



California Assessment of  
Student Performance and Progress

## **2018–19 CAA for Science Administration Planning Guide: High School**

*This guide is intended for use by test site coordinators and test examiners to guide, plan, and schedule California Alternate Assessment (CAA) for Science testing between January 8, 2019, and the end of your instructional calendar.*

*This guide does not contain test content.*

# Table of Contents

<b>Introduction</b>	<b>1</b>
What is the California Alternate Assessment (CAA) for Science?	1
Purpose of This Administration Planning Guide	1
Considerations for Planning CAA for Science Testing	1
Test Security	1
<b>Questions and Answers About Administration</b>	<b>2</b>
What Do I Need to Know About Administering the 2018–19 CAA for Science?	2
When Do I Administer the Embedded PTs?	2
How Do I Administer an Embedded PT?	3
Why Might I Individualize an Embedded PT?	4
<b>Assessed Standards</b>	<b>4</b>
Task 1: Moving Objects and Reducing Impacts	6
Activity 1 Science Connector: HS-PS2-1—Force and Acceleration	6
Activity 2 Science Connector: HS-PS2-3—Minimizing Force	7
Task 2: Essential Functions and Growth	8
Activity 1 Science Connector: HS-LS1-2—Essential Functions	8
Activity 2 Science Connector: HS-LS1-6—Growth	9
Task 3: Earth	10
Activity 1 Science Connector: HS-ESS1-4—Earth’s Motion	10
Activity 2 Science Connector: HS-ESS2-3—Thermal Convection	11
<b>Schedule Planner Template</b>	<b>12</b>
<b>List of Tables</b>	
Table 1. Sample 2018–19 CAA for Science High School Testing Schedule Planner	3
Table 2. HS-PS2-1, FKSA and EU for Activity 1	6
Table 3. HS-PS2-3, FKSA and EU for Activity 2	7
Table 4. HS-LS1-2, FKSA and EU for Activity 1	8
Table 5. HS-LS1-6, FKSA and EU for Activity 2	9
Table 6. HS-ESS1-4, FKSA and EU for Activity 1	10
Table 7. HS-ESS2-3, FKSA and EU for Activity 2	11
Table 8. 2018–19 CAA for Science High School Testing Planner Template	12

## Introduction

### What is the California Alternate Assessment (CAA) for Science?

The CAA for Science is an online California Assessment of Student Performance and Progress (CAASPP) assessment designed for students with the most significant cognitive disabilities and for whom an individualized education program team has designated the use of an alternate assessment on statewide summative assessments.

The CAA for Science design philosophy supports the diverse needs of students by ensuring standardization while still allowing flexibility, enabling the greatest range of students to demonstrate their science content knowledge.

### Purpose of This Administration Planning Guide

This guide provides information about what to consider when deciding the best time to administer a CAA for Science performance task to a student, the basic steps to administering a performance task, and what to consider about individualization based upon a student's needs. In addition, this guide informs teachers and test examiners about the two science connectors that are aligned with each performance task and a schedule planner template to assist in the planning of when to administer each performance task.

### Considerations for Planning CAA for Science Testing

Teachers and test examiners should review this guide as early as possible in order to plan how best to integrate each of the three embedded performance tasks (PTs) into the instructional calendar. The directions necessary to administer the actual embedded PTs, called the *Directions for Administration (DFA)*, will be available as downloadable files beginning January 8, 2019. Test examiners should download the assigned version of the performance task *DFA* just prior to the administration of the performance task.

*DFAs* are specific to each embedded PT and to the CAA for Science version assigned to the school. The school-level version assignments can be found on CAASPP.org. To foster test security, download a *DFA* only when preparing to administer a specific embedded PT, and destroy the *DFA* after testing.

The embedded PTs can be administered in any order between January 8 and the end of the instructional calendar or July 15, whichever comes first. Each PT is intended to be administered following related instruction.

### Test Security

This guide contains no test content and is not secure, but is intended for use only by CAASPP test site coordinators and test examiners for the purpose of planning and scheduling testing. Follow these guidelines to ensure security of the CAA for Science embedded PTs:

- **The downloadable *DFA* and the online PTs referred to in this document contain test content and must be kept secure at all times.**
- Online content in the test delivery system, the downloadable *DFA*, and the orienting activities outlined in the *DFA* must be kept secure. *DFAs* that were printed for test examiners must be kept in a securely locked room or locked cabinet when not in use.
- After an embedded PT has been administered, its *DFA* must be immediately and securely destroyed.
- Any electronic files should be securely deleted from the test examiner’s or test site coordinator’s device in such a way that the file does not remain in a temporary storage location such as Windows’ Recycle Bin, where it can be undeleted.
- Once a test examiner begins an embedded PT with a student, it must be completed and submitted in the test delivery system within **45 calendar days** and before the end of the school’s instructional calendar.

## Questions and Answers About Administration

### What Do I Need to Know About Administering the 2018–19 CAA for Science?

The CAA for Science in 2018–19 is comprised of three embedded PTs that are administered online to students. All three performance tasks must be attempted to complete the administration. Each embedded PT assesses two Science Connectors and two corresponding sets of five test questions, each prefaced by an orienting activity. An orienting activity is nonscorable activity that is designed to engage and familiarize students to a science concept that they were previously taught. In some cases, the test examiner completes hands-on exercises with the student during testing and may be required to prepare some commonly available materials found in the classroom beforehand. **There should not be a need to purchase materials just for testing.**

### When Do I Administer the Embedded PTs?

Test examiners must administer embedded PTs to a student any time during the normal course of instruction between January 8, 2019, and the end of the instructional calendar or July 15, whichever comes first. A list of the Science Connectors being assessed can be found in the next section to assist in planning. The test examiner should administer an embedded PT shortly after the student has received instruction on the two Science Connectors in that specific PT.

Each of the three embedded PTs is available as a separate test in the test delivery system, enabling the test examiner to administer it in any order and at any time. For example, a student learns the concepts in PT 2, “Essential Functions and Growth,” in January, and the test examiner administers the PT at the end of January. In March, the student learns the concepts in PT 1, “Moving Objects and Reducing Impacts,” and the test examiner administers the PT in early April. Finally, the student learns the concepts in PT 3, “Earth,” in late April,

and the test examiner administers the PT in early May, thereby completing the CAA for Science testing requirement for the student.

Table 1 displays a sample of a CAA for Science schedule that shows testing dates based on dates when related instructional content is planned to be taught. A test examiner may use the schedule template on page 12 to enter dates for administering each embedded PT.

**Table 1. Sample 2018–19 CAA for Science High School Testing Schedule Planner**

PT	Embedded PT Name	Associated Science Connectors	Date(s) Related Instructional Content Will Be Taught	Scheduled Testing Date(s)
1	Moving Objects and Reducing Impacts	<p><b>HS-PS2-1:</b> Force and Acceleration</p> <p><b>HS-PS2-3:</b> Minimizing Force</p>	March 2019	Week of March 25, 2019
2	Essential Functions and Growth	<p><b>HS-LS1-2:</b> Essential Functions</p> <p><b>HS-LS1-6:</b> Growth</p>	January 2019	Week of February 4, 2019
3	Earth	<p><b>HS-ESS1-4:</b> Earth's Motion</p> <p><b>HS-ESS2-3:</b> Thermal Convection</p>	April 2019	Week of May 6, 2019

## How Do I Administer an Embedded PT?

Take the following steps to prepare and administer an embedded PT:

1. Obtain certification to be a test examiner by completing the online, self-guided, CAA Test Examiner Tutorial.
2. Download the version-specific, PT-specific *DFA* document from the [Test Operations Management System](#) to prepare for administering the embedded PT to a student. (For security purposes, do not download the *DFA* any earlier than is necessary to prepare for administration.)
3. Review the *DFA* including the list of materials and instructions to set up any necessary hands-on exercises, depending on individual student need.
4. Review the *DFA* and determine, for each student, whether exemplar orienting activities and items are appropriate or if individualization is needed (where permitted).

5. Gather any associated materials based on the provided materials list. (Note that, in some cases, test examiners may not know whether individualization is required until testing the student is underway.)
6. Log on to the test delivery system with the student. (Remember that CAA testing requires two internet-connected devices.) More information can be found on [How to Start a Test Session for the CAAs](#).
7. Use the *DFA* to guide you through administering the orienting activities and test questions to a student in the online test delivery system.

## Why Might I Individualize an Embedded PT?

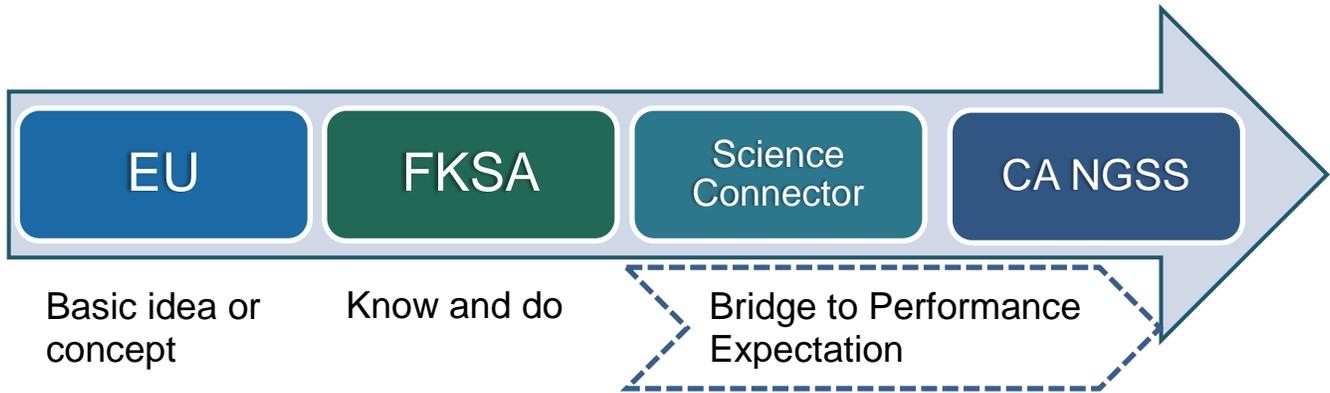
The CAA for Science embedded PTs strike a careful balance between standardized administration and maximizing student engagement. Some orienting activities and test questions can be individualized to improve student engagement. Text examiners may choose individualized options in place of the provided exemplar to make the subject matter more accessible to the student.

**Individualization is on a student-by-student basis and only permitted where explicitly stated in the *DFA*, either in the orienting activity description or in certain specific test questions.**

## Assessed Standards

The CAAs for Science, which are based on the Science Connectors, measure knowledge, skills, and abilities that are appropriate for this student population. The Science Connectors are derived from the 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](#).

These Science Connectors are further broken down into more discrete focal knowledge, skills, and abilities (FKSAs), which are what students should know and be able to do in science; and, at the simplest level, the essential understandings (EU), which are what basic concepts students should know and be able to do in science. This is presented as a continuum in Figure 1.



**Figure 1. CAA Science Standards Continuum**

Keep this structure in mind as you review the content being assessed this year. Test questions are written to assess the FKSA, EUs, and, sometimes, the Science Connector. Each Science Connector has between one and six FKSA, and one EU. The EU will always be assessed, but not all of the FKSA will be assessed in a single embedded PT; therefore, not all the FKSA are provided in this guide. For those Science Connectors with more than one FKSA, assessment of all FKSA will occur over multiple years. In this case, the number of the FKSA being assessed is denoted in parentheses, e.g. “(FKSA 1).”

The following pages provide the six Science Connectors and associated FKSA and EUs for each of the three PTs being assessed this year. Remember that each PT assesses two Science Connectors, so you will see two sets of Science Connector information for each PT. The mastery statements are descriptions of ways in which a student may demonstrate mastery of the FKSA or EU to be assessed. These statements describe specific actions the student will take, such as identifying, recognizing, or comparing information contained in the Connector being assessed. The mastery statements describe **only those Science Connectors assessed this year**, and do **not** necessarily address all of the FKSA associated with a particular Science Connector.

## Task 1: Moving Objects and Reducing Impacts

### Activity 1 Science Connector: HS-PS2-1—Force and Acceleration

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

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

Feature	Definition	How Mastery Is Demonstrated
<b>FKSA</b>	<ul style="list-style-type: none"> <li>Identify that there is a relationship between an object's acceleration and the force.</li> </ul>	<ul style="list-style-type: none"> <li>Identify a change in an object's acceleration.</li> <li>Identify that a force is required to cause an object's motion to change.</li> <li>Identify that a large force has a greater impact on an object's motion than a small force.</li> </ul>
<b>EU</b>	<ul style="list-style-type: none"> <li>Identify that acceleration changes force.</li> </ul>	<ul style="list-style-type: none"> <li>Identify that the greater the force, the greater the acceleration.</li> <li>Identify that the greater the acceleration, the greater the force.</li> </ul>

## Activity 2 Science Connector: HS-PS2-3—Minimizing Force

Evaluate a device designed to minimize force by comparing data (e.g., momentum, mass, velocity, force, time).

Table 3. HS-PS2-3, FKSA and EU for Activity 2

Feature	Definition	How Mastery Is Demonstrated
<b>FKSA</b>	<ul style="list-style-type: none"> <li>Ability to evaluate a device designed to minimize force by comparing data.</li> </ul>	<ul style="list-style-type: none"> <li>Identify that forces can be minimized.</li> <li>Identify characteristics of devices that minimize forces in a collision.</li> <li>Use data to compare devices that minimize forces in a collision.</li> </ul>
<b>EU</b>	<ul style="list-style-type: none"> <li>Identify cause and effect relationships among force, mass, and acceleration.</li> </ul>	<ul style="list-style-type: none"> <li>Identify the cause and effect relationship between force and mass.</li> <li>Identify the cause and effect relationship between force and acceleration.</li> <li>Identify the cause and effect relationship between acceleration and mass.</li> </ul>

## Task 2: Essential Functions and Growth

### Activity 1 Science Connector: HS-LS1-2—Essential Functions

Using model(s), identify that different systems of the body carry out essential functions (e.g., digestive system, respiratory system, circulatory system, nervous system).

Table 4. HS-LS1-2, FKSA and EU for Activity 1

Feature	Definition	How Mastery Is Demonstrated
<b>FKSA</b>	<ul style="list-style-type: none"> <li>Ability to identify how the nervous system of the body carries out essential functions (e.g., brain controls body movement, breathing, and heartbeat; brain processes physical sensations). (FKSA 4)</li> </ul>	<ul style="list-style-type: none"> <li>Identifying the components of the nervous system (i.e., brain, spinal cord, nerves)</li> <li>Identifying the function of a component in the nervous system (e.g., sends messages, receives messages, learns and stores information).</li> <li>Identify how the nervous system functions (e.g., reacts to stimuli, alerts the brain).</li> </ul>
<b>EU</b>	<ul style="list-style-type: none"> <li>Identify which organ performs a specific function.</li> </ul>	<ul style="list-style-type: none"> <li>Recognize the part of the body (i.e., organ in the nervous system) that performs a specific function.</li> </ul>

## Activity 2 Science Connector: HS-LS1-6—Growth

**Identify a model which demonstrates how organisms take in matter (allowing growth and maintenance) and rearrange the atoms to make new structures in chemical reactions.**

**Table 5. HS-LS1-6, FKSA and EU for Activity 2**

Feature	Definition	How Mastery Is Demonstrated
<b>FKSA</b>	<ul style="list-style-type: none"> <li>Identify a model which demonstrates how animals take in matter and rearrange molecules to grow. (FKSA 1)</li> </ul>	<ul style="list-style-type: none"> <li>Identifying the components of the digestive system (i.e., the mouth, esophagus, stomach, small intestine, large intestine)</li> <li>Identifying growth in an animal from a baby to an adult animal</li> <li>Identifying the transfer of energy in an animal beginning with eating food, breaking down food through digestion, absorbing nutrients from food, and building tissue (making new cells and thus increasing body size)</li> </ul>
<b>EU</b>	<ul style="list-style-type: none"> <li>Recognize that all organisms take in matter in order for growth to occur.</li> </ul>	<ul style="list-style-type: none"> <li>Recognize that growth in an animal is a result of taking in food/energy.</li> </ul>

## Task 3: Earth

### Activity 1 Science Connector: HS-ESS1-4—Earth’s Motion

Using a model, describe how Earth’s motion causes changes over time (e.g., seasons, ice ages).

Table 6. HS-ESS1-4, FKSA and EU for Activity 1

Feature	Definition	How Mastery Is Demonstrated
<b>FKSA</b>	<ul style="list-style-type: none"> <li>Ability to use a model to describe how the Earth's motion causes changes over time.</li> </ul>	<ul style="list-style-type: none"> <li>Identify that Earth rotates as it travels around the sun.</li> <li>Use a model to recognize observable changes caused by Earth’s motions.</li> <li>Recognize that Earth’s motion (rotating on its axis) causes day and night.</li> <li>Recognize that Earth’s motions cause changes in the seasons.</li> <li>Use a model to identify how Earth’s motion causes changes over time (i.e., the season, weather, temperature)</li> </ul>
<b>EU</b>	<ul style="list-style-type: none"> <li>Identify orbiting objects in the solar system.</li> </ul>	<ul style="list-style-type: none"> <li>Recognize the solar system.</li> <li>Recognize objects in the solar system (i.e., sun, planets, moon)</li> </ul>

## Activity 2 Science Connector: HS-ESS2-3—Thermal Convection

Use a model of Earth to identify the motion of the mantle and its plates occurs primarily through thermal convection, which is primarily driven by radioactive decay within Earth’s interior.

Table 7. HS-ESS2-3, FKSA and EU for Activity 2

Feature	Definition	How Mastery Is Demonstrated
<b>FKSA</b>	<ul style="list-style-type: none"> <li>Ability to use a model to identify that the motions of the mantle and its plates occur primarily through thermal convection. (FKSA 1)</li> </ul>	<ul style="list-style-type: none"> <li>Recognize that layers (i.e., mantle, plates) of Earth move.</li> <li>Recognize that Earth’s crust is not a continuous solid land, but rather it is broken into many pieces called plates.</li> <li>Identify that heat in the core of Earth causes movement of the mantle and plates.</li> <li>Use a model to identify when the mantle and plates change.</li> </ul>
<b>EU</b>	<ul style="list-style-type: none"> <li>Use a model of Earth to identify the inner core, the outer core, the mantle, and the crust.</li> </ul>	<ul style="list-style-type: none"> <li>Recognize that Earth is made up of different layers.</li> <li>Use a model to identify Earth’s layers as the inner core, the outer core, the mantle, and the crust.</li> </ul>

## Schedule Planner Template

Use the template in Table 8 to aid in scheduling testing for your student(s) based on when the related content will be taught.

**Test Examiner:** \_\_\_\_\_

**School:** \_\_\_\_\_

**Grade:** \_\_\_\_\_ **Version Assignment:** \_\_\_\_\_

**Table 8. 2018–19 CAA for Science High School Testing Planner Template**

PT	PT Name	Associated Science Connectors	Date(s) Related Instructional Content Will Be Taught	Scheduled Testing Date(s)
1	Moving Objects and Reducing Impacts	<b>HS-PS2-1:</b> Force and Acceleration  <b>HS-PS2-3:</b> Minimizing Force	Add Date(s) here:	Add Date(s) here:
2	Essential Functions and Growth	<b>HS-LS1-2:</b> Essential Functions  <b>HS-LS1-6:</b> Growth	Add Date(s) here:	Add Date(s) here:
3	Earth	<b>HS-ESS1-4:</b> Earth's Motion  <b>HS-ESS2-3:</b> Thermal Convection	Add Date(s) here:	Add Date(s) here: