



NGSS-Aligned Interim Assessments for Elementary Schools, Middle Schools and Biology 1

Fact Sheet

The grades 5 and 8 science assessments and the Biology 1 End of Course Exam beginning in school year 2019-2020 will be aligned to the Next Generation Science Standards (NGSS) (<https://www.nextgenscience.org/>).



The NGSS-aligned interim assessments are designed to support teaching and learning throughout the year. In addition these assessments can be used to prepare students for this year's summative assessments. The interim assessments each contain a single cluster item (see the example in Appendix A) associated with a specific NGSS performance expectation. It is anticipated that, in the future, additional interim assessments will be available and that they will include both cluster items and stand-alone items (see the example in Appendix B).

This document contains an overview of the NGSS-Aligned Interim Assessments that are available for administration to students throughout the 2019-2020 school year.

Ways in which Interim assessments are similar to the items students will encounter on the Summative Assessment:

- All items were developed using the same process/criteria as Summative items
- Assess the NGSS performance expectations
- Provide the designated supports and accommodations identified for a student in TIDE if administered through the TA Live Site with students logging in through the secure browser
- Provide evidence of student progress towards meeting the NGSS performance expectations

Ways in which Interim assessments are different:

- Separate, open, non-secure item pool
- Assessments are fixed form (all students see the same questions and will see them again if the assessment for each subject is taken multiple times).

Grade flexibility testing on the Interim Assessments provides teachers with the option of testing students outside their current enrolled grade level, when appropriate and set in TIDE. Assessments from any grade may be used, depending on the purpose. Students in grades 3 - 5 are preset as eligible for all Elementary Interim Assessments and those in grades 6 - 8 as eligible for both Elementary and Middle School Interim Assessments.

Interim Assessments may be administered up to five times during the school year however they are fixed form tests so students will see the same cluster each time. School level personnel must decide which Interim Assessments to administer and how often.

Interim Assessment Security

The interim assessments are considered student- and teacher-facing only. This designation provides educators the flexibility to access the test questions in the Assessment Viewing Application, answer keys in TIDE, and their students' responses to the test questions in AIRWays Reporting. However, interim assessments must not be publicly displayed or distributed outside the classroom to ensure all educators can use the interim assessments as intended.

Interim Assessments Available

The following are lists of the NGSS-Aligned interim assessments currently available for the 2019-2020 school year.

Elementary School Interims

TDS Test Label	Item Description	Performance Expectation
Elementary School Physical Science – Motion and Stability	Gravity and Feather	5-PS2-1
Elementary School Earth Space Science – Earth's Systems 2	Chesapeake Bay	5-ESS2-2
Elementary School Earth Space Science – Earth's Systems 1	Soil Erosion	4ESS2-1
Elementary School Earth Space Science – Weather and Climate	Arizona Monsoon	3-ESS2-1
Elementary School Life Science – Interdependent Relationships in Ecosystems	Redwall Limestone	3-LS4-1
Elementary School Life Science – Matter and Energy in Organisms and Ecosystems	Terrarium Matter Cycle	5-LS2-1
Elementary School Physical Science – Waves and Their Application	Reflected Cat	4-PS4-2
Elementary School Life Science – Inheritance and Variation of Traits	Checkered Chickens	3-LS3-1
Elementary School Physical Science – Forces and Interactions	Rubber Band Launch	3-PS2-2
Elementary School Physical Science – Energy	Door Alarm	4-PS3-4

TDS Test Label	Item Description	Performance Expectation
Elementary School Physical Science – Structure and Properties of Matter 1	Sugar in Tea	5-PS1-2
Elementary School Physical Science – Structure and Properties of Matter 2	Expanding Balloon	5-PS1-4
Elementary School Physical Science – Waves and Information 1	Boat at Dock	4-PS4-1
Elementary School Physical Science – Waves and Information 2	Light Messages	4-PS4-3

Middle School Interims

TDS Test Label	Item Description	Performance Expectation
Middle School Earth Space Science – History of Earth 2	Metamorphic Rock Ice Wedging	MS-ESS2-1
Middle School Earth Space Science – History of Earth 1	K/Pg Boundary	MS-ESS1-4
Middle School Earth Space Science – Space Systems 1	Lunar Eclipse	MS-ESS1-1
Middle School Earth Space Science – Space Systems 2	A Change in Orbit	MS-ESS1-2
Middle School Earth Space Science – Human Impacts	Bear Glacier	MS-ESS3-3
Middle School Earth Space Science – Weather and Climate	TN Weather	MS-ESS2-5
Middle School Life Science – Growth, Development and Reproduction of Organisms 1	Jellyfish	MS-LS3-2
Middle School Life Science – Growth, Development and Reproduction of Organisms 2	Monkeyflower Pollination	MS-LS3-1
Middle School Life Science – Independent Relationships in Ecosystems	Hippos	MS-LS2-2

TDS Test Label	Item Description	Performance Expectation
Middle School Life Science – Matter and Energy in Organisms and Ecosystems	Muscle Repair	MS-LS1-7
Middle School Life Science – Natural Selection and Adaptations 1	Pocket Mice	MS-LS4-4
Middle School Life Science – Natural Selection and Adaptations 2	Bacterial Resistance	MS-LS4-6
Middle School Life Science – Structure, Function and Information Processing 1	Body's Response to Running	MS-LS1-3
Middle School Life Science – Structure, Function and Information Processing 2	Startle Response	MS-LS1-8
Middle School Physical Science – Forces and Interactions	Sliding Box	MS-PS2-2
Middle School Physical Science – Energy	Energy-efficient Window	MS-PS3-3
Middle School Physical Science – Structure and Property of Matter	Whistling Tea Kettle	MS-PS1-4
Middle School Physical Science – Chemical Reactions	Lead Iodide	MS-PS1-5
Middle School Physical Science – Waves and Electromagnetic Radiation 1	Tuning Fork	MS-PS4-2
Middle School Physical Science – Waves and Electromagnetic Radiation 2	Guitar	MS-PS4-1

Biology 1 (NGSS) EOC Exam Interims

TDS Test Label	Item Description	Performance Expectation
Biology EOC (NGSS) Science – Human Sustainability	Over Fished	HS-ESS3-3
Biology EOC (NGSS) Life Science – Matter and Energy in Organisms and Ecosystems	Geranium Photosynthesis	HS-LS1-5

TDS Test Label	Item Description	Performance Expectation
Biology EOC (NGSS) Life Science – Interdependent Relationships in Ecosystems	Oysters/Chesapeake Bay	HS-LS2-2
Biology EOC (NGSS) Life Science – Natural Selection and Evolution	Red Pandas Item 1	HS-LS4-1
Biology EOC (NGSS) Life Science – Structure and Function 2	Goldfish Gills	HS-LS1-3
Biology EOC (NGSS) Life Science – Structure and Function 1	Brain Freeze	HS-LS1-2
Biology EOC (NGSS) Life Science – Inheritance and Variation of Traits	High Bone Density Pedigrees	HS-LS3-2

Administration of Interim Assessments

Standardized Administration

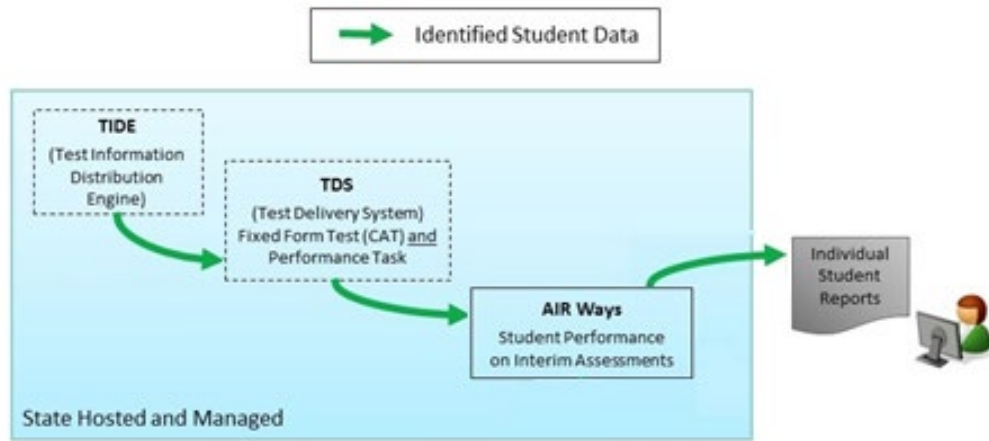
Standardized administration means that a student completes the interim assessment individually, following the procedure for administration used for the summative assessments. Results from a standardized administration will appear in AIR Ways Reporting and can be interpreted in a consistent manner and used as a gauge of student learning that is comparable across students. In this approach, the interim assessment is used as an assessment of learning before or after a period of instruction and results reflect an individual student’s mastery of the concepts assessed.

Information about the reliability and meaning of scores for these fixed form assessments applies only to the first time a test is administered under standardized conditions. Subsequent administrations, or results from collaborating with a class or teacher, alter the interpretation of results. The conditions of administration should be considered when interpreting results.

Standard administration of the Interim Assessments:

- are administered online through the Test Delivery System (TDS).
- include individual Universal Tools, Designated Supports, and/or Accommodations, which may be selected in [TIDE](#) based on the needs of individual students.
- use the same [Secure Browser](#) as Summative Assessments and other statewide assessments.
- use the same directions for administration as the Summative Assessments.

Flow of Scored Test Data During Standard Administration



Non-standardized Administration

Non-standardized administration refers to any administration that is not consistent with the administration requirements of the summative assessment. Some examples of non-standardized administration might include (but are not limited to):

- Administering tests while students answer cooperatively in pairs, in small groups, or as a whole class. Teachers may elect to include some discussion time between test items.
- Providing access to classroom resources that may support the students' understanding of the assessed content.

Results from a non-standardized administration of the interim assessments are more appropriately used as assessment for learning (formative assessment process) rather than the assessment of learning. Because non-standardized administrations do not necessarily describe the performance of individual students in a comparable manner, caution must be used when making instructional decisions based on data from a non-standardized administration.

Additional Information:

Test administration manuals and user guides for other systems are available on the Hawai'i Statewide Assessment Program portal.

Appendix A: Example Item Cluster

This cluster, called Yellowstone Ecosystem, is designed for middle school addressing the Performance Expectation MS-LS2-4: Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations. This page presents the phenomenon. The following has the associated parts of the cluster.

Willow populations in Yellowstone National Park have increased since wolves were reintroduced to the park in 1995.

Willows are small trees that grow best in marshlike environments. After studying the Yellowstone food web shown in Diagram 1 and the population data for the park shown in Table 1, students arrive at two different hypotheses.

Diagram 1. Yellowstone Food Web

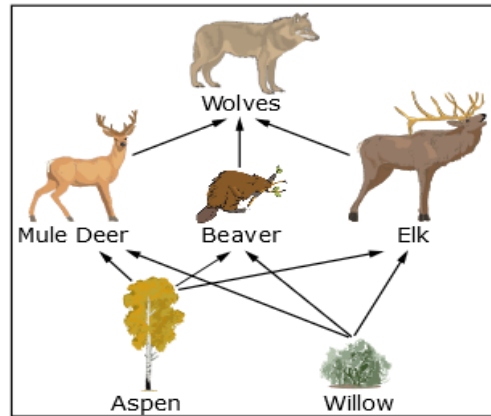


Table 1. Yellowstone Population Data

	Wolves	Elk	Beaver	Mule Deer
1995	31	16,791	10	2,014
2004	171	8,335	120	2,014

Note: These data are approximate.

Hypothesis 1:

When wolves were reintroduced to Yellowstone, the wolves preyed upon the elk, which allowed the beavers to eat more willow. This led to more beavers and beaver dams. Beaver dams create marsh environments that willows do well in, allowing the willow's population to increase.

Hypothesis 2:

When wolves were reintroduced to Yellowstone, they preyed upon all animal species that ate plants. With fewer plant-eating animals eating willows, fewer willow plants were eaten and the population of willow plants increased.

Your Task

In the questions that follow, you will analyze and evaluate these two competing hypotheses.

Part A

Click on each box and select a word/phrase that completes the table with the Yellowstone population data from 1995 and 2004 and the hypothesis those data support.

Table 2. Summary of Yellowstone Population Data and Supported Hypotheses

Data	Hypothesis Supported
Elk population <input type="text"/>	<input type="text"/>
Beaver population <input type="text"/>	<input type="text"/>
Mule deer population <input type="text"/>	<input type="text"/>

- increased
- decreased
- had no change

Part B

Which hypothesis is best supported by the evidence?

- (A) All of the evidence is consistent with Hypothesis 1.
- (B) All of the evidence is consistent with Hypothesis 2.
- (C) Most of the evidence is consistent with Hypothesis 1.
- (D) Most of the evidence is consistent with Hypothesis 2.
- (E) The evidence does not favor either hypothesis.

- Supports Hypothesis 1
- Supports Hypothesis 2
- Supports both hypotheses
- Supports neither hypothesis

- preyed on by wolves
- it has the same prey as wolves
- its consumers are preyed on by wolves
- it is not preyed on by wolves

Part C

Aspen trees are shown in Diagram 1. Moose and bison are two plant-eating animal species that are not shown in Diagram 1 but are also part of the Yellowstone food web.

Based on Hypothesis 2, click on each box to select a word/phrase to make a prediction about what would happen to the moose, bison, and aspen tree populations after the reintroduction of wolves.

Table 3. Population Predictions

Species	Population after Wolf Reintroduction	Reason for Impact on Population
Moose	<input type="text"/>	<input type="text"/>
Bison	<input type="text"/>	<input type="text"/>
Aspen tree	<input type="text"/>	<input type="text"/>

- increase
- decrease
- stayed the same

Part D

Based on Hypothesis 1, and the information in Diagram 1, Table 1, and Table 3 from part C, click on each box to select **two** different predictions.

- Willows would grow in more places throughout the park.
- Willows would have more leaves on each plant.
- The aspen population would increase.
- Aspen would have more leaves on each tree.

Table 4. Population Predictions

Prediction Number	Prediction Statement
1	<input type="text"/>
2	<input type="text"/>

Appendix B: Example Stand-Alone Item

The stand-alone aligns to the Performance Expectation HS-LS2-6: Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.

Ranchers have raised livestock on the island of Crete since 10,000 BCE. Goats and sheep raised on a mountain on Crete eat shrubs, grass, and leaves from the lower branches of trees.

Figure 1 shows the number of livestock grazed on the mountaintop from 1961 to 1991.

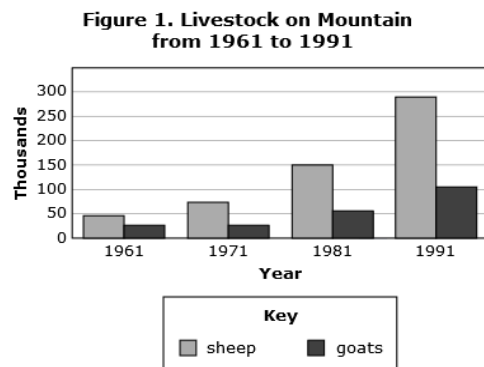
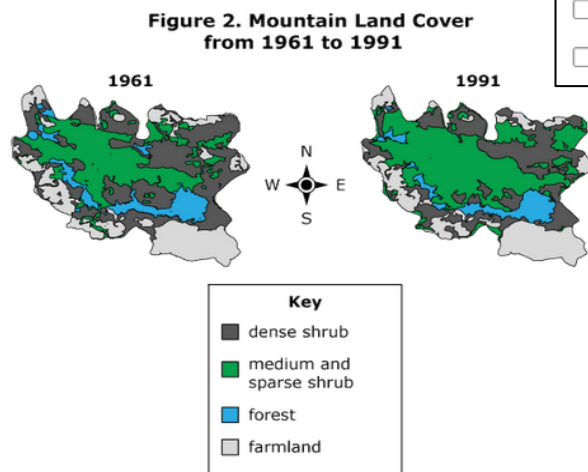


Figure 2 shows the land cover of the mountaintop from 1961 to 1991.



Select the **three** characteristics that provide evidence that the mountain ecosystem has changed.

- density of shrubs
- amount of farmland
- livestock habitat size
- total number of livestock
- ratio of forest to farmland