**California Alternate Assessment** 

California Assessment of Student Performance and Progress

# Science Administration Planning Guide

*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 September 17, 2024, and the end of each school district’s 2024–25 instructional calendar.*

*This guide does not contain test content.*

**2024–25**

**High School, Form** **4** 

Table of Contents

[Introduction 1](#_Toc171073229)

[What is the California Alternate Assessment (CAA) for Science? 1](#_Toc171073230)

[Form Assignments 1](#_Toc171073231)

[Purpose and Use of This *Administration Planning Guide* 1](#_Toc171073232)

[Test Security 2](#_Toc171073233)

[Administering the 2024–25 CAA for Science 3](#_Toc171073234)

[Assessed Standards 4](#_Toc171073235)

[Earth and Space Sciences Connectors 5](#_Toc171073236)

[HS-ESS1-1 5](#_Toc171073237)

[HS-ESS2-2 5](#_Toc171073238)

[Life Sciences Connectors 6](#_Toc171073239)

[HS-LS1-4 6](#_Toc171073240)

[HS-LS2-2 6](#_Toc171073241)

[Physical Sciences Connectors 7](#_Toc171073242)

[HS-PS2-1 7](#_Toc171073243)

[HS-PS2-3 7](#_Toc171073244)

[HS-PS2-6 8](#_Toc171073245)

[HS-PS4-3 8](#_Toc171073246)

[Testing Planner for Form 4 9](#_Toc171073247)

List of Tables

[Table 1. HS-ESS1-1, FKSA and EU 5](#_Toc171073248)

[Table 2. HS-ESS2-2, FKSA and EU 5](#_Toc171073249)

[Table 3. HS-LS1-4, FKSA and EU 6](#_Toc171073250)

[Table 4. HS-LS2-2, FKSA and EU 6](#_Toc171073251)

[Table 5. HS-PS2-1, FKSA and EU 7](#_Toc171073252)

[Table 6. HS-PS2-3, FKSA and EU 7](#_Toc171073253)

[Table 7. HS-PS2-6, FKSA and EU 8](#_Toc171073254)

[Table 8. HS-PS4-3, FKSA and EU 8](#_Toc171073255)

[Table 9. 2024–25 CAA for Science High School Testing Planner 9](#_Toc171073256)

## Introduction

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

The CAA for Science is computer-based and a component of California Assessment Student Performance and Progress (CAASPP). It is intended for students with the most significant cognitive disabilities who have been designated by an individualized education program (IEP) team to use 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.

### Form Assignments

*Administration Planning Guides* and *Directions for Administration* (*DFAs*) are form-specific.

Each local educational agency (LEA) is assigned **one** of four forms for all CAA for Science administration materials. The exception is for the largest districts, which receive form assignments at the school level. All grade levels within an LEA will have the same form assignment. For example, if an LEA is assigned to Form 1, the LEA will use Form 1 of the *Administration Planning Guides* and *DFAs* for each grade level tested. Form assignments can be found on the [CAA for Science Form Assignments](https://www.caaspp-elpac.org/resources/administration/form-assignments-second-scoring-rsvp/form-assignments--caa-science) web page.

### Purpose and Use of This *Administration Planning Guide*

This guide provides the following:

* Basic information about the CAA for Science administration and test security
* Information about factors to consider when deciding the best time to administer a CAA for Science embedded performance task (PT)
* The science content being assessed this year
* A blank testing planner to assist in determining when to administer each embedded PT

***Administration Planning Guides* are not intended to guide instruction or to limit what science content is taught in the classroom.**

*Administration Planning Guides* are made available in advance to give teachers and test examiners as much time as possible to plan how best to integrate each of the four embedded PTs into the 2024–25 instructional calendar.

The test examiner tutorial necessary to administer the 2024–25 CAA for Science will be available in August 2024. The CAA for Science embedded PTs will be available for administration beginning September 17, 2024.

### 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 purposes of planning and scheduling testing. Follow these guidelines to ensure the security of the CAA for Science embedded PTs:

**The downloadable *DFA* and the online embedded PTs, as referenced in this document, contain test content and must be kept secure at all times. *DFA*s should be downloaded only before administering an embedded PT.**

* Access to *DFAs* in the Test Operations Management System is available only to the following user roles: test examiners, site coordinators, and LEA coordinators.
* *DFAs* will be available beginning September 17, 2024.
* 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 on the test examiner’s or test site coordinator’s device need to be securely deleted in such a way that the files do not remain in a temporary storage location, such as the Windows Recycle Bin, where they can be restored.
* 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 or June 30, 2025, whichever comes first.

### Administering the 2024–25 CAA for Science

The [*Preparing for Administration* (*PFA*)](https://www.caaspp-elpac.org/s/docs/PFA.CAA.Science.Operational.2024-25.pdf) document is located on the CAASPP & ELPAC Website and is available for the 2024–25 test administration. This document should be used to prepare to administer the CAA for Science. The information contained in the *PFA* was previously located at the beginning of the *DFA*. There is one *PFA* used for all grade levels and forms. The *PFA* is a nonsecure document that is available for all LEAs on the Moodle Training Site and on the CAASPP & ELPAC Website, where you can review or print it, if desired.

The 2024–25 CAA for Science is composed of four embedded PTs that are administered online to students.

* Each embedded PT is intended to be **administered shortly after the student has received related science instruction**.
* All four embedded PTs must be attempted by the student to complete the administration.
* The embedded PTs can be administered in any order between September 17, 2024, and the end of the instructional calendar or June 30, 2025, whichever comes first.

Each embedded PT assesses two Science Connectors from the same science domain with two corresponding sets of five test questions, each prefaced by an orienting activity. An orienting activity is a nonscorable activity that is designed to engage and familiarize a student with a science concept that the student was previously taught. In some cases, the test examiner completes hands-on exercises with the student during testing and may be required, beforehand, to prepare some commonly available materials found in the classroom or prepare graphics provided in the *DFA*. **There should not be a need to purchase materials just for testing.**

**The *DFA* will provide test examiners with guidelines on how to individualize the orienting activities and designated items. Please note that all items may be individualized on the basis of the student’s IEP.**

A blank testing planner is provided at the end of this document (refer to table 9) to aid in scheduling administration of each of the embedded PTs for your student(s) based on when the related content will be taught.

## Assessed Standards

The CAA for Science, which is based on the Science Connectors, measures knowledge, skills, and abilities that are appropriate for this student population. The Science Connectors are derived from the California Next Generation Science Standards performance expectations (PEs). They provide alternate standards and alternate science learning goals 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*](https://www.cde.ca.gov/ta/tg/ca/documents/caascienceblueprint.docx) web document.

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



Figure 1. CAA for Science Standards Continuum

Keep this structure in mind as you review the content being assessed this year. Test questions are written to assess the FKSAs and EUs. Each Science Connector has between one and six FKSAs and one EU. The EU will always be assessed, but not all of the FKSAs will be assessed in a single embedded PT; therefore, not all of the FKSAs are provided in this guide. Assessment of Science Connectors with more than one FKSA may occur over multiple years.

The following pages provide the Science Connectors and associated FKSAs and EUs being assessed this year, organized by science domain. The third column of each Connector table contains descriptions of ways in which a student may demonstrate mastery of the FKSA or EU to be assessed. These mastery statements describe specific actions the student will take, such as identifying, recognizing, or comparing information in the Science Connector being assessed, and are found in the column labeled *Students Will Be Able To…*. These statements describe ***only those Science Connectors assessed this year***.

### Earth and Space Sciences Connectors

#### HS-ESS1-1

Identify components of a model illustrating that the Sun releases light and heat energy that eventually reaches Earth.

Table . HS-ESS1-1, FKSA and EU

| **Connector Component** | **Definition** | **Students Will Be Able To…** |
| --- | --- | --- |
| FKSA | Ability to describe components of a model illustrating that the Sun releases light and heat energy which make life on Earth possible. | Recognize that the Sun produces heat that warms EarthIdentify that plants and animals need the heat and light of the Sun to survive |
| EU | Recognize that the Sun is the source of most of the energy on Earth. | Recognize that the light seen during the day comes from the Sun |

#### HS-ESS2-2

Identify relationships, using a model, of how the Earth’s surface is a complex and dynamic set of interconnected systems (e.g., geosphere, hydrosphere, atmosphere, biosphere).

Table . HS-ESS2-2, FKSA and EU

| **Connector Component** | **Definition** | **Students Will Be Able To…** |
| --- | --- | --- |
| FKSA | Ability to identify relationships, using a model, of how Earth’s surface is a complex and dynamic set of interconnected systems. | Identify an effect on one system of a change in a different systemIdentify how a change in one system caused an effect in a different system |
| EU | Recognize that climate change occurs when the Earth’s systems are changed. | Recognize an effect on climate resulting from a change in an Earth system |

### Life Sciences Connectors

#### HS-LS1-4

Identify how growth occurs when cells multiply (mitosis) by using a model.

Table . HS-LS1-4, FKSA and EU

| **Connector Component** | **Definition** | **Students Will Be Able To…** |
| --- | --- | --- |
| FKSA | Ability to use a model to identify how organisms grow in size through the process of mitosis. | Recognize an example of an organism growing by increasing the number of cells Identify examples of cell divisionIdentify the correct order for the process of one cell dividing to become up to four cells |
| EU | Recognize that organisms are composed of a collection of different types of cells. | Identify an example of a structure made of more than one kind of cellRecognize organisms that are made of more than one kind of cell |

#### HS-LS2-2

Use mathematical representations (e.g., trends, averages, graphs) to identify dependencies of an animal population on other organisms for food and their environment for shelter.

Table . HS-LS2-2, FKSA and EU

| **Connector Component** | **Definition** | **Students Will Be Able To…** |
| --- | --- | --- |
| FKSA | Ability to use mathematical representations to identify dependencies of an animal population on other organisms for food and their environment for shelter. | Use data from a graph or data table to identify the effect on a population of organisms of an increase or decrease in food or shelter resourcesUse data from a graph or data table to identify the cause of a change in the size of a population of organisms |
| EU | Identify factors (e.g., competition) that affect the numbers of organisms in an ecosystem. | Recognize the effect on a population of organisms when there is a significant increase or decrease in the availability of food or shelter |

### Physical Sciences Connectors

#### HS-PS2-1

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

Table 5. HS-PS2-1, FKSA and EU

| **Connector Component** | **Definition** | **Students Will Be Able To…** |
| --- | --- | --- |
| FKSA | Identify that a decrease in acceleration is caused by a change in the net force. | 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 | Identify that increasing the force exerted on an object increases the acceleration of the object. | Recognize that the speed of an object is dependent on the force exerted on it |

#### HS-PS2-3

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

Table 6. HS-PS2-3, FKSA and EU

| **Connector Component** | **Definition** | **Students Will Be Able To…** |
| --- | --- | --- |
| FKSA | Ability to evaluate a device designed to minimize force by comparing data. | Recognize common objects used in daily life to minimize the effect of a collisionUse data to evaluate which device will minimize the effect of an impact |
| EU | Identify cause and effect relationships between force and the outcome of a collision. | Recognize the faster an object is going, the greater the effect of a collision |

#### HS-PS2-6

Recognize that different materials have different molecular structures and properties that determine different functioning (e.g., flexible, but durable) of the material.

Table . HS-PS2-6, FKSA and EU

| **Connector Component** | **Definition** | **Students Will Be Able To…** |
| --- | --- | --- |
| FKSA | Ability to recognize that different materials have different properties that determine different functioning (e.g., flexible, but durable) of the material. | Recognize that different materials have different propertiesRecognize that materials with common properties can be used to perform the same functionRecognize how the property of a material supports its purpose |
| EU | Identify that different materials have different properties. | Recognize properties of materials |

#### HS-PS4-3

Recognize that electromagnetic radiation (e.g., a radio, microwave, light) can be modeled as a wave of changing electric and magnetic fields or as particles called photons.

Table . HS-PS4-3, FKSA and EU

| **Connector Component** | **Definition** | **Students Will Be Able To…** |
| --- | --- | --- |
| FKSA | Ability to recognize that electromagnetic radiation (e.g., a radio, microwave, light) can be modeled as particles called photons. | Compare the movement of electromagnetic radiation waves to the movement of other objects or materials |
| EU | Electromagnetic radiation (e.g., radio, microwave, light) can be modeled as a wave. | Identify that electromagnetic radiation travels in waves |

## Testing Planner for Form 4

Use the planner in table 9 to aid in scheduling testing for your student(s) based on when the related content will be taught.

Test Examiner:

School:

Grade:

Table 9. 2024–25 CAA for Science High School Testing Planner

| **Associated Science Connectors** | **Date(s) Related Instructional Content Will Be Taught** | **Scheduled Testing Date(s)** |
| --- | --- | --- |
| Earth and Space Sciences:HS-ESS1-1HS-ESS2-2 | Add date(s) here: | Add date(s) here: |
| Life Sciences:HS-LS1-4HS-LS2-2 | Add date(s) here: | Add date(s) here: |
| Physical Sciences A:HS-PS2-1HS-PS2-3 | Add date(s) here: | Add date(s) here: |
| Physical Sciences B:HS-PS2-6HS-PS4-3 | Add date(s) here: | Add date(s) here: |