2011

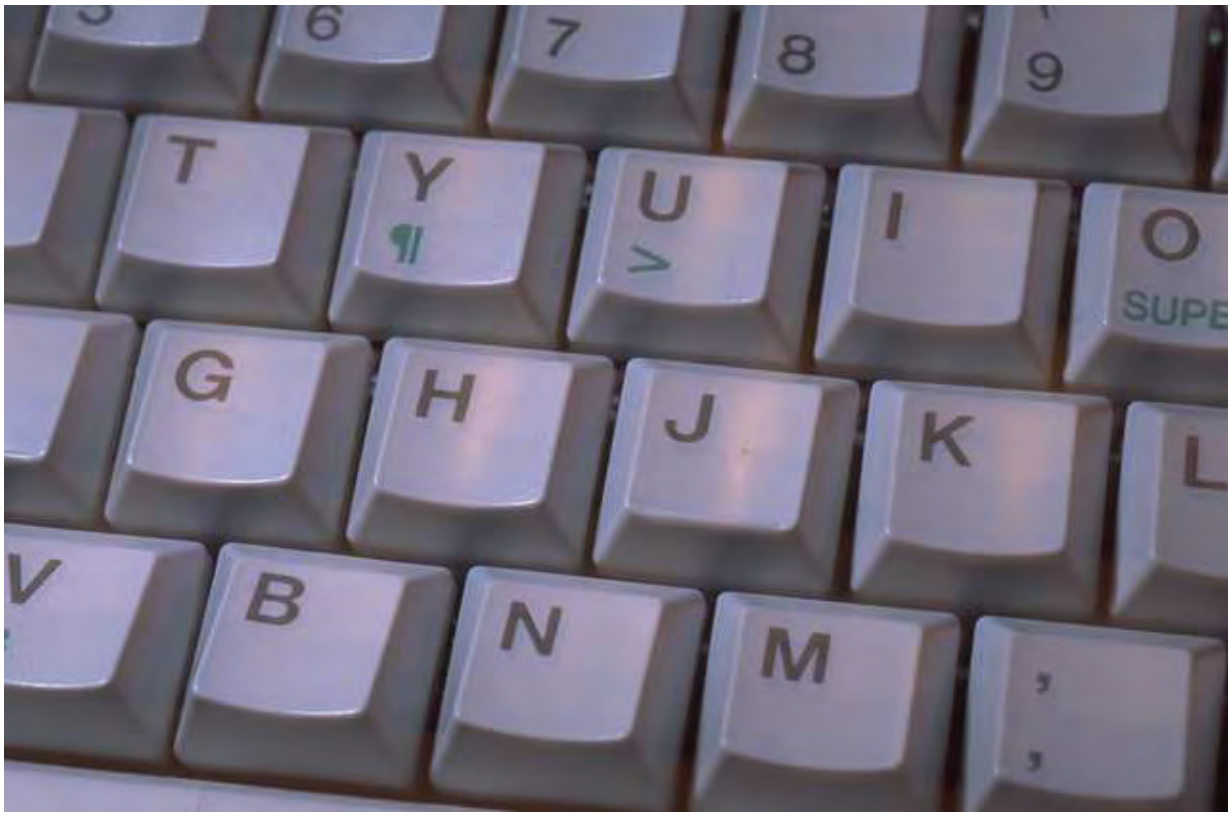
PAWS

PROFICIENCY ASSESSMENTS FOR WYOMING STUDENTS

INTERPRETING ASSESSMENT REPORTS

PAWS 2011

Guide to Interpreting Assessment Reports



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Introduction

Understanding is the key to using the test results constructively at any level. This guide provides an overview of the purpose of the Proficiency Assessments for Wyoming Students (PAWS) and key components and concepts of PAWS. It is important for all users of the PAWS reports to understand the meaning of each of the test scores and how each score should or should not be used.

This guide provides information about interpreting the results displayed on the following grades 3–8 and 11 score reports:

- PAWS Student Reports; and
- Traffic Signal and Writing Skills Reports.

This guide displays and explains examples of these two reports to assist district and school personnel in understanding and interpreting student performance data.

To facilitate online use of this manual, click on the blue-colored text to access the identified website. Additionally, you can "mouse over" over a lettered icon on a report to view a brief description of the element.

Overview of the Wyoming Assessment System

PAWS is the official statewide assessment used to measure individual student achievement toward the Wyoming Content and Performance Standards. A primary purpose of the PAWS is to foster program improvement at the school, district, and state levels in support of the teaching and learning that takes place in Wyoming public classrooms and to meet all of the attendance requirements of the No Child Left Behind Act of 2001(NCLB). Table 1 describes the content areas and grades assessed in the PAWS program.

Table 1. 2011 PAWS Program Content Areas and Grades Assessed

Content Area	Grade Level							
Reading	3	4	5	6	7	8	10	11
Writing	3	4	5	6	7	8	10	11
Mathematics	3	4	5	6	7	8	10	11
Science	N/A	4	N/A	N/A	N/A	8	N/A	11

Note: 10th grade students may take the 11th grade assessment.

PAWS is conceptually constructed around an instructionally supportive design to include clear targets for instruction and informative reporting categories. PAWS results provide skill-level reporting categories aligned to the Wyoming Content and Performance Standards, as organized by the Wyoming Assessment Descriptions, to assist teachers in interpreting and addressing specific academic needs of students.

Assessment results provide important information to all facets of the school community. Policymakers, administrators, teachers, students, and parents use assessment information for a variety of purposes. Collectively, these users make decisions about how well students are achieving, whether schools are functioning effectively for each student, and whether schools are functioning well for all students collectively.

The test design for the PAWS includes content area assessments in reading, writing, mathematics, and science. For reading, mathematics, and science, each test has two item types: multiple-choice items and constructed-response items. The writing assessment is comprised of a student's written response to two writing prompts. Each prompt of the writing assessment is completed in two separate sessions.

Standard accommodations are allowed on the PAWS for students on an Individualized Education Plan (IEP), for students on a 504 Plan, and for English Language Learners (ELLs). Selection of accommodations for the general assessment is the responsibility of a student's IEP team, 504 Plan committee or service providers for ELLs. Test accommodations make the test more accessible to these students without changing what the test measures. The selection and administration of accommodations must be consistent with the PAWS standard accommodations. The accommodations must be used regularly by the student during instruction and assessment. For detailed information about accommodations allowed on the PAWS assessments, refer to the ***2011 PAWS Standard Accommodations*** available on the Wyoming Department of Education (WDE) website.

PAWS Content Areas

Writing Assessment

The grades 3–8 and grade 11 writing assessment of the PAWS is different from the other content-area assessments in that student performance is measured through two writing prompts. To make the best use of the writing test results, there are several factors that must be understood: the conditions under which students produced their writing responses, how students' writing responses are scored, and how the results are reported.

The writing assessment response is used to provide a general indication of a student's writing performance from two specific modes of writing: expressive and expository. Across the grades, students are assessed by several types of writing (e.g., narrative, descriptive, expository, persuasive) and several different formats (e.g., letters, essays). Specific knowledge and skills are required to produce each type of writing. The writing assessment is meant to facilitate the writing process, including a drafting session, followed by a final session, which is the version that is scored. A student's score on a prompt is reported based on the composite score across four skills: idea development, organization, voice, and conventions. The specific scoring rubric for your student's grade level can be found on the Wyoming Department of Education website at www.edu.wyoming.gov by clicking on the State Assessment link.

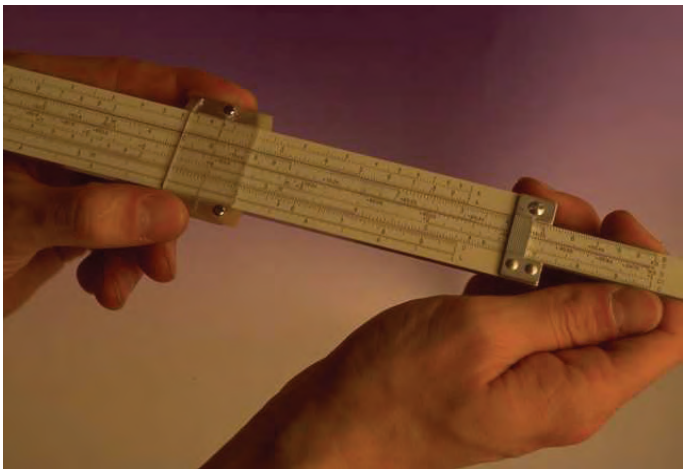
Reading Assessment

The content of the 2011 PAWS reading assessment is aligned to the reading content standards of the 2008 Wyoming Language Arts Content and Performance Standards. Because functional, expository, and narrative types of texts are read for different purposes, the PAWS assessment is designed to assess overall literacy skills in the following skill-reporting categories:

- Determine information's relevance and importance, and select and apply information for a task within a functional text;
- Understand main points and supporting details, recognize expositional organization and its use, and see relationship of text's content to broader issues/topics within an expository text; and
- Identify the development of basic story elements, understand a story's plot development, and identify a story's theme(s) and its (their) development within a narrative text.

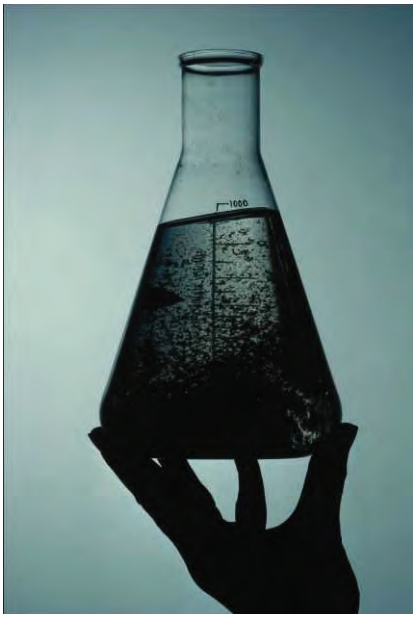
Mathematics Assessment

In the area of mathematics, the focus is on the ability of students to demonstrate basic computational skills along with the higher-level thinking skills of reasoning and problem solving. The PAWS mathematics assessment is designed to measure whether students have acquired the skills to analyze, reason, and communicate ideas effectively as they pose, formulate, solve, and interpret mathematical problems in a variety of real-world situations. The benchmarks within each of the Mathematics Content Standards are organized into skill-reporting categories.



- Within the Number Operations and Concepts Content Standard are:
  - Number Representation and Number Operations;
- Within the Geometry Content Standard are:
  - Spatial Relationships, 2-D/3-D Shapes, and Transformations/Symmetry;
- Within the Measurement Content Standard are:
  - Measurement Systems and Perimeter/Area/Volume;
- Within the Algebraic Concepts and Relationships Content Standard are:
  - Patterns/Relations/Functions and Mathematical Representation; and
- Within the Data Analysis and Probability Content Standard are:
  - Collect/Analyze Data and Inferences/Predictions.

Science Assessment



The content of the 2011 PAWS science assessment is aligned to the Science as Inquiry Content Standard of the 2008 Wyoming Science Content and Performance Standards. Because scientific inquiry involves many processes, the PAWS assessment is designed to assess inquiry skills overall in the following skill reporting categories:

- Use observation to pose questions that can be addressed through a scientific investigation,
- Design and conduct a scientific investigation,
- Organize and represent data, and
- Draw conclusions and make connections with concepts and knowledge.

The content of the test is aligned to the three content areas within the 2008 Wyoming Science Content and Performance Standards, and a score analysis is reported in each of the following areas:

- Life Science
- Physical Science
- Earth/Space Science

Content Area Skills

The 2008 Wyoming Content and Performance Standards serve as the foundation for a set of comprehensive, measurable PAWS content area skills. The PAWS skills were created through the analysis and categorization of highly related Wyoming Content Standards and Benchmarks. These standards and benchmarks, when used successfully to guide instruction, build students' understanding of the major concepts and principles within each content area. These major concepts and principles comprise the substance of the PAWS content area skills. The PAWS skills described for educators in the Wyoming Assessment Descriptions meet the following set of criteria:

- The skills are organized into major concepts and principles that encompass highly related Wyoming Content Standards and Benchmarks.
- The skills support a variety of instructional strategies administered by Wyoming teachers.
- The skills can be defined as somewhere between the breadth of a content standard and the specificity of a benchmark.

Through the use and measurement of the PAWS content area skills, PAWS successfully fulfills two major purposes. First, it provides information over time about student attainment of the knowledge and skills within the Wyoming Content and Performance Standards in reading, writing, mathematics, and science. Second, and equally important, it provides additional skill-level reporting categories aligned to the Wyoming Content and Performance Standards, as organized by the Wyoming Assessment Descriptions, to assist teachers in interpreting and addressing specific academic needs of students.

To access a comprehensive description of skills and standards tested at each grade, please visit the Wyoming Department of Education website at www.edu.wyoming.gov and click on the State Assessment link.

Test Scores

The following section describes the different kinds of scores provided for the PAWS tests.

Raw Score

A raw score is provided for each content-area assessment. The value of the total raw score is the number of items answered correctly on a content-area assessment. By itself, the raw score has limited utility; it can be interpreted only in reference to the value of the total maximum points available on a content-area assessment, and raw scores should not be compared across administrations.

Scale Score

A scale score allows a valid comparison of PAWS test results from year to year for a given grade and content area. The scale score is statistically derived, adjusting for variations in the difficulty of the test forms used from year to year.

The scale score can be used to

- determine which performance level a student achieved on a grade/content-area assessment;
- compare one student to another taking the same grade/content-area assessment; and
- compare cohorts of students taking the same grade/content-area assessment in different years.

The scale score can also be used to evaluate a student's progress across grades in a particular content area. For example, a student's scale score on the grade 3 reading assessment could be compared to the student's scale score on the grade 4 reading assessment. The scale score cannot be used to compare progress across content areas. For example, it is not appropriate to say that a 210 on the grade 8 reading assessment represents the same level of achievement as a 210 on the grade 8 mathematics assessment.

Specific details regarding the raw score to scale score relationship are reported on the WDE website in the ***2010 PAWS Technical Manual***. The ***PAWS 2011 Technical Manual*** will be available in Fall 2011. Please visit the Wyoming Department of Education website at www.edu.wyoming.gov and click on the State Assessment link.

Item Analysis Scores

The item analysis scores, also called the scale scores for content standards/skills, are the scale scores earned by a student on the mathematics and science strands and the reading sub-strands. These strands and sub-strands are outlined in the Wyoming Assessment Descriptions.

Students receive mathematics PAWS item analysis scores for the five mathematics strands from the 2008 Wyoming Mathematics Content and Performance Standards. These strands are:

- Number Operations and Concepts
- Geometry
- Measurement
- Algebraic Concepts and Relationships
- Data Analysis and Probability

Students receive reading PAWS item analysis scores for the three reading sub-strands from the 2008 Wyoming Language Arts Content and Performance Standards. These sub-strands are:

- Literary Text
- Functional Text
- Informational Text

Students receive science PAWS item analysis scores for the three science strands from the 2008 Wyoming Science Content and Performance Standards. These strands are:

- Life Science
- Physical Science
- Earth/Space Science

Cautions for Score Use

Several cautions must be kept in mind when analyzing PAWS assessment results. As with any assessment, student scores at the minimum and maximum ends of the score range for PAWS must be viewed cautiously. For instance, if a student achieves the maximum scale score, it cannot be determined if that score is the student's true achievement or if the student would have achieved a higher score if that were possible. In other words, if the test had 10 more items, there is no way to know whether the student would have answered those additional items correctly and achieved a higher scale score.

Student Performance Levels

Student performance on the PAWS is classified into one of four performance levels:

- Advanced
- Proficient
- Basic
- Below Basic

The names of the performance levels clearly convey a message about the level of student performance. However, it is also important to become familiar with the PAWS performance level descriptors to completely understand each performance level and the specific knowledge and skills that a student must be able to demonstrate at each level. School personnel who understand the distinctions between the performance levels are in a much stronger position to make full use of the PAWS results.

The complete text of the PAWS performance level descriptors for each content area is included in the Individual Student Report.

NOTE: PERFORMANCE LEVELS DO NOT CORRELATE TO THE RED/YELLOW/ GREEN SKILL RESULTS IN TRAFFIC SIGNAL REPORTS

As the Traffic Signal scores are based only on the content/grade-specific test, there is no intended comparison to other administrations (either across grades or across years). Hence, these item clusters are not formally equated. The Traffic Signal report is separate from the Individual Student Report (ISR) to alleviate any possible confusion between performance-level information and Traffic Signal information. A complete description of the Traffic Signal Report and Writing Skills Roster can be found beginning on page 19 of this guide.

Individual Student Report

A Individual Student Report (ISR) is provided for each student for whom an answer document was submitted. Test results are shown for each content area tested for that grade.

Two basic types of information are provided in the Individual Student Report:

- a description of a student's performance level (advanced, proficient, basic, or below basic); and
- the scale score the student earned for the content area.

These results provide districts, campuses, and parents with useful information about how well a student is learning the 2008 Wyoming Content and Performance Standards.

Reporting Elements of the Individual Student Report

SAMPLE: Individual Student Report (ISR)

STUDENT REPORT

2011 Proficiency Assessments for Wyoming Students (PAWS) (A)

For the parent or guardian of:

FIRSTNAMEXXXXXX M. LASTNAMEXXXXXXXXXXXXXXXXX

Student ID: 12345678
Grade: XX

SCHOOL: XXXXXXXXXXXXXXXXXXXXXX
DISTRICT: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

FIRSTNAMEXXXXXX's Performance on the PAWS Test

Dear Parent or Guardian,

I am pleased to provide you with your child's results from the 2011 PAWS. Two types of information are provided in this report. One is a description of your child's performance level (advanced, proficient, basic or below basic) in each content area (reading, writing and mathematics). The other is the scale score your child earned for each content area. These results provide your child's school with useful information about how well your child is learning the *Wyoming Content and Performance Standards*.

Each of the charts in this report contains a wide black bar showing the calculated range of probable scores for your child based on a statistical model. Your child's actual score is shown by the horizontal line which crosses the vertical bar. Charts at the top of pages 2 - 4 show your child's scores in each of the content areas, as compared to scores of other students in the same grade across the state. The Score Analysis charts show the description of each content standard/skill and your child's score in each content standard. This can help both you and your child's teacher identify areas of strength as well as areas to work on during the coming school year.

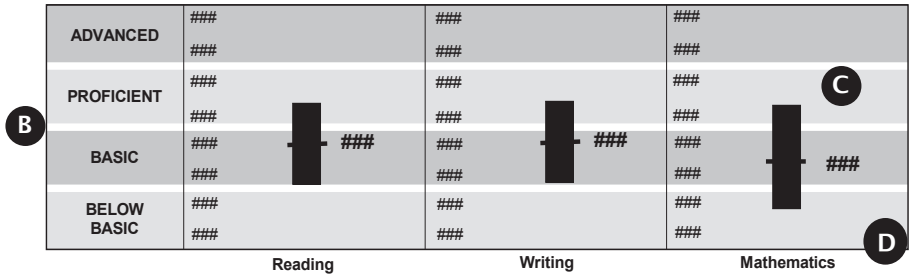
I would also like to point out the Lexile® measure and Lexile® website (bottom of page 3) and the Quantile® measure and Quantile® website (bottom of page 4). Entering your child's scores on these websites will provide you with access to valuable tools and resources which can support your child's academic growth.

The Wyoming Department of Education is dedicated to working together with districts, teachers and parents to ensure your child's continued educational progress. I encourage you to be involved in your child's school and classroom as much as possible to further support his or her success in school.

Sincerely,

Cindy Hill
State Superintendent of Public Instruction

YOUR CHILD'S SCALE SCORES AND PERFORMANCE LEVELS



Score Definitions (E)

Performance Level - Performance Level (Below Basic, Basic, Proficient, or Advanced) is derived from the student's scale score. This reporting information enables teachers to identify a student's overall performance within a subject (reading, writing, and mathematics).

Scale Scores - Scale scores are derived from the raw scores earned on the PAWS. For grade 11 PAWS reading and mathematics, the scale scores range from 50 to 250. While these scale ranges are identical, scale scores for mathematics and reading are not comparable. For grade 11 PAWS writing, the scale scores range from 100 to 500. Scale scores for grade 11 are not vertically scaled with grades 3-8. The horizontal line indicates your child's scale score, and the black band above and below the line indicates one standard error of measurement around the scale score.

Not Tested (NT) - In 2011, your child did not participate in this content area.

Unfair Advantage (UA) - If your child received an UA, please contact your school for further information.

Additional Resources and Information

Visit the Wyoming Department of Education online

Go to the Wyoming Department of Education's Web site at **edu.wyoming.gov** for more information about the Proficiency Assessments for Wyoming Students (PAWS) tests.

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Sample ISR—Overview Page

A. Identification information. The top of the ISR contains identification information, both for the student (name, grade level, identification number, etc.) and the school (district, campus, etc.).

B. Performance level. A student's performance level is derived from the scale score. This reporting information enables teachers to identify a student's overall performance within a content area (reading, writing, and mathematics).

C. Scale score. Scale scores are derived from the raw scores earned on the PAWS. The horizontal line indicates the student's scale score and the vertical black band indicates one standard error of measurement around the scale score.

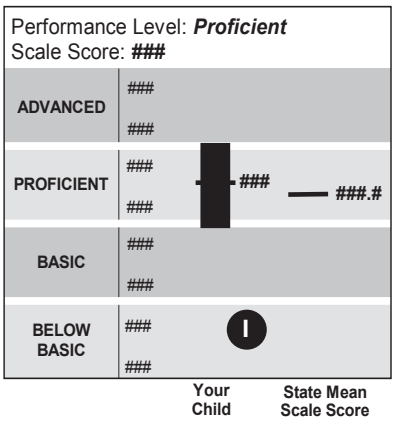
D. Content area. Performance levels and scale scores are reported for each subject-area test. The message "Not Tested" will appear if a student did not test in a specific content area. The message "Unfair Advantage" will appear if a student was deemed to have received an unfair advantage during testing.

E. Score definitions. Score definitions are listed so that parents have a greater understanding of what the elements of the ISR mean.

2011 Proficiency Assessments for Wyoming Students (PAWS)

FIRSTNAME's Performance on the PAWS Language Arts - Writing Test (F)

YOUR CHILD'S WRITING SCALE SCORE AND PERFORMANCE LEVEL (G) (H)



☐ **ADVANCED: Scale Score range: ###-###**
Students performing at an advanced level write for an intended purpose and audience. They develop clear ideas, supported and enriched by descriptive details and examples, and maintain a consistent point-of-view throughout their response. Students demonstrate effective organization with complexity of thought and structure, compose sentences and paragraphs in a meaningful sequence with a variety of transitional words and phrases, and use a variety of complex sentence structures. Students create works that consistently reveal voice, style, or tone appropriate to the purpose and audience, with rich, engaging, and appropriate language, and use grade-appropriate conventions (spelling, punctuation, grammar and usage) with consistency.

☑ **PROFICIENT: Scale Score range: ###-###**
Students performing at a proficient level write for an intended purpose and audience. They write logically with some complexity of thought and structure. Their writing is well organized, fluent and demonstrates use of grade-appropriate conventions (grammar, punctuation, usage). Students compose sequential paragraphs that transition from one to another; arrange the words, sentences and paragraphs using transitional words and phrases; develop complete and varied sentences; create works that uses precise language; use grade appropriate spelling and conventions.

☐ **BASIC: Scale Score range: ###-###**
Students performing at a basic level attempt to write for an intended purpose. They use main idea, but may not fully develop relevant details and examples. They use some organization and use primarily simple sentences with similar sentence structures and generally correct word choice. Students attempt to include an introduction, body or conclusion; create works with some evidence of voice that use limited transitional words and phrases and demonstrate some control of grade-appropriate conventions (grammar, punctuation, usage).

☐ **BELOW BASIC: Scale Score range: ###-###**
Students performing at a below basic level generally do not write for an intended purpose. Their writing is not logical or demonstrates little understanding of grade-appropriate conventions. Students do not create works that have an introduction, body or conclusion; do not create works that contain paragraphs; create works that contain primarily simple sentences; do not use even limited transitional words and phrases; do not include sentence punctuation; do not spell common words correctly.

(J) YOUR CHILD'S WRITING SCORE ANALYSIS BY WRITING TYPE

Content Standards/Skills Description	Scale Score	Scale Score Range ### ### ### ### ###
Expressive Writing – Reflective Narrative – Students convey an experience from a personal point of view to communicate his or her feelings, attitudes, ideas, beliefs, and/or values. **Idea Development** - The writer develops the content of the message through the use of details. **Organization** - The writer builds the organizational structure to support the purpose and effectiveness of the writing. **Voice** - The writer uses effective language to communicate to the audience in a way that is individual, compelling, and engaging. **Conventions** - The writer develops the mechanical correctness of the piece including spelling, capitalization, punctuation, and grammar.	###	
Expository Writing – Persuasive Essay – Students support a definite position to impact the opinion, attitude, or belief of others regarding a specific topic. **Idea Development** - The writer develops the content of the message through the use of details. **Organization** - The writer builds the organizational structure to support the purpose and effectiveness of the writing. **Voice** - The writer uses effective language to communicate to the audience in a way that is individual, compelling, and engaging. **Conventions** - The writer develops the mechanical correctness of the piece including spelling, capitalization, punctuation, and grammar.	### (K)	(L)

Score Definitions

Score Analysis - The Score Analysis section reports scale scores for specific sub-skills within a subject area (text type for reading, writing type for writing, and content standard for mathematics) . The vertical line indicates the scale score for that subskill while the entire band indicates the score range that includes one standard error above and below the score. This range will contain the student's "true" score approximately 68% of the time.

Skills - PAWS assesses high-priority skills derived directly from the state's content standards. These skills have been clearly defined as Assessment Descriptions. A complete version of the Proficiency Assessments for Wyoming Students Assessment Descriptions, including grade-level skills information, can be viewed at edu.wyoming.gov.

F. Content area. This indicates which subject-area scores are reported on the page (writing).

G. Content area performance level and scale score graph. In this graph, the student's scale score is shown as it correlates to the performance level achieved.

H. Content area performance level. The student's performance level achieved for the subject level is indicated here with a checkmark.

I. Content area scale score for student compared to the state mean scale score. This part of the graph shows the student's scale score in relationship to the state mean scale score.

J. Content standards/skills description. The writing content standards and skills are described.

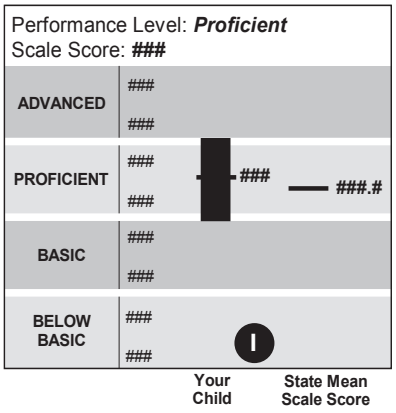
K. Scale scores for content standards/skills. The scale scores corresponding to the student's subject-area raw score are shown.

L. Scale score range. The scale score range is the calculated range (horizontal black bar) of probable scores for each student, based on a statistical model. The vertical black line indicates where a student's scale score falls within the scale score range.

2011 Proficiency Assessments for Wyoming Students (PAWS)

FIRSTNAME's Performance on the PAWS Language Arts - Reading Test (F)

YOUR CHILD'S READING SCALE SCORE AND PERFORMANCE LEVEL (G) (H)



☐ **ADVANCED: Scale Score range: ###-###**
Students performing at an advanced level demonstrate complete mastery of understanding literary and informational texts and use a creative approach in unfamiliar settings. Students can consistently and independently demonstrate an accurate understanding of literary text; determine information related to and among informational texts; determine relevant information; relate story elements; respond to a variety of literary genres by using details; apply sufficient information to complete a task effectively.

☑ **PROFICIENT: Scale Score range: ###-###**
Students performing at a proficient level meet the standard of understanding literary and informational texts and perform in several familiar settings. Students can consistently show a literal understanding of the text; identify information related to and among informational texts; identify main idea and supporting details; identify story elements; respond to a variety of literary genres by identifying main ideas; provide some information to complete a task satisfactorily.

☐ **BASIC: Scale Score range: ###-###**
Students performing at a basic level are working toward the standard for the grade. Understanding of literary and informational texts is emerging given external support and multiple prompts in limited familiar settings. Students can recognize important information in literary and informational texts given teacher-provided choices; match story elements; respond to or actively attend to familiar genres.

☐ **BELOW BASIC: Scale Score range: ###-###**
There is limited or inconsistent evidence of understanding literary and informational texts given external support and multiple prompts in a structured setting. Students can attend to reading activities involving literary and informational texts; show no understanding of text.

YOUR CHILD'S READING SCORE ANALYSIS BY TEXT TYPE

(J) Content Standards/Skills Description	Scale Score	Scale Score Range ### ### ### ### ###
Functional Texts: These texts include reading materials such as directions, schedules, maps, diagrams, internet websites, electronic databases, and explanations for doing something or getting somewhere. They provide basic information readers need to accomplish day-to-day tasks. **Relevance and Importance** - The reader identifies and locates information from the text and understands how the information is relevant and important for accomplishing a specified task. **Selection and Application** - The reader is presented with a scenario in which information from multiple areas of the text must be identified, located, and used to formulate an answer not explicitly stated within the text.	###	
Expository Texts: These texts include such things as textbooks, encyclopedias, documentaries, speeches, public documents, print news media, the internet, websites, electronic databases, microfiche, almanacs, news, biographies, scientific explanations, and historical and political analyses. **Major Points and Supporting Details** - The reader identifies main ideas from the text and recognizes relevant details which support those main ideas. **Organization** - The reader understands how the organization of the text supports the writer's purpose. **Information Relationships** - The reader understands how information from the text relates to broader topics and issues.	###	
Narrative Texts: These texts include stories, poems, novels, plays, and essays about America and various world cultures that are read to learn about people, to vicariously experience the characters and settings, to escape to imaginary places and times, and to become absorbed in adventure and fictional events, and various problems and solutions that structure the plots of these texts. **Story Elements** - The reader recognizes and understands an author's development of story elements and how those elements contribute to the development of plot and theme. **Plot** - The reader identifies and understands the development of a story's plot, central problem, and resolution. **Theme** - The reader understands how various elements of the story contribute to the development of theme.	### (K)	(L)

Lexile® measure = ####L (M)

A Lexile® measure helps readers select materials at their reading level. The Lexile website helps build a customized list of books that match your child's Lexile level and interests. This list can serve as a guide in selecting books at your school or public library and/or local bookstore. For more information, and to search for books by Lexile measure, visit **www.Lexile.com**.

F. Content area. This indicates which subject-area scores are reported on the page (reading).

G. Content area performance level and scale score graph. In this graph, the student's scale score is shown as it correlates to the performance level achieved.

H. Content area performance level. The student's performance level achieved for the subject level is indicated here with a checkmark.

I. Content area scale score for student compared to the state mean scale score. This part of the graph shows the student's scale score in relationship to the state mean scale score.

J. Content standards/skills description. The reading content standards and skills are described.

K. Scale scores for content standards/skills. The scale scores corresponding to the student's subject-area raw score are shown.

L. Scale score range. The calculated range (horizontal bar) of probable scores for each student, based on a statistical model. The vertical black line indicates where a student's scale score falls within the scale score range.

M. Lexile measure (reading only). The PAWS has been linked to the Lexile scale. The Lexile scale is a developmental scale for reading/ELA and is one indicator of a student's reading ability. More information concerning the Lexile Framework is available at http://www.lexile.com.

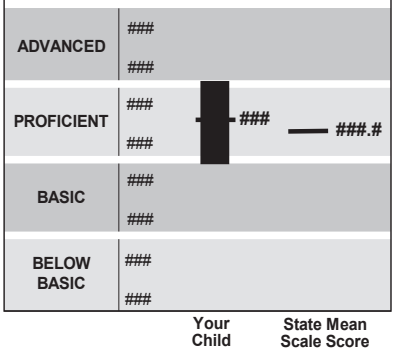
2011 Proficiency Assessments for Wyoming Students (PAWS)

FIRSTNAME's Performance on the PAWS Mathematics Test (F)

YOUR CHILD'S MATHEMATICS SCALE SCORE AND PERFORMANCE LEVEL (H)

(G)

Performance Level: ***Proficient***
Scale Score: **###**



☐ **ADVANCED: Scale Score range: ###-###**
Students performing at an advanced level demonstrate exemplary performance or understanding; use a creative mathematical approach or multiple complex methods of problem solving including interpreting complex information; completing complex tasks involving several processing steps; developing a suitable mathematical representation to produce a solution; applying knowledge in an unfamiliar problem context; displaying generalization, reasoning, and argumentation in communication of results.

☑ **PROFICIENT: Scale Score range: ###-###**
Students performing at a proficient level meet the acceptable standard for the grade by demonstrating solid performance or understanding of problem solving including completing tasks involving more than a single processing step; combining different pieces of information; interpreting different representations; recognizing which elements are important and how they relate to one another; working with given mathematical representations; carrying out sequence of processing steps to produce a solution.

☐ **BASIC: Scale Score range: ###-###**
Students performing at a basic level have not yet met the acceptable standard for the grade. Although errors are being made, performance and understanding are emerging as demonstrated by the use of routine computations and problem solving including solving or using single step processes; recognizing familiar contexts and mathematically well-defined problems; reproducing of facts or processes; applying simple computational skills.

☐ **BELOW BASIC: Scale Score range: ###-###**
The student is not yet meeting the acceptable standard for the grade; errors are being made and there is no evidence of understanding problem solving or computation skills. Students can sometimes use simple computational skills to solve simple problems; perform some basic procedures with inconsistent accuracy; communicate with little use of mathematical language and often includes errors.

YOUR CHILD'S MATHEMATICS SCORE ANALYSIS BY STANDARD (I)

Content Standards/Skills Examples	Scale Score	Scale Score Range ### ### ### ### ###
Number Operations and Concepts – Students use numbers, number sense, and number relationships in a problem-solving situation. **Number Representations** - Simplify $\frac{\sqrt{12}\sqrt{3}}{\sqrt{6}}$ (J) **Number Operations and Concepts** - Simplify $\left(\frac{2x^4y^2}{3x^2}\right)^3$	###	
Geometry – Students apply geometric concepts, properties, and relationships in a problem-solving situation. **Spatial Relationships** - What is the distance between point A (-2, -3) and point B (2, 0)? **Apply Transformations & Symmetry** - Point A (-1, 3) is reflected across the line x = -3. What are the coordinates of the reflected image? (K)	###	
Measurement – Students use a variety of tools and techniques of measurement in a problem-solving situation. **Measurement Systems** - The ratio of an angle to its supplement is 2:3. What is the measure of the angle? **Perimeter, Area & Volume** - The great pyramid of Giza is a square pyramid 230 meters on a side and 142 meters high. Find its volume. (L)	###	
Algebra – Students use algebraic methods to investigate, model, and interpret patterns and functions involving numbers, shapes, data, and graphs in a problem-solving situation. **Patterns, Relations & Functions** - What is the solution set of $4x - 10 \geq -6$? **Mathematical Representation** - The equation $F = \frac{9}{5}C + 32$ Celsius to Fahrenheit temperatures. What does the slope tell you about the two temperatures?	###	
Data Analysis and Probability – Students use data analysis and probability to analyze given situations and the results of experiments. **Collect and Analyze Data** - If the range of the set of numbers {20, 25, 30, 35, 40} was to increase by 1 by changing the value of only 1 element of the set, find one of the two possible new means. **Inferences/Predictions** - If a softball player has a batting average of .400, what is the probability she will get 3 hits in a row in 3 successive at bats?	###	

Quantile® measure = ####Q (N)

A Quantile® measure is similar to the Lexile and can help you identify math activities to do at home. These activities will help your child practice mathematical skills at an appropriate level, leading to increased mathematical understanding. For more information, visit the "Math at Home" section at **www.Quantiles.com**.

F. Content area. This indicates which subject-area scores are reported on the page (mathematics).

G. Content area performance level and scale score graph. In this graph, the student's scale score is shown as it correlates to the performance level achieved.

H. Content area performance level. The student's performance level achieved for the subject level is indicated here with a checkmark.

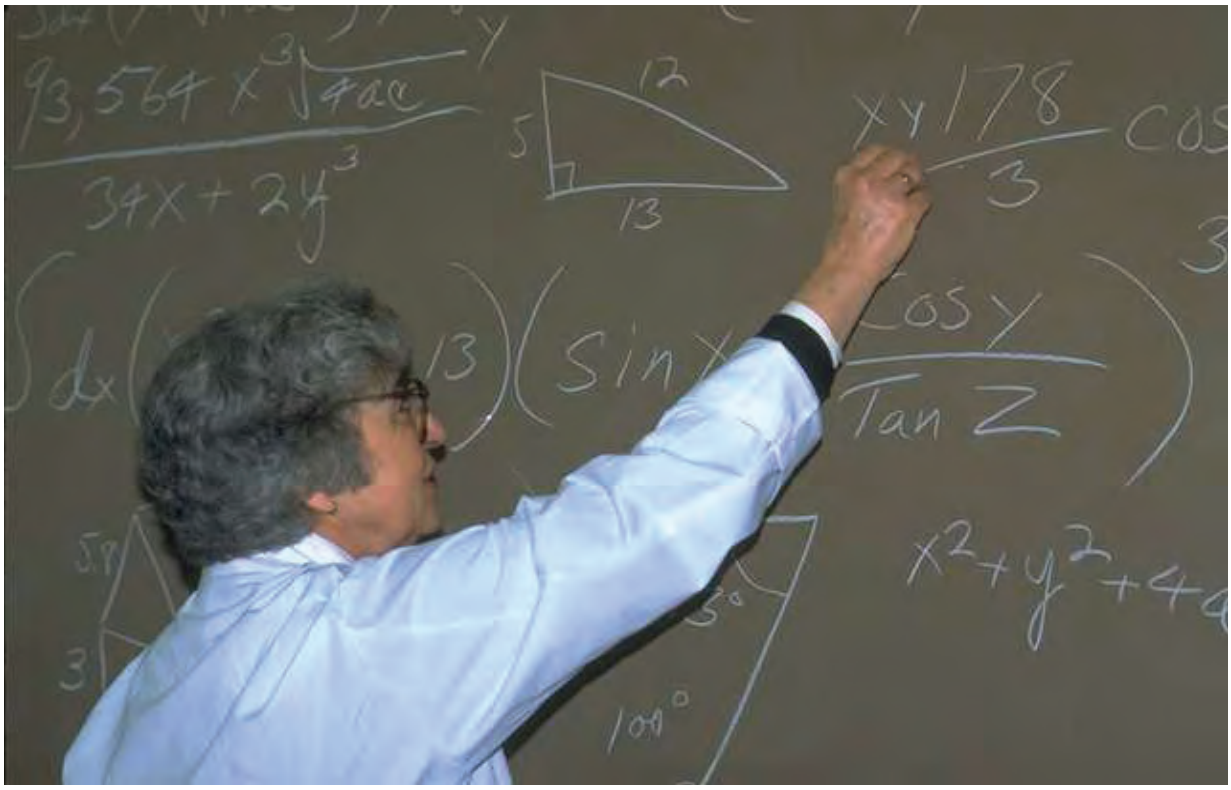
I. Content area scale score for student compared to the state mean scale score. This part of the graph shows the student's scale score in relationship to the state mean scale score.

J. Content standards/skills description. The mathematics content standards and skills are described.

K. Scale scores for content standards/skills. The scale scores corresponding to the student's subject-area raw score are shown.

L. Scale score range. The calculated range (horizontal bar) of probable scores for each student, based on a statistical model. The vertical black line indicates where a student's scale score falls within the scale score range.

N. Quantile measure (mathematics only). The Quantile scale is a developmental scale for mathematics and is one indicator of a student's ability in mathematics. More information concerning the Quantile scale can be found at http//www.quantile.com.



Traffic Signal and Writing Skills Reports

Purpose of Traffic Signal Report and Writing Skills Roster

The skill-based Traffic Signal Report of student performance is intended to be interpreted independently of the proficiency and scale scores. Furthermore, this reporting mechanism is intended to apply only to the specific set of items within a skill category and to provide a peer-based means of identifying skill-based performance in need of instructional attention. These results are based only on the raw scores of the current year's test, there can be no comparison to other administrations (either across grades or across years). The guidance at the skill-reporting category is simplified to three color-coded levels:

- Green, no additional instruction on this skill category seems needed;
- Yellow, additional instruction on this skill category may be needed; and
- Red, additional instruction on this skill category definitely seems needed.

How Teachers Can Use the On-Demand Traffic Signal and Writing Skills Class Roster Reports

Class roster traffic signal results from PAWS serve to indicate the extent to which students are mastering content-specific skills, allowing teachers to monitor students' progress, improve instruction, and promote student achievement. Teachers can interpret these results to adjust instruction to help improve his/her subsequent students' PAWS scores.

There are two steps that teachers can follow to gather useful information from the Traffic Signal results:

1. Identify any PAWS skills in which a class, overall, performed at the yellow or red band.
2. Determine whether there are any major differences between the pattern of class performance across PAWS skills and the patterns found at the school levels.

If any differences are found in Steps 1 and 2, the teacher can then begin to evaluate:

- Those differences in the larger context of student performance throughout the year;
- The topics the class covered prior to testing; and
- The content and skills emphasized in the school curriculum compared to the content and skills measured on the test.

The teacher can then consider curricular or instructional adjustments that could be made to benefit future students so that they do not experience similar patterns of achievement of those skills.

How Teachers Can Use the On-Demand Traffic Signal and Writing Skills Individual Student Reports

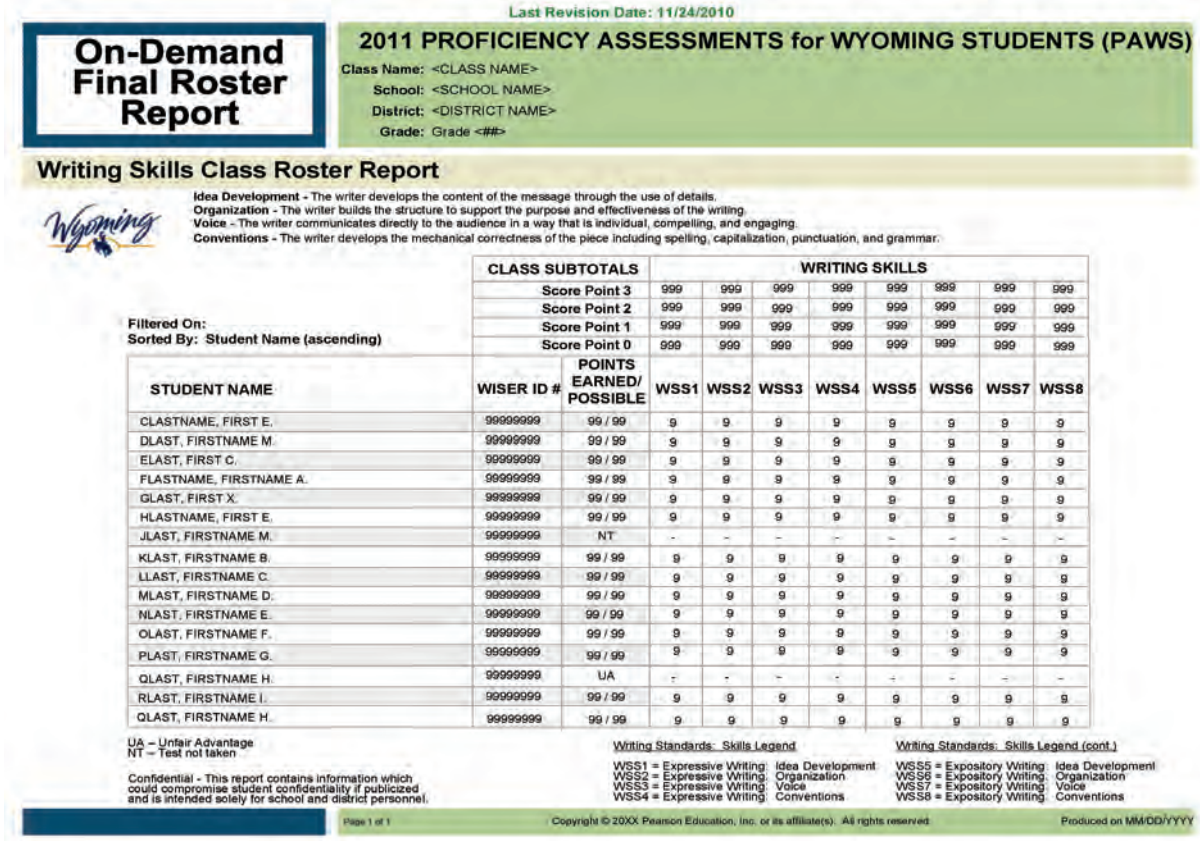
Individual student traffic signal results from PAWS serve to indicate the extent to which a student is mastering content-specific skills, allowing teachers to monitor student progress and promote student achievement. Results from the PAWS assessment can be used to identify an individual student's relative strengths and weaknesses within the given content area at the beginning of the subsequent school year.

There are steps that teachers can follow to gather useful information from the Individual Traffic Signal results when the incoming class results are compiled for them at the beginning of the next school year:

1. Identify any PAWS skills in which an individual student performed at the yellow or red band.
2. Determine whether those differences, in the larger context of coming grade's academic expectations, are meaningful.
3. Ensure those topics, at the yellow or red band, are emphasized in the student's curriculum compared to the content and skills the student registered in the green band.
4. The teacher can then consider curricular or instructional adjustments that could be made to benefit each student's future achievement.

The Individual Writing Skills Reports may be used in a similar manner.

Sample Writing Skills Class Roster Report



Last Revision Date: 11/24/2010

On-Demand Final Roster Report

2011 PROFICIENCY ASSESSMENTS for WYOMING STUDENTS (PAWS)

Class Name: <CLASS NAME>
School: <SCHOOL NAME>
District: <DISTRICT NAME>
Grade: Grade <##>

Writing Skills Class Roster Report

Idea Development - The writer develops the content of the message through the use of details.
Organization - The writer builds the structure to support the purpose and effectiveness of the writing.
Voice - The writer communicates directly to the audience in a way that is individual, compelling, and engaging.
Conventions - The writer develops the mechanical correctness of the piece including spelling, capitalization, punctuation, and grammar.

Filtered On:
Sorted By: Student Name (ascending)

		CLASS SUBTOTALS	WRITING SKILLS							
		Score Point 3	999	999	999	999	999	999	999	999
		Score Point 2	999	999	999	999	999	999	999	999
		Score Point 1	999	999	999	999	999	999	999	999
		Score Point 0	999	999	999	999	999	999	999	999
STUDENT NAME	**WISER ID #**	**POINTS EARNED/ POSSIBLE**	**WSS1**	**WSS2**	**WSS3**	**WSS4**	**WSS5**	**WSS6**	**WSS7**	**WSS8**
CLASTNAME, FIRST E.	99999999	99 / 99	9	9	9	9	9	9	9	9
DLAST, FIRSTNAME M.	99999999	99 / 99	9	9	9	9	9	9	9	9
ELAST, FIRST C.	99999999	99 / 99	9	9	9	9	9	9	9	9
FLASTNAME, FIRSTNAME A.	99999999	99 / 99	9	9	9	9	9	9	9	9
GLAST, FIRST X.	99999999	99 / 99	9	9	9	9	9	9	9	9
HLASTNAME, FIRST E.	99999999	99 / 99	9	9	9	9	9	9	9	9
JLAST, FIRSTNAME M.	99999999	NT	-	-	-	-	-	-	-	-
KLAST, FIRSTNAME B.	99999999	99 / 99	9	9	9	9	9	9	9	9
LLAST, FIRSTNAME C.	99999999	99 / 99	9	9	9	9	9	9	9	9
MLAST, FIRSTNAME D.	99999999	99 / 99	9	9	9	9	9	9	9	9
NLAST, FIRSTNAME E.	99999999	99 / 99	9	9	9	9	9	9	9	9
OLAST, FIRSTNAME F.	99999999	99 / 99	9	9	9	9	9	9	9	9
PLAST, FIRSTNAME G.	99999999	99 / 99	9	9	9	9	9	9	9	9
QLAST, FIRSTNAME H.	99999999	UA	-	-	-	-	-	-	-	-
RLAST, FIRSTNAME I.	99999999	99 / 99	9	9	9	9	9	9	9	9
QLAST, FIRSTNAME H.	99999999	99 / 99	9	9	9	9	9	9	9	9

UA – Unfair Advantage
NT – Test not taken

Confidential - This report contains information which could compromise student confidentiality if publicized and is intended solely for school and district personnel.

Writing Standards: Skills Legend

WSS1 = Expressive Writing: Idea Development
WSS2 = Expressive Writing: Organization
WSS3 = Expressive Writing: Voice
WSS4 = Expressive Writing: Conventions

Writing Standards: Skills Legend (cont.)

WSS5 = Expository Writing: Idea Development
WSS6 = Expository Writing: Organization
WSS7 = Expository Writing: Voice
WSS8 = Expository Writing: Conventions

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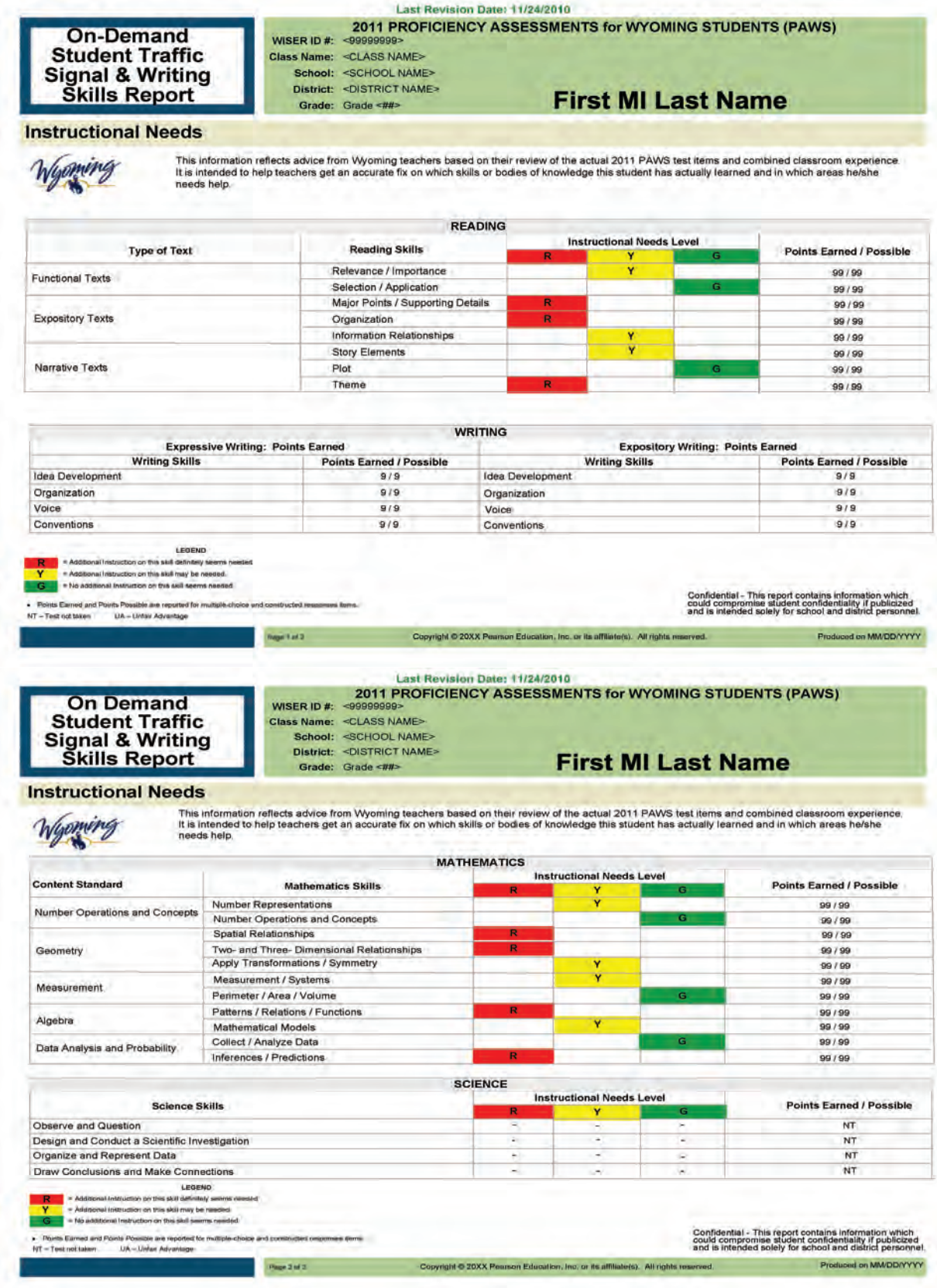
Sample Student Traffic Signal & Writing Skills Report



Last Revision Date: 11/24/2010

On-Demand Student Traffic Signal & Writing Skills Report

2011 PROFICIENCY ASSESSMENTS for WYOMING STUDENTS (PAWS)

WISER ID #: <99999999>
Class Name: <CLASS NAME>
School: <SCHOOL NAME>
District: <DISTRICT NAME>
Grade: Grade <##>

First MI Last Name

Instructional Needs

This information reflects advice from Wyoming teachers based on their review of the actual 2011 PAWS test items and combined classroom experience. It is intended to help teachers get an accurate fix on which skills or bodies of knowledge this student has actually learned and in which areas he/she needs help.

READING

Type of Text	Reading Skills	Instructional Needs Level R	Y	G	Points Earned / Possible
Functional Texts	Relevance / Importance		Y		99 / 99
	Selection / Application			G	99 / 99
Expository Texts	Major Points / Supporting Details	R			99 / 99
	Organization	R			99 / 99
	Information Relationships		Y		99 / 99
Narrative Texts	Story Elements		Y		99 / 99
	Plot			G	99 / 99
	Theme	R			99 / 99

WRITING

Expressive Writing: Points Earned		Expository Writing: Points Earned	
Writing Skills	Points Earned / Possible	Writing Skills	Points Earned / Possible
Idea Development	9 / 9	Idea Development	9 / 9
Organization	9 / 9	Organization	9 / 9
Voice	9 / 9	Voice	9 / 9
Conventions	9 / 9	Conventions	9 / 9

LEGEND
R = Additional instruction on this skill definitely seems needed
Y = Additional instruction on this skill may be needed.
G = No additional instruction on this skill seems needed

• Points Earned and Points Possible are reported for multiple-choice and constructed responses items.
NT – Test not taken UA – Unfair Advantage

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Last Revision Date: 11/24/2010

On Demand Student Traffic Signal & Writing Skills Report

2011 PROFICIENCY ASSESSMENTS for WYOMING STUDENTS (PAWS)

WISER ID #: <99999999>
Class Name: <CLASS NAME>
School: <SCHOOL NAME>
District: <DISTRICT NAME>
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First MI Last Name

Instructional Needs

This information reflects advice from Wyoming teachers based on their review of the actual 2011 PAWS test items and combined classroom experience. It is intended to help teachers get an accurate fix on which skills or bodies of knowledge this student has actually learned and in which areas he/she needs help.

MATHEMATICS

Content Standard	Mathematics Skills	Instructional Needs Level R	Y	G	Points Earned / Possible
Number Operations and Concepts	Number Representations		Y		99 / 99
	Number Operations and Concepts			G	99 / 99
Geometry	Spatial Relationships	R			99 / 99
	Two- and Three- Dimensional Relationships	R			99 / 99
	Apply Transformations / Symmetry		Y		99 / 99
Measurement	Measurement / Systems		Y		99 / 99
	Perimeter / Area / Volume			G	99 / 99
Algebra	Patterns / Relations / Functions	R			99 / 99
	Mathematical Models		Y		99 / 99
Data Analysis and Probability	Collect / Analyze Data			G	99 / 99
	Inferences / Predictions	R			99 / 99

SCIENCE

Science Skills	Instructional Needs Level R	Y	G	Points Earned / Possible
Observe and Question	-	-	-	NT
Design and Conduct a Scientific Investigation	-	-	-	NT
Organize and Represent Data	-	-	-	NT
Draw Conclusions and Make Connections	-	-	-	NT

LEGEND
R = Additional instruction on this skill definitely seems needed
Y = Additional instruction on this skill may be needed.
G = No additional instruction on this skill seems needed

• Points Earned and Points Possible are reported for multiple-choice and constructed responses items.
NT – Test not taken UA – Unfair Advantage

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Other Reports

Class Level

Moving beyond individual student results involves aggregating the test scores for students in particular groups of interest. Class results are useful to the teacher in reviewing how well the classroom curriculum aligns with the PAWS expectations. The teacher can then look for patterns of results that will help shape future instruction. The Class Summary Report, for example, allows a teacher to examine both the distribution of the class results across the skills assessed. By adjusting the curriculum to address patterns of academic need, the teacher can help promote student achievement.

School and District Levels

Assessment results at the school and district levels are discussed together because the similarities in the types of analyses conducted and interpretations made with these results outweigh the distinctions. In practice, reviewing a large district's test results may be comparable to reviewing state-level results. Likewise, reviewing a small school may be more like reviewing a class than a school, and reviewing a large school may be more like reviewing a district.

When assessment results are aggregated beyond the class level, the focus of their use and interpretation shifts. To this point, the focus has been on the results of individual students. The teacher or teachers analyzing students' assessment scores would have worked directly with those students. Although the same types of analyses described for class results can be performed at the school or district level, the focus is on groups of students rather than on individuals.

At the school and district levels, PAWS results can be used as part of the ongoing evaluation of curriculum and instructional programs. Using the analyses described previously, strengths and weaknesses across the curriculum and within content areas can be identified and monitored over time with a thorough review of assessment scores.

The school and district reports provide PAWS results for all students, special education students, English language learners, non-English language learners, and regular education students. The results are further disaggregated by race, ethnicity, gender, migrant status, and eligibility for free/reduced lunch. These reporting categories include areas where differences in assessment scores or classroom performance have been found historically.

It is important, however, to proceed cautiously when using assessment results for small groups of students (less than 10). Assessment results based on small numbers of students can be unstable, fluctuating markedly from year to year. To help alleviate this problem, smaller schools might pool results from two or more years of testing. Examining PAWS results at the school and district levels offers the opportunity for all teachers to become involved in the evaluation of curriculum and instruction.

State Level

Assessment results describe the achievement of the students in the state in the content areas tested. Because state scores are based on the population of students statewide, they are more stable. Unlike class, school, or even district results described previously, state results are less likely to fluctuate from year to year due simply to chance differences in the cohort of students tested.

However, the state is not a class, school, or district. The connection between state and individual student test results is weaker than the connection between state and class, school, or district test results. It is not until state test results are disaggregated that they can be most useful for improving instruction and student achievement.

Standardized tests are a valuable tool for evaluating programs. However, any achievement test can furnish only one part of the picture. PAWS tests are not able to identify, let alone measure, every factor that contributes to the success or failure of a program. Assessment results can be most helpful if considered as one component of an evaluation system.

Additional Resources Available

Wyoming Department of Education: http://edu.wyoming.gov/