



**STATE OF HAWAII**  
**DEPARTMENT OF EDUCATION**  
Pohakea Elementary School  
91-750 Fort Weaver Road  
Ewa Beach, HI 96706

February 26, 2020

Dear Pohakea Parents and Guardians:

The Hawai'i State Department of Education adopted the Next Generation Science Standards (NGSS) in 2016. The NGSS set new goals for science education that aim to prepare all students to be scientifically literate members of their communities.

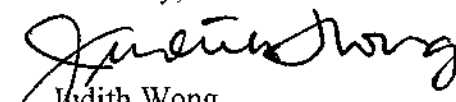
NGSS-aligned teaching and learning in the classroom may look and feel different than how you were taught science. Your child should be working toward explaining natural phenomena and designing solutions to engineering problems. To do this, learning opportunities should be integrate the three dimensions of NGSS:

<b>Dimension</b>	<b>Description</b>
Practices	What scientists and engineers do
Cross-cutting concepts	Big ideas that are frameworks for scientific thinking
Core ideas	Essential knowledge in the science disciplines

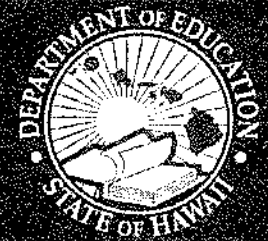
Beginning in school year 2019–2020, the science statewide assessments will reflect the three-dimensional nature of NGSS. The new assessments will be the HSA Science (NGSS), given in Grades 5 and 8; the Biology End of Course (NGSS) Exam, given in high school at the end of Biology 1; and HSA Alternative Science (NGSS) Assessment tasks will involve students using evidence and reasoning to answer questions to provide a one-time snapshot of knowledge and skills related to the NGSS. Your child is scheduled to take the HSA Science (NGSS) Assessment on May 19 – May 20, 2020.

For further information, see <http://bit.ly/HIDOE-NGSS-Families>. Please contact Eryn Muraoka at 808-307-2000 with questions about NGSS instruction or assessment.

Sincerely,

  
Judith Wong  
Principal

# Next Generation Science Standards Assessment Factsheet



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.

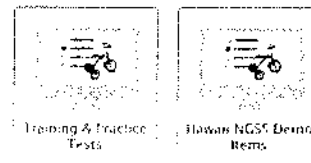
## TEST DESIGN AND ITEM TYPES

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/student/sa.html>

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

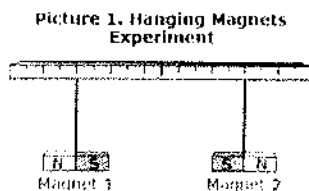


## SAMPLE ITEM CLUSTER FOR GRADE 5

Aligned to 5-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 an 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.

	Constant	Change
Magnet orientation	<input type="checkbox"/>	<input type="checkbox"/>
Magnet type	<input type="checkbox"/>	<input type="checkbox"/>
Magnet size	<input type="checkbox"/>	<input type="checkbox"/>
Distance between the magnets	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### PART C

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.

Distance:

Orientation of Magnet 1:  N  S

Orientation of Magnet 2:  N  S

Trial Number	Distance	Orientation of Magnet 1	Orientation of Magnet 2	Observations

Start

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