

# Hawai'i State Science Assessment Family Report Interpretive Guide



## Understanding Your Child's 2016–2017 Assessment Scores

What Is the Purpose of the HSA Science Assessments?

### What Is the Purpose of the HSA Assessments?

The Hawai'i State Science Assessments (HSA Science) are designed to measure student performance in the content standards that help guide your child's daily instruction throughout the school year.

In the spring of school year 2016–2017, a Science assessment was administered in grades 4 and 8. Students who took the Science assessment are receiving this report.

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*Disclaimer: The data in the sample Family Report are for display purposes only and do not represent actual results. The student's name on the sample report is fictitious, and any similarity to an actual student name is purely coincidental.*

**Cover Letter**

The first page of your child's family report includes an important letter from the Superintendent of the Hawai'i State Department of Education summarizing the contents of the report and encouraging you to be an active participant in your child's education.

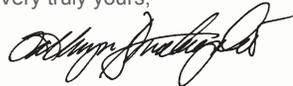
The Hawai'i Department of Education is pleased to send you this report about Jane's performance on the Online Hawai'i State Science Assessment. The Science Assessment is designed to test students on the Hawai'i Content and Performance Standards, Third Edition (HCPS III) learned in the previous school year. The standards describe what students should know and be able to do in science.

Students take each assessment up to three times during the school year. This report shows Jane's best performance on the Science Assessment, which counts as her official score.

In addition to showing how well Jane did on the assessment, this report compares her score with those of other students in her school, her complex area, and the state. On the bottom of page 2, the report also shows whether or not Jane reached proficiency in the different areas of science and suggests how you may help her to further her knowledge and skills.

This report is a starting point for a discussion with Jane's teacher. You may use it to talk about how you can support your child's learning at home. Informed students, parents, and schools working together provide the best education for our students.

Very truly yours,



Kathryn S. Matayoshi  
Superintendent of Education

**Jane's Science Score**

**325**  
Meets  
Proficiency

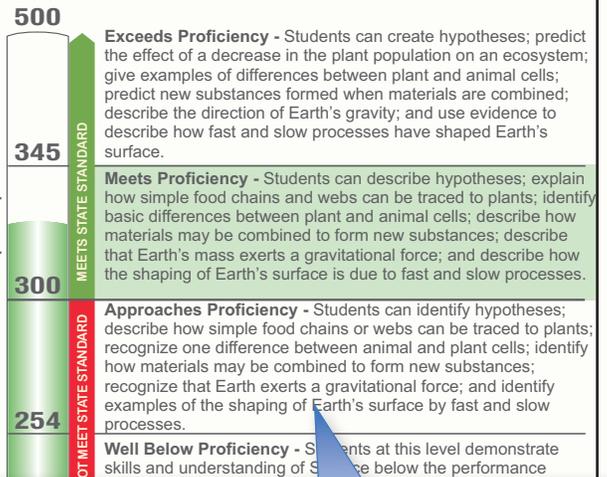
Jane's Science score is 325. This score is higher than the average score of fourth graders in her school, higher than that of fourth graders in her complex area, and higher than that of fourth graders statewide for this test.

*A student's exam score can vary if the exam is taken several times. If your child were tested again, it is likely that Jane would receive a score between 300 and 350.*

**How does this compare?**

State Average	Average Score
307	327

Jane's Score: 325



**Performance Levels**

If your child's score is in the Exceeds Proficiency or Meets Proficiency range in a subject, then your child has met the Hawai'i Content and Performance Standards, Third Edition (HCPS III). If your child's score is in the Approaches Proficiency or Well Below Proficiency range, then your child has not met the standards for that subject.

**Your Child's Score**

On the second page of the report, you will see your child's overall score and performance level.



### Cut Scores

Cut scores were determined for each subject assessed. The displayed values indicate the minimum score a student must achieve to place in the Approaches Proficiency, Meets Proficiency, or Exceeds Proficiency categories.

## Jane's Science Score

**325**  
Meets  
Proficiency

Jane's Science score is 325. This score is higher than the average score of fourth graders in her school, higher than that of fourth graders in her complex area, and higher than that of fourth graders statewide for this test.

*A student's exam score can vary if the exam is taken several times. If your child were tested again, it is likely that Jane would receive a score between 300 and 350.*

Jane's Score: 325

500

**Exceeds Proficiency** - Students can create hypotheses; predict the effect of a decrease in the plant population on an ecosystem; give examples of differences between plant and animal cells; predict new substances formed when materials are combined; describe the direction of Earth's gravity; and use evidence to describe how fast and slow processes have shaped Earth's surface.

345

**Meets Proficiency** - Students can describe hypotheses; explain how simple food chains and webs can be traced to plants; identify basic differences between plant and animal cells; describe how materials may be combined to form new substances; describe that Earth's mass exerts a gravitational force; and describe how the shaping of Earth's surface is due to fast and slow processes.

300

**Approaches Proficiency** - Students can identify hypotheses; describe how simple food chains or webs can be traced to plants; recognize one difference between animal and plant cells; identify how materials may be combined to form new substances; recognize that Earth exerts a gravitational force; and identify examples of the shaping of Earth's surface by fast and slow processes.

254

**Well Below Proficiency** - Students at this level demonstrate skills and understanding of Science below the performance required to reach the Approaches Proficiency level.

100

### How does this compare?

	Average Score
State Average	297
Complex Area Average	295
School Average	290

### Has Your Child Met the Standard in the Different Areas of Science?

### Next Steps

#### Scientific Process

Students may be able to describe a hypothesis, and inferences, and how the environment has influenced the environment.

For example, show your child an ice cube and a glass of water. Ask your child to form a hypothesis about what will happen if the ice cube is placed into the glass of water (e.g., "If I put the ice into the glass of water, then it will melt.") Ask her to test her hypothesis by putting the ice into the water and recording what she observes.

### Comparison Scores

Your child's score is compared to the average score of students who took the Hawai'i State Science Assessment. For purposes of confidentiality and privacy, the average score for the complex area will not be displayed if fewer than 10 students within the complex area completed the assessment.



Students are able to describe the role of plants and animals in an ecosystem, and some differences between plant cells and animal cells, and describing how different organisms need specific environmental conditions to survive.

For example, help your child draw a food web using one plant and four animals that live in the ocean. Talk about how the plant is an important part of the food web (e.g., almost all animals' food can be traced back to plants). In addition, ask your child how one of the ocean animal's body parts helps it survive in the ocean (e.g., sea turtles have paddle-like front arms for swimming).

#### Physical, Earth, and Space Sciences



Students predict the new substances that are formed when some materials are combined, use materials to set up a circuit to create light and sound, describe that Earth exerts a gravitational force toward its center on all objects, use evidence to describe how fast and slow processes have shaped and reshaped Earth's surface, and use evidence to describe the relationship between the sun and Earth's daily rotation and annual revolution.

For example, in a darkened room, use a small lamp to represent the sun and a ball to represent Earth. Ask your child to move (e.g., rotate) the ball to represent alternating day and night. Ask your child to move (e.g., in a circle around the lamp) the ball to represent one year. Finally, ask your child to express the relationship between the motions associated with days and years (e.g., 365 rotations in every revolution around the lamp) by performing both motions at the same time.



# Jane's Science Score

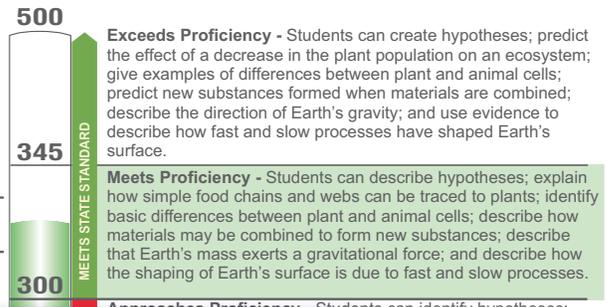
# 325

Meets Proficiency

Jane's Science score is 325. This score is higher than the average score of fourth graders in her school, higher than that of fourth graders in her complex area, and higher than that of fourth graders statewide for this test.

*A student's exam score can vary if the exam is taken several times. If your child were tested again, it is likely that Jane would receive a score between 300 and 350.*

Jane's Score: 325



## Score Information

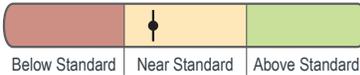
Your child's score in each area of the test is displayed in the bar chart. Red signifies Below the Standard, Yellow signifies Near the Standard, and Green signifies Above the Standard. The line represents where your child's performance falls within the performance category. There is an explanation of what your child is able to do in each area.

### How does this compare?

	Average Score
State Average	297
Complex Area Average	295
School Average	290

### Has Your Child Met the Standard in the Different Areas of Science?

#### Scientific Process



Students may be able to describe a hypothesis, distinguish between observations and inferences, and describe how the use of technology has influenced Hawai'i's economy, demography, and environment.

#### Next Steps

For example, show your child an ice cube and a glass of water. Ask your child to form a hypothesis about what will happen if the ice cube is placed into the glass of water (e.g., "If I put the ice into the glass of water, then it will melt.") Ask her to test her hypothesis by putting the ice into the water and recording what she observes.

#### Life Science



Students may have difficulty explaining the role of plants in a food chain (diagram), identifying some differences between plant cells and animal cells, and describing how different organisms need specific environmental conditions to survive.

For example, help your child draw a food web using one plant and four animals that live in the ocean. Talk about how the plant is an important part of the food web (e.g., almost all animals' food can be traced back to plants). In addition, ask your child how one of the ocean animal's body parts helps it survive in the ocean (e.g., sea turtles have paddle-like front arms for swimming).

## Reporting Category Assessed

This section describes how your child performed on each reporting category of the Science exam.

Reporting Category Assessed

Students predict the new substances that are formed when some materials are combined, use materials to set up a circuit to create light and sound, describe that Earth exerts a gravitational force toward its center on all objects, use evidence to describe how fast and slow processes have shaped and reshaped Earth's surface, and use evidence to describe the relationship between the sun and Earth's daily rotation and annual revolution.

For example, in a darkened room, use a small lamp to represent Earth (rotate the ball around the lamp and night. Ask your child to draw a circle around the lamp and rotate it one year. Find the relationship between the number of days and the number of revolutions around the lamp and the motions at the

## Next Steps

The Next Steps recommendations are based on your child's performance for each reporting category. This section provides information on activities you can do with your child to build on strengths and alleviate weaknesses in the subjects assessed.

## Glossary of Terms/Definitions

**Cut Scores:** Selected points on the score scale of the HSA Science assessments, which are used to classify student performance into one of four performance levels.

**Performance Level:** Performance levels represent levels of mastery with respect to the Hawai'i Content and Performance Standards, Third Edition (HCPS III).

**Reporting Categories:** Reporting categories are a subset of content knowledge and skills within a content area. Science grade 4 reporting categories are Scientific Process; Life Science; and Physical, Earth, and Space Sciences. Reporting categories for grade 8 Science are Scientific Process, Biological and Physical Sciences, and the Solar System and The Universe.

**Reporting Category Descriptors:** These descriptors are a summary of what students within each reporting category are expected to know and be able to do.

**Scale Scores:** Scale scores are statistically converted scores using the number of items students answer correctly and the difficulty of the items presented. Scale scores can be compared over multiple test administrations.

**Standards:** Grade-level specific (science) content that is assessed for accountability purposes.

## Additional Resources

Each of the links provided below can also be accessed at [alohahsap.org](http://alohahsap.org) on the HSA Science homepage via the Resources page link.

**Test blueprints for science:**

[http://alohahsap.org/HSA/wp-content/uploads/2013/06/Science\\_Blueprints1.pdf](http://alohahsap.org/HSA/wp-content/uploads/2013/06/Science_Blueprints1.pdf)

**HCPS III Science Content Standards and Benchmarks:**

[http://165.248.72.55/hcpsv3/files/final\\_hcpsiii\\_science\\_librarydocs\\_7.pdf](http://165.248.72.55/hcpsv3/files/final_hcpsiii_science_librarydocs_7.pdf)

## HSA Science Information and Parent Resources

<http://alohahsap.org/HSA/parent-information-booklets/>