

California Alternate Assessment

California Assessment of Student
Performance and Progress



Practice Test Scoring Guide



Physical Sciences High School



Table of Contents

Practice Test Scoring Guide	1
Assessed Standards	1
HS-PS3-4 Energy	2
HS-PS2-1 Motion and Stability: Forces and Interactions	3
HS-PS1-1 Matter and Its Interactions	3
Introduction to Practice Test Scoring Guide	4
High School Physical Sciences Practice Test Items	5

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-PS3-4, HS-PS2-1, and HS-PS1-1.

HS-PS3-4 Energy

Identify that the temperature of two different components, when combined, show uniform energy distribution.

Table 1. HS-PS3-4, FKSA and EU

Assessment Target	Definition	Students Will Be Able To...
FKSA	<ul style="list-style-type: none">Recognize that the mixture of two different components shows uniform energy distribution. (FKSA 1)	<ul style="list-style-type: none">Recognize the combination of two substances with different temperatures will result in a final temperature between that of the two substancesRecognize the combination of two substances with different energy levels will result in a uniform final energy distribution because one substance loses heat energy and the other gains heat energy
EU	<ul style="list-style-type: none">Recognize components change their temperature when combined.	<ul style="list-style-type: none">Recognize the temperature of a warmer substance will decrease when a cooler substance is addedRecognize the temperature of a cooler substance will increase when a warmer substance is added

Practice Test Scoring Guide (cont.)

HS-PS2-1 Motion and Stability: Forces and Interactions

Recognize the relationship between an object's acceleration and the force.

Table 2. HS-PS2-1, FKSA and EU

Assessment Target	Definition	Students Will Be Able To...
FKSA	<ul style="list-style-type: none">Identify that a decrease in acceleration is caused by a change in the net force. (FKSA 1)	<ul style="list-style-type: none">Recognize when an object is moving at a constant speed, a push or pull in the opposite direction will make the object slow down
EU	<ul style="list-style-type: none">Identify that increasing the force exerted on an object increases the acceleration of the object.	<ul style="list-style-type: none">Recognize that the speed of an object is dependent on the force exerted on it

HS-PS1-1 Matter and Its Interactions

Organize different materials based on properties of elements.

Table 3. HS-PS1-1, FKSA and EU

Assessment Target	Definition	Students Will Be Able To...
FKSA	<ul style="list-style-type: none">Recognize that types of materials (e.g., elements) can be grouped together. (FKSA 1)	<ul style="list-style-type: none">Group objects together based on shared properties
EU	<ul style="list-style-type: none">Recognize that materials have different properties.	<ul style="list-style-type: none">Recognize that materials have different propertiesIdentify basic properties of materials

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—Physical Sciences, High School](#).



High School Physical Sciences Practice Test Items

Item	Key	Science Connector	Assessment Target
1	A (1 point)	HS-PS3-4	EU: Recognize components change their temperature when combined.
2	B (1 point)	HS-PS3-4	EU: Recognize components change their temperature when combined.
3	C (1 point)	HS-PS3-4	FKSA 1: Recognize that the mixture of two different components shows uniform energy distribution.
4	B (1 point)	HS-PS3-4	FKSA 1: Recognize that the mixture of two different components shows uniform energy distribution.
5	Part A: A (1 point) Part B: B (1 point)	HS-PS3-4	FKSA 1: Recognize that the mixture of two different components shows uniform energy distribution.
6	B (1 point)	HS-PS2-1	EU: Identify that increasing the force exerted on an object increases the acceleration of the object.
7	A (1 point)	HS-PS2-1	EU: Identify that increasing the force exerted on an object increases the acceleration of the object.
8	C (1 point)	HS-PS2-1	FKSA 1: Identify that a decrease in acceleration is caused by a change in the net force.
9	C (1 point)	HS-PS2-1	FKSA 1: Identify that a decrease in acceleration is caused by a change in the net force.
10	Part A: C (1 point) Part B: A (1 point)	HS-PS2-1	FKSA 1: Identify that a decrease in acceleration is caused by a change in the net force.
11	A (1 point)	HS-PS1-1	EU: Recognize that materials have different properties.
12	B (1 point)	HS-PS1-1	EU: Recognize that materials have different properties.
13	B (1 point)	HS-PS1-1	FKSA 1: Recognize that types of materials (e.g., elements) can be grouped together.



Item	Key	Science Connector	Assessment Target
14	A (1 point)	HS-PS1-1	FKSA 1: Recognize that types of materials (e.g., elements) can be grouped together.
15	They heat up quickly. They look shiny. (2 points) Both correct responses (1 point) One correct response	HS-PS1-1	FKSA 1: Recognize that types of materials (e.g., elements) can be grouped together.