The Next Generation Science Standards (NGSS) were adopted by the Board of Education in Feb. 2016. Beginning in the school year 2019–20, the HSA-Science, Biology EOC Exam and HSA-Alt Science will be fully aligned to the NGSS to reflect the three-dimensional nature of the standards and the emphasis on phenomenon-driven learning.

ONLINE TEST ADMINISTRATION

The NGSS assessments are administered using the online Test Delivery System. This is the same online system that students use to complete the Smarter Balanced assessments in mathematics and language arts. Tests are administered in grades 5 and 8. Biology is administered at the end of Biology I.

TEST DESIGN AND ITEM TYPES

Students will see item clusters and stand-alone items when they test. The six item clusters include a stimulus and a series of questions that generally take students about 6-12 minutes to complete. The twelve stand-alone items are shorter and generally take students 1-3 minutes to complete. All items ask students to use science and engineering practices and apply their understanding of disciplinary core ideas and crosscutting concepts to make sense out of real-world phenomena.

SAMPLE ITEMS AND PRACTICE TESTS

https://hsa.alohahsap.org/users/students.stml

Sample and practice items can be found on the Hawai'i Statewide Assessment Program Portal. To access the items, click on the icon in the upper left of the page.

SAMPLE ITEM CLUSTER FOR GRADE 5

Aligned to 3-PS2-3 Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.

Two magnets are placed right next to each other. They seem to pull together. A third magnet is then placed right next to the first two magnets. This magnet seems to push away from the first two.

To help better understand these forces, you can conduct an experiment by tying two magnets to strings and hanging them from a meter stick. You can then observe how the magnets interact with each other. The setup of the experiment is shown in Picture 1.

In the experiment, you will be able to change the orientation of each magnet as well as the distance between the magnets. The orientation of the magnet depends on the direction that the N (north) side is pointing.

For example, a magnet’s orientation can start with the N side pointing to the right. If the orientation is changed, then the N side is pointing to the left.

Your task.

In the following questions, you will set up and perform a experiment that will help you understand what affects the force between the two magnets.

PART A

Select a testable, scientific question that can be answered by performing an experiment with the setup shown in Picture 1.

A: How does the distance between the magnets affect the force?
B: How does the orientation of the magnets affect the force?
C: Will the force between the magnets always exist?

PART B

Use the table to select the properties you want to hold constant and the properties you want to change when you run your experiment to answer the question you chose in Part A.

Select a box to identify whether each property should be held constant or changed in your experiment.

Use the Hanging Magnets Experiment simulation to run the experiment and gather observations to answer your question from part A.

First, select the Distance and Orientations. You must select an orientation for each magnet in each trial. Then, click Start to run the simulation.

- You will be limited to three rows of data.
- Be sure the final data table includes data that answers your question.
- Click on the trash can icon if you want to delete a row and generate new data.

PART C

Use the Hanging Magnets Experiment simulation to run the experiment and gather observations to answer your question from part A.

More information: https://hsa.alohahsap.org