



State Science Assessment Updates

WERA Conference
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Office of Superintendent of Public Instruction
Chris Reykdal, State Superintendent

Welcome!

- Who is with us today?



Science Assessment Office Staff

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Today's Topics

- Current Assessments
- What's new?
- WCAS Design and Features
- Assessment Resources
- WCAS Development



Current Assessments




Why do we have state assessments?

- The No Child Left Behind Act (NCLB) and state law require that we give a state science assessment once each in elementary, middle, and high school for the purpose of school and district accountability.
- The Every Student Succeeds Act (ESSA) continues those same requirements.



Every Student Succeeds Act



State of Washington
Office of
Superintendent of Public Instruction

OSPI

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Elementary and Secondary Education Act

Every Student Succeeds Act (ESSA) Implementation

For [archived ESSA Consolidated Plan](#) Drafting and Comment information

The Every Student Succeeds Act (ESSA) replaced No Child Left Behind (NCLB) on December 10, 2015. It is the reauthorization of the Elementary and Secondary Education Act (ESEA). ESSA will be fully operational in school year 2017-18. OSPI is in the process of implementing the law, beginning with the identification of schools for Comprehensive and Targeted supports in the ESSA Index. More information will be posted here as it becomes available.

[2018 School District Accountability Appeal Form](#)
[The Every Student Succeeds Act full text](#)
[Washington's ESSA Consolidated Plan](#)

The Washington School Improvement Framework (WSIF)

The WSIF is the framework for accountability in Washington state. Each school is measured on the Framework, and the Office of Superintendent of Public Instruction (OSPI) has identified schools for additional supports, called Comprehensive and Targeted supports.


- [Go to the Washington School Improvement Framework](#)
- [WSIF Snapshot At-a-Glance](#) | [Spanish](#)
- [WSIF Highlights Infographic](#)
- [Frequently Asked Questions about the WSIF](#) | [Khmer](#) | [Korean](#) | [Punjabi](#) | [Russian](#) | [Somali](#) | [Spanish](#) | [Tagalog](#) | [Traditional Chinese](#) | [Vietnamese](#)

ESSA Implementation 101 - ESSA Implementation 101 is an overview of OSPI's plan to implement ESSA and overviews the accountability system.

[View the Implementation Webinar](#) | [Download the PowerPoint](#)
View by section: [The Why](#) | [The What](#) | [The How](#) | [Next Steps and Timeline](#)

Contact Us

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[Get more information about ESSA](#)



**WASHINGTON'S
EVERY STUDENT
SUCCEEDS ACT**

Partners inside OSPI:

- Office of System and School Improvement (OSSSI)
- Special Education
- Title I, Part A
- Title II

<http://www.k12.wa.us/ESEA/ESSA/default.aspx>



House Bill 2224

- Provides flexibility in high school graduation requirements and supports student success during the transition to a federal Every Student Succeeds Act-compliant accountability system
 - For science
 - Delayed the high school graduation requirement until the class of 2021
 - Biology EOC was discontinued
 - Graduation alternatives
 - Biology Collection of Evidence was discontinued
 - Other graduation alternatives are delayed until the class of 2021



High School Science Assessment 2019+

Grade in 2018-19	Class of...	Science Assessment 2018-19	Science Assessment 2019 -20 and beyond
12	2019	N/A	N/A
11	2020	2019 WCAS for accountability	N/A
10	2021	N/A	2020 WCAS for accountability and graduation in 11 th grade
9	2022	N/A	2021 WCAS for accountability and graduation in 11 th grade



WCAS Graduation Alternatives

Alternatives for science should begin in 2020-2021 after the Class of 2021 have attempted the test in spring 2020.

More information available in 2020.

<http://www.k12.wa.us/assessment/GraduationAlternatives/Options.aspx>



OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION



Assessment Pathways to Graduation by Cohort

			Class of 2018	Class of 2019	Class of 2020	Class of 2021
Certificate of Academic Achievement (CAA)	Standard Assessment	Meeting high school graduation standard on the Smarter Balanced assessment (on-grade Level)	✓	✓	✓	✓
		End of Course (EOC) Math*	✓			
		Washington Comprehensive Assessment of Science (WCAS)**				✓
	Assessment Graduation Alternatives	Dual Credit Course (must have potential to earn college-level credit in the course for the content area)	✓	✓	✓	✓
		Locally Administered Assessment	✓	✓	✓	✓
		Transitions Course (as a Locally Administered Assessment)	✓	✓	✓	✓
		Collection of Evidence	✓			
		SAT/ACT/AP/IB	✓	✓	✓	✓
		Grades Comparison	✓	✓	✓	✓
Certificate of Individual Achievement (CIA) (for students receiving special education services)	Standard Assessment	Meeting high school graduation standard on the On-Grade WA AIM (alternate assessment) - for students with significant cognitive challenges	✓	✓	✓	✓
	Assessment Graduation Alternatives	Off-Grade Level WA-AIM (alternate assessment) - for students with significant cognitive challenges	✓	✓	✓	✓
		CIA Cut score (formerly known as Basic/L2) on the ON-Grade Level Smarter Balanced assessment	✓	✓	✓	✓
		Off-Grade Level Smarter Balanced/WCAS assessment	✓	✓	✓	✓
		Locally Determined Assessment (LDA)	✓	✓	✓	✓
CAA/CIA Waivers	Out of State Waiver		waives CAA/CIA	waives CAA/CIA	waives CAA/CIA	waives CAA/CIA
	Expedited Assessment Appeal/Waiver		waives CAA/CIA			
	WA-AIM Engagement Rubric (formerly known as the Awareness Waiver)		waives CAA/CIA	waives CAA/CIA	waives CAA/CIA	waives CAA/CIA

1 if enrolled during or after 2018-19

2 if submitted by 6/2017

*Only applicable to meeting the math graduation assessment requirement

**Only applicable to meeting the science graduation assessment requirement (class of 2021)

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2019 Science Test Windows

Washington Comprehensive Assessment of Science			
	Grades	Requirement	Testing Window
Spring 2019	5 & 8	Required for federal and state accountability	Online: April 15 – June 7 Paper Pencil: April 15 – May 24 <i>(Paper testing is available only to support large print, braille, and standard print forms for students whose IEP or 504 plan states paper)</i>
	11	Required for federal and state accountability	Online: May 6 – June 7 Paper Pencil: May 3 – May 24 <i>(Paper testing is available only to support large print, braille, and standard print forms for students whose IEP or 504 plan states paper)</i>

- <http://www.k12.wa.us/assessment/StateTesting/timelines-calendars.aspx>



WCAS Paper Pencil Testing

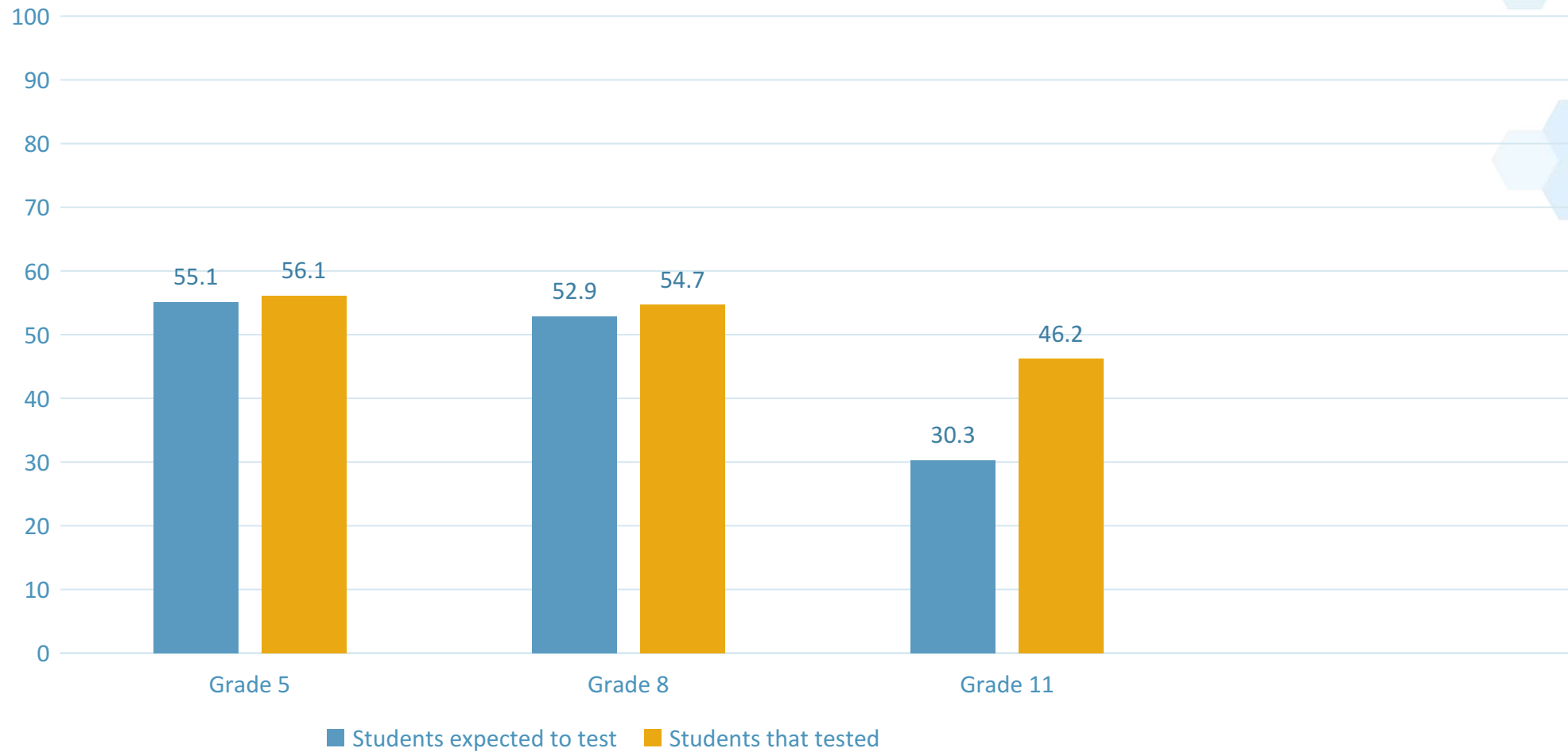
- Accommodated standard print, large print, Spanish, and braille
- IEP or 504 designation needed
- 3 students per proctor
- Standard print, large print, and braille student responses are entered into the Data Entry Interface (DEI) by test proctor
- Spanish forms are shipped back to the vendor for processing and scoring
- Resources
 - DEI User Guide: <https://wa.portal.airast.org/resources/user-guides-and-manuals-testc>
 - Paper Test Administration Manual (TAM): <https://wa.portal.airast.org/resources/user-guides-and-manuals-testc/>
 - Training Module: <https://wa.portal.airast.org/resources/modules-testc/>
 - Secure TA Script—shipped with test booklets



What's New?



Statewide WCAS Results



Approximate Participation by Grade

- Grade 5: 97%
- Grade 8: 96%
- Grade 11: 66%



Questions to explore...

- How much time to kids spend on science?
- Is your science curriculum truly aligned to the NGSS?
- When did NGSS implementation occur?
- How much training has staff received on the NGSS?
- Did students practice with WCAS training tests?
- How do your results compare to the state average?
(example: 2017 vs. 2018)
- How many 11th grade students in your school/district participated in the 2018 WCAS ?



WCAS Achievement Level Setting

- August 6-8, Bellevue
- Purpose: Develop cut score recommendations corresponding to each performance level (e.g., Level 2, Level 3) for grades 5, 8, and 11
 - 30 Washington State educators per grade level panel
 - Chosen to carefully represent the state demographic
 - Classroom teachers, science coaches, curriculum specialists, etc.
- Process
 - Orientation to test development and achievement level setting process
 - Taking the online WCAS test
 - Examining the Achievement Level Descriptors (ALDs)
 - 3 rounds of ratings using an Ordered Item Booklet (OIB)
 - Articulation Panel
- Recommendations were accepted by the [State Board of Education](#) on August 9



Scale Score Ranges

Washington Comprehensive Assessment of Science

The cut (or threshold) scores for Levels 1, 2, 3, and 4 were developed by Washington educators. These cut scores were adopted by the State Board of Education in August 2018

Grades	Level 1	Level 2	Level 3	Level 4
5	375 – 649	650 – 699	700 – 784	785 – 1060
8	345 – 649	650 – 699	700 – 764	765 – 1060
11	390 – 649	650 – 699	700 – 790	791 – 1190

- <http://www.k12.wa.us/assessment/StateTesting/ScaleScores.aspx>



Scores—Communication Timeline

- Scores made available in the Online Reporting System (ORS) on the [WCAP Portal](#) on September 5th
- Statewide test scores were publically released on [Report Card](#) on September 10th
- Paper WCAS Individual Score Reports (ISRs) arrived in districts on October 9th and 10th



Achievement Level Descriptors (ALDs)

- Intended to describe the performance exhibited by students at Level 2, Level 3, and Level 4 on the WCAS for grades 5, 8, and 11.
- Can enhance understanding of a student's academic strengths and weaknesses and guide educators in planning.
- Derived from the *Washington State 2013 K–12 Science Learning Standards* which are the *Next Generation Science Standards*.
- Developed by Washington State science educators in November 2017
- Component of Achievement Level Setting
- Inform some individual score report language
- <http://www.k12.wa.us/assessment/StateTesting/PLD/default.aspx>



Full Set of ALDs

Grade 8 Level 2

An 8th grade student performing at **Level 2** applies, with support, science and engineering practices and crosscutting concepts to explain phenomena and design solutions to problems in the natural and the designed world. The student uses models, information, and patterns in data to describe relationships among parts of systems and to make predictions about how systems change over time. The student describes the data to collect in an investigation in order to identify the relationship between two variables. The student identifies a solution to a problem that meets given criteria for success. The student uses data and basic mathematical thinking to support arguments and explanations about cause and effect relationships among parts of systems.

A student performing

1. Use a model and a system to describe a process and that (Derived from PS2)
2. Describe how and why systems change over time
3. Use information to describe kinetic energy, and transfer and change in energy
4. Use a model to describe the motion of an object
5. Use data from an investigation to describe a process
6. Use a model to describe the motion of an object
7. Use models to describe the motion of an object
8. Identify patterns in data that describe a process
9. Use models of the system, and use
10. Identify data that describe a process
11. Ask questions and use models to describe a process
12. Define criteria for success

Grade 8 Level 3

An 8th grade student performing at **Level 3** effectively applies science and engineering practices and crosscutting concepts to explain phenomena and design solutions to problems in the natural and the designed world. The student develops models and uses information and patterns in data to describe relationships among parts of systems and to make predictions about how systems change over time. The student plans investigations to determine the relationship between two variables. The student uses data, mathematical and computational thinking, and scientific reasoning to construct and evaluate arguments and explanations about how parts of a system depend on each other.

In addition to the skills and knowledge demonstrated at Level 2, a student performing at Level 3 can do things like:

1. Develop and use models and systems to describe a process and that (Derived from PS2)
2. Use data from an investigation to describe a process
3. Use information to describe kinetic energy, and transfer and change in energy
4. Develop and use a model to describe the motion of an object
5. Use data from an investigation to describe a process
6. Develop and use a model to describe the motion of an object
7. Develop and use models to describe the motion of an object
8. Describe how patterns in data describe a process
9. Use models of the system, and use
10. Identify data that describe a process
11. Ask questions and use models to describe a process
12. Define criteria for success

Grade 8 Level 4

An 8th grade student performing at **Level 4** effectively, consistently, and appropriately applies science and engineering practices and crosscutting concepts to explain phenomena and design solutions to problems in the natural and the designed world. The student evaluates how well models, information, and patterns in data describe relationships among parts of systems, and uses scientific principles and reasoning to make predictions about how systems change over time. The student plans and evaluates investigations designed to determine the relationship between two variables. The student uses data, mathematical and computational thinking, and scientific reasoning to construct and evaluate arguments and explanations about how parts of a system depend on each other.

In addition to the skills and knowledge demonstrated at Level 3, a student performing at Level 4 can do things like:

1. Analyze and interpret patterns in data in order to evaluate and revise a model that describes how mass is conserved during chemical reactions and to explain predicted changes in particle motion when thermal energy is added to or removed from a system. (Derived from PS2)
2. Plan an investigation to produce evidence that can be used to evaluate an argument about how change in motion depends on mass and force. (Derived from PS2)
3. Use information to construct graphical displays of data and evaluate how well the data describe quantitative relationships between speed, mass, and kinetic energy, and use evidence, mathematical and computational thinking, and scientific reasoning to construct an argument about energy transfer and changes in kinetic energy. (Derived from PS3)
4. Evaluate and revise a model that describes the quantitative relationship between amplitude and wave energy, and use scientific reasoning to predict whether a wave will be reflected, absorbed, or transmitted by a material based on the properties of the material. (Derived from PS4)
5. Use data from an investigation to describe the cycle of matter and flow of energy among living and nonliving parts of an ecosystem. (Derived from LS2)
6. Evaluate and revise a model that describes the cycling of matter and flow of energy among living and nonliving parts of an ecosystem. (Derived from LS2)
7. Evaluate and revise models of sexual and asexual reproduction, and explain, using scientific reasoning, how only sexual reproduction results in increased genetic variation. (Derived from LS3)
8. Describe, using scientific reasoning, how patterns in fossil data provide evidence for changes in populations over time, and use the data to evaluate the explanation that some organisms survive better than others because of differences in traits. (Derived from LS4)
9. Evaluate and revise models of the Earth's rock cycle and explain, using scientific reasoning, the patterns of movement that cause how plates, oceans, and resources. (Derived from ESS2)
10. Describe, with scientific reasoning, how data provide evidence that rising air masses affect weather conditions, and evaluate and revise a model that describes how uneven heating and the rotation of Earth cause regional climates. (Derived from ESS2)
11. Ask questions and use evidence to construct arguments about how multiple factors have caused the rise in global temperatures over the past century. (Derived from ESS3)
12. Use criteria and constraints to evaluate a solution to a problem that takes into account scientific principles and potential impacts on people and the environment. (Derived from ETS3)

Grade
5

Grade 5 Level 3

A 5th grade student performing at **Level 3** effectively applies science and engineering practices and crosscutting concepts to explain phenomena and design solutions to problems in the natural and the designed world. The student develops models and uses information and patterns in data to describe relationships among parts of systems and to make predictions about how systems change over time. The student identifies the data to collect in an investigation in order to answer questions or to describe possible arguments and explanations.

In addition to the skills and knowledge demonstrated at Level 2, a student performing at Level 3 can do things like:

1. Develop and use models and systems to describe a process and that (Derived from PS2)
2. Ask questions and use models to describe a process
3. Use information to describe kinetic energy, and transfer and change in energy
4. Develop and use a model to describe the motion of an object
5. Use data from an investigation to describe a process
6. Use a model to describe the motion of an object
7. Use models to describe the motion of an object
8. Identify patterns in data that describe a process
9. Use models of the system, and use
10. Identify data that describe a process
11. Ask questions and use models to describe a process
12. Define criteria for success

Grade 5 Level 2

A 5th grade student performing at **Level 2** applies, with support, science and engineering practices and crosscutting concepts to explain phenomena and design solutions to problems in the natural and the designed world. The student uses models and information to support arguments and explanations, to identify patterns in data, and to describe parts of systems. The student identifies the data to collect in an investigation in order to answer questions or to describe possible arguments and explanations.

A student performing

1. Use a model and a system to describe a process and that (Derived from PS2)
2. Ask questions and use models to describe a process
3. Use information to describe kinetic energy, and transfer and change in energy
4. Develop and use a model to describe the motion of an object
5. Use data from an investigation to describe a process
6. Use a model to describe the motion of an object
7. Use models to describe the motion of an object
8. Identify patterns in data that describe a process
9. Use models of the system, and use
10. Identify data that describe a process
11. Ask questions and use models to describe a process
12. Define criteria for success

Grade 5 Level 4

A 5th grade student performing at **Level 4** effectively, consistently, and appropriately applies science and engineering practices and crosscutting concepts to explain phenomena and design solutions to problems in the natural and the designed world. The student evaluates models and information and revises arguments and explanations by analyzing patterns in data, cause and effect relationships, and system interactions. The student conducts investigations to collect data in order to answer questions and use criteria and constraints to evaluate solutions to a problem. The student uses mathematical and computational thinking and scientific reasoning to analyze and interpret data in order to evaluate arguments and explanations about cause and effect relationships.

In addition to the skills and knowledge demonstrated at Level 3, a student performing at Level 4 can do things like:

1. Use patterns in data to evaluate and revise models and plan investigations that provide evidence that matter is made of particles and that mixing different types of matter can result in new substances. (Derived from PS1)
2. Ask questions and plan investigations to provide evidence that can be used to construct arguments about cause and effect relationships between forces and objects' motions. (Derived from PS2)
3. Use evidence, mathematical and computational thinking, and scientific reasoning to evaluate an explanation about the relationship between speed and energy and to predict changes in energy when objects collide. (Derived from PS3)
4. Evaluate and revise a model that describes wave patterns, and use the model to explain how light transfers information to the eye and causes objects to be seen. (Derived from PS4)
5. Evaluate and revise a model that describes patterns in the life cycles of organisms, and use evidence and scientific reasoning to construct an argument that plants and animals need internal and external structures to live. (Derived from LS1)
6. Evaluate and revise a model that describes the movement of matter among living parts of an ecosystem. (Derived from LS2)
7. Explain, using scientific reasoning, how patterns in data provide evidence that plants and animals inherit traits and that there is variation among traits within a group of similar organisms. (Derived from LS3)
8. Describe, using scientific reasoning, how data from fossils provide evidence of the effects of environmental changes on the inherited traits of organisms that lived long ago, and use the data to evaluate an argument that some organisms survive better than others in a particular habitat. (Derived from LS4)
9. Make and evaluate graphical displays of data, and use scientific reasoning to describe how movements of the Earth and sun result in daily and seasonal patterns in shadows, hours of daylight, and appearance of stars in the night sky. (Derived from ESS1)
10. Use evidence to make and evaluate an argument that compares how wind multiple solutions reduce the impact of a weather-related hazard. (Derived from ESS3)
11. Use criteria and constraints to evaluate a solution to a problem caused by people's changing needs and wants. (Derived from ETS3)

Grade
8

Grade 11 Level 2

An 11th grade student performing at **Level 2** applies, with support, science and engineering practices and crosscutting concepts to explain phenomena and design solutions to problems in the natural and the designed world. The student uses models, information, and patterns in data to support scientific arguments, identify the relationship between two variables, and predict how the variables will change over time. The student plans investigations to determine the relationship between two variables. The student uses data, mathematical and computational thinking, and scientific reasoning to construct and evaluate arguments and explanations about how parts of a system depend on each other.

A student performing

1. Use a model and a system to describe a process and that (Derived from PS2)
2. Describe how and why systems change over time
3. Use information to describe kinetic energy, and transfer and change in energy
4. Use a model to describe the motion of an object
5. Use data from an investigation to describe a process
6. Use a model to describe the motion of an object
7. Use models to describe the motion of an object
8. Identify patterns in data that describe a process
9. Use models of the system, and use
10. Identify data that describe a process
11. Ask questions and use models to describe a process
12. Define criteria for success

Grade 11 Level 3

An 11th grade student performing at **Level 3** effectively applies science and engineering practices and crosscutting concepts to explain phenomena and design solutions to problems in the natural and the designed world. The student develops models and uses information and patterns in data to support scientific arguments, describe relationships among variables, and predict how the variables will change over time. The student plans investigations to determine the relationship between two variables. The student uses data, mathematical and computational thinking, and scientific reasoning to construct and evaluate arguments and explanations about how parts of a system depend on each other.

In addition to the skills and knowledge demonstrated at Level 2, a student performing at Level 3 can do things like:

1. Develop and use models and systems to describe a process and that (Derived from PS2)
2. Plan an investigation to produce evidence that can be used to evaluate an argument about how change in motion depends on mass and force. (Derived from PS2)
3. Use information to construct graphical displays of data and evaluate how well the data describe quantitative relationships between speed, mass, and kinetic energy, and use evidence, mathematical and computational thinking, and scientific reasoning to construct an argument about energy transfer and changes in kinetic energy. (Derived from PS3)
4. Evaluate and revise a model that describes the quantitative relationship between amplitude and wave energy, and use scientific reasoning to predict whether a wave will be reflected, absorbed, or transmitted by a material based on the properties of the material. (Derived from PS4)
5. Use data from an investigation to describe the cycle of matter and flow of energy among living and nonliving parts of an ecosystem. (Derived from LS2)
6. Evaluate and revise a model that describes the cycling of matter and flow of energy among living and nonliving parts of an ecosystem. (Derived from LS2)
7. Evaluate and revise models of sexual and asexual reproduction, and explain, using scientific reasoning, how only sexual reproduction results in increased genetic variation. (Derived from LS3)
8. Describe, using scientific reasoning, how patterns in fossil data provide evidence for changes in populations over time, and use the data to evaluate the explanation that some organisms survive better than others because of differences in traits. (Derived from LS4)
9. Evaluate and revise models of the Earth's rock cycle and explain, using scientific reasoning, the patterns of movement that cause how plates, oceans, and resources. (Derived from ESS2)
10. Describe, with scientific reasoning, how data provide evidence that rising air masses affect weather conditions, and evaluate and revise a model that describes how uneven heating and the rotation of Earth cause regional climates. (Derived from ESS2)
11. Ask questions and use evidence to construct arguments about how multiple factors have caused the rise in global temperatures over the past century. (Derived from ESS3)
12. Use criteria and constraints to evaluate a solution to a problem that takes into account scientific principles and potential impacts on people and the environment. (Derived from ETS3)

Grade 11 Level 4

An 11th grade student performing at **Level 4** effectively, consistently, and appropriately applies science and engineering practices and crosscutting concepts to explain phenomena and design solutions to problems in the natural and the designed world. The student evaluates models and uses information and patterns in data to support scientific arguments, describe relationships among variables, and predict how the variables will change over time. The student plans investigations to determine the relationship between two variables. The student uses data, mathematical and computational thinking, and scientific reasoning to construct and evaluate arguments and explanations about how parts of a system depend on each other.

In addition to the skills and knowledge demonstrated at Level 3, a student performing at Level 4 can do things like:

1. Use mathematical and computational thinking and a model of atomic structure to predict matter and energy changes during chemical reactions and to evaluate claims about the effect of temperature on reaction rates. (Derived from PS1)
2. Evaluate an investigation designed to collect data that can, with mathematical and computational thinking, support a qualitative explanation of the effect of net force and mass on the acceleration of an object. (Derived from PS2)
3. Design and evaluate a device that converts energy from one form to another, and evaluate a model that quantitatively describes how energy changes to use part as a system affect other parts of the system. (Derived from PS4)
4. Evaluate a model that quantitatively predicts how the properties of the medium affect amplitude, frequency and wave speed. (Derived from PS4)
5. Use evidence to evaluate and revise a model to explain how DNA determines protein structure and function and how molecular organisms are organized and interacting systems with specialized functions. (Derived from LS1)
6. Use mathematical and computational thinking to evaluate and revise a quantitative argument about the cycling of matter and flow of energy among organisms in an ecosystem. (Derived from LS2)
7. Ask questions and use scientific reasoning to explain relationships among DNA, chromosomes, and traits, and use evidence to evaluate and revise arguments about causes of inheritable genetic variation. (Derived from LS3)
8. Use data to evaluate an explanation of how genetic factors result in evolution and to make an argument about how environmental conditions affect genetic variation within populations. (Derived from LS4)
9. Use mathematical and computational thinking to quantitatively predict the motion of objects in the solar system and use information and scientific reasoning to explain how the processes and elements produced within stars depend on the mass and age of the star. (Derived from ESS1)
10. Evaluate and revise a model that describes how changes in climate are caused by variations in energy flow into and out of Earth's system. (Derived from ESS2)
11. Analyze data from climate models to identify how limitations in the models affect predicted rates of change in climate and whether impacts on Earth's system are reversible. (Derived from ESS3)
12. Use qualitative and quantitative criteria to evaluate solutions to a major global problem that takes into account what people need and want. (Derived from ETS4)

Grade
11



Grade 8 ALDs

Grade 8 Level 2

An 8th grade student performing at **Level 2** applies, with support, science and engineering practices and crosscutting concepts to explain phenomena and design solutions to problems in the natural and the designed world. The student uses models, information, and patterns in data to describe relationships among parts of systems and to make predictions about how systems change over time. The student describes the data to collect in an investigation in order to identify the relationship between two variables. The student identifies a solution to a problem that meets given criteria for success. The student uses data and basic mathematical thinking to support arguments and explanations about cause and effect relationships among parts of systems.

A student performing at Level 2 can do things like:

1. Use a model and patterns in data to show that the number of particles does not change during chemical reactions and that particle motion changes when thermal energy is added to or removed from a system. (Derived from PS1)
2. Describe how evidence from a given investigation supports the argument that change in an object's motion depends on mass and force. (Derived from PS2)
3. Use information and graphical displays of data to describe qualitative relationships between speed, mass, and kinetic energy, and use evidence and basic mathematical thinking to support a given argument about energy transfers and changes in kinetic energy. (Derived from PS3)
4. Use a model to describe the relationship between amplitude and wave energy and to identify that properties of a material determine whether a wave is reflected, absorbed, or transmitted. (Derived from PS4)
5. Use data from an investigation and a model to support the argument that organisms are made of cells that can form tissues, organs, and systems of organs. (Derived from LS1)
6. Use a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem. (Derived from LS2)
7. Use models to identify differences between sexual or asexual reproduction and to identify which type of reproduction results in increased genetic variation. (Derived from LS3)
8. Identify patterns in fossil data that provide evidence for changes in populations over time and that support the explanation that some organisms survive better than other organisms because of differences in traits. (Derived from LS4)
9. Use models of the Earth-sun-moon system to identify the patterns of movement that cause lunar phases, eclipses, and seasons. (Derived from ESS1)
10. Identify data that provide evidence that moving air masses affect weather conditions, and use a model to describe that unequal heating and the rotation of Earth cause regional climates. (Derived from ESS2)
11. Ask questions and identify evidence to support arguments about one factor that has caused the rise in global temperatures over the past century. (Derived from ESS3)
12. Define criteria for a successful solution to a problem that takes into account potential impacts on people and the environment. (Derived from ETS1)

Grade 8 Level 3

An 8th grade student performing at **Level 3** effectively applies science and engineering practices and crosscutting concepts to explain phenomena and design solutions to problems in the natural and the designed world. The student develops models and uses information and patterns in data to describe relationships among parts of systems and to identify scientific principles that can be used to make predictions about how systems change over time. The student asks questions and plans investigations to determine the relationship between two variables. The student identifies criteria and constraints and uses patterns in data to evaluate solutions to problems. The student uses data and mathematical and computational thinking to construct arguments and explanations about how parts of a system depend on each other.

In addition to the skills and knowledge demonstrated at Level 2, a student performing at Level 3 can do things like:

1. Develop and use models and interpret patterns in data to show that mass is conserved during chemical reactions and to predict changes in particle motion when thermal energy is added to or removed from a system. (Derived from PS1)
2. Use data from an investigation to construct an argument about how change in motion depends on mass and force. (Derived from PS2)
3. Use information to construct graphical displays of data that describe quantitative relationships between speed, mass, and kinetic energy, and use evidence and mathematical and computational thinking to construct an argument about energy transfers and changes in kinetic energy. (Derived from PS3)
4. Develop and use a model to describe the quantitative relationship between amplitude and wave energy and use properties of a material to predict whether a wave will be reflected, absorbed, or transmitted by a material. (Derived from PS4)
5. Use data from an investigation to develop a model and support the argument that organisms are made of cells that can form tissues, organs, and systems of organs. (Derived from LS1)
6. Develop and use a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem. (Derived from LS2)
7. Develop and use models to describe sexual or asexual reproduction and to describe that only sexual reproduction results in increased genetic variation. (Derived from LS3)
8. Describe how patterns in fossil data provide evidence for changes in populations over time, and use the data to construct an explanation that some organisms survive better than other organisms because of differences in traits. (Derived from LS4)
9. Develop and use models of the Earth-sun-moon system to describe the patterns of movement that cause lunar phases, eclipses, and seasons. (Derived from ESS1)
10. Describe how data provide evidence that moving air masses affect weather conditions, and develop and use a model that describes how uneven heating and the rotation of Earth cause regional climates. (Derived from ESS2)
11. Ask questions that can provide evidence that supports arguments about multiple factors that have caused the rise in global temperatures over the past century. (Derived from ESS3)
12. Define criteria for success and constraints on a solution to a problem that takes into account potential impacts on people and the environment. (Derived from ETS1)

Grade 8 Level 4

An 8th grade student performing at **Level 4** effectively, consistently, and appropriately applies science and engineering practices and crosscutting concepts to explain phenomena and design solutions to problems in the natural and the designed world. The student evaluates how well models, information, and patterns in data describe relationships among parts of systems, and uses scientific principles and reasoning to make predictions about how systems change over time. The student plans and evaluates investigations designed to determine the relationship between two variables. The student uses patterns in data to determine which solution to a problem best meets the criteria for success. The student uses data, mathematical and computational thinking, and scientific reasoning to construct and evaluate arguments and explanations about how parts of a system depend on each other.

In addition to the skills and knowledge demonstrated at Level 3, a student performing at Level 4 can do things like:

1. Analyze and interpret patterns in data in order to evaluate and revise a model that describes how mass is conserved during chemical reactions and to explain predicted changes in particle motion when thermal energy is added to or removed from a system. (Derived from PS1)
2. Plan an investigation to produce evidence that can be used to evaluate an argument about how change in motion depends on mass and force. (Derived from PS2)
3. Use information to construct graphical displays of data and evaluate how well the data describe quantitative relationships between speed, mass, and kinetic energy, and use evidence, mathematical and computational thinking, and scientific reasoning to construct an argument about energy transfers and changes in kinetic energy. (Derived from PS3)
4. Evaluate and revise a model that describes the quantitative relationship between amplitude and wave energy, and use scientific reasoning to predict whether a wave will be reflected, absorbed, or transmitted by a material based on the properties of the material. (Derived from PS4)
5. Use data from an investigation to revise a model and evaluate the argument that organisms are made of cells that can form tissues, organs, and systems of organs. (Derived from LS1)
6. Evaluate and revise a model that describes the cycling of matter and flow of energy among living and nonliving parts of an ecosystem. (Derived from LS2)
7. Evaluate and revise models of sexual and asexual reproduction, and explain, using scientific reasoning, how only sexual reproduction results in increased genetic variation. (Derived from LS3)
8. Describe, using scientific reasoning, how patterns in fossil data provide evidence for changes in populations over time, and use the data to evaluate the explanation that some organisms survive better than other organisms because of differences in traits. (Derived from LS4)
9. Evaluate and revise models of the Earth-sun-moon system and explain, using scientific reasoning, the patterns of movement that cause lunar phases, eclipses, and seasons. (Derived from ESS1)
10. Describe, with scientific reasoning, how data provide evidence that moving air masses affect weather conditions, and evaluate and revise a model that describes how uneven heating and the rotation of Earth cause regional climates. (Derived from ESS2)
11. Ask questions and use evidence to construct arguments about how multiple factors have caused the rise in global temperatures over the past century. (Derived from ESS3)
12. Use criteria and constraints to evaluate a solution to a problem that takes into account scientific principles and potential impacts on people and the environment. (Derived from ETS1)



Alignment Study

- July 31-August 1, Olympia
- 5 Washington State Educators per grade level panel (5, 8, 11)
 - New to state science assessment development
- Designed to answer two key questions:
 - How well does the test design/blueprint represent the NGSS?
 - How well do the set of items on each form match the design/blueprint?

*Both questions were answered with “Meets Expectations”



WCAS Design and Features



State Science Standards

- Washington State adopted the NGSS as science learning standards in October of 2013.
 - *Washington State 2013 K-12 Science Learning Standards*
- WCAS first administered in Spring 2018
 - 5, 8, 11



NGSS Resources

- Next Generation Science Standards (NGSS)
- NGSS Appendices
- K–12 Framework for Science Education



Washington Comprehensive Assessment of Science (WCAS)

Washington State 2013 K-12 Science Learning Standards Next Generation Science Standards (NGSS)		
Grade 5	Grade 8	Grade 11
3-5 band	Middle School band	High School band

<http://www.k12.wa.us/Science/Standards.aspx>



Performance Expectations per Grade Band

Grade Band	Number of Three-Dimensional Performance Expectations				
	Physical Sciences Domain	Life Sciences Domain	Earth and Space Sciences Domain	Engineering Domain	Total
3-5	17	12	13	3	45
Middle school	19	21	15	4	59
High school	24	24	19	4	71

Each Performance Expectation (PE) includes a Science and Engineering Practice, a Disciplinary Core Idea, and a Cross-cutting Concept



WCAS Reporting Areas

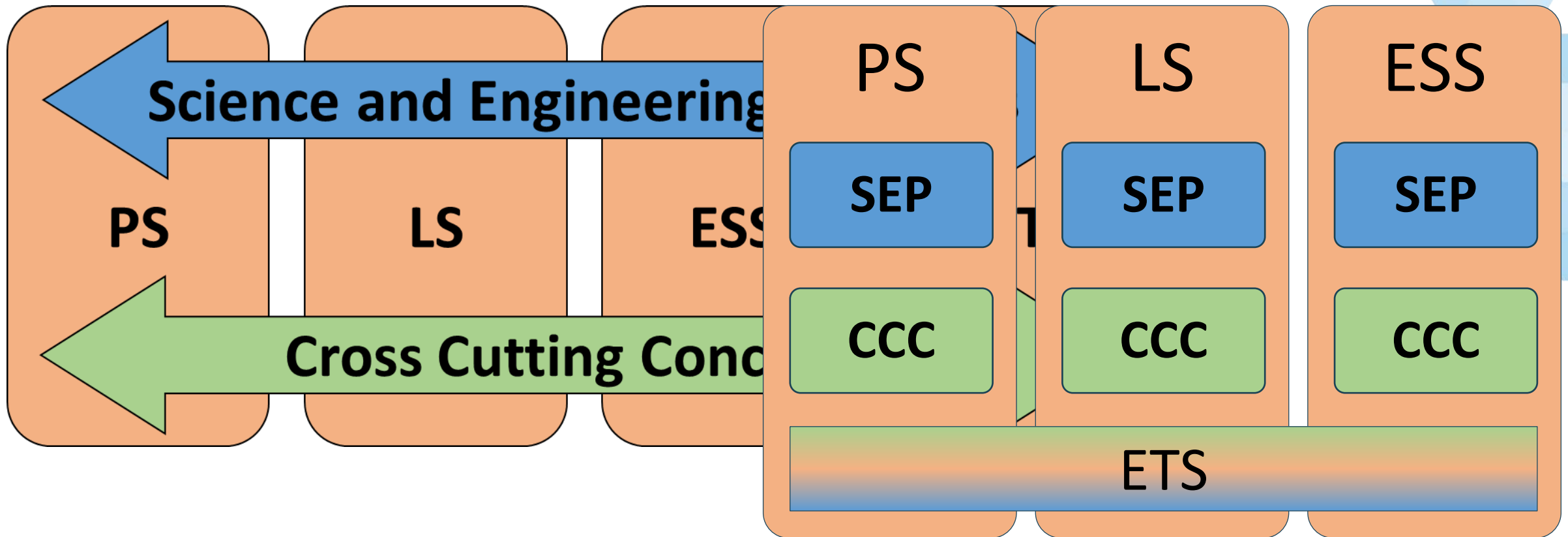
Reporting Area	Grade 5	Grade 8	Grade 11
Science and Engineering Practice and Cross-Cutting Concepts in Physical Sciences	17 Performance Expectations 40 % ~14 pts	19 Performance Expectations 35 % ~14 pts	24 Performance Expectations 36 % ~16 pts
Science and Engineering Practice and Cross-Cutting Concepts in Life Sciences	12 Performance Expectations 29 % ~10 pts	21 Performance Expectations 38 % ~15 pts	24 Performance Expectations 36 % ~16 pts
Science and Engineering Practice and Cross-Cutting Concepts in Earth and Space Sciences	13 Performance Expectations 31 % ~11 pts	15 Performance Expectations 27 % ~11 pts	19 Performance Expectations 28 % ~13 pts
Total Points	35	40	45

ETS PEs assessed but not included here.



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

...is measured by the WCAS and reported in three reporting areas:



Sample Cluster Alignment

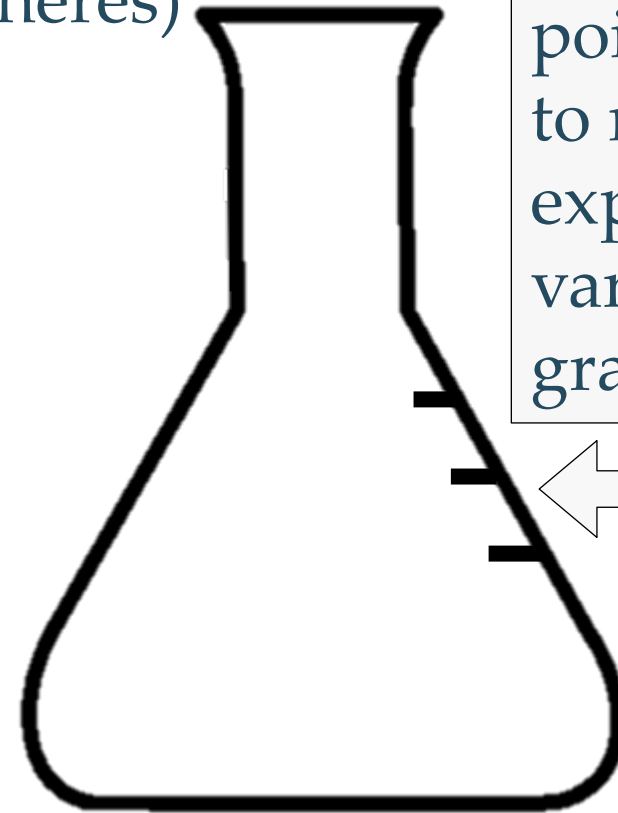
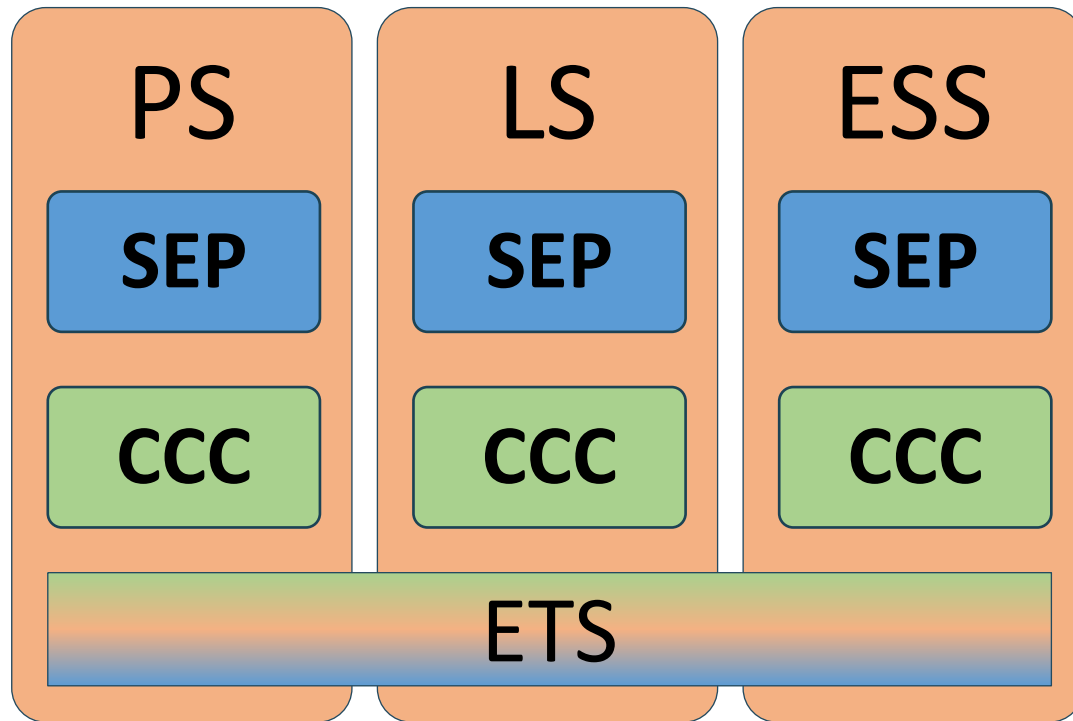


Sample Cluster	Item Type	Score Point	Performance Expectation Alignment	Science & Engineering Practice	Disciplinary Core Idea	Crosscutting Concept
Item 1	Multiple Select	1	HS-LS2-3	Constructing Explanations and Designing Solutions	LS2.B	Energy and Matter
Item 2	Table Match	1	HS-LS2-3 HS-ETS1-3	Constructing 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”

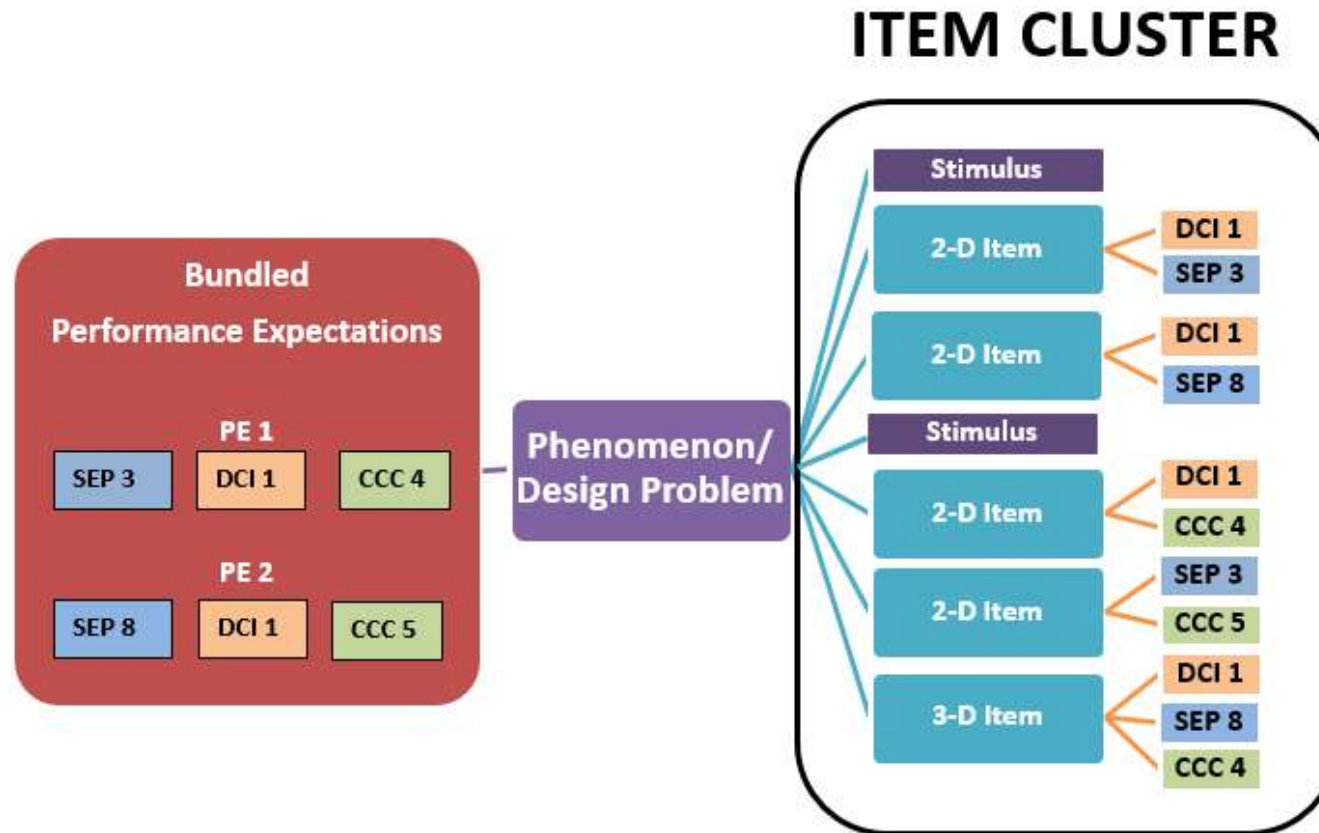
All points are weighted equally (same size spheres)



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



Item Cluster Map



Standalone Items

- Allow more PEs to be assessed on a test
- Are 2 or 3 dimensional
- Can have multiple parts
- Computer scored item types only



WCAS Features

- All online
- Item Clusters and Standalone Items
- Item Types:
 - Selected Response—multiple choice, multiple select
 - Constructed Response—short answer
 - Technology enhanced—ex: drag and drop, drop-down choices, simulations
- Multi-part items
 - Parts labeled with letters A, B, and C.
 - May have a mix of item types. Parts work together. May ask for evidence to support answer in previous part of the item.



Structure and Test Length

- Structure

- Operational

- Grades 5 and 8: 5 Clusters and 6-12 Standalone items
 - High School: 6 Clusters and 6-12 Standalone items
 - Counts toward a student's score

- Field test items

- Embedded in the online administration
 - One cluster and/or standalone items
 - 2019 Field test—standalone items
 - Does not count toward a student score

- All items are aligned to 2 or 3 dimensions of a PE

- Test Length

- Grade 5: 90 minutes
 - Grade 8: 110 minutes
 - Grade 11: 120 minutes

- Administration

- Can be administered in multiple sessions like the Smarter Balanced ELA and Math assessments
 - 1 to 3 sessions recommended

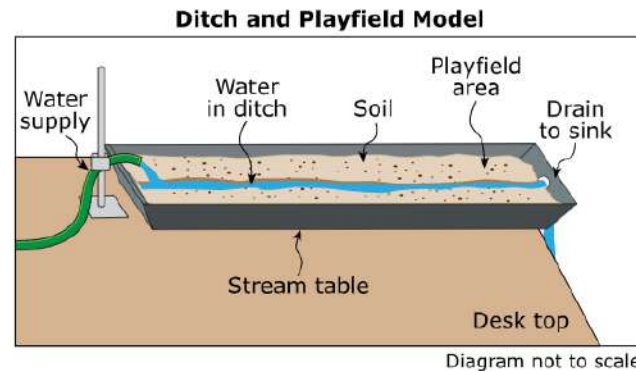


Item Cluster Screenshot from the [WCAS Grade 5 Training Test](#)

+ Section 1—Soggy Solutions

Section 2—Soggy Solutions

The students used a stream table to model the ditch and the playfield. The stream table is shown in the Ditch and Playfield Model diagram.



The students used the stream table to test each solution. All three solutions kept water from flowing out of the ditch onto the playfield.

4

GUEST

Select **three** statements that describe reasons to use a stream table to test possible solutions during the design process.

- ☐ The stream table conditions are exactly the same as the conditions in the real ditch.
- ☐ The stream table shows the time needed for water to soak in to the playground soil.
- ☐ The stream table allows all three solutions to be tested without waiting for heavy rainfall.
- ☐ The stream table tests all three solutions without affecting the environment around the ditch.
- ☐ The stream table allows students to collect data more quickly than testing with the real ditch.



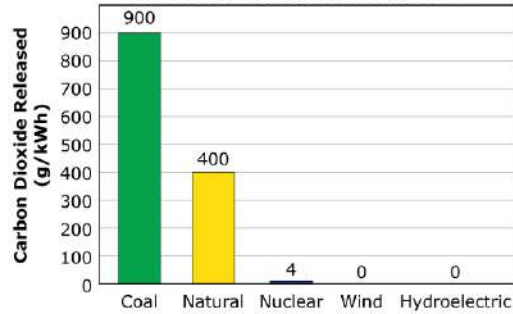
Screenshot from the [WCAS Grade 5 Training Test](#)

Questions: 1 Grade 5 Science (0 out of 5) GUEST (Student ID: GUEST) QUEST SESSION

1
GUEST

Many different energy sources are used to produce electricity. The Amount of Carbon Dioxide Released graph shows the amount of carbon dioxide gas released by some energy sources, in grams per kilowatt hour (g/kWh).

Amount of Carbon Dioxide Released



Energy Source	Carbon Dioxide Released (g/kWh)
Coal	900
Natural gas	400
Nuclear	4
Wind	0
Hydroelectric	0

Which change in energy sources would cause the greatest **decrease** in the amount of carbon dioxide released?

- A replacing natural gas with coal
- B replacing nuclear with natural gas
- C increasing wind and reducing nuclear
- D increasing hydroelectric and reducing coal



Special WCAS Features

- Collapsing stimuli
 - First stimulus is hidden when second stimulus is provided.
 - Both stimuli are available to the student.
- Locking Items
 - Student can answer the question only once.
 - Allows subsequent questions to update with correct information.
 - An “attention” box warns student that they won’t be able to change their answer.



Example of Collapsible Stimuli

Questions: 4 Grade 8 Science (3 out of 6) GUEST (Student ID: GUEST) GUEST SESSION

Back Next Save

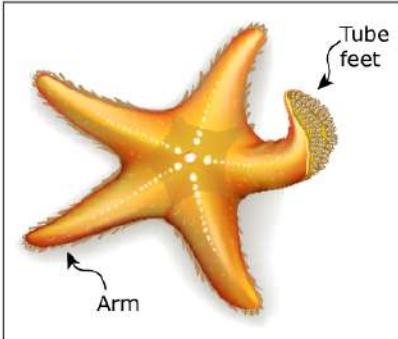
Section 1—Sea Star Reproduction

Section 2—Sea Star Reproduction

Section 3—Sea Star Reproduction

Sea stars have tube feet for walking, climbing, and grasping. The Sea Star External Anatomy diagram shows the appearance and location of tube feet on a sea star.

Sea Star External Anatomy

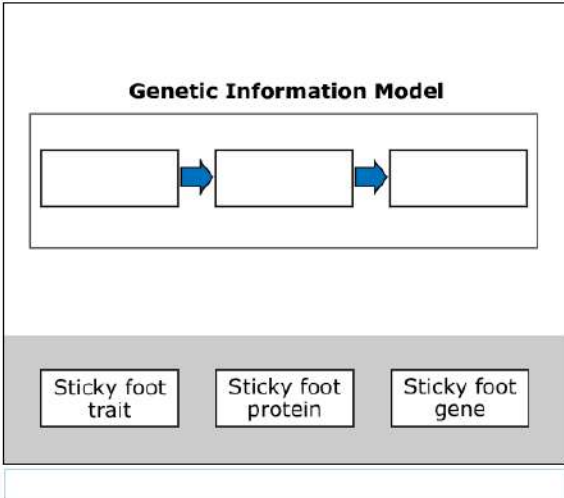


There are cells in the tube feet of sea stars that produce a protein that acts like glue. The protein makes the tube feet sticky.

4 GUEST

Move the labels into the boxes to show the flow of genetic information in the tube feet cells.

Genetic Information Model



Sticky foot trait Sticky foot protein Sticky foot gene

Example of Locking Feature

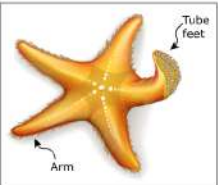
Section 1—Sea Star Reproduction

Section 2—Sea Star Reproduction

Section 3—Sea Star Reproduction

Sea stars have tube feet for walking, climbing, and grasping. The Sea Star External Anatomy diagram shows the appearance and location of tube feet on a sea star.

Sea Star External Anatomy



There are cells in the tube feet of sea stars that produce a protein that acts like glue. The protein makes the tube feet sticky.

Genetic Information Model

Move the labels into the boxes to show the flow of genetic information in the tube feet cells.

Sticky foot trait Sticky foot protein Sticky foot gene

Attention

Are you sure you're done responding to this item? Once you leave this page you will not be able to change the response. Select [Yes] to commit your response and move to the next item or select [No] to stay on this page [MessageCode: 12869]

Yes No

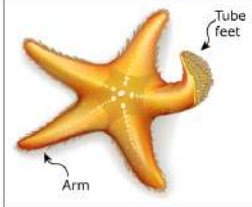
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Sea Star External Anatomy



There are cells in the tube feet of sea stars that produce a protein that acts like glue. The protein makes the tube feet sticky.

Genetic Information Model

Move the labels into the boxes to show the flow of genetic information in the tube feet cells.


Sticky foot gene Sticky foot protein Sticky foot trait



Assessment Resources



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360-725-6298
Science@k12.wa.us

Science

Washington Comprehensive Assessment of Science

The 5th, 8th, and 11th grade Washington Comprehensive Assessment of Science (WCAS) was administered for the first time in spring 2018. These tests fulfill the federal [Every Student Succeeds Act \(ESSA\)](#) requirement that students be tested in science once at each level: elementary, middle, and high school.

The WCAS measures the level of proficiency that Washington students have achieved based on the [Washington State 2013 K-12 Science Learning Standards](#), which are the Next Generation Science Standards (NGSS). The standards were adopted in October 2013.

Standards Assessed		
Grade 5	Grade 8	Grade 11
3-5 band	Middle school band	High school band

High School Testing Requirements

[House Bill 2224](#) postponed the high school science assessment graduation requirement until the Class of 2021. This means that students in the Classes of 2019 and 2020 do not need to pass the science exam in order to graduate. The table below summarizes the federal accountability (ESSA) and assessment graduation requirements (HB 2224) for the classes of 2018-2021.

Grade in 2018-19	Class of...	Science Assessment Spring 2019	Science Assessment Spring 2020 and beyond
12	2019	None	None
11	2020	WCAS for federal accountability	None
10	2021	None	WCAS for graduation and federal/state accountability in 11th grade
9	2022	None	WCAS for graduation and federal/state accountability in 11th grade

[+ Test Design and Item Specifications](#)
[+ Online Training Tests](#)
[+ Test Scores](#)

Achievement Level Descriptors (ALDs)

The ALDs describe the knowledge, skills, and processes that students demonstrate on state tests at pre-determined levels of achievement for each tested grade level.


Professional Development Opportunities

Science educators throughout Washington are encouraged to sign up for science assessment updates as well as apply to participate in assessment development events.


Washington Comprehensive Assessment of Science (WCAS) Frequently Asked Questions

This document provides answers to a list of frequently asked questions about the current and future state science assessments.

2018 WERA Presentation [Coming early December](#)



Highlights

 [Subscribe to Science Assessment updates](#)

• <http://www.k12.wa.us/Science/Assessments.aspx>

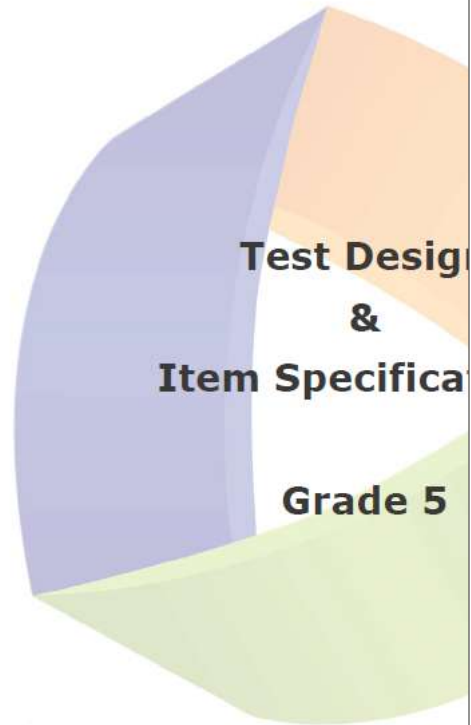


Test and Item Specifications

- Describe how item clusters (stimuli and items) and standalone items for the WCAS are developed to assess the NGSS
- Contents
 - Structure of the test
 - Item Types
 - Test organization
 - Overview of NGSS
 - Item specifications that Describe how students can demonstrate understanding of the PEs on the state test.
- The second draft of the Test Design and Item Specifications documents will be released in December 2018:
 - Grade 5 Front matter + item specifications for approximately 22 G5 PEs
 - Grade 8 Front matter + item specifications for approximately 18 G8 PEs
 - Grade 11 Front matter + item specifications for approximately 22 G11 PEs
- The remainder of the individual PE item specifications are scheduled for release in by the end of the 2018-2019 school year.
- The Item Specifications will be updated annually based on WA educator feedback.
- A modification log will be posted at each subsequent publication.

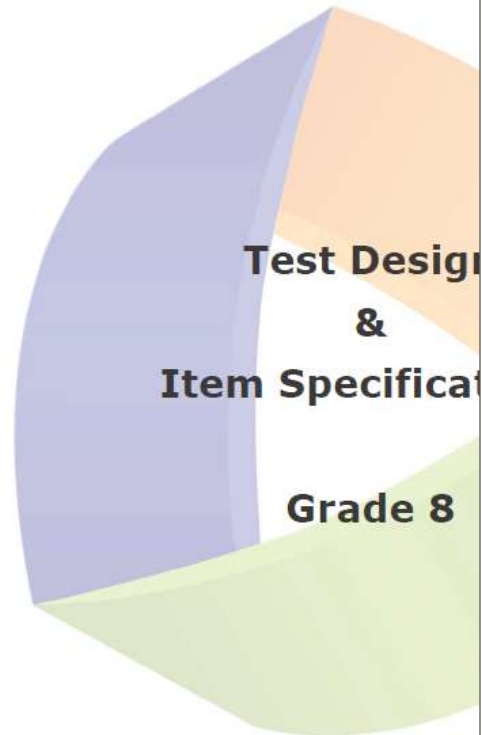


Washington Comprehensive Assessment of Science



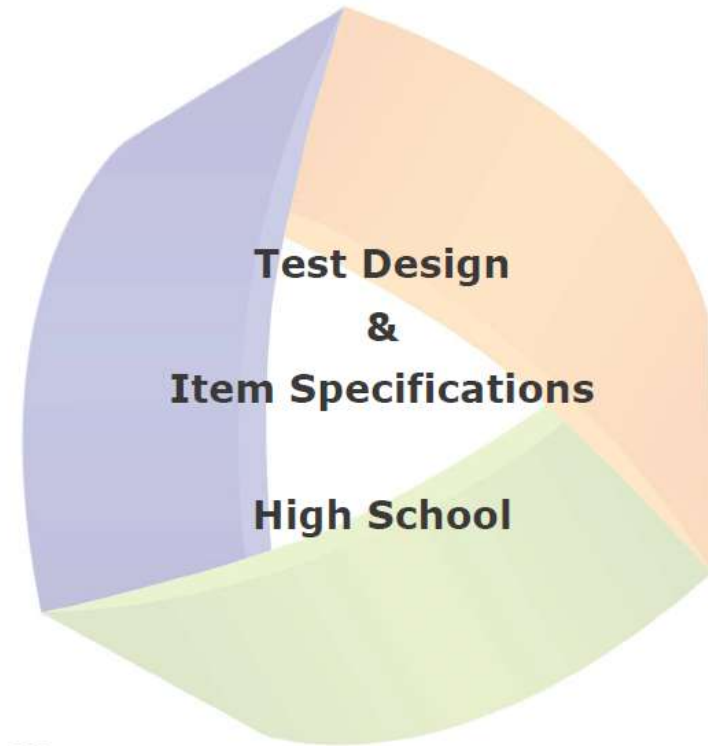
Office of Superintendent of Public Instruction

Washington Comprehensive Assessment of Science



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Washington Comprehensive Assessment of Science



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Performance Expectation	4-LS1-1 Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.		
Dimensions	Science & Engineering Practice	Disciplinary Core Idea	Crosscutting Concept
	Engaging in Argument from Evidence Engaging in argument from evidence in 3–5 builds on K–2 experiences and progresses to critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed world(s). • Construct an argument with evidence, data, and/or a model.	LS1.A: Structure and Function • Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction.	System Models • A system has parts that interact with each other and with their environment.
These item specifications were developed using the following reference materials:			
K–12 Framework	pp. 71–74	pp. 143–145	pp. 91–92
NGSS Appendices	Appendix F pp. 13–14	Appendix E p. 4	Appendix G pp. 7–8
Clarification Statement	Examples of structures could include thorns, stems, roots, colored flowers, stomach, lung, brain, and skin.		
Assessment Boundary	Assessment is limited to macroscopic structures within plant and animal systems.		

Items may ask students to:

Code	Alignment	Item Specification
4-LS1-1.1	SEP-DCI-CCC	Construct an argument using system models to describe plants and/or animals in terms of their structures and how the structures interact to serve various survival, growth, behavioral, and/or reproductive functions .
4-LS1-1.2	SEP-DCI	Construct an argument to show that plant and/or animal structures serve various survival, growth, behavioral, and/or reproductive functions .
4-LS1-1.3	DCI-CCC	Use system models to show how plant and/or animal structures serve various survival, growth, behavioral, or reproductive functions .
4-LS1-1.4	SEP-CCC	Construct an argument that connects system components and interactions in a system model .

Details and Clarifications

- **Construct an argument** is expanded to include:
 - using evidence to support an argument and/or claim
 - developing an argument based on evidence, data, or a simple model
 - distinguishing between observations and inferences in an explanation or argument
 - comparing and/or refining arguments based on evidence
 - providing feedback on an explanation or argument
- **Structures and functions** may include, but are NOT limited to, structures that work together to support:
 - plants
 - obtaining water/sunlight/air
 - growing toward sunlight and/or water
 - defending against herbivores
 - attracting pollinators
 - animals
 - pumping blood/breathing/moving/digesting food
 - obtaining food
 - defending against predators
 - attracting mates
- **System models** may include, but are NOT limited to:
 - an entire organism (plant or animal)
 - a subsystem within a plant or animal
 - the interactions of structures working together within a plant or animal system or subsystem



Science Training Tests

- Help students become familiar with the features and tools of online tests.
- Became available on the [WCAP portal](#) in December 2017.
- Grades 5, 8, and high school
 - One cluster (stimuli and items) and one standalone item at each grade
 - All three training tests should be used at each grade level to experience most online item types
- Classroom instruction should align to the *Washington State K–12 Science Learning Standards (NGSS)*, not the WCAS.



Formative Assessment Resources

- Formative assessment resources are available that can help you and your students measure progress toward learning the Science K-12 Learning Standards as assessed on the WCAS
- [STEM Teaching Tools website](#)
 - Includes tools that can help teach science, technology, engineering and math (STEM) and is currently focused on supporting the teaching of the [Next Generation Science Standards \(NGSS\)](#). Each tool is focused on a specific issue and leverages the best knowledge from research and practice.
- Recommended tools:
 - [Prompts for Integrating Crosscutting Concepts Into Assessment and Instruction](#)
 - [Integrating Science Practices Into Assessment Tasks](#)
 - [How can formative assessment support culturally responsive argumentation in a classroom community?](#)
 - [How can assessments be designed to engage students in the range of science and engineering practices?](#)
 - [Steps to Designing a Three Dimensional Assessment](#)



WCAS Development

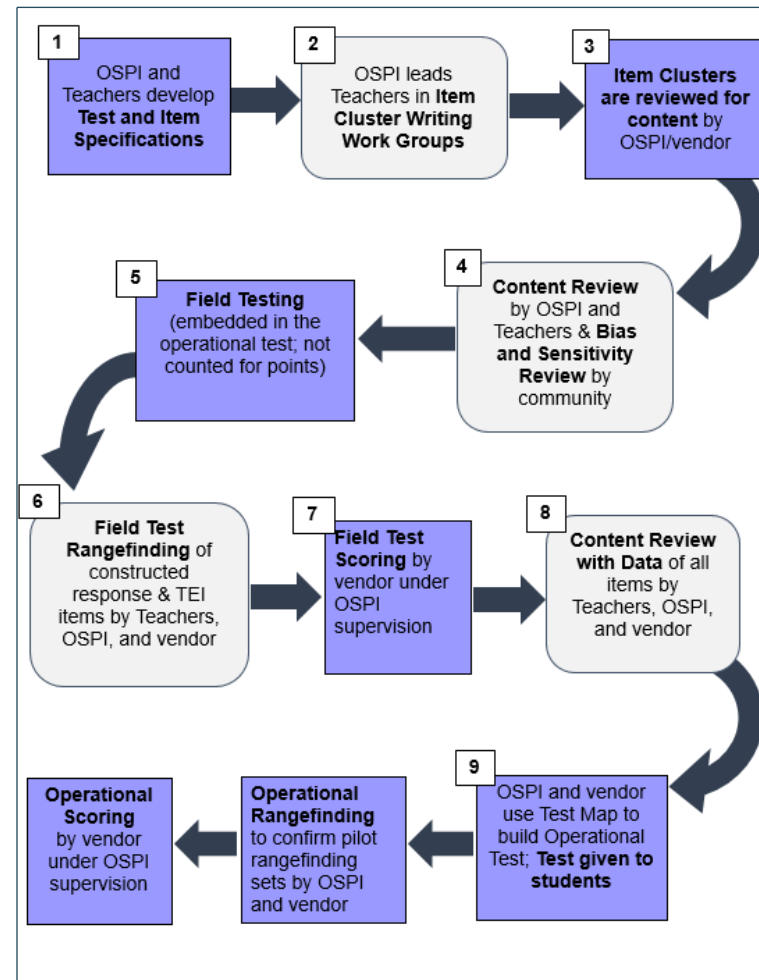


Goals for WCAS

- Design an assessment that reflects how science content is taught and tested in the classroom.
- Use WA educators in assessment development.
- Develop high quality item clusters and standalone items that achieve alignment to the SEPs, DCIs, CCCs represented in a PE or PE bundle.
- Design an assessment that allows for valid and reliable inferences to be drawn from the results.
- Design an assessment that ensures the fair and accurate assessment of students in special populations.



Science Assessment Development Cycle



Educator Work Group Descriptions

- **(2) Item Cluster Writing Workgroup:** Teams of 2-3 educators write stimuli, items, and rubrics designed to validly measure student understanding of the NGSS.
- **(4) Content Review Workgroup:** Educators review the products of the Item Cluster Writing Workgroup to ensure that every stimulus, item, and rubric is scientifically accurate and gathers appropriate evidence about student skill with the NGSS. At the same time, a separate committee of community members reviews the items and stimuli for any bias and sensitivity issues. Recommendations from the Bias/Sensitivity Review Workgroup are considered by the Content Review Workgroup.
- **(6) Field Test Ranging and Rubric Validation Workgroups:** Educators look at a range of student responses to each item and decide how to score each response. This educator workgroup refines scoring rubrics and produces the materials that will be used to score the field test items.
- **(8) Content Review with Data Workgroup:** Educators use item performance data, as well as members' science content knowledge, to decide whether each item should advance into the item bank.




Upcoming Professional Development Opportunities

Event	Timing
Item Cluster Writing	Spring 2019
Content Review	Summer 2019
Field Test Range Finding *	Summer 2020
Content Review with Data*	Fall 2019

*Only standalone items will be field tested this year so Field Test Rangefinding will not occur this summer. Field Test Range Finding will return summer 2020 and thereafter.



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Science

Science Assessment Professional Development Opportunities

Science educators throughout Washington are encouraged to sign up for science assessment updates as well as apply to participate in work groups such as Item Cluster Writing, Content Review, Range Finding, and Content Review with Data.

- [Teachers and Test Development FAQ](#) (PDF)
- [Learn more](#) (PDF)

As dates for development events for assessments aligned to the Washington State K-12 Science Learning Standards become available, information will be posted below. Invitations to apply for these events will be emailed to those signed up for science assessment updates through the [GovDelivery listserv](#).

We recommend downloading the [Science Assessment Application Example](#) prior to applying.

Upcoming Events in Science Assessment Development

Grade	Item Cluster Writing	Content Review	Field Test Rangefinding	Content Review with Data
Grade 5	Spring 2019	Summer 2019	Summer 2020*	Fall 2019
Grade 8	Spring 2019	Summer 2019	Summer 2020*	Fall 2019
High School	Spring 2019	Summer 2019	Summer 2020*	Fall 2019
Invitations emailed through GovDelivery	Early 2019	Spring 2019	Spring 2020*	Summer 2019

*Short answer items will not be included in the field tested items in 2019, therefore field test rangefinding will not be held in summer 2019. Short answer items will be field tested in 2020, so field test rangefinding will return summer 2020.

Interested in receiving email/text updates from Science Assessment?

Go to the [Subscribe page](#) for GovDelivery. Choose a subscription type. Enter your email address/wireless number. On the Subscriptions page, select Content Areas > Science, then select the grade band(s) for which you would like to receive information. If you are interested in receiving updates from other OSPI departments, you can select those areas as well. Follow the directions until you have completed registration.

Updated 12/5/2018

- <http://www.k12.wa.us/Science/Assessments.aspx>



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Thank you!