

California Alternate Assessment

California Assessment of Student
Performance and Progress



Practice Test Scoring Guide



**Earth and Space Sciences
High School**



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Practice Test Scoring Guide

Assessed Standards

The California Alternate Assessment (CAA) for Science measures the Science Core Content Connectors (Science Connectors) and is administered to students with the most significant cognitive disabilities in grades five and eight and once in high school (that is, grade ten, eleven, or twelve). The Science Connectors are derived from the California Next Generation Science Standards (CA NGSS) performance expectations (PEs). They provide alternate standards to guide science instruction and assessment for students with the most significant cognitive disabilities. The PEs that the assessed Science Connectors are derived from can be found in the CAA for Science blueprint document at <https://www.cde.ca.gov/ta/tg/ca/documents/caascienceblueprint.docx>.

These Science Connectors are further broken down into assessment targets. The assessment targets are comprised of the focal knowledge, skills, and abilities (FKSAs), which describe what students should know and be able to do in science; at the simplest level, the essential understandings (EUs) are the basic scientific concepts that students should understand. This is presented as a continuum in the figure that follows.



Practice Test Scoring Guide (cont.)

This practice test is intended to assess Science Connectors HS-ESS2-5, HS-ESS1-4, and HS-ESS3-1.

HS-ESS2-5 Earth's Systems

Observe and identify the effect of water on the Earth's materials and surface processes (e.g., stream transportation and deposition, erosion, frost wedging).

Table 1. HS-ESS2-5, FKSA and EU

Assessment Target	Definition	Students Will Be Able To...
FKSA	<ul style="list-style-type: none">Identify the effects of water on the Earth's materials and surface processes. (FKSA 1)	<ul style="list-style-type: none">Identify the effects of fast-moving water on hillsidesIdentify that when fast-moving water slows, it drops rocks and dirt on the bottom of the waterwayIdentify that when water repeatedly freezes in cracks, it can eventually cause the cracks to become biggerIdentify that layers of soil and rock can build up where fast-moving water slows and drops rock and soil
EU	<ul style="list-style-type: none">Recognize that water can erode rocks and soil.	<ul style="list-style-type: none">Identify that water can move rocks and soil

Practice Test Scoring Guide (cont.)

HS-ESS1-4 Earth's Place in the Universe

Using a model, describe how Earth's motion causes changes over time.

Table 2. HS-ESS1-4, FKSA and EU

Assessment Target	Definition	Students Will Be Able To...
FKSA	<ul style="list-style-type: none">Ability to use a model to describe how the Earth's motion causes changes over time. (FKSA 1)	<ul style="list-style-type: none">Identify how the motion of Earth causes day and nightIdentify how the motion and tilt of Earth causes the seasonsIdentify the season in the northern hemisphere based on the location and tilt of Earth relative to the Sun
EU	<ul style="list-style-type: none">Identify orbiting objects in the solar system.	<ul style="list-style-type: none">Identify the Sun in a diagram of the solar systemIdentify the Moon in a diagram of the solar systemIdentify planets in a diagram of the solar system (does not include name of individual planets)

Practice Test Scoring Guide (cont.)

HS-ESS3-1 Earth and Human Activity

Explain the cause-and-effect relationship between human activity (e.g., population size, where humans live, types of crops grown) and changes in the amounts of natural resources, the occurrence of natural hazards or changes in climate using evidence.

Table 3. HS-ESS3-1, FKSA and EU

Assessment Target	Definition	Students Will Be Able To...
FKSA	<ul style="list-style-type: none">Ability to explain the cause-and-effect relationship between human activity and changes in the amounts of natural resources using evidence. (FKSA 1)Ability to explain the cause-and-effect relationship between human activity and changes in the occurrence of natural hazards using evidence. (FKSA 2)Ability to explain the cause-and-effect relationship between human activity and changes in the climate using evidence. (FKSA 3)	<ul style="list-style-type: none">Recognize the relationship between human activities and the amount of natural resourcesRecognize the relationship between human activities and natural hazardsRecognize the relationship between human activities and climate change
EU	<ul style="list-style-type: none">Match the effect of a natural hazard (e.g., hurricanes, floods, droughts) on a human activity.	<ul style="list-style-type: none">Identify effects of natural hazards on human activities

Practice Test Scoring Guide (cont.)

Introduction to Practice Test Scoring Guide

The CAA for Science Practice Test Scoring Guide provides details about the items, assessment targets, correct responses, and related scoring considerations for the CAA for Science practice test items. The items selected for the practice test are designed to reflect the student experience while being administered the CAA for Science. This includes

- a range of student response types, and
- a breadth of difficulty levels across the items, ranging from easier to more difficult items.

It is important to note that not all student response types are fully represented on every practice test, but a distribution can be observed across all the practice tests. The items presented are reflective of refinements and adjustments to language based on pilot test results and expert recommendations from both content and accessibility perspectives.

Scoring guides should be used alongside the online practice tests, which can be accessed at the [Practice and Training Tests web page](#).

The following information is presented in a metadata table for each item in the practice test.

Item: This is the number that corresponds to the test question as it appears in the practice test.

Key: This represents the correct answer(s) to the item and includes the score point value for the item and its parts. Items are worth either one or two points.

Science Connector: This references the alternate achievement standard linked to a CA NGSS performance expectation.

Assessment Target: This references the FKSA or EU that an item is assessing.

All items in a practice test are designed to be administered in conjunction with their corresponding *Directions for Administration (DFA)*. In addition, each practice test contains a nongraded Orienting Activity before each set of items. Please be sure to present the Orienting Activity for each Science Connector to the student before moving on to the items. For more information regarding Orienting Activities, please refer to the [CAA for Science: Practice Test DFA—Earth and Space Sciences, High School](#).



High School Earth and Space Sciences Practice Test Items

Item	Key	Science Connector	Assessment Target
1	A (1 point)	HS-ESS2-5	EU: Recognize that water can erode rocks and soil.
2	B (1 point)	HS-ESS2-5	EU: Recognize that water can erode rocks and soil.
3	C (1 point)	HS-ESS2-5	FKSA 1: Identify the effects of water on the Earth's materials and surface processes.
4	C (1 point)	HS-ESS2-5	FKSA 1: Identify the effects of water on the Earth's materials and surface processes.
5	It makes waterfalls. It makes valleys. (2 points) Both correct responses (1 point) One correct response	HS-ESS2-5	FKSA 1: Identify the effects of water on the Earth's materials and surface processes.
6	B (1 point)	HS-ESS1-4	EU: Identify orbiting objects in the solar system.
7	A (1 point)	HS-ESS1-4	EU: Identify orbiting objects in the solar system.
8	A (1 point)	HS-ESS1-4	FKSA 1: Ability to use a model to describe how the Earth's motion causes changes over time.
9	The first choice (Earth with light on the side facing the Sun and darkness on the other side) (1 point)	HS-ESS1-4	FKSA 1: Ability to use a model to describe how the Earth's motion causes changes over time.



Item	Key	Science Connector	Assessment Target
10	Part A: First box: the second choice (The north pole of Earth is tilted toward the Sun.) Second box: the third choice (The north pole of Earth is tilted away from Earth.) (1 point) Part B: A (1 point)	HS-ESS1-4	FKSA 1: Ability to use a model to describe how the Earth's motion causes changes over time.
11	B (1 point)	HS-ESS3-1	EU: Match the effect of a natural hazard (e.g., hurricanes, floods, droughts) on a human activity.
12	A (1 point)	HS-ESS3-1	EU: Match the effect of a natural hazard (e.g., hurricanes, floods, droughts) on a human activity.
13	B (1 point)	HS-ESS3-1	FKSA 1: Ability to explain the cause-and-effect relationship between human activity and changes in the amounts of natural resources using evidence.
14	C (1 point)	HS-ESS3-1	FKSA 1: Ability to explain the cause-and-effect relationship between human activity and changes in the amounts of natural resources using evidence.
15	Part A: B (1 point) Part B: B (1 point)	HS-ESS3-1	FKSA 3: Ability to explain the cause-and-effect relationship between human activity and changes in the climate using evidence.