



## Learning About California Grasslands

**Lesson Title:** *California Grassland Plants: State Grass and State Flower*

**Grade level:** Early elementary

**Lesson Length:** 15-30 minutes

**Preparation and Materials:** Copies of worksheet, pencil and crayons, colored pencils, or markers.

**Lesson Goal:** Students will understand that plants have roots, stems, leaves and flowers, but that these basic structures differ between grasses and wildflowers.

**Lesson Description:** Lower early elementary: The teacher reads the paragraph to the students along with instructions. Students fill in the names of the plant parts and color them according to the instructions.

Upper early elementary: Students read the paragraph and complete the lesson.

**Lesson Objectives:** Students will be able to identify and compare the roots, stems, leaves, and flowers on two different types of plants.

**Lesson Background:** Additional background is included in the answer key.

Purple needle grass was named the official California State Grass in 2004. It is the most widespread native bunchgrass in California. The seed of this grass species was used by many California Native American communities as a food source. During the period of Mexican control of California, purple needle grass was used for cattle grazing to support the cowhide and tallow industry. Today, this grass continues to provide forage for California's cattle industry and is an important food source for wildlife. Once established, purple needle grass is tolerant of summer drought and heat. It can live more than 150 years and has been used in projects such as habitat restoration, erosion and levee control.

The California poppy is a wildflower that was named the State Flower in 1903. Every year April 6 is California Poppy Day. More information and information on other state symbols is available at <http://www.library.ca.gov/history/symbols.html>.

Grasses and forbs are both herbaceous plants. Grasses have hollow, jointed stems, flat blade-like leaves and spikes of small, wind-pollinated flowers. Forbs usually have broad leaves (poppy leaves are broad but dissected) and showy flowers that are pollinated by insects. Grasses are monocots (one cotyledon), which means the seeds sprout one cotyledon or one "seed leaf." Poppies are eudicots (formerly dicots meaning two cotyledons) that sprout two "seed leaves."

**Vocabulary Words:** Vocabulary words are included in the answer key.

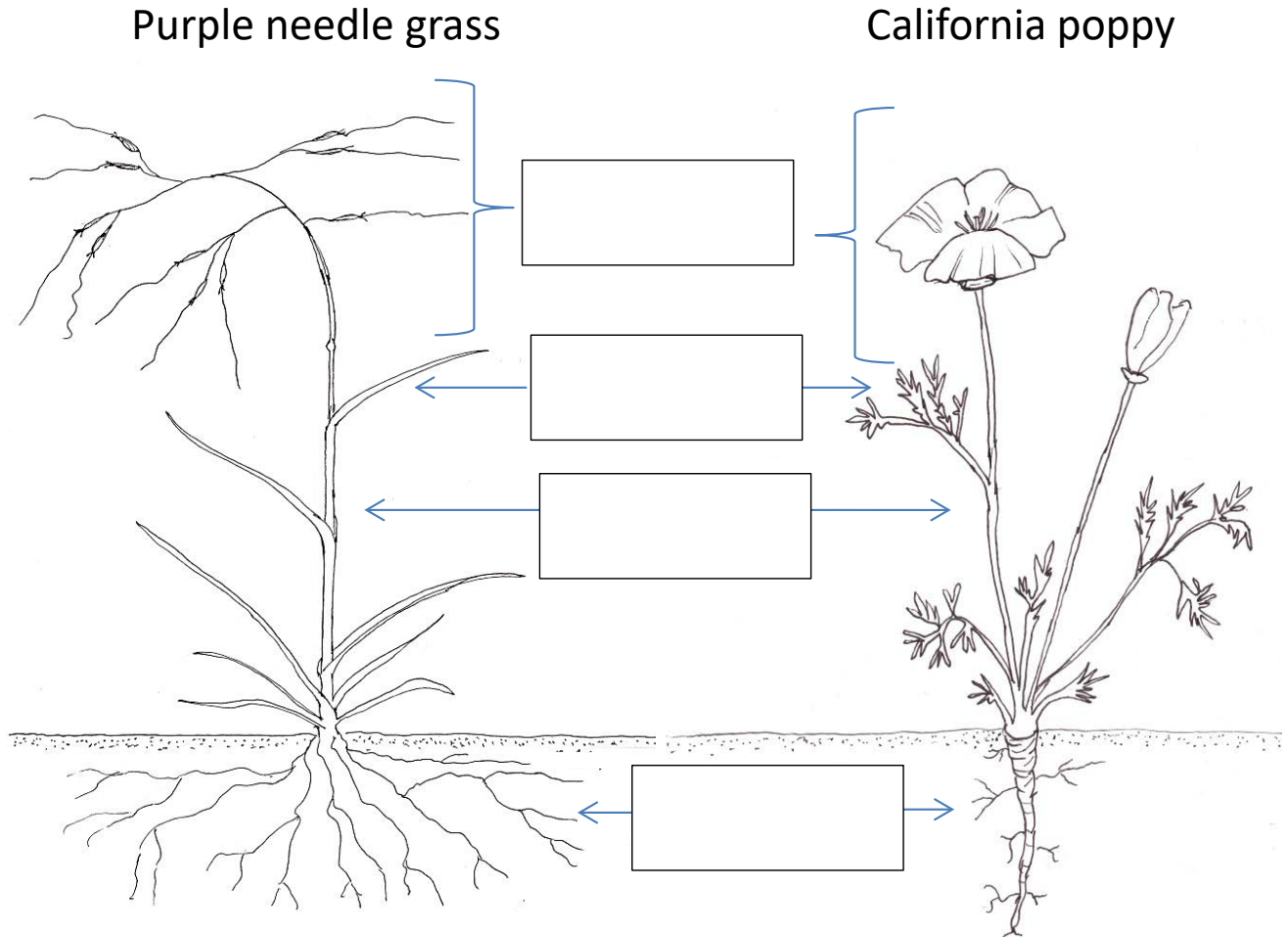
**Assessment/Evaluation:** Discuss the differences between grasses and other plants. Ask students to think about familiar plants and identify whether the plant is a grass, forb, or perhaps a shrub or tree.



NAME \_\_\_\_\_

### California Grassland Plants: California State Grass and State Flower

You may know that the grizzly bear is California's state animal, but did you know California has an official state grass? It is called purple needle grass because the young seeds are streaked with purple and the flowers and seeds have a long needle-like spike called an **awn**. In addition to a state animal and a state grass, California has an official state flower: the California poppy. Both plants grow in grasslands in California. California poppy is a type of plant called a **forb**. Both grasses and forbs have roots, stems, leaves and flowers, but can you see how these parts are different in the picture?

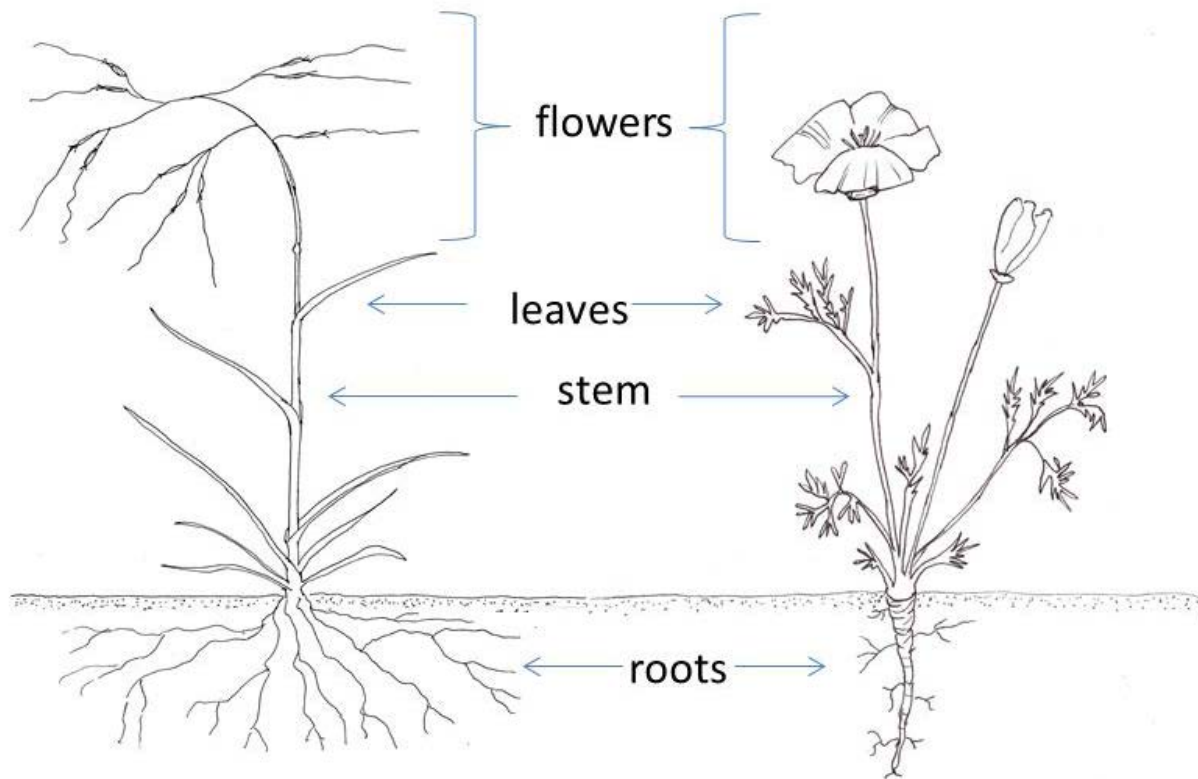


1. Write the correct word in each box to identify the plant parts:
  - a. roots
  - b. leaves
  - c. flowers
  - d. stems
2. Color the purple needle grass flowers purple.
3. Color the California poppy flowers orange.
4. Color the stems and leaves green.
5. Color the roots brown.

## California Grassland Plants: Teacher's instructions and answer key

Purple needle grass

California poppy



Guide the class or have students work with partners to find and discuss the differences between the two plants. Answers may vary:

1. Grasses have thin blade-like leaves; poppies have feathery leaves.
2. Grasses have tiny flowers with no petals; poppies have large petals.
3. Grasses have **fibrous roots**; poppies have a **tap root** similar to a carrot.

### Glossary of Terms

awn—a thin, hair- or bristle-like structure that is attached to the grass flower and seed.

forb—a broad-leaf plant that is not a grass; wildflowers are forbs.

grass—a large group of economically important plants that includes corn, sugarcane, wheat, rice; grasses usually have hollow stems and thin blade-like leaves.

### Scientific names<sup>1</sup>:

Purple needle grass (*Stipa pulchra* or *Nassella pulchra*, depending on reference)

California poppy (*Eschscholzia californica*)

<sup>1</sup> Definitions from California Plant Names: Latin and Greek Meanings and Derivations. A Dictionary of Botanical and Biographical Etymology Compiled by Michael L. Charters (<http://www.calflora.net/botanicalnames/>).