to estimate education growth, refer to "Monitor Growth," beginning on page 76.

Part 5: Profiles of Strengths and Weaknesses

Begin by differentiating relative from absolute strengths and weaknesses. Then use a visual, such as the graph on the *Group Profile* report, to identify the highs and lows of performance. Point out generalizations that may hold across grade groups and mention unusual patterns in any particular grade group. Make comparisons with recent years to describe persistent patterns, changes that might be the result of systematic improvement efforts, or emerging patterns to be monitored.

Part 6: Recommendations

Although final recommendations may be premature, tentative ones can be offered. It is not essential that a report of test results contains an explicit action plan. Some results suggest no further action at this time beyond reporting to students and parents.

In view of the differences that often exist among schools, it is quite appropriate to report district results by school. This approach is certainly essential for diagnosing school-specific needs and for monitoring interventions that have been adopted on a school-by-school basis. The goal of such reporting should be the improvement of instruction and increased levels of learning. Special thought should be given to methods of reporting that will minimize comparisons as ends in themselves and maximize the chances that the main goals will be achieved.

Appendix A Understanding Test Scores

In Brief

To accomplish any of your testing purposes, it is important to select the type of score from among those reported that will permit you to make the proper interpretation.

This appendix explains all of the score types applicable to *Iowa Assessments* results. Selections made in creating score reports determine which score types are included in the reports you receive.

This appendix contains:

- "Quick Reference Guide to Score Types" – A guide to help you recall the meaning and use of score types you may encounter when reviewing and interpreting score reports from the *Iowa Assessments*
- "Score Types Explained" – Definitions and examples to further explain commonly reported score types

Quick Reference Guide to Score Types

For detailed explanations of the score types below, please refer to "Score Types Explained," beginning on page 129.

Score descriptions for *Iowa Assessments* are provided below.

Score Type	Short Description	Use/Misuse Information
Grade Equivalent (GE)	A decimal number that describes a student's location on an achievement continuum in terms of grade and months at which the typical student received this score (for example, 3.2 is third grade and two months into that grade)	Grade equivalents are particularly suited to estimating a student's developmental status or year-to-year growth of students in elementary school, as scores indicate typical achievement in common curriculum for each grade level. They are ill-suited to identifying a student's standing within a group or to diagnosing areas of relative strength and weakness.
National Percentile Rank (NPR)	A percentile rank indicating the status or relative rank of a student's score compared with a nationally representative sample of examinees	NPRs are useful for discussing a student's test results with parents and for determining areas of relative strength and weakness for a student, class, or grade group. They are less useful than grade equivalents, however, for estimating or monitoring growth. Do **not** average NPRs.

Continued on next page…

Score Types, continued

Score Type	Short Description	Use/Misuse Information
Normal Curve Equivalent (NCE)	Normalized standard scores that range from 1 to 99 with a mean of 50 and a standard deviation of 21.06 in the large norm group from which they were derived	NCE scores can be interpreted in much the same way as percentile ranks, but unlike percentile ranks, NCEs CAN be averaged when describing group performance or when checking growth over time. For these reasons, NCE scores are often used in program evaluations for reporting growth and judging improvement.
Percent Correct (%C)	The result of dividing the number of questions a student answered correctly on a test by the total number of test questions, and then multiplying by 100	Do not confuse percent-correct scores with percentile ranks—the two are quite different.
Percentile Rank (PR)	A score from 1 to 99 that indicates the percentage of students in a particular group that scored at or below the score of the student	PRs are especially useful for determining areas of *relative* strength and weakness for an individual student, a class, or a grade group. They are less useful than grade equivalents, however, for estimating or monitoring growth. Do **not** average PRs.
Raw Score (RS)	The number of questions a student answered correctly on a test	Raw scores are usually converted to other types of scores for interpretation purposes.
Standard Score (SS)	A number that describes a student's location on an achievement continuum with the scale based on the *Iowa Assessments* test subjects' growth model	The table on page 132 shows the standard scores that correspond to typical performance (median) of grade groups on each *Iowa Assessments* test in the spring of the year.
Stanine (S)	Normalized standard scores that range from 1 to 9 and have an average value of 5	Stanines are coarse groupings of percentile ranks, so they are less precise indicators of student achievement than percentile ranks. Do **not** use stanines to describe a student's developmental level or to measure growth.

Additional score types and the abbreviations you may see on score reports are defined below.

Score Type	Short Description
Average Percent Correct	The result of dividing the average raw score for the group by the total number of test questions, multiplying by 100, and then rounding to a whole number; class averages like these need to be interpreted as if they were the scores for the average student in the class
College Readiness	Indicators of a student's readiness for college determined by mapping the student's scores on the *Iowa Assessments* to readiness targets defined by the ACT Benchmarks; can be reported for students taking Levels 12–17/18 of the *Iowa Assessments*
Estimated *Iowa Assessments* Standard Score (eSS)	A score range (upper and lower) derived from aligning the scale score (iSS-T) from the *Riverside Interim Assessments* ELA and Math test to the Standard Score (SS) of a student for an *Iowa Assessments* ELA Total or an *Iowa Assessments* Math score, respectively
Grade Equivalent, 2005 Norms (05GE)	Alternative grade-equivalent score based on 2005 norms. Score is offered in conjunction with 2011 norms-based score.
HSES PR	High Socioeconomic Status Percentile Rank

Continued on next page…

Score Types, continued

Score Type	Short Description
Lexile	A score obtained from the *Iowa Assessments* Reading test that can help match a student with reading material of an appropriate difficulty level; it also gives an idea of how well a reader will comprehend a text
Local Percentile Rank (LPR)	Percentile rank based on the district's or school's own data as opposed to the national-based normative information
Local Stanine (LS)	A stanine based on the district's or school's own data as opposed to the normative information based on a national sample
LSES PR	Low Socioeconomic Status Percentile Rank
National Percent Correct for Skills (Percent Correct for the Nation)	The percentage of test questions students in the national norming sample answered correctly for a particular skill (Avg % Correct Nation)
National Percentile Rank, 2005 Norms (05NPR)	Alternative national percentile rank score based on 2005 norms (Score is offered in conjunction with 2011 norms-based scores.)
National Stanine (NS)	A stanine indicating the status or relative rank of a student's score compared with a nationally representative sample of examinees
National Stanine, 2005 Norms (05NS)	Alternative national stanine score based on 2005 norms (Score is offered in conjunction with 2011 norms-based scores.)
Number Attempted (No. Att)	The number of items an individual attempts to answer on a test
Percent Correct for Skills (Percent Correct for System or Student, Avg. % Correct)	The percentage of test questions the student answered correctly for a particular skill (% Correct)
Percentile Rank of Average SS, School Norms (SCHPR)	Norms based on weighted frequency distributions of school averages
Predicted ACT®/SAT®	A score range within which a student's ACT Composite, SAT Critical Reading, and SAT Math scores can be expected to fall based on the student's performance on the *Iowa Assessments*
Private/Catholic Percentile Rank (PRIV)	National percentile rank score based on students in Catholic and other private schools in the national norm sample
Quantile	A score obtained from the *Iowa Assessments* Mathematics test that enables a teacher to determine the mathematics skills a student is ready for and which ones require further instruction
Quartile	One of three points (defined as low, middle, or upper) which divide the scores in a distribution into four equal groups, each containing 25% of the data
Standard Score, 2005 Norms (05SS)	Alternative developmental standard score based on 2005 norms (Score is offered in conjunction with 2011 norms-based scores.)

You may see the scores below on combined reports—those reporting scores from both the *Iowa Assessments* and the *Cognitive Abilities Test (CogAT)*.

Score Type	Short Description
Ability Profile (AP)	Summarizes information about the level and pattern of the student's reasoning abilities and is linked to suggestions for teaching strategies located at www.cogat.com
Age Percentile Rank (APR)	A percentile rank indicating the status or relative rank of a student's score compared with a nationally representative sample of *CogAT* examinees of a similar age
Age Stanine (AS)	A stanine indicating the status or relative rank of a student's score compared with a nationally representative sample of *CogAT* examinees of a similar age
Grade Equivalent/ Predicted Grade Equivalent Difference (GEDIFF)	The difference between the actual observed *Iowa Assessments* grade equivalent and the predicted grade equivalent (GE – PGE)
Grade Percentile Rank (GPR)	A percentile rank indicating the status or relative rank of a student's score compared with a nationally representative sample of *CogAT* examinees of a similar grade
Grade Stanine (GS)	A stanine indicating the status or relative rank of a student's score compared with a nationally representative sample of *CogAT* examinees of a similar grade
National Percentile Rank/Predicted National Percentile Rank Difference (NPRDIFF)	The difference between the actual observed *Iowa Assessments* national percentile rank and the predicted national percentile rank (NPR – PNPR)
Predicted Grade Equivalent (PGE)	The grade equivalent score that the student can be expected to receive on the *Iowa Assessments* based on his or her performance on *CogAT*
Predicted National Percentile Rank (PNPR)	The national percentile rank that the student can be expected to receive on the *Iowa Assessments* based on his or her performance on *CogAT*
Predicted Standard Score (PSS)	The standard score that the student can be expected to receive on the *Iowa Assessments* based on his or her performance on *CogAT*
Standard Age Score (SAS)	A normalized standard score, having a mean of 100 and a standard deviation of 16, provided for each battery and composite on *CogAT*
Standard Score/ Predicted Standard Score Difference (SSDIFF)	The difference between the actual observed *Iowa Assessments* standard score and the predicted SS (that is, SS – PSS)
Universal Scale Score (USS)	A point on a continuous growth scale of cognitive development from kindergarten through grade 12 for *CogAT*

Score Types Explained

This topic provides more detail and examples to explain the scores summarized on the first page of the *Quick Reference Guide to Score Types*.

Raw Score (RS)

The number of questions a student answers correctly on a test is the student's raw score.

Test raw scores take on additional meaning when they are converted to score scales such as grade equivalents or percentile ranks. The following example illustrates why raw scores are usually converted to other types of scores for interpretation purposes.

Example: If Nicki got 10 items correct on both a math test and a science test, do **not** assume that her level of achievement in the two areas is the same. The meaning of her raw scores depends on how many questions are on each test and how hard or easy the questions are.

Percent Correct (PC)

When the raw score is divided by the total number of questions and that result is multiplied by 100, the percent-correct score is obtained.

Like raw scores, percent-correct scores have little meaning by themselves. They tell you what percentage of the questions a student got right on a test, but unless you know something about the overall difficulty of the test, this information is not very helpful.

Example: If Nicki got 10 items correct on a 10-item math test and 10 items correct on a 12-item science test, her PC scores are 100 and 83, respectively.

Note: Percent-correct scores are **not** the same as percentile ranks, which are described on page 132. The two are quite different in meaning and interpretation.

Grade Equivalent (GE)

A grade equivalent is a number that describes a student's location on an achievement continuum. The continuum is a number line that shows the lowest level of knowledge or skill on one end (lowest numbers) and the highest level of development on the other end (highest numbers).

The GE is a decimal number that describes performance in terms of grade level and months. The digits to the left of the decimal point represent the grade and those to the right represent the month within that grade.

Example: If Nicki, a sixth grade student, gets a GE of 7.8 on the Vocabulary test, her score is like the one a typical student at the end of the eighth month of seventh grade is likely to get on that same sixth-grade Vocabulary test. A GE of 7.8 does **not** indicate that Nicki is capable of doing work at the late seventh grade level.

The GE corresponding to a given raw score on any test indicates the grade level and number of months of instruction at which the typical student has obtained this raw score.

The table below shows the grade equivalent assigned to the median raw score of students tested in the spring of each grade. As the table shows, the average yearly growth is 10 months, by definition. High-achieving students typically gain more than 10 months in a year, and it is reasonable to expect low-achieving students to gain less than 10 months in a year.

Grade:	K	1	2	3	4	5	6	7	8	9	10	11	12
GE:	K.8	1.8	2.8	3.8	4.8	5.8	6.8	7.8	8.8	9.8	10.8	11.8	12.8

If you find any grade equivalents below K.2 on a score report, interpret those scores as estimates of student achievement. Since the *Iowa Assessments* were not given to students below K.2, GEs below K.2 were statistically derived under the assumption that students grow uniformly, on average, during preschool years in the skills measured by the tests. Realize that the growth of individual students may differ widely from this average.

In GE scores such as "P.3," the "P" indicates pre-kindergarten. The scale was extended to these lower levels to help educators gain an estimate of the developmental levels of primary grade students whose raw scores are relatively low.

GE scores are most useful to elementary educators. Because of the generally common curriculum at the elementary level, a score expressed in terms of grade level can be meaningful in describing a student's developmental status and growth from year to year. As the common curriculum becomes more complex in the upper elementary grades, GE scores still can provide important information because they refer to a continuum of typical achievement at each grade level. At the secondary level, however, GEs are less useful for two major reasons. First, at this level, a common curriculum no longer exists. Second, GEs above grade 12 have been extrapolated, and the maximum reported GE is 13+. For these reasons, most high school educators find standard scores more useful in gauging achievement, especially for high-performing students.

Avoid Common Misunderstandings

Grade equivalents are particularly useful and convenient for these purposes:

- measuring individual growth from one year to the next
- estimating a student's developmental status in terms of grade level

But GEs are sometimes misinterpreted and misused. Consider the following examples:

Grade-Level Placement – If a fourth grade student earns a GE of 6.2 on a fourth grade reading test, should she be moved to the sixth grade? *No*—The GE estimates only a student's developmental level; it does not provide a prescription for grade placement. A GE that is much higher or lower than the student's grade level is mainly a sign of exceptional performance.

Student Strengths and Weaknesses – Identical grade equivalents earned on tests in different subject areas do NOT necessarily represent identical performance levels. It may be misleading to use grade equivalents to determine a student's areas of greatest strength or weakness, especially when the student has scored well above or below average. For this

reason, status scores, such as percentile ranks, are recommended for identifying relative strengths and weaknesses.

In summary, grade equivalents are well suited to estimating a student's developmental status or year-to-year growth. They are ill suited to identifying a student's standing within a group or to diagnosing areas of relative strength and weakness.

The Meaning of "On Grade Level"

Our recommendation about the use of the term "on grade level" is as follows:
A student is *on grade level* if his or her score was like the average performance for students in the same grade who were tested at about the same time of year.

The table below presents "on grade level" score ranges for Reading based on three score types—percentile ranks, standard scores, and grade equivalents. This approach makes clear that "on grade level" is defined as a range of student performance on a developmental continuum rather than any precise score. If what is average or typical is defined too narrowly (for example, defining average as exactly the 50th percentile), most people would have to be considered atypical with respect to the characteristic in question. Assigning a precise number to "average" does not take the chance for error and student variability into account.

Illustration of "On Grade Level" Definitions for Reading

Grade	Percentile Ranks	Standard Scores	Grade Equivalents
K	25–75 (50)	127–135 (130)	K.6–1.1 (K.8)
1	25–75 (50)	142–161 (150)	1.4–2.4 (1.8)
2	25–75 (50)	157–183 (168)	2.2–3.7 (2.8)
3	25–75 (50)	170–204 (185)	2.9–5.1 (3.8)
4	25–75 (50)	181–223 (200)	3.5–6.5 (4.8)
5	25–75 (50)	191–239 (214)	4.2–7.9 (5.8)
6	25–75 (50)	200–253 (227)	4.8–9.1 (6.8)
7	25–75 (50)	210–266 (239)	5.5–10.5 (7.8)
8	25–75 (50)	219–279 (250)	6.2–12.2 (8.8)

Note: Values in parentheses correspond to the 50th percentile.

Example: Consider a student who took the *Iowa Assessments* Reading test in the spring of grade 5. The student with a grade equivalent score of 5.4 is *on grade level* because her score is in the range 4.2–7.9, which corresponds to the performance of students scoring in the "average" range during the spring months of grade 5.

The example above illustrates our recommended use of the term "on grade level." It is based on the commonly accepted notion of what "average" means—performance between the 25th and 75th percentiles. Using this range, above the bottom quarter and below the upper quarter of student performance, discourages educators from overinterpreting small differences in student performances.

Standard Score (SS)

The standard score is a number that describes a student's location on an achievement continuum or scale.

The standard-score scale for the *Iowa Assessments* was established by assigning a score of 200 to the median performance of students in the spring of grade 4 and 250 to the median performance of students in the spring of grade 8.

The table below shows the standard scores that correspond to typical performance (median) of grade groups on each *Iowa Assessments* test in the spring of the year.

Grade:	K	1	2	3	4	5	6	7	8	9	10	11	12
SS:	130	150	168	185	200	214	227	239	250	260	268	275	280

The scale shows that average annual growth decreases as students move up from one grade to the next. For example, the growth from grade 1 to grade 2 averages 18 standard-score units but from grade 7 to grade 8, the average is only 11 units.

To interpret the SS, use the values associated with typical performance in each grade as reference points. For example, a score of 244 on the *Iowa Assessments* Reading test means that the student's reading performance is a little more than halfway between spring of grade 7 (239) and spring of grade 8 (250), or about like that of the typical eighth grade student in the late fall.

The main advantage of the standard-score scale is that it mirrors reality better than the grade-equivalent scale. That is, it shows that year-to-year growth is usually not as great at the upper grades as it is at the lower grades. (Recall that the grade-equivalent scale shows equal average annual growth—10 months—between any pair of grades.) Standard scores are not only better than GE scores for measuring individual growth at the secondary level, standard scores can be averaged for making group comparisons and for monitoring the change of grade groups over time. Despite this advantage, the standard scores are much more difficult to interpret than grade equivalents. Consequently, when teachers and counselors wish to estimate a student's annual growth or current developmental level, grade equivalents are the scores of choice.

Note: Before you interpret results from multiple test administrations, refer to "Compare Results across Test Forms," beginning on page 75.

Percentile Rank (PR)

A student's percentile rank indicates the percentage of students in a particular group who scored at or below the score of the student on the same test. It shows the student's relative position, or rank, in a group of students who are in the same grade and who were tested at the same time of year (fall, midyear, or spring).

Example: If Toni earned a percentile rank of 72 on the Computation test, it means that she scored higher than 72 percent of the students in the group with which she is being compared. It also means that 28 percent of the group scored higher than Toni. Percentile ranks range from 1 to 99.

A student's percentile rank from a given test can vary depending on which group is used to determine the ranking. A student is simultaneously a member of many different groups: all students in her classroom, her school, her district, her state, and the nation. Comparisons with groups differentiated by other factors such as public versus private status can also be made. Different kinds of norms are available with the *Iowa Assessments* to permit schools to make the most relevant comparisons involving their students.

A **National Percentile Rank** shows a student's standing within the group of students in the same grade who were tested at the same time of year during the national standardization. This large group of students attended schools that are representative of schools throughout the nation in terms of region, enrollment size, and socioeconomic status. Tables in the *Iowa Assessments* Form E *Norms and Score Conversions Guide* can be used to convert standard scores to national percentile ranks for each of three time periods—fall, midyear, and spring.

A student's **Local Percentile Rank** shows a student's standing within the group of students in his grade in the local school district. A student's national percentile rank and local percentile rank may be quite different.

Example: Kent's Vocabulary raw score may correspond to a national percentile rank of 67 and a local percentile rank of 52. Kent's lower ranking in the local group suggests that the average achievement of the local group is higher than the average achievement of the national group. This example illustrates the need to know which comparison group is being used when you are interpreting a percentile rank.

Most schools can benefit from having both national and local percentile ranks available for each student. Local norms permit an interpretation of individual achievement in terms of local conditions—particular curricular sequence, emphasis, and breadth of content coverage.

National norms allow you to view student achievement against that of a large representative sample of students in the same grade.

Percentile ranks are especially useful for profile analysis—determining the areas of relative strength and weakness for an individual student, a class, or a grade group. However, they are less useful than grade equivalents for estimating or monitoring growth.

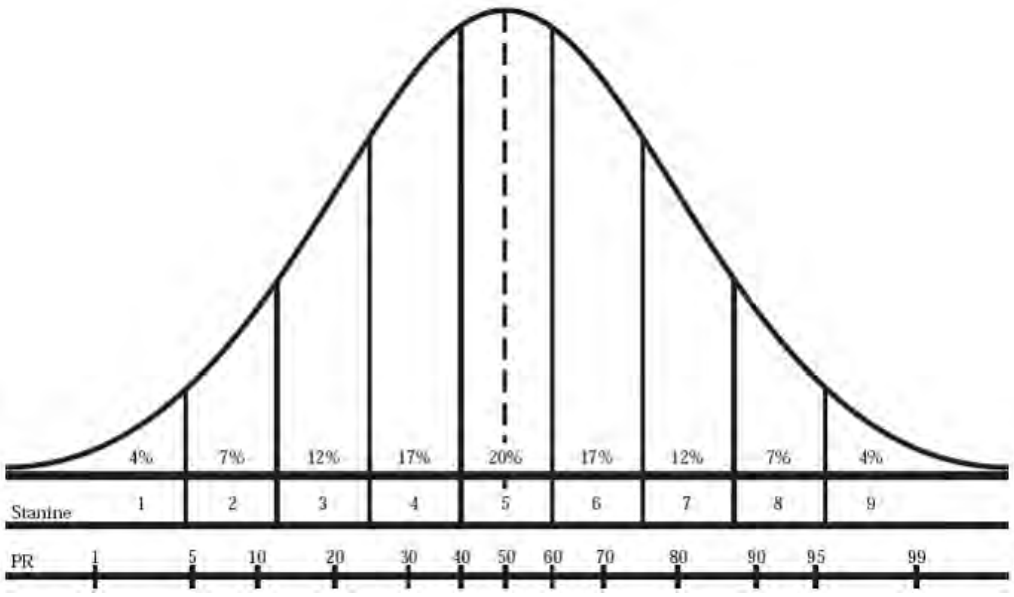
Percentile ranks are different from percent-correct (%C) scores, but the two are often confused. The percentile rank shows a student's relative standing or rank in a group of 100. The percent-correct score indicates what percentage of the items on a test a student answered correctly. This score simply tells how close the student came to a perfect score—all items correct. It does not involve comparing the score with the scores of other students. Thus, these two types of scores provide quite different information about a student's test performance.

Because of the statistical properties of the percentile-rank scale, percentile ranks should not be averaged. If an average percentile rank is needed for a group, average the standard scores for students in the group. Then use a table in the *Iowa Assessments* Form E *Norms and Score Conversions Guide* to find the percentile rank corresponding to the average.

Stanine (S)

Stanines are normalized standard scores that range from 1 to 9 and have an average value of 5. They also can be considered groupings of percentile ranks, as the following graph shows.

Relationship of Stanines and Percentile Ranks



Like percentile ranks, the stanine that corresponds to a given raw score depends on which group is being referenced. As with percentile ranks, both national stanines and local stanines could be calculated for a student, and their values on a given test may be different. Tables for converting percentile ranks to stanines are also provided in the separate *Iowa Assessments* Form E *Norms and Score Conversions Guide*.

Because stanines are coarse groupings of percentile ranks, they are less precise indicators of student achievement than are percentile ranks. For example, percentile ranks of 24 and 39 are both in the 4th stanine. However, 23 and 24 are consecutive percentile ranks that are in different stanines (3 and 4, respectively), which points out the potential misconceptions that could arise when using stanines. Nonetheless, stanines are convenient scores to use to help students and parents identify areas of strength and weakness that might be represented by a set of test scores. Referring to a graphic such as the bell curve graph on the previous page can be helpful during parent conferences or in classroom score interpretation sessions with students.

Although stanines are a type of standard score, they differ substantially from standard scores. The two should not be used interchangeably. Stanines should not be used to describe a student's developmental level or to measure growth.

Normal Curve Equivalent (NCE)

These scores also are normalized standard scores. They have a mean of 50 and a standard deviation of 21.06 in the large norm group from which they were derived. They range from 1 to 99. Because NCEs cover the same score range as percentile ranks (1–99), the two types of scores are sometimes mistakenly interchanged.

NCE scores can be interpreted in much the same way as percentile ranks, but, unlike percentile

ranks, it is appropriate to average NCEs when describing group performance or when checking growth over time. For these reasons, NCE scores have been used frequently in program evaluations for reporting growth and judging improvement.

For most other score interpretation needs, NCEs are not very useful by themselves. To use them, it is first necessary to convert them to other types of status scores, such as percentile ranks or stanines. The tables below show how certain NCE scores convert to percentile ranks and how NCEs are grouped in stanines. The full table for converting NCEs to percentile ranks is in the *Iowa Assessments* Form E *Norms and Score Conversions Guide*.

NCEs Converted to PRs

NCE-PR Relationships	
NCE	**PR**
99	99
90	97
80	92
70	83
60	68
50	50
40	32
30	17
20	8
10	3
1	1

NCEs Grouped in Stanines

NCE-Stanine Relationships	
NCE	**Stanine**
86–99	9
76–85	8
66–75	7
56–65	6
45–55	5
35–44	4
25–34	3
15–24	2
1–14	1

College Readiness Scores

The college readiness benchmark scores and predicted ACT/SAT scores available on an Individual Performance Profile indicate whether a student is academically on track to be successful with first-year college courses.

College readiness can be reported for students taking Levels 12 through 17/18 of the *Iowa Assessments*. College readiness scores are prediction scores based on a student's standard scores in major content areas. If your school ordered this option, the score reports you receive may display one or both of the following types of college readiness information.

- **Predicted ACT/SAT Scores –** The range of scores that the student can be expected to receive for ACT Composite, SAT Math, and SAT Critical Reading, based on scores for this administration of the *Iowa Assessments*.

  Examples: Refer to the score ranges under **Predicted College Readiness** in the *List of Student Scores* (page 30).

- **Grade-Level Benchmarks –** These indicators show whether the student is "on track" or "not yet on track" in terms of being ready for college based on the student's *Iowa Assessments* scores. The target for college readiness is that level of achievement where a student is ready to enroll and succeed in credit-bearing first-year post-secondary

courses. These targets are currently defined by the ACT Benchmarks, the College Board Readiness Index, or individual institutions of higher education. The scores on the individual tests in the *Iowa Assessments* have been mapped to defined targets of readiness, and linking studies were done to map these indicators to the ACT Benchmarks.

Examples: Refer to the *Group Profile – College Readiness* (page 62), which reports college readiness with grade-level benchmarks and predicted ACT/SAT scores.

For an example of how to use this information, refer to the scenario-based interpretive procedure, "Determine College Readiness," beginning on page 103.

Lexile Scores

A Lexile score is a measure of reading ability based on a student's results from a standardized reading test. The Lexile measure is shown as a number with an "L" after it; for example, 820L is 820 Lexile. MetaMetrics®, an educational measurement and research organization, developed the Lexile Framework, which evaluates both reading ability and text complexity on the same scale. The Lexile score helps educators and parents select books and other reading materials at an appropriate level of difficulty for an individual student. Read more about using Lexile scores at www.lexile.com.

Quantile Scores

Quantile scores are derived from a student's results on a standardized mathematics test. MetaMetrics, an educational measurement and research organization, developed the Quantile Framework to indicate how well a student understands mathematical concepts and skills at his or her grade level. The Quantile Framework consists of more than 500 specific mathematical topics, concepts, and skills.

Educators can use a student's Quantile measure (a number followed by a "Q") to monitor progress and target instruction by comparing a student's Quantile measure with the measure of a particular component of the Quantile Framework. Educators and parents can use the Quantile Framework to help identify materials and resources that are challenging but not frustrating to a student. Read more about using the Quantile measures at www.quantiles.com.

Total and Composite Scores Reported

The lists below identify the total and composite scores that can be obtained with each test level from the Complete, Core, and Survey Batteries. This information is helpful in interpreting scores that appear on the *Iowa Assessments* score reports.

All total and composite scores are calculated by combining standard scores from certain component tests. The average standard score can be converted to a percentile rank, grade equivalent, or other type of score for interpretation purposes. Thus, a report can show a national percentile rank for an average standard score, but it will never show an average national percentile rank.

Levels 5 and 5/6 Complete and Core

This total on a score report…	Means the student took these tests…	How totals are computed
English Language Arts Total	Reading, Language, Vocabulary	ET = 0.33 * R + 0.5 * L + 0.17 * V
Extended English Language Arts Total	Reading, Language, Vocabulary, Word Analysis, Listening	XET = 0.66 * ET + 0.17 * WA + 0.17 * Li
Core Composite with English Language Arts Total and Mathematics	Reading, Language, Vocabulary, Mathematics	CT = 0.5 * ET + 0.5 * M
Core Composite with Extended English Language Arts Total and Mathematics	Reading, Language, Vocabulary, Word Analysis, Listening, Mathematics	XCT = 0.5 * XET + 0.5 * M
Reading Total[1]	Reading, Vocabulary	RT = 0.5 * R + 0.5 * V
Language Total	Language	LT = L

Key to Tests:

R	Reading	WA	Word Analysis
L	Language	Li	Listening
V	Vocabulary	M	Mathematics

Key to Totals:

ET	English Language Arts Total	RT	Reading Total
XET	Extended English Language Arts Total	LT	Language Total
CT	Core Composite with ET		
XCT	Core Composite with XET		

[1]The Reading Total Score is available only through web reporting.

Continued on next page…

Levels 7 and 8 Complete and Core

If you want to see this total on your score report…	Then you must administer these tests…	How totals are computed
English Language Arts Total	Reading, Language, Vocabulary	ET = 0.33 * R + 0.5 * L + 0.17 * V
Extended English Language Arts Total	Reading, Language, Vocabulary, Word Analysis, Listening	XET = 0.66 * ET + 0.17 * WA + 0.17 * Li
Mathematics Total	Mathematics, Computation	MT = 0.67 * M + 0.33 * MC If no MC, then MT = M
Core Composite with English Language Arts Total, Mathematics, and Computation	Reading, Language, Vocabulary, Mathematics, Computation	CT = 0.5 * ET + 0.5 * MT
Core Composite with Extended English Language Arts Total, Mathematics, and Computation	Reading, Language, Vocabulary, Word Analysis, Listening, Mathematics, Computation	XCT = 0.5 * XET + 0.5 * MT
Core Composite with English Language Arts Total and Mathematics (no Computation)	Reading, Language, Vocabulary, Mathematics	CT– = 0.5 * ET + 0.5 * M
Core Composite with Extended English Language Arts Total and Mathematics (no Computation)	Reading, Language, Vocabulary, Word Analysis, Listening, Mathematics	XCT– = 0.5 * XET + 0.5 * M
Complete Composite with English Language Arts Total, Mathematics, and Computation	Reading, Language, Vocabulary, Mathematics, Computation, Science, Social Studies	CC = 0.33 * ET + 0.33 * MT + 0.17 * SC + 0.17 * SS
Complete Composite with Extended English Language Arts Total, Mathematics, and Computation	Reading, Language, Vocabulary, Word Analysis, Listening, Mathematics, Computation, Science, Social Studies	XCC = 0.33 * XET + 0.33 * MT + 0.17 * SC + 0.17 * SS
Complete Composite with English Language Arts Total and Mathematics (no Computation)	Reading, Language, Vocabulary, Mathematics, Science, Social Studies	CC– = 0.33 * ET + 0.33 * M + 0.17 * SC + 0.17 * SS
Complete Composite with Extended English Language Arts Total and Mathematics (no Computation)	Reading, Language, Vocabulary, Word Analysis, Listening, Mathematics, Science, Social Studies	XCC– = 0.33 * XET + 0.33 * M + 0.17 * SC + 0.17 * SS
Reading Total	Reading, Vocabulary	RT = 0.5 * R + 0.5 * V
Language Total	Language	LT = L

Key to Tests:

R	Reading
L	Language
V	Vocabulary
WA	Word Analysis
Li	Listening
M	Mathematics
MC	Computation
SC	Science
SS	Social Studies

Key to Totals:

ET	English Language Arts Total
XET	Extended English Language Arts Total
MT	Mathematics Total
CT	Core Composite with ET and MT
XCT	Core Composite with XET and MT
CT–	Core Composite with ET and M
XCT–	Core Composite with XET and M
CC	Complete Composite with ET and MT
XCC	Complete Composite with XET and MT
CC–	Complete Composite with ET and M
XCC–	Complete Composite with XET and M
RT	Reading Total
LT	Language Total

Levels 7 and 8 Survey

If you want to see this total on your score report…	Then you must administer these tests…	How totals are computed
Survey Reading Total	Reading	SR = R
Survey Language Total	Language	SL = L
Survey Mathematics Total	Mathematics	SM = M
Survey Total	Reading, Language, Mathematics	ST = (SR + SL + SM) ÷ 3

Key to Tests:

R Reading
L Written Expression
M Mathematics

Key to Totals:

SR Survey Reading Total
SL Survey Language Total
SM Survey Mathematics Total
ST Survey Total

Levels 9–14 Complete and Core

This total on a score report…	Means the student took these tests…	How totals are computed
Reading Total	Reading, Vocabulary	RT = 0.5 * R + 0.5 * V
Language Total	Spelling, Capitalization, Punctuation, Written Expression	LT = 0.25 * SP + 0.25 * CP + 0.25 * PC + 0.25 * WE
Conventions of Writing	Spelling, Capitalization, Punctuation	CW = 0.333 * SP + 0.333 * CP + 0.333 * PC
English Language Arts Total	Reading, Written Expression, Spelling, Capitalization, Punctuation, Vocabulary	ET = 0.33 * R + 0.33 * WE + 0.18 * CW + 0.16 * V
Extended English Language Arts Total*	Reading, Written Expression, Spelling, Capitalization, Punctuation, Vocabulary, Word Analysis, Listening	XET = 0.66 * ET + 0.17 * WA + 0.17 * Li
Mathematics Total	Mathematics, Computation	MT = 0.67 * M + 0.33 * MC If no MC, then MT = M
Core Composite with English Language Arts Total, Mathematics, and Computation	Reading, Written Expression, Spelling, Capitalization, Punctuation, Vocabulary, Mathematics, Computation	CT = 0.5 * ET + 0.5 * MT
Core Composite* with Extended English Language Arts Total, Mathematics, and Computation	Reading, Written Expression, Spelling, Capitalization, Punctuation, Vocabulary, Word Analysis, Listening, Mathematics, Computation	XCT = 0.5 * XET + 0.5 * MT
Core Composite with English Language Arts Total and Mathematics (no Computation)	Reading, Written Expression, Spelling, Capitalization, Punctuation, Vocabulary, Mathematics	CT– = 0.5 * ET + 0.5 * M
Core Composite* with Extended English Language Arts Total and Mathematics (no Computation)	Reading, Written Expression, Spelling, Capitalization, Punctuation, Vocabulary, Word Analysis, Listening, Mathematics	XCT– = 0.5 * XET + 0.5 * M

* Level 9 only

Continued on next page…

Levels 9–14 Complete and Core, *continued*

If you want to see this total on your score report…	Then you must administer these tests…	How totals are computed
Complete Composite with English Language Arts Total, Mathematics, and Computation	Reading, Written Expression, Spelling, Capitalization, Punctuation, Vocabulary, Mathematics, Computation, Science, Social Studies	CC = 0.33 * ET + 0.33 * MT + 0.17 * SC + 0.17 * SS
Complete Composite* with Extended English Language Arts Total, Mathematics, and Computation	Reading, Written Expression, Spelling, Capitalization, Punctuation, Vocabulary, Word Analysis, Listening, Mathematics, Computation, Science, Social Studies	XCC = 0.33 * XET + 0.33 * MT + 0.17 * SC + 0.17 * SS
Complete Composite with English Language Arts Total and Mathematics (no Computation)	Reading, Written Expression, Spelling, Capitalization, Punctuation, Vocabulary, Mathematics, Science, Social Studies	CC– = 0.33 * ET + 0.33 * M + 0.17 * SC + 0.17 * SS
Complete Composite* with Extended English Language Arts Total and Mathematics (no Computation)	Reading, Written Expression, Spelling, Capitalization, Punctuation, Vocabulary, Word Analysis, Listening, Mathematics, Science, Social Studies	XCC– = 0.33 * XET + 0.33 * M + 0.17 * SC + 0.17 * SS

* Level 9 only

Key to Tests:

R	Reading
WE	Written Expression
V	Vocabulary
WA	Word Analysis
Li	Listening
M	Mathematics
MC	Computation
SC	Science
SS	Social Studies

Key to Totals:

RT	Reading Total
LT	Language Total
CW	Conventions of Writing
ET	English Language Arts Total
XET	Extended English Language Arts Total
MT	Mathematics Total
CT	Core Composite with ET and MT
XCT	Core Composite with XET and MT
CT–	Core Composite with ET and M
XCT–	Core Composite with XET and M
CC	Complete Composite with ET and MT
XCC	Complete Composite with XET and MT
CC–	Complete Composite with ET and M
XCC–	Complete Composite with XET and M

Note: For the total and composite scores, the Mathematics total score with Computation (MT) can be replaced, at your discretion, with the Mathematics total score without the Math Computation (then MT = M). This decision is made when the report is created. If the replacement is made, the core total and the composite scores, which include the Mathematics total score, are also affected.

Levels 9–14 Survey

If you want to see this total on your score report…	Then you must administer these tests…	How totals are computed
Survey Reading Total	Reading	SR = R
Survey Written Expression Total	Written Expression	SWE = WE
Survey Mathematics Total	Mathematics	SM = M
Survey Total	Reading, Written Expression, Mathematics	ST = (SR + SWE + SM) ÷ 3

Key to Tests:

R Reading
WE Written Expression
M Mathematics

Key to Totals:

SR Survey Reading Total
SWE Survey Written Expression Total
SM Survey Mathematics Total
ST Survey Total

Levels 15–17/18 Complete and Core

This total on a score report…	Means the student took these tests…	How totals are computed
English Language Arts Total	Reading, Written Expression, Vocabulary	ET = 0.33 * R + 0.5 * WE + 0.17 * V
Mathematics Total	Mathematics, Computation	MT = 0.67 * M + 0.33 * MC If no MC, then MT = M
Core Composite with Mathematics and Computation	Reading, Written Expression, Vocabulary, Mathematics, Computation	CT = 0.5 * ET + 0.5 * MT
Core Composite with Mathematics (no Computation)	Reading, Written Expression, Vocabulary, Mathematics	CT– = 0.5 * ET + 0.5 * M
Complete Composite with Mathematics and Computation	Reading, Written Expression, Vocabulary, Mathematics, Computation, Science, Social Studies	CC = 0.33 * ET + 0.33 * MT + 0.17 * SC + 0.17 * SS
Complete Composite with Mathematics (no Computation)	Reading, Written Expression, Vocabulary, Mathematics, Science, Social Studies	CC– = 0.33 * ET + 0.33 * M + 0.17 * SC + 0.17 * SS
Reading Total	Reading, Vocabulary	RT = 0.5 * R + 0.5 * V
Language Total	Written Expression	LT = WE

Key to Tests:

R Reading
WE Written Expression
V Vocabulary
M Mathematics
MC Computation
SC Science
SS Social Studies

Key to Totals:

RT Reading Total
LT Language Total
ET English Language Arts Total
MT Mathematics Total
CT Core Composite with ET and MT
CT– Core Composite with ET and M
CC Complete Composite with ET and MT
CC– Complete Composite with ET and M

Common Core Skill Domains Reported

The Common Core State Standards Initiative coordinated by the National Governors Association Center for Best Practices and the Council of Chief State School Officers provides a set of skill domains used by most states to define the knowledge and skills expected for students within their K–12 education. For additional information about the Common Core State Standards (CCSS), visit the following website: http://www.corestandards.org/

The *Iowa Assessments* Reading, Language, Vocabulary, Word Analysis, and Listening tests are aligned with CCSS in English Language Arts, and the *Iowa Assessments* Mathematics and Computation tests are aligned with the CCSS in Mathematics. The Common Core skill domain results from these tests provide the percent of questions the student answered correctly within each Common Core Standard domain. The table below identifies the Common Core skill domains that can be obtained for each test level.

Common Core Skill Domains by Level

Common Core Skill Domains	Level										
	5	5/6	7	8	9	10	11	12	13	14	15-17/18
Reading				X	X	X	X	X	X	X	X
Key Ideas & Details				X	X	X	X	X	X	X	X
Craft & Structure				X	X	X	X	X	X	X	X
Integration of Knowledge & Ideas				X	X	X	X	X	X	X	X
Foundational Skills				X	X						
Phonological Awareness				X	X						
Phonics & Word Recognition				X	X						
Speaking & Listening				X	X						
Comprehension & Collaboration				X	X						
Language and Writing				X	X	X	X	X	X	X	X
Conventions of Standard English				X	X	X	X	X	X	X	X
Knowledge of Language					X	X	X	X	X	X	X
Vocabulary Acquisition & Use				X	X	X	X	X	X	X	X
Production & Distribution of Writing					X	X	X	X	X	X	X
Research to Build & Present Knowledge					X						X

Continued on next page…

Common Core Skill Domains by Level, *continued*

Common Core Skill Domains	Level										
	5	5/6	7	8	9	10	11	12	13	14	15-17/18
Mathematics				X	X	X	X	X	X	X	X
Operations & Algebraic Thinking				X	X	X	X				
Number & Operations in Base 10				X	X	X	X				
Number & Operations – Fractions					X	X	X				
Measurements & Data				X	X	X	X				
Ratios & Proportional Relationships								X	X		
The Number System								X	X	X	
Expressions & Equations								X	X	X	
Number & Quantity											X
Algebra											X
Functions										X	X
Geometry				X	X	X	X	X	X	X	X
Statistics & Probability								X	X	X	X
Mathematical Practice (measurement)								X	X	X	

Iowa Assessments Skill Domains Reported

The *Iowa Assessments* skill domain results provide the percent of questions the student answered correctly within each skill domain. The table below identifies the *Iowa Assessments* skill domains that can be obtained for each test level.

Iowa Assessments Skill Domains by Level

Iowa Assessments Skill Domains	Level										
	5	5/6	7	8	9	10	11	12	13	14	15-17/18
Vocabulary	X	X	X	X	X	X	X	X	X	X	X
Vocabulary	X	X	X	X	X	X	X	X	X	X	X
Word Analysis	X	X	X	X	X						
Phonological Awareness & Decoding	X	X	X	X	X						
Identifying & Analyzing Word Parts	X	X	X	X	X						
Listening	X	X	X	X	X						
Literal Comprehension	X	X	X	X	X						
Inferential Comprehension	X	X	X	X	X						
Language	X	X	X	X							
Verb Tense	X	X									
Classification	X	X									
Singular-Plural Usage	X	X									
Operational Language	X	X									
Spatial-Directional Language	X	X									
Prepositions to Denote Relationships	X	X									
Comparative & Superlative Adjectives	X	X									
Spelling			X	X							
Capitalization			X	X							
Punctuation			X	X							
Written Expression			X	X							

Continued on next page…

Iowa Assessments Skill Domains by Level, *continued*

Iowa Assessments Skill Domains	Level										
	5	5/6	7	8	9	10	11	12	13	14	15-17/18
Reading	X	X	X	X	X	X	X	X	X	X	X
Words	X	X									
Comprehension	X	X									
Informational			X	X	X	X	X	X	X	X	X
Literary			X	X	X	X	X	X	X	X	X
Vocabulary				X	X	X	X	X	X	X	X
Explicit Meaning			X	X	X	X	X	X	X	X	X
Implicit Meaning			X	X	X	X	X	X	X	X	X
Key Ideas			X	X	X	X	X	X	X	X	X
Author's Craft				X	X	X	X	X	X	X	X
Spelling					X	X	X	X	X	X	
Spelling					X	X	X	X	X	X	
Capitalization					X	X	X	X	X	X	
Capitalization					X	X	X	X	X	X	
Punctuation					X	X	X	X	X	X	
Punctuation					X	X	X	X	X	X	
Written Expression					X	X	X	X	X	X	X
Usage & Grammar					X	X	X	X	X	X	X
Sentence Structure					X	X	X	X	X	X	X
Planning & Organization					X	X	X	X	X	X	X
Appropriate Expression					X	X	X	X	X	X	X
Mechanics											X
Mathematics	X	X	X	X	X	X	X	X	X	X	X
Number Sense & Operations	X	X	X	X	X	X	X	X	X	X	X
Algebraic Patterns & Connections	X	X	X	X	X	X	X	X	X	X	X
Data Analysis, Probability, & Statistics			X	X	X	X	X	X	X	X	X
Geometry	X	X	X	X	X	X	X	X	X	X	X
Measurement	X	X	X	X	X	X	X	X	X	X	X

Continued on next page…

Iowa Assessments Skill Domains by Level, *continued*

Iowa Assessments Skill Domains	Level										
	5	5/6	7	8	9	10	11	12	13	14	15-17/18
Computation			X	X	X	X	X	X	X	X	X
Compute with Whole Numbers			X	X	X	X	X	X	X	X	
Compute with Fractions							X	X	X	X	
Compute with Decimals							X	X	X	X	
Algebraic Manipulations										X	
Integers											X
Decimals/Percents											X
Fractions											X
Algebraic Manipulations											X
Social Studies			X	X	X	X	X	X	X	X	X
History			X	X	X	X	X	X	X	X	X
Geography			X	X	X	X	X	X	X	X	X
Economics			X	X	X	X	X	X	X	X	X
Civics & Government			X	X	X	X	X	X	X	X	X
Science			X	X	X	X	X	X	X	X	X
Life Science			X	X	X	X	X	X	X	X	X
Earth & Space Science			X	X	X	X	X	X	X	X	X
Physical Science			X	X	X	X	X	X	X	X	X
Information Literacy				X	X	X	X	X	X	X	X
Acquiring Information				X	X	X	X	X	X	X	X
Evaluating Information				X	X	X	X	X	X	X	X
Using Information				X	X	X	X	X	X	X	X

Texas Essential Knowledge and Skills *(TEKS)* Skill Domains Reported

The Texas Essential Knowledge and Skills (TEKS) skill domains are available for Texas users only. These skill domain results provide the percent of questions the student answered correctly or the raw score within each skill domain. The table below identifies the TEKS skill domains that can be obtained for each test level.

Texas Essential Knowledge and Skills (TEKS) Skill Domains by Level

TEKS Skill Domains	Level									
	5	5/6	7	8	9	10	11	12	13	14
Vocabulary	X	X	X	X	X	X	X	X	X	X
Vocabulary Development	X	X	X	X	X	X	X	X	X	X
Word Analysis	X	X	X	X	X					
Beginning Reading Skills/Phonics/Phonological Awareness & Decoding	X	X	X	X	X					
Beginning Reading Skills/Phonics/Identify & Analyze Word Parts	X	X	X	X	X					
Listening	X	X	X	X	X					
Listening & Speaking/Listening/Literal Comprehension	X	X	X	X	X					
Listening & Speaking/ Listening/Inferential Comprehension	X	X	X	X	X					
Language	X	X	X	X						
Oral & Written Conventions/Conventions/Verb Tense	X	X								
Oral & Written Conventions/Conventions/Singular-Plural	X	X								
Oral & Written Conventions/Conventions/Prepositions	X	X								
Oral & Written Conventions/Conventions/Classification	X	X								
Oral & Written Conventions/Conventions/Comparative & Superlative	X	X								
Oral & Written Conventions/Conventions/Operational Language	X	X								
Oral & Written Conventions/Conventions/Spatial-Directional Language	X	X								
Oral & Written Conventions/Spelling			X	X						
Oral & Written Conventions/Capitalization			X	X						
Oral & Written Conventions/Punctuation			X	X						
Oral & Written Conventions/Conventions			X	X						
Essential Competencies	X	X	X	X						
Conceptual Understanding	X	X	X	X						
Extended Reasoning	X	X	X	X						

Continued on next page…

Texas Essential Knowledge and Skills (TEKS) Skill Domains by Level, *continued*

TEKS Skill Domains	Level									
	5	5/6	7	8	9	10	11	12	13	14
Reading	X	X	X	X	X	X	X	X	X	X
Beginning Reading Skills/Phonics/Words	X	X								
Beginning Reading/Strategies/Comprehension	X	X								
Beginning Reading/Strategies/Explicit Meaning			X	X						
Beginning Reading/Strategies/Implicit Meaning			X	X						
Beginning Reading/Strategies/Key Ideas			X	X						
Comprehension of Literary Text/Explicit Meaning			X		X	X	X	X	X	X
Comprehension of Literary Text/Implicit Meaning			X	X	X	X	X	X	X	X
Comprehension of Literary Text/Key Ideas			X	X	X	X	X	X	X	X
Comprehension of Literary Text/Author's Craft				X	X	X	X	X	X	X
Comprehension of Literary Text/Vocabulary				X	X	X	X	X	X	X
Comprehension of Informational Text/Explicit Meaning			X	X	X	X	X	X	X	X
Comprehension of Informational Text/Implicit Meaning			X	X	X	X	X	X	X	X
Comprehension of Informational Text/Key Ideas			X	X	X	X	X	X	X	X
Comprehension of Informational Text/Author's Craft				X	X	X	X	X	X	X
Comprehension of Informational Text/Vocabulary				X	X	X	X	X	X	X
Essential Competencies	X	X	X	X	X	X	X	X	X	X
Conceptual Understanding	X	X	X	X	X	X	X	X	X	X
Extended Reasoning	X	X	X	X	X	X	X	X	X	X
Written Expression					X	X	X	X	X	X
Oral & Written Conventions/Conventions/Usage & Grammar					X	X	X	X	X	X
Oral & Written Conventions/Conventions/Sentence Structure					X	X	X	X	X	X
Oral & Written Conventions/Spelling					X		X	X	X	X
Oral & Written Conventions/Capitalization					X		X	X	X	
Oral & Written Conventions/Punctuation					X		X	X	X	
Writing Process/Planning & Organization					X	X	X	X	X	X
Writing Process/Appropriate Expression					X	X	X	X	X	X
Writing/ Conventions of Language/Capitalization										X
Writing/ Conventions of Language/Punctuation										X
Essential Competencies					X	X	X	X	X	X
Conceptual Understanding					X	X	X	X	X	X
Extended Reasoning					X	X	X	X	X	X

Continued on next page…

Texas Essential Knowledge and Skills (TEKS) Skill Domains by Level, *continued*

TEKS Skill Domains	Level									
	5	5/6	7	8	9	10	11	12	13	14
Mathematics	X	X	X	X	X	X	X	X	X	X
Numbers & Operations	X	X	X	X	X	X	X	X	X	X
Algebraic Reasoning	X	X	X	X	X	X	X	X	X	X
Data Analysis			X	X	X	X	X			
Geometry & Measurement	X	X	X	X	X	X	X			
Other/Probability	X	X			X	X	X			
Expressions, Equations, & Relationships								X	X	X
Proportionality								X	X	X
Measurement & Data								X	X	X
Two-dimensional Shapes									X	X
Other/Units of Measurement								X	X	X
Essential Competencies	X	X	X	X	X	X	X	X	X	X
Conceptual Understanding	X	X	X	X	X	X	X	X	X	X
Extended Reasoning	X	X	X	X	X	X	X	X	X	X
Computation			X	X	X	X	X	X	X	X
Computation/Number & Operations/Compute with Whole Numbers			X	X	X	X	X	X	X	X
Computation/Number & Operations/Compute with Fractions							X	X	X	X
Computation/Number & Operations/Compute with Decimals							X	X	X	X
Computation/Expressions, Equations, & Relationships/Algebraic Manipulations										X
Science			X	X	X	X	X	X	X	X
Organisms & Environments			X	X	X	X	X	X	X	X
Earth & Space			X	X	X	X	X	X	X	X
Matter & Energy			X	X	X	X	X	X	X	X
Force, Motion, & Energy			X	X	X	X	X	X	X	X
Essential Competencies			X	X	X	X	X	X	X	X
Conceptual Understanding			X	X	X	X	X	X	X	X
Extended Reasoning			X	X	X	X	X	X	X	X

Appendix B Types of Score Interpretation

In Brief

Interpreting test results requires an understanding of what individual scores are as well as how to make appropriate comparisons using those scores. This appendix provides the following information to guide your use of *Iowa Assessments* test results:

- "Overview: Gauging Student Achievement" – Explains two ways to give meaning to *Iowa Assessments* scores
- "Types of Norms" – Describes types of data available to make meaningful comparisons of test scores

Overview: Gauging Student Achievement

An achievement test is built to help determine how much skill or knowledge students have in a certain area. We use such tests to find out whether students know as much as we expect they should or whether they know particular things we regard as important.

By itself, the raw score from an achievement test does not indicate how much a student knows or what he or she can do. More information is needed to describe a student's performance. To interpret a test score, you must compare it with something. That "something" is typically one of the following:

- the scores other students received on the test or
- detailed descriptions that tell what students at each score point know or which skills they have successfully demonstrated

These two ways of referencing a score to obtain meaning are commonly called *norm-referenced* and *standards-based* score interpretations, respectively.

Norm-Referenced Interpretation

One use of the *Iowa Assessments* is to support relative comparisons. A norm-referenced interpretation involves comparing a student's score with the scores other students received on the same test. The percentile ranks reported on the *Iowa Assessments* are based on norm-referencing; that is, a comparison with a norm group. In the case of percentile ranks, stanines, and normal curve equivalents, the comparison is with a single group of students in a certain grade who tested at a certain time of year. These are called *status scores* because they show a student's position or rank within a specified group.

Standard scores and grade equivalents are *growth scores*. They provide you with a metric to monitor and evaluate growth across years; they show the students' positions on a developmental scale. Thus, status scores depend on a single group for making comparisons, and developmental scores depend on multiple groups that can be linked to form a growth scale.

Different Kinds of Norms – Norms are sets of scores that are used to make norm-referenced interpretations. They differ according to the characteristics of the group from which they were obtained. National norms are scores from a nationally representative sample of students, and local norms are from a local school district or building.

Special group norms are available through Riverside Scoring Service to permit comparisons with representative subgroups from the national standardization sample. For example, Catholic/private norms are scores from students attending Catholic and private schools throughout the nation.

The Need for Norms – Norms allow you to see how one student's score compares with the scores of others. The *Iowa Assessments* is a collection of tests in several subject areas, all of which have been standardized with the same group of students. That is, the norms for all tests have been obtained from a single group of students at each grade level. This unique aspect of the achievement battery makes it possible to use the scores to determine skill areas of relative strength and weakness for individual students or class groups and to estimate year-to-year growth. The use of a battery of tests having a common norm group enables educators to make statements such as "Bailey is doing better in mathematics than in reading" or "Zachary has shown less growth in science than the typical student in his grade." If norms were not available, there would be no basis for statements like these.

Norms also allow students to be compared with other students and schools to be compared with other schools. Such comparisons give educators the opportunity to look at the achievement levels of students in relation to a nationally representative student group. Thus, teachers and administrators get an "external" look at the performance of their students, one that is independent of the school's own assessments of student learning. As long as our population continues to be highly mobile and students continue to compete nationally rather than locally for educational and economic opportunities, student and school comparisons with a national norm group should be of interest to students, parents, and educators.

Scores from a norm-referenced test tell how a given student's knowledge or skill compares with that of others in the norm group. Only after reviewing a detailed content outline of the test or inspecting the actual test items is it possible to make interpretations about *what* a student knows. This caveat is not unique to norm-referenced interpretations, however. To use a test score to determine what a student knows, you must first examine the test tasks presented to the student and then infer or generalize about what he or she knows.

Standards-Based Interpretations

A standards-based interpretation involves comparing students' scores with a standard of performance rather than with the performance of a norm group. For example, deciding whether a student has demonstrated minimum acceptable performance involves a standards-based interpretation. Percent-correct (%C) scores may be used for standards-based interpretations when a predetermined acceptable level of performance has been defined.

The percent-correct score is the type used most widely for making standards-based interpretations. Scores that define various levels of performance on the tests are generally percent-correct scores arrived at through teacher analysis and judgment. Several *Iowa Assessments* score reports include percent-correct skill scores that can be used to make standards-based interpretations.

Content Standards – New emphasis has been placed on the standards-based interpretation of the scores of groups of students. Although there is a continuing need for and interest in using the scores of individual students, there is added interest in the performance of grade groups of students at the building, district, and state levels. What percentage of eighth grade students are reading well enough? How much improvement has there been in the past year in the reading achievement of our fourth grade students? These are questions that involve standards-based interpretations, and they require the establishment of standards of performance for each content area before they can be answered. Tests from the *Iowa Assessments* can be used to assess the improvement of individuals or student groups, but, as with all tests, there must be some preliminary work to establish the standards.

States and school districts have identified the content and process expectations they hold for student learning and have described those targets with statements that are often called *content standards*. Generally, the content standards in a given subject area indicate what the focus of instruction should be in grades K–12 in the state or district. Then those standards, usually from four to six per subject area, are analyzed and broken down to indicate what the focus should be at each grade level or range of grade levels. For example, detailed statements about life science would be written to indicate what students should learn in grades 3–5 or in grade 4. These standards statements form the basis for instructional planning and assessment by teachers in those particular grades and by the school district.

To determine how well students are learning the content and process skills inherent in the content standards, assessments such as the *Iowa Assessments* can be administered to help obtain information for monitoring student learning. The assessment tools need to be aligned with the content standards so that what is being assessed is similar to what is being taught. Results from the *Iowa Assessments* can be reported in terms of Common Core standards so that educators can monitor student achievement in a number of domains.

Performance Standards – The term *proficient* is often used to describe a level of performance that is high enough to confirm that students have learned at an acceptable level. Your school may adopt *performance standards* to determine whether students have been successful enough in their learning. A performance standard is a written description of the meaning of proficient performance in a subject at a particular grade (for example, science at grade 5). It states how good student performance must be in order to be considered minimally acceptable. The subgroup of students that does not meet this criterion is at a level that is often called *basic*. Those that are well above the criterion are often labeled *advanced*. For each achievement level used to describe performance, a performance standard must be developed.

After performance standards have been written, a standard-setting study is conducted. The purpose of the study is to translate the written performance standards onto the score scale of

the assessment. In other words, cutoff scores are determined for identifying which score ranges describe advanced, proficient, or basic performances. The scores of student groups then can be described in terms of the achievement levels, and the performance standards become written descriptions of what students scoring in those ranges know or are able to do. Such interpretations are standards-based or criterion-referenced. They allow a school district or state to determine, for example, what percent of its students in grade 5 have met each performance standard, and they allow the district or state to monitor the performance of students in grade 5 in successive years to see whether the percent of proficient students is increasing from year to year.

Labels that are commonly used to describe achievement based on the use of performance standards—*advanced*, *proficient*, and *basic*—do not carry an established, generally accepted meaning across test batteries, test publishers, or users of the same test battery. The performance standard that forms the basis for *proficient*, for example, might vary from one place to another, even among those who use the same instrument for measuring achievement. The methods of standard setting might vary from place to place also, causing the meaning of *proficient* to differ in those places. In addition, the content of instruments having the same name, such as "mathematics concepts," might vary enough that the meaning of *proficient* associated with using them would not be the same. It is important for score users who make comparisons using achievement-level data to understand the reasons why certain terms like *proficient* do not have a shared meaning among educators.

The performance standards described here are criterion levels just like those that always have been used in making criterion-referenced score interpretations. The term *standards-based* is often used to refer to the types of interpretations needed for gauging progress. To make these interpretations, we refer assessment results to a set of performance standards, which themselves are based on content standards.

Types of Norms

The availability of different types of norms enables you to make score comparisons with the most relevant group of students. Thus, there are national and local student norms, norms for students in separate grades, and norms for those tested in the fall, midyear, and spring. In addition to student norms, there are norms for school averages. Other norms include the following:

Special-Group Norms – The national standardization sample was divided into subgroups to obtain nationally representative subsamples of students; e.g., from Catholic and private schools. Contact your Riverside Assessment Consultant or Riverside Customer Service for information on norms best suited for your purposes.

Quartermonth Norms – Quartermonth norms are norms that are adjusted, or interpolated, for the length of time school has been in session. Each month is divided into quarters (thus the name "quartermonth") and a different set of norms is provided for each quarter. Quartermonth norms are particularly useful when testing takes place relatively far away from a test's norming dates. Quartermonth norms correct any over- and underestimations of student performance that might occur if the empirical norms were applied.

Norms for School Averages

To help educators interpret the average scores of grade groups in a school building, norms for school averages are provided. Average standard scores for the groups are converted to percentile ranks based on the time of year of the testing—fall, midyear, or spring. These norms are for averages of building grade groups, not individual class averages or averages of systems that have multiple buildings for some grades. Tables for converting average standard scores of buildings to percentile ranks are included in the *Iowa Assessments* Form E *Norms and Score Conversions Guide*.

School Norms versus Student Norms

To properly interpret school averages and year-to-year changes in them, it is important to understand the distinction between school norms and student norms. **School norms** consist of scores (averages) of school-building grade groups that are representative of such groups nationally. To interpret the average Reading score of fifth grade students at Lincoln School who were tested in April, for example, we can compare that average with the averages of fifth grade groups from buildings across the nation who were also tested in the spring. A percentile rank shows the standing, or rank order, of the Lincoln School fifth grade group among similar groups in the nation. Thus, a *building* is being compared with other *buildings* when school norms are used.

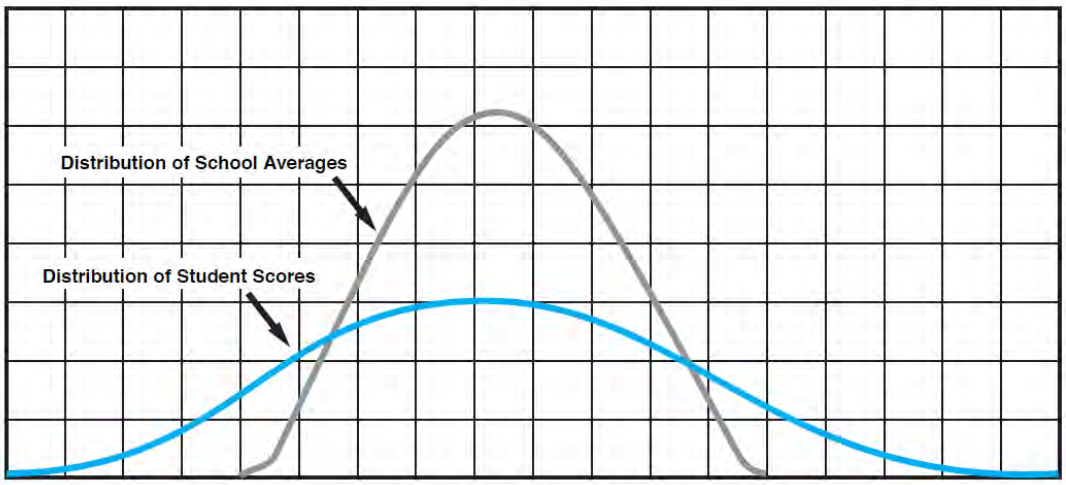
Student norms, however, consist of scores of individual students in a given grade, and this group of students is representative of students nationally. Student norms are used mainly to interpret the scores of an individual student; a *student* is compared with other individual *students* when we do this. But student norms can also be used to help interpret school averages. For example, the average Reading Comprehension score of the Lincoln School fifth grade students could be compared with the set of individual student scores from grade 5 students in the nation. But this type of comparison would be illogical (comparing a "building score" to the scores of a group of students). For such comparisons to make sense, we should think of the average score as the score obtained by the typical, mythical grade 5 student at Lincoln. Then we could compare that student's score with the scores of other students, a logical use of student norms. The percentile ranks for student norms, which are printed on the *Group Summary* (school- and district-level reports), should be interpreted in this way.

These two sets of scores—school norms and student norms—also differ in certain statistical characteristics. These distinctions are also important to understand when interpreting percentile ranks based on school norms. One main difference between the two is score variability. The averages that make up school norms are much less variable than the scores that make up student norms. That is, schools are more similar to one another than students are to each other.

The table below shows that the average standard score of the highest-scoring school (percentile rank of 99 with school norms) is not nearly as high as the standard score for the highest-scoring student (percentile rank of 99 with student norms). Likewise, the average standard score of the lowest-scoring school is not nearly as low as the standard score of the lowest-scoring student. The table demonstrates that the "average" or typical, mythical

student in a school will never have percentile ranks as high as 99 or even 91 or as low as 1 or even 8. That is, when student norms are used for interpreting average scores from a school, the most extreme of the possible percentile rank values will not be used because no school average is ever likely to be so high or low.

Comparison of Distribution of Student Scores and School Averages for Reading, Grade 5, Spring



Standard Score (SS)	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
NPR of Avg. SS: Student Norms		1	4	8	15	24	34	45	56	67	76	85	91	95	97	99	
NPR of Avg. SS: School Norms					1	5	15	37	64	88	97	99					

The fact that school averages are relatively homogeneous also has implications for interpreting year-to-year score changes. Small changes in average standard scores can be accompanied by relatively larger changes in percentile ranks using school norms. The scores in the table below illustrate what the changes are like. If the fifth grade students in a school obtained an average Reading standard score of 209, the corresponding percentile rank using school norms would be 36. If the fifth grade students the next year got an average of one more question correct, their average standard score would be 212, and the corresponding percentile rank using school norms would be 43. Note that this difference in scores for the two groups represents a change of only four percentile-rank points when student norms are used, but the change is seven percentile-rank points when school norms are used. In part because of this volatility, percentile ranks from school norms should not be used to estimate change in the achievement of grade groups. Rather, they should be used to help identify group strengths and weaknesses, and either grade equivalents or standard scores should be used to describe change and estimate growth.

Average Raw Score	Standard Score	Percentile Ranks (Spring)	
		Student Norms	School Norms
25	209	44	36
26	212	48	43

Another difference between school norms and student norms is in the medians of their score distributions. Distributions of student scores for all individual tests share a common median at

a given grade level, whereas the medians of the distributions of school averages tend to vary across tests, even within the same grade. For example, the student norms for grade 5 in the spring may show medians of 214 for all tests, but the medians of the distributions of school averages could vary from 214 in Math Computation to about 216 in Capitalization. These differences explain why the average student score of 214 for a group of fifth grade students in a certain building has a percentile rank of 50 using student norms but may have a percentile rank of only 44 using school norms.

Why are percentile ranks using both norms reported and how should each be used? One reason both percentile ranks are shown on the *School Summary of Scores* is to draw attention to the fact that the two are different. If only school norms were used, it would be far easier to erroneously interpret the scores as percentile ranks based on student norms. But the most important reason for reporting both is that each one contributes unique information to score interpretations.

Deciding Which Percentile Ranks to Use – Percentile ranks from either student norms or school norms can be used to compare the performance of a group across test areas. Relative strengths and weaknesses of grade groups can be identified through such comparisons. Percentile ranks based on school norms tend to exaggerate differences among average scores and thus make differences easier to detect. Often the percentile ranks based on student norms provide a relatively flat profile, making it appear as though there are no areas of strength or weakness. While examining the profiles of several grade groups, looking for similarities and differences, percentile ranks based on school norms are likely to be more helpful in identifying consistencies or trends.

Because the use of school norms tends to exaggerate the height and depth of points on a test-score profile, student norms are useful for deciding just how strong or weak a given area might be. That is, if a profile of percentile ranks based on student norms shows noticeable peaks and valleys, it is likely that these are genuine strengths and weaknesses. (See the discussion beginning on page 76 about using both kinds of percentile ranks for analyzing the relative strengths and weaknesses of grade groups.)

At times it is useful to use percentile ranks from both types of norms to describe the status of a grade group. For example, when reporting to the school board that your grade 7 students scored at the 8th percentile (school norms) in science, it would be helpful for board members to realize that the typical grade 7 student scored at the 24th percentile. By reporting the two jointly in this case, you can provide a more comprehensive and realistic description of group performance. On the one hand, science performance is very low relative to other schools, but many individual students are probably doing quite well because the typical or average student in that grade has scored at the 24th percentile. When extremely low or high percentile ranks from school norms are reported, there is a tendency for some recipients to rush to the conclusion that all students in that grade scored that low or that high. The simultaneous reporting of the percentile rank based on student norms provides a reality check and helps prevent distorted conclusions.

School Norms and System Averages – Because school norms are based on the averages of school-building grade groups, they should not, strictly speaking, be used to interpret system or district averages. For such interpretations, system norms should be used. However, national system norms are all but impossible to obtain; only a small fraction of the buildings in most systems that are included in the national standardization can be tested. If a representative sample of complete systems could be tested, the distribution of system averages would be even less variable than the distribution of school averages that constitute the current school norms. Consequently, when *school norms* are used to interpret *system averages*, this limitation should be recognized, taken into account, and shared with those to whom scores are reported.

Appendix C Confirm Score Report Integrity

Although errors in test scoring are not common, it is important to check new score reports prior to reading and analyzing them. Educators familiar with students in a given class are best equipped to perform this review. For a list of abbreviations and special indicators that appear on reports, see "Report Legend: Abbreviations and Special Indicators" on page 16.

Checking Your Score Reports

We recommend using the following procedure to confirm the completeness and accuracy of test results for each class:

1. **Verify Completeness**

   Review the *Student Roster* and check for the following:

   Missing Students – Make sure that the report includes the names of all students whose answer documents were sent to scoring. If any student is missing, the summary information of percentile ranks and grade equivalents of averages for the class may not be representative of the performance of the entire class.

   Missing Scores – Scan the *Student Roster* to determine whether scores are missing for any student in the class. If some blank spaces are found, mark an "X" in the place where a score is missing. This mark will remind you that there is missing information when you use the reports at a later time. (Sometimes students who were absent during part of the test administration inadvertently were not scheduled for makeup tests.) In some cases, students can still take tests that were missed and receive complete test records through local hand-scoring procedures.

   Look for a pound sign (#) in place of any test score. This indicator means the student answered some questions, but too few to calculate a meaningful score for that test.

2. **Verify Score Levels**

   On the *Student Roster*, look for scores that are unreasonably low for students in your class. Scan each student's row of national percentile ranks to see whether any student has mostly scores of 1. Although some students might obtain such scores legitimately, very few will.

   For students whose scores are unexpectedly low, examine the authenticity of their scores. For example, the student's answer document may have been scored with the wrong grade group. Irregularities such as this are uncommon, but they do occur. If Riverside Scoring Service scored your school's answer documents, contact Riverside Customer Service with questions about the completed answer documents.

3. **Verify Class Patterns**

   On the *Student Roster*, scan down the column for the Reading test scores and the Mathematics test scores and identify the two highest-scoring and lowest-scoring students in each area. Then ask yourself whether these are the students you would expect to score highest and lowest.

   To the extent that large discrepancies appear, there may be reason to question the accuracy of those scores. Sometimes scores are unusually low because of illness or lack of motivation and effort; sometimes they are unusually high because of collaboration among students during testing. Before planning instructional strategies, investigate unexpected results and try to determine their cause.

Fixing Errors in Reported Scores

Some of the errors detected through the verification checks can be corrected. Other errors, such as missing scores or questionable score levels, may require additional analysis of the completed answer documents to determine the cause of the errors. If Riverside Scoring Service scored your school's answer documents, contact Riverside Customer Service with questions about possible errors.

The table below provides problem indicators that you can look for on a student's answer document, as well as follow-up action based on what you find.

Indicator	Follow-up Action
If a score is not reported, the student's test booklet or answer document will indicate whether the test was taken or whether the student did not attempt enough items for a score to be reported.	Additional testing may be scheduled, and the missing scores can be obtained through local hand scoring. The document may also be returned to Riverside Scoring Service for rescoring if it seems more prudent to do so. Some situations may call for retesting a student. Contact Riverside Insights Customer Service for assistance.
If scores are low for a student, his or her test booklet or answer document may indicate a problem with marking responses or may show a pattern of random responses.	A retest could be scheduled and subsequent scoring could be done by hand. If there are several such cases at the same time and all these students will be retested, it might be appropriate to have Riverside Scoring Service do the scoring and then update system and building reports with the more representative scores.

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