



Interpreting Summative Score Reports: Math, Science, ELA

WERA
December 6, 2018

Office of Superintendent of Public Instruction
Chris Reykdal, State Superintendent



Vision:

All students prepared for post-secondary pathways, careers, and civic engagement.

Mission:

Transform K–12 education to a system that is centered on closing opportunity gaps and is characterized by high expectations for all students and educators. We achieve this by developing equity-based policies and supports that empower educators, families, and communities.

Values:

- Ensuring Equity
- Collaboration and Service
- Achieving Excellence through Continuous Improvement
- Focus on the Whole Child



Assessment Development

Our Belief:

OSPI provides educators with critical tools, resources, and professional development to determine and communicate where students are in their learning and growth. An end-of-year, summative assessment is one tool for gaining information about student learning achievements during the year.

Our Goals:

- Continue to develop high quality assessments that add value to Phase I of Superintendent Reykdal's K–12 Education Vision for 2017–19.
- Promote the message that a summative assessment is one tool for gaining information about student learning and growth.
- Promote and expand relationships with the OSPI Career and Technical Education and Learning and Teaching departments, and establish and promote relationships with the Migrant & Bilingual Education, Educator Growth and Development, and Special Education departments to enhance educators' understanding of student learning and assessment.
- Continue to improve the quality and equitable access of the state assessments and the quality, equitable access, and usability of assessment resources that we make available to educators and district staff.

Introductions

- Anton Jackson – Director of Assessment Development
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- Shelley O'Dell – ELA Assessment Specialist
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- Dawn Cope – Science Assessment Lead
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- Jacob Parikh – Science Assessment Specialist
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- Kara Todd – Content Coordinator for Test Development
kara.todd@k12.wa.us



Goals and Objectives

- We want to share what data is available
 - How scores are calculated
 - Online Reporting System
 - State Report Card
 - Family Reports
- We want to discuss:
 - Communicating the data
 - Resources
 - Interpreting the data



Determining Scores

How scores are calculated



Assessment Types

Smarter Balanced Assessment

- Online Adaptive
- Interim assessments
- Training Tests
- Practice Tests
- Digital Library

Washington Comprehensive Assessment of Science

- Online Fixed Form
- Training Tests



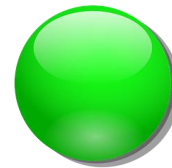
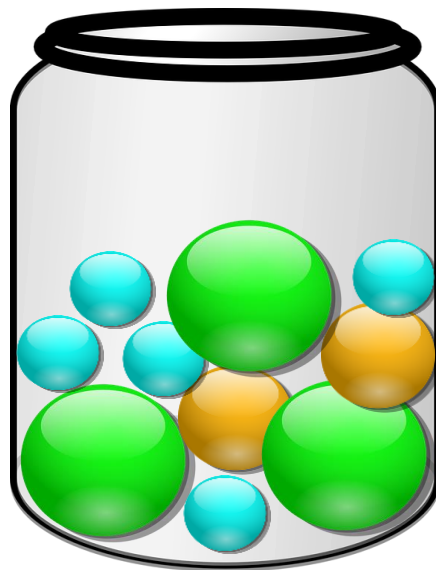
How are scores determined on the SBA?

- A score is about *estimating ability* based on evidence
- Evidence comes from **points earned** and **item difficulty**
- Item *difficulty* is generated based on student performance in field testing
 - Easy
 - Moderate
 - Difficult

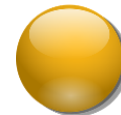


Item Difficulty:

Difficulty: Each claim has a number of items with a varying range of difficulties intended to assess a range of student performance levels.



Difficult



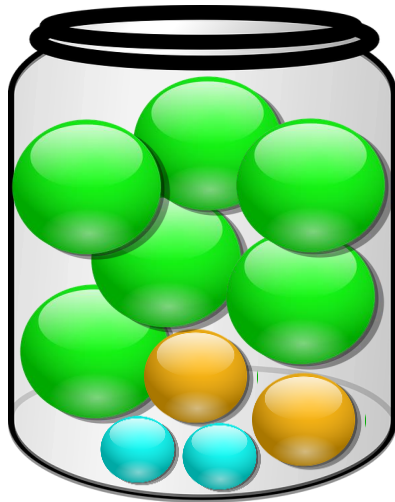
Moderate



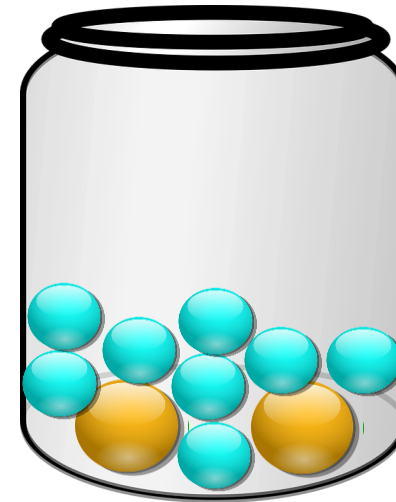
Easy

Test Map vs. Difficulty

Blueprints only determine *distribution* of items.
Student performance on those items determines *difficulty* of future items for the student.

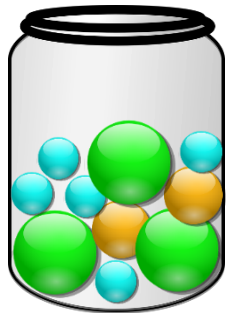


Student who answers many
difficult items correctly

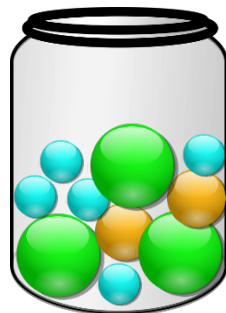


Student who answers easy items
correctly but misses difficult items

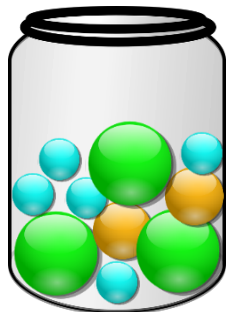
How a student performs across **all** claims generates their overall score



Claim 1



Claim 2



Claim 3



Claim 4

Overall Scale Score
"Estimation of Ability"

Level
4

Level
3

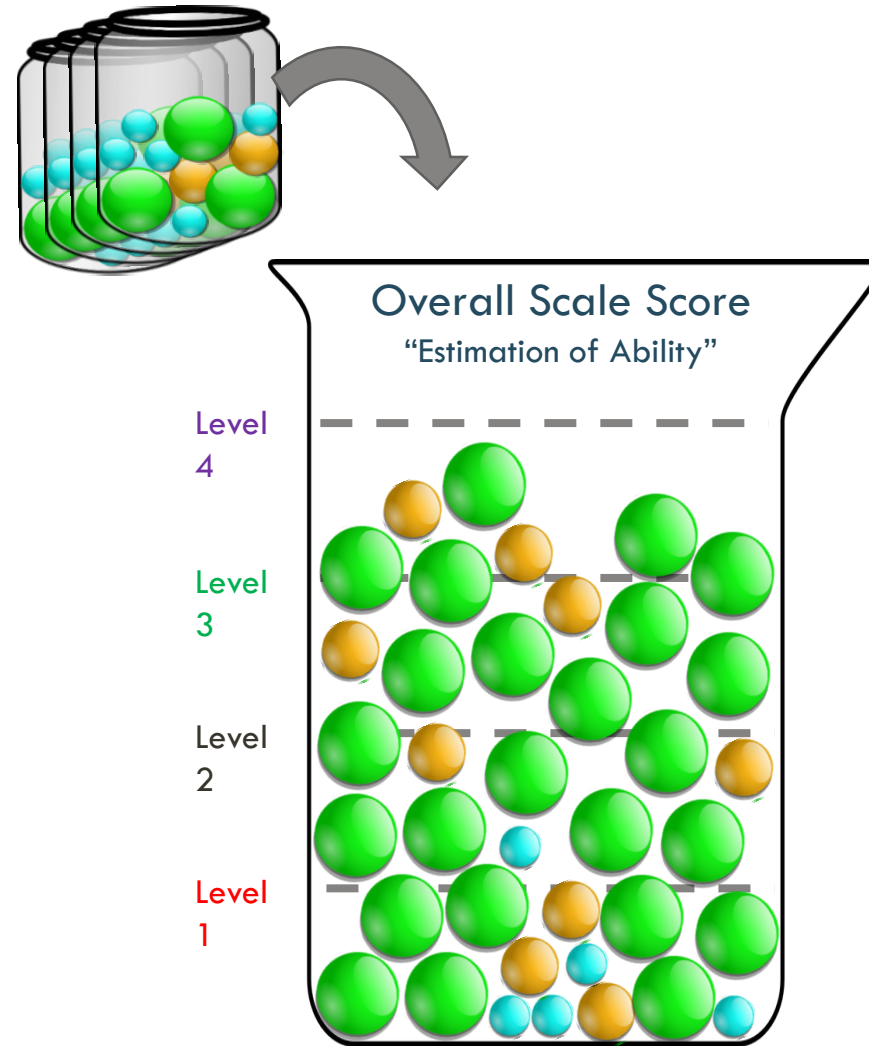
Level
2

Level
1



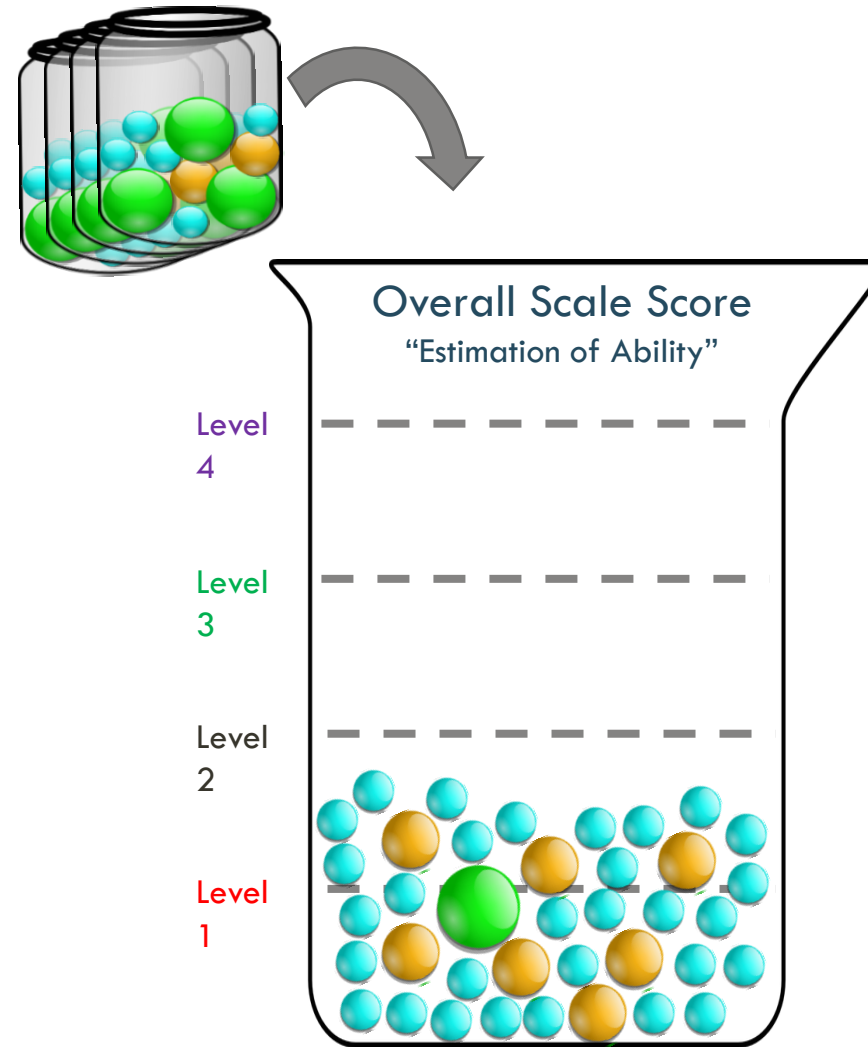
Example: Student A

Student A answers ~30 items correctly, most of which are *difficult*



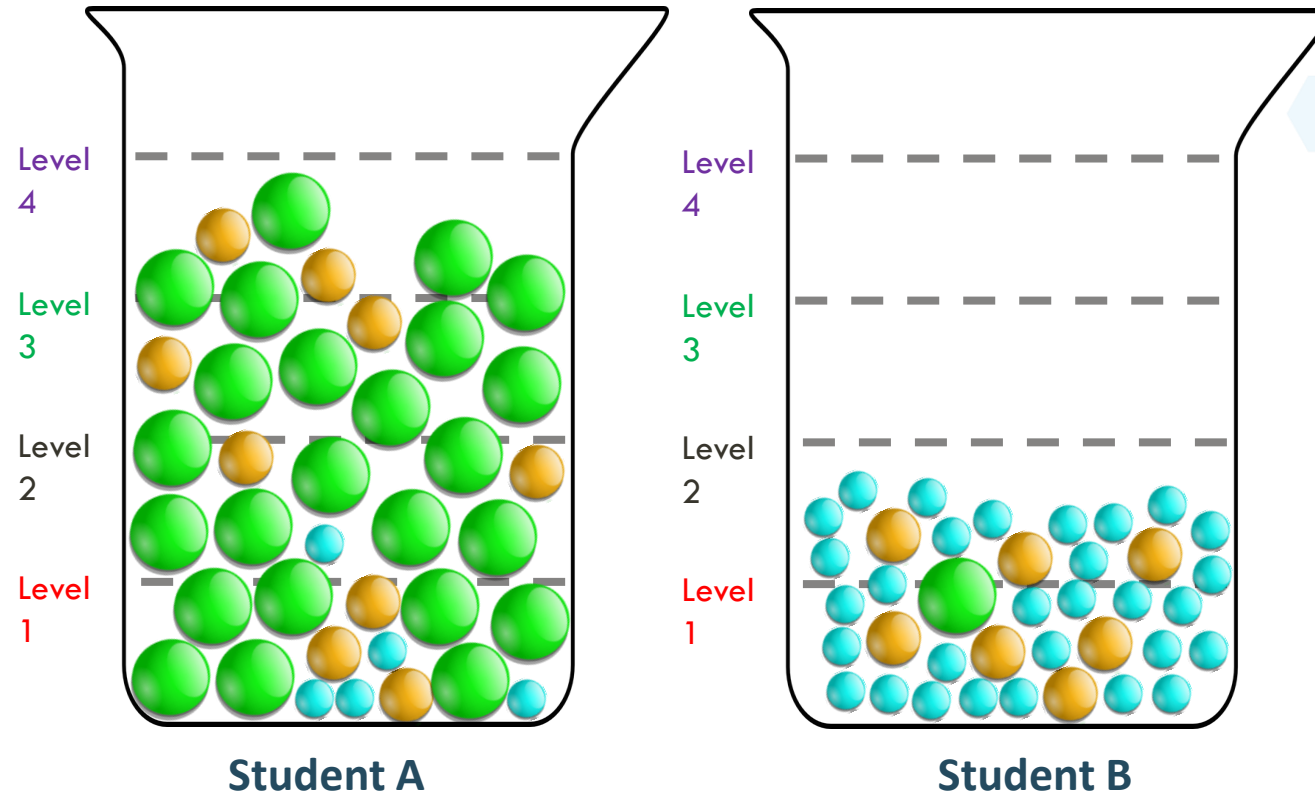
Example: Student B

Student **B** answers ~30 items correctly, most of which are easy



Comparison of Sample Students

Both students answered approximately the same number of items correctly...
The variance of scale scores based on *difficulty* of items answered correctly



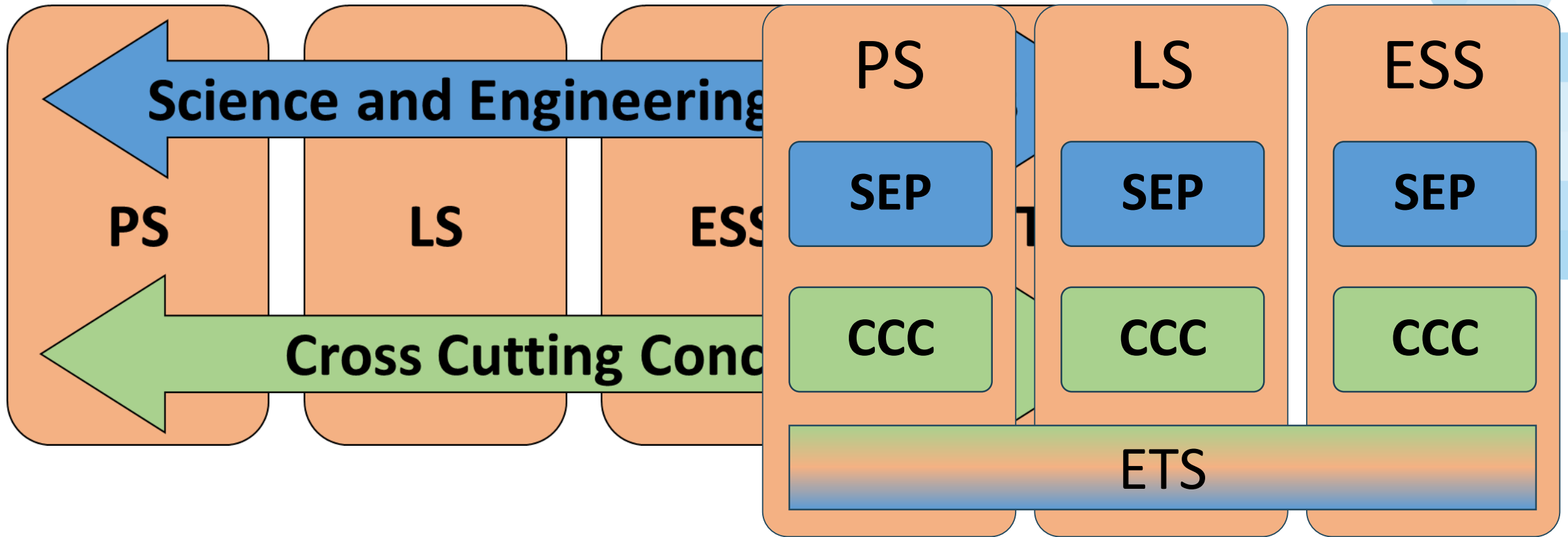
How are scores determined on the WCAS?

- A score is based on the number of points the student earns on the test
- All points are weighted equally
- Points can come from any reporting area



The 3-Dimensional nature of the *Next Generation Science Standards* (NGSS)...

...is measured by the WCAS. An overall scale score as well as three sub-scores are reported:



Sample Cluster Alignment

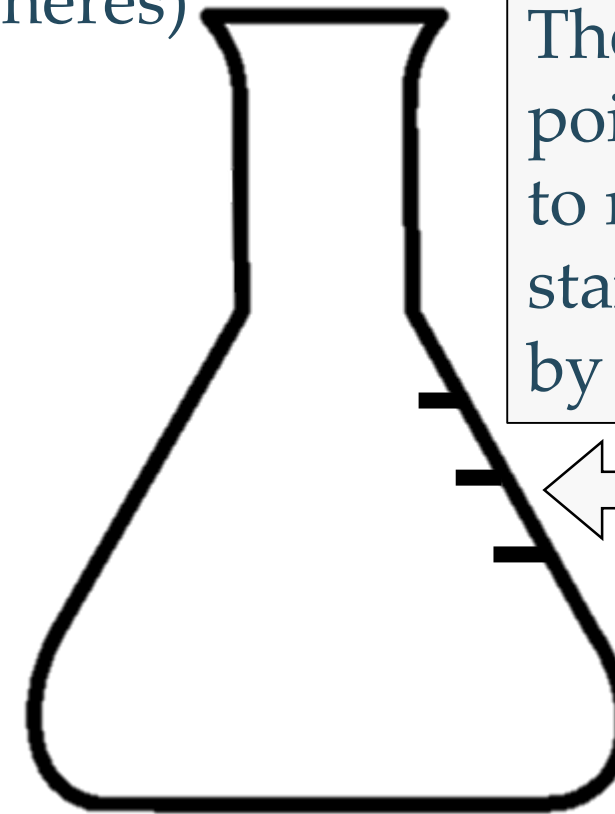
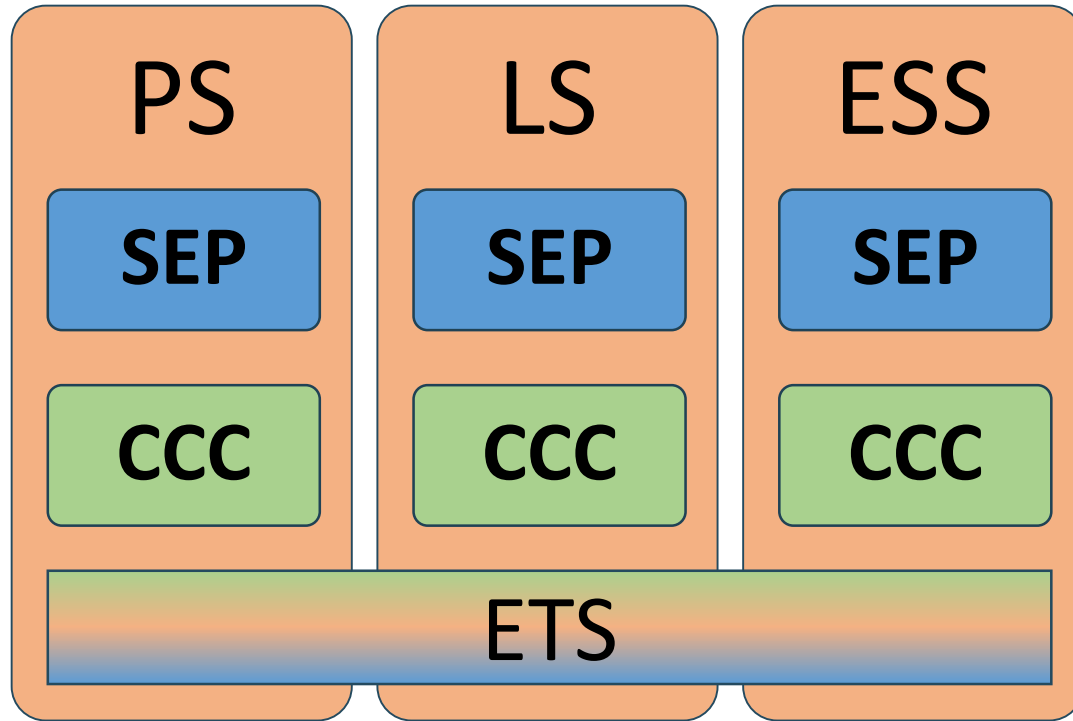


Sample Cluster	Item Type	Score Point	Performance Expectation Alignment	Science & Engineering Practice	Disciplinary Core Idea	Crosscutting Concept
Item 1	Multiple Select	1	HS-LS2-3	Constructing Explanations and Designing Solutions	LS2.B	Energy and Matter
Item 2	Table Match	1	HS-LS2-3 HS-ETS1-3	Constructing Explanations and Designing Solutions	LS2.B ETS1.B	Influence of Science, Engineering, and Technology on Society and the Natural World
Item 3	Graphic Gap Match	2	HS-LS2-3	-	LS2.B	Energy and Matter
Item 4	Edit Task Inline Choice	1	HS-LS2-3 HS-ETS1-3	Constructing Explanations and Designing Solutions	LS2.B ETS1.B	Influence of Science, Engineering, and Technology on Society and the Natural World

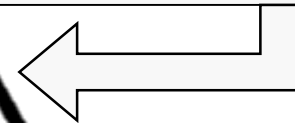


A student who correctly answers all of the items from the sample cluster earns five points, all in the reporting area “Practices and Crosscutting Concepts in Life Sciences”

All points are weighted equally (same size spheres)



The number of points needed to meet standard varies by grade level



Reporting

What data and reports are available?



What's the same across content areas?

- Student results
 - Overall score
 - Achievement Level
 - Sub-scores
- Reporting
 - Levels
 - Classroom/Roster
 - Teacher
 - School
 - District
 - Methods
 - Report Card
 - Online Reporting System (ORS)
 - Paper Family Reports



Online Reporting System (ORS)

Smarter Balanced

WCAS



Online Reporting System (ORS)

- Note: Results/reports only include students who tested
- Sharing individual student results with parents
 - Usually by **June 1**, SBA results are ready to share
 - Usually by **August 15**, WCAS results are ready to share
 - Parents/guardians must only see their student's information
- Features
 - Printing Individual SBA Student Reports in Spanish
 - Next Steps for SBA claim performance



Family Reports

A tool to communicate summative test results with parents and families



2018 Versions

Student Name: Jane S. Doe
 State Student ID: 9999 123 456
 Grade: 8

School: Demo School
 District: Demo District
 Test Date: Spring 2015

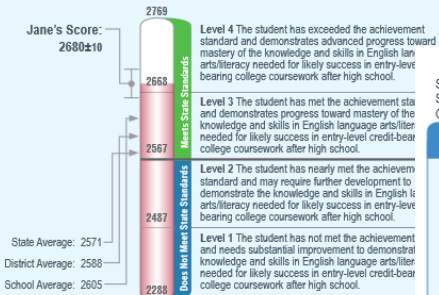
Smarter Balanced ELA/Literacy Assessment Results

Jane's ELA/Literacy Score

2680

How does this compare?
 Jane's ELA/Literacy score is 2680. This score is higher than the average score of eighth graders in her school, higher than that of eighth graders in her district, and higher than that of eighth graders statewide.

A student's test score can vary if the test is taken several times. If your child was tested again, it is likely that Jane would receive a score between 2670 and 2690.



FAQs

What is the Smarter Balanced ELA/Literacy Assessment?

This assessment is aligned to new academic standards for ELA/literacy. These standards identify what students should know and be able to do to graduate high school ready for college and the workplace. They challenge students to develop a deeper understanding of subject matter, learn how to think critically, and apply what they are learning to the real world.

What is a claim?

ELA claims are broad statements that identify the knowledge and skills students should know and be able to do as they progress toward college and career readiness. How your child performed on each claim is found in the columns to the right.

How did Jane perform on the different claims of the test?

Claim 1: Reading	Claim 2: Listening and Speaking	Claim 3: Writing	Claim 4: Research
Below Standard	Above Standard	Above Standard	At/Near Standard
Student has difficulty reading closely and analytically	Student can employ effective speaking and listening skills for a range of purposes and audiences.	Student can produce effective and well-grounded writing for a range of purposes and audiences.	Student able to research and to integrate information



Student Name: Jane S. Doe
 State Student ID: 9999 123 456
 Grade: 8

School: Demo School
 District: Demo District
 Test Date: Spring 2015

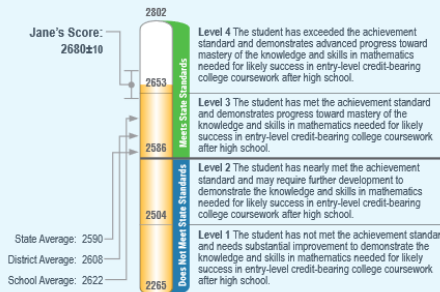
Smarter Balanced Mathematics Assessment Results

Jane's Mathematics Score

2680

How does this compare?
 Jane's Mathematics score is 2680. This score is higher than the average score of eighth graders in her school, higher than that of eighth graders in her district, and higher than that of eighth graders statewide.

A student's test score can vary if the test is taken several times. If your child was tested again, it is likely that Jane would receive a score between 2670 and 2690.



FAQs

What is the Smarter Balanced Mathematics Assessment?

This assessment is aligned to new academic standards for mathematics. These standards identify what students should know and be able to do to graduate high school ready for college and the workplace. They challenge students to develop a deeper understanding of subject matter, learn how to think critically, and apply what they are learning to the real world.

What is a claim?

Mathematical claims are broad statements that identify the knowledge and skills students should know and be able to do as they progress toward college and career readiness. How your child performed on each claim is found in the columns to the right.

How did Jane perform on the different claims of the test?

Claim 1: Concepts and Procedures	Claims 2&4: Problem Solving and Modeling & Data Analysis	Claim 3: Communicating Reasoning
Below Standard	Above Standard	At/Near Standard
Student has difficulty explaining and applying mathematical concepts and interpreting and carrying out mathematical procedures with precision and fluency.	Student can solve a range of complex well-posed problems in pure and applied mathematics, making productive use of knowledge and problem solving strategies. Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.	Student may be able to clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.



Student Name: Jolyne M. Doe
 State Student ID: 9999 234 567
 Grade: 8
 Test Date: Spring 2018

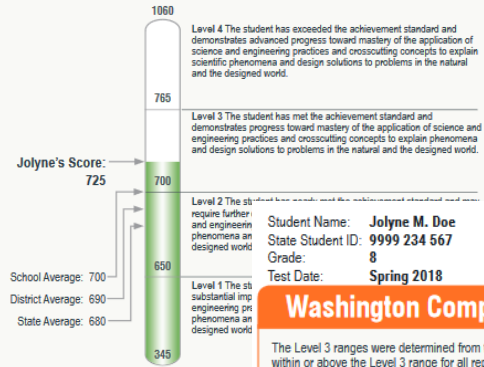
School: Demo School (12345.6789)
 District: Demo District (12345)

Washington Comprehensive Assessment of Science Results

Jolyne's Science Score

725

How does this compare?
 Jolyne's Science score is 725. This falls within the score range of 700-749 (Level 3), which meets state standards. This score is higher than the average score of eighth graders in your child's school, higher than that of eighth graders in your child's district, and higher than that of eighth graders statewide.



Student Name: Jolyne M. Doe
 State Student ID: 9999 234 567
 Grade: 8
 Test Date: Spring 2018

School: Demo School (12345.6789)
 District: Demo District (12345)

Washington Comprehensive Assessment of Science Results

The Level 3 ranges were determined from the typical number of points Level 3 students earned in each reporting area. Students are not required to be within or above the Level 3 range for all reporting areas to earn a Level 3 overall.

Skills that a Level 3 student likely knows and is able to do in science are given below.

Practices & Crosscutting Concepts in Physical Sciences

Level 3 students model how atoms are conserved during changes; ask questions and investigate motion caused by contact and non-contact forces; use data to model energy in systems; describe kinetic and thermal energy transfers; model how waves travel in patterns, transfer energy, and interact; and design devices to optimize collisions, forces, and energy transfers.

Practices & Crosscutting Concepts in Life Sciences

Level 3 students use evidence to argue that organisms are systems of cells; use patterns to model the flow of energy and matter in an ecosystem and how organisms use energy and matter to survive; use models to understand how the structure and function of genes causes variations; use patterns in fossil data to compare organisms and infer evolutionary relationships; and evaluate solutions that stabilize ecosystems.

Practices & Crosscutting Concepts in Earth & Space Sciences

Level 3 students use evidence to model Earth and other objects as part of a universe with movements controlled by gravity; use rock strata evidence to explain Earth's history; model the cycling of matter and energy and explain changes in Earth's surface features and weather; use evidence to describe how human activities are affected by Earth's resources; and design solutions to problems caused by using resources.

FAQs

What is the Washington Comprehensive Assessment of Science?

This assessment is aligned to the Science K-12 Standards which are the Next Generation Standards. The standards are built around or dimensions: scientific and engineering practices, crosscutting concepts, and disciplinary core standards enable students to develop an understanding across science disciplines and apply to experience scientific and engineering similar to those used by professionals in the field.

What is a reporting area?

Reporting areas are broad statements that are able to do in science. How your student performed on each reporting area is found in the red row to the right. A description of a Level 3 skills for each reporting area is on page 2.

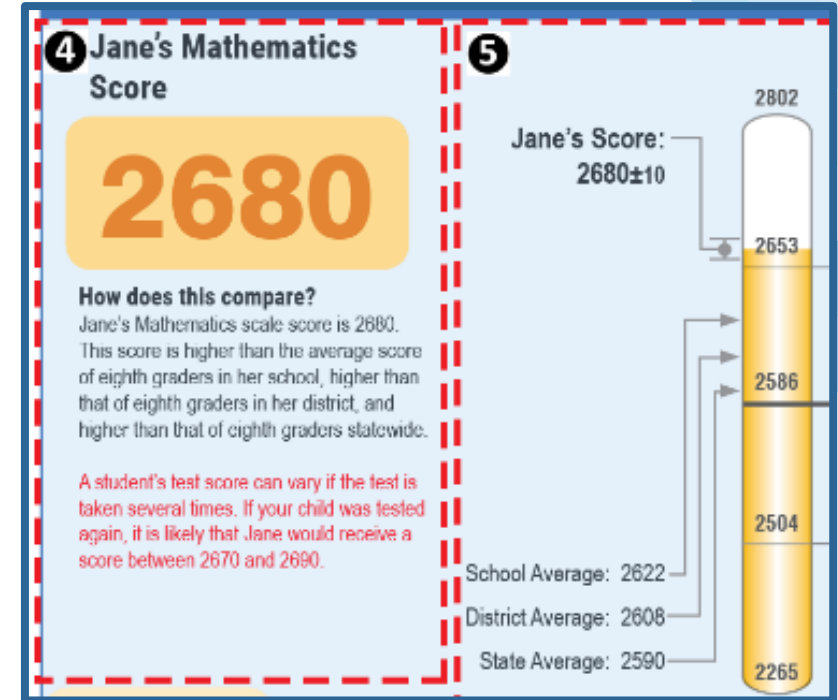
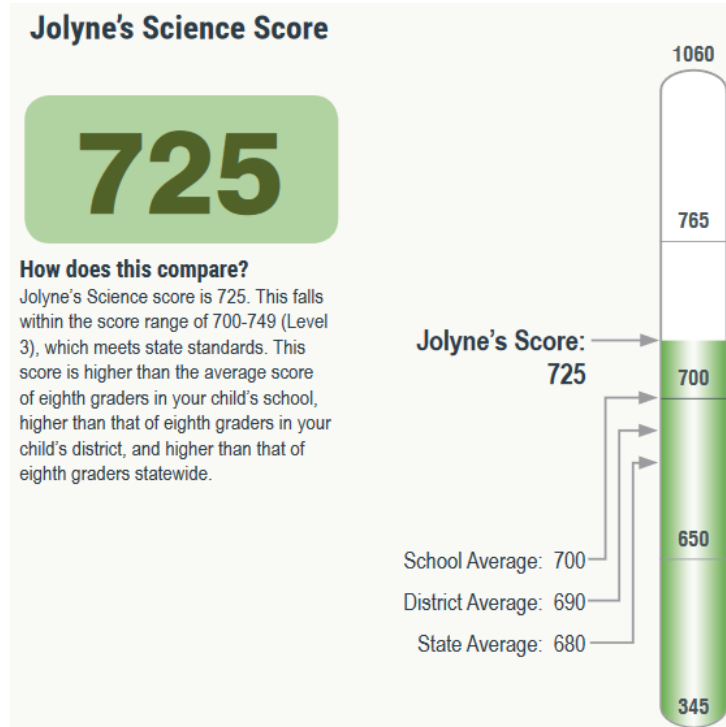
How can I find more information about the test?

Science K-12 Learning Standards are at: k12.wa.gov/ScienceStandards.aspx.
 Links to the standards can be found at: nextgenscience.org/parentguides



Overall Scale Score

- Scale score alone IS student's score
 - Examples show
 - Mathematics score of **2680**
 - Science score of **725**



*Source: <http://www.k12.wa.us/assessment/StateTesting/ScoreReport.aspx>

*Source: <http://testscoreguide.org/wa/sample/>



2019 Family Reports

• Redesigning the Family Reports

- Reduce text
- Increase readability
- Provide additional information

Student Name: **Jeff S. Doe**
 State Student ID: **9999 123 456**
 Grade: **3**
 Test Date: **Spring 2019**

School: **Demo School (12345 6789)**
 District: **Demo District (12345)**

State of Washington
 Office of Superintendent of Public Instruction
OSPI

Family Report

English Language Arts Test Results: Smarter Balanced Assessment

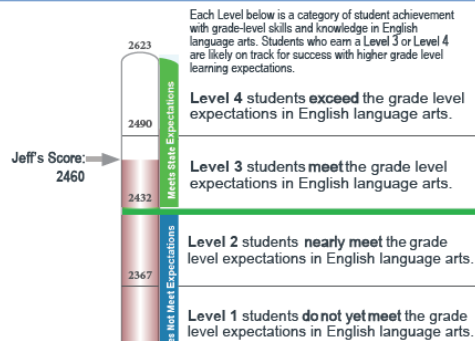
Jeff's English Language Arts Test Score

2460
Level 3

Jeff's English language arts score of 2460 (Level 3) **meets** grade level expectations for third grade students.

How does this score compare to other third grade students?

- Your child's score is:
- Higher than your child's school average of 2450
 - Higher than your child's district average of 2445
 - Higher than the state average of 2450



FAQs

What is the English Language Arts Test?
 This test is aligned to the state learning standards for English language arts. These are the learning expectations for students in each grade in reading, writing, language, speaking, and listening. This test is one way to measure student achievement of reaching the learning expectations.

The standards describe what students should know at each grade to graduate high school ready for college and the workplace. The standards can be found at: <http://www.k12.wa.us/ELAStandards.aspx>

What are the Claims?
 Claims are broad statements of the skills and knowledge students should know and be able to apply in English language arts.

How your child performed in each claim is found in the columns to the right. Your child's performance in each claim contributes to the English language arts test score.

Where can I find more information?
 Parent Guides can be found at: <http://testscoreguide.org/wa/>.

Please contact your child's school for more information.

How did Jane perform on the different claims of the test?

Claim 1: Reading	Claim 2: Writing	Claim 3: Listening	Claim 4: Research/Inquiry
Above Standard	Above Standard	Below Standard	At/Near Standard
Your child showed a thorough ability to read literary and informational texts closely and analytically.	Your child showed a thorough ability to produce effective and well-grounded writing.	Your child did not yet show an ability to produce effective listening skills.	Your child showed some ability to investigate topics and analyze, integrate, and present information.
The Reading Claim includes the ability to understand central ideas and to reason and support with evidence.	The Writing Claim includes the ability to produce well-organized and supported writing for various audiences.	The Listening Claim includes the ability to use listening skills for a range of purposes and audiences.	The Research Claim includes the ability to find key information and use relevant details to support ideas and opinions.



Student Name: **Jolyne M. Doe**
 State Student ID: **9999 234 567**
 Grade: **8**
 Test Date: **Spring 2019**

School: **Demo School (12345 6789)**
 District: **Demo District (12345)**

State of Washington
 Office of Superintendent of Public Instruction
OSPI

Family Report

Science Test Results: Washington Comprehensive Assessment of Science

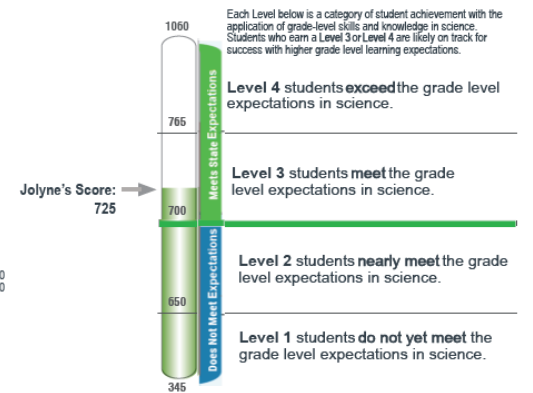
Jolyne's Science Test Score

725
Level 3

Jolyne's science score of 725 (Level 3) **meets** grade level expectations for eighth grade students.

How does this score compare to other eighth grade students?

- Your child's score is:
- Higher than your child's school average of 700
 - Higher than your child's district average of 690
 - Higher than the state average of 710



FAQs

What is the Science Test?
 This test is aligned to the state learning standards for science. These are the learning expectations for students in each grade built around three dimensions: science and engineering practices, crosscutting concepts, and disciplinary core ideas. This test is one way to measure student achievement of reaching the learning expectations.

The standards ask students to explain scientific phenomena and design solutions to problems in the real world. The standards can be found at: <http://www.k12.wa.us/ScienceStandards.aspx>

What are the reporting areas of the test?
 Reporting areas are broad statements of skills and knowledge students should know and be able to apply in science.

How your child performed in each reporting area is found in the columns to the right. Your child's performance in each reporting area contributes to the science test score.

Where can I find more information?
 Parent Guides can be found at: <https://www.nextgenscience.org/parentguides>.

Please contact your child's school for more information.

How did Jolyne perform on the different reporting areas of the test?

Practices & Crosscutting Concepts in Physical Sciences	Practices & Crosscutting Concepts in Life Sciences	Practices & Crosscutting Concepts in Earth & Space Sciences
BELOW STANDARD	AT STANDARD	ABOVE STANDARD
Your child did not yet show an ability to apply practices and crosscutting concepts in Physical Science. Your child earned 40% of the points in this reporting area. Students who earn 45%-60% of the points in this reporting area are AT STANDARD.	Your child showed an ability to apply practices and crosscutting concepts in Life Science. Your child earned 60% of the points in this reporting area. Students who earn 40%-70% of the points in this reporting area are AT STANDARD.	Your child showed a thorough ability to apply practices and crosscutting concepts in Earth & Space Science. Your child earned 55% of the points in this reporting area. Students who earn 30%-50% of the points in this reporting area are AT STANDARD.

More information on skills in each reporting area is on the next page



State Report Card

Overview



Dashboard

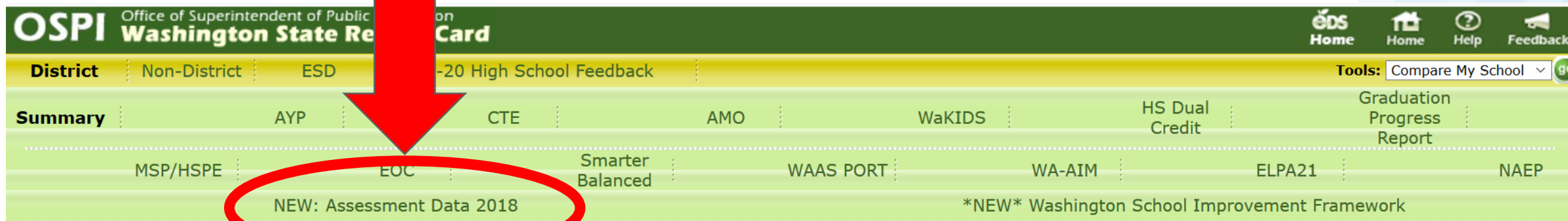
- Navigating from the OSPI homepage

The screenshot shows the OSPI dashboard interface. At the top is the OSPI logo and navigation links: Teaching | Assessment | Finance & iGrants | Data & Reports | Website Accessibility. Below the navigation is a profile for Superintendent Chris Reykdal with links to Vision | Priorities, What We Do, and Government Relations. A large red arrow points from the Superintendent's profile to the State Report Card button in the right-hand menu. The menu includes buttons for A-Z Index, Offices and Programs, State Report Card (circled in red), Maps & Web sites Districts, K-12 Data & Reports, and E-Certification. A News section at the bottom left features two headlines: 'Superintendent Reykdal Announces Series of Community Forums - 11/13/18' and 'More Students Taking, Passing Advanced Tests - 10/26/2018'.



Spring 2018 Data

- Navigating from the State Report Card Dashboard



The screenshot shows the OSPI Washington State Report Card Dashboard. The navigation menu includes: District, Non-District, ESD, 2017-2018 High School Feedback, Tools: Compare My School, Summary, AYP, CTE, AMO, WaKIDS, HS Dual Credit, Graduation Progress Report, MSP/HSPE, EOC, Smarter Balanced, WAAS PORT, WA-AIM, ELPA21, NAEP, and NEW: Assessment Data 2018. A red arrow points to the 'NEW: Assessment Data 2018' link, which is circled in red.

Note: Teacher information will be available on December, 2018



Spring 2018 Data: General and Alternate

Click here for additional information on the status of our Report Card redesign, and what is coming next.

Organization Type	Select Organization	Select Grade Level			Select Student Group		
Washington State	Office of Superintendent of Public Instruction	8th			All		
	2017-18	General Assessment			Alternate Assessment		
		English Language Arts	Math	Science	English Language Arts	Math	Science
Students Expected to Test		80,451	80,466	80,533	720	722	707
% Meeting Standard		58.9%	47.5%	52.9%	52.5%	49.4%	28.3%
% Level 4		20.9%	28.2%	23.0%	16.3%	18.8%	4.6%
% Level 3		38.0%	19.3%	29.9%	36.2%	30.6%	23.7%
% Not Meeting Standard		40.2%	52.2%	46.5%	47.3%	50.5%	71.5%
% Level 2		21.4%	22.2%	20.8%	26.8%	28.6%	35.7%
% Level 1		16.8%	27.4%	23.0%	19.3%	20.4%	32.8%
% No Score*		2.5%	2.7%	2.9%	1.2%	1.3%	2.9%
Percent Met excluding No Score		60.6%	48.9%	54.7%	53.3%	50.1%	29.8%



Report Card: Available/Coming Soon

- Questions and comments: use link on Report Card site

[Click here for additional information on the status of our Report Card redesign, and what is coming next](#)

Organization Type	Select Organization	Select Grade Level	Select Student Group
Washington State	Office of Superintendent of Public Instruction	8th	All



What is different for Reporting?

SBA

WCAS



Performance Levels: SBA

- Student performance at Level 3 and Level 4 is considered **“on track”** to College and Career Ready
 - For accountability purposes, Level 3 and Level 4 are considered “Proficient” under Washington School Improvement Framework (WSIF)
 - For more information: [WISF Framework](#) or [Proficiency Infographic](#)
- Graduation cut scores apply only to high school
 - ELA Graduation cut score is 2548
 - Math Graduation cut score is 2595
- Levels are determined by student performance on all items across both Computer Adaptive Test (CAT) and Performance Task (PT)



Performance Levels: WCAS

- Student performance at Level 3 and Level 4 is considered likely ready for subsequent grade level coursework
 - For accountability purposes, Level 3 and Level 4 are considered “Proficient” under Washington School Improvement Framework (WSIF)
 - For more information: [WISF Framework](#) or [Proficiency Infographic](#)
- Currently no graduation requirement
 - Requirement for classes of 2021 and beyond
 - Those student would first take the WCAS in spring 2020
- Levels are determined by student performance on all items across all the WCAS



Claim Scores: SBA

- Claims
 - Broad statements of skills and knowledge
- Claim scores
 - Includes items from CAT and PT – both math and ELA
 - Example from ELA:
 - Writing claim score is from both CAT & PT
 - Full write is only *part* of writing claim score (+ 9 writing items in CAT)
- At/Near Claim score means
 - Students are around Level 3 cut score – could be just below, just above, or at line
 - For more information see: [Understanding Smarter Balanced Assessment Scores module](#)
- “Weighting”
 - Total scale score is not “weighted” by claim, CAT, or PT
 - *All* items contribute to total scale score



Reporting Areas: WCAS

- Reporting Area
 - Broad statements of skills and knowledge
- Reporting Area scores
 - Includes items from WCAS only
 - All points are weighted equally
 - All items contribute to total scale score



Data Use Practices



Limitations of a single test results

Our belief: An end-of-year, summative assessment is one tool for gaining information about student learning achievements during the year.

In order to use results to inform instruction and help student learning moving forward:

- Use results as **one of multiple** measures about student learning
- Use to evaluate instruction **systemically** at district, building, classroom levels

To make district-driven decisions based on data:

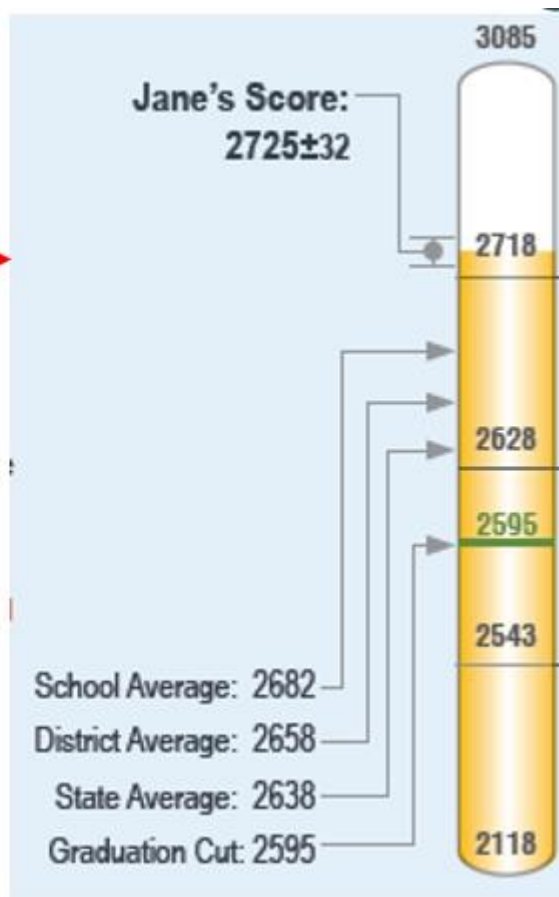
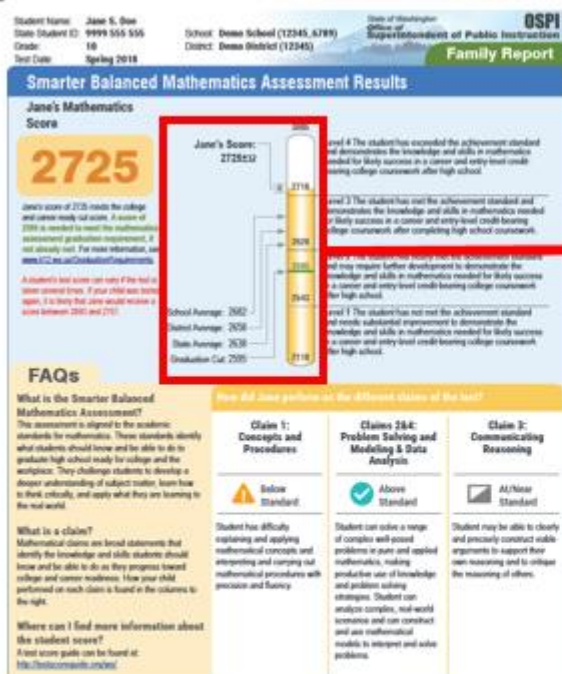
- Inform system evaluations
- Use longitudinal data



Resources



Paper Reports and TestScoreGuide.org



More Information on TestScoreGuide.org [“Sample Student Score Report” webpage](http://TestScoreGuide.org)



TestScoreGuide and ReadyWA websites

- TestScoreGuide Website
 - “Understanding Scores”
 - “Sample Student Score Report”
 - “Student’s Progress”
 - “Resources” with “Parent Roadmaps”
- ReadyWA website
 - “For Educators”
 - “For Families”
 - “For Students”



Question and Answer



Thank you!

For more information, email any of the assessment specialists,
or email asi@k12.wa.us

