



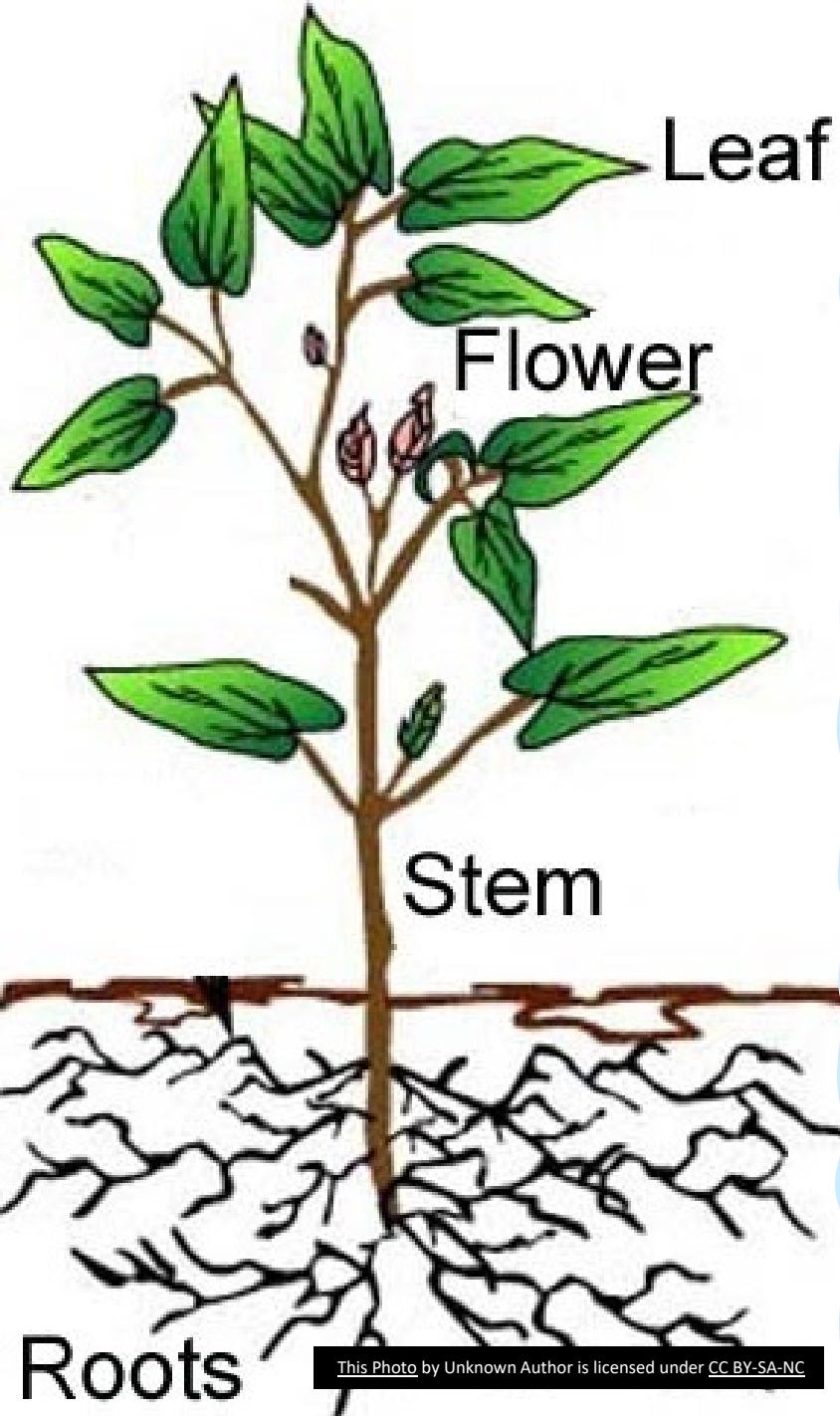
Drought Dilemma: Reducing Water Use

4th and 5th Grade

What Do Plants Need to Grow?

- Soil
- Air/Oxygen
- Water
- Light/Sun
- Food/Nutrition
- Place/Garden





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Parts of a Plant

What are the parts of a plant?

- Roots
- Stem
- Flower
- Leaf

Where is the Soil?

- Plants take water from the soil
 - Water enters the plant through the tips of the roots.
 - Water must be available in the soil to the root tips for plants to use it.

Plant Food Sources

- Agriculture
 - Large Farms
- Local Farms
- Home Gardens

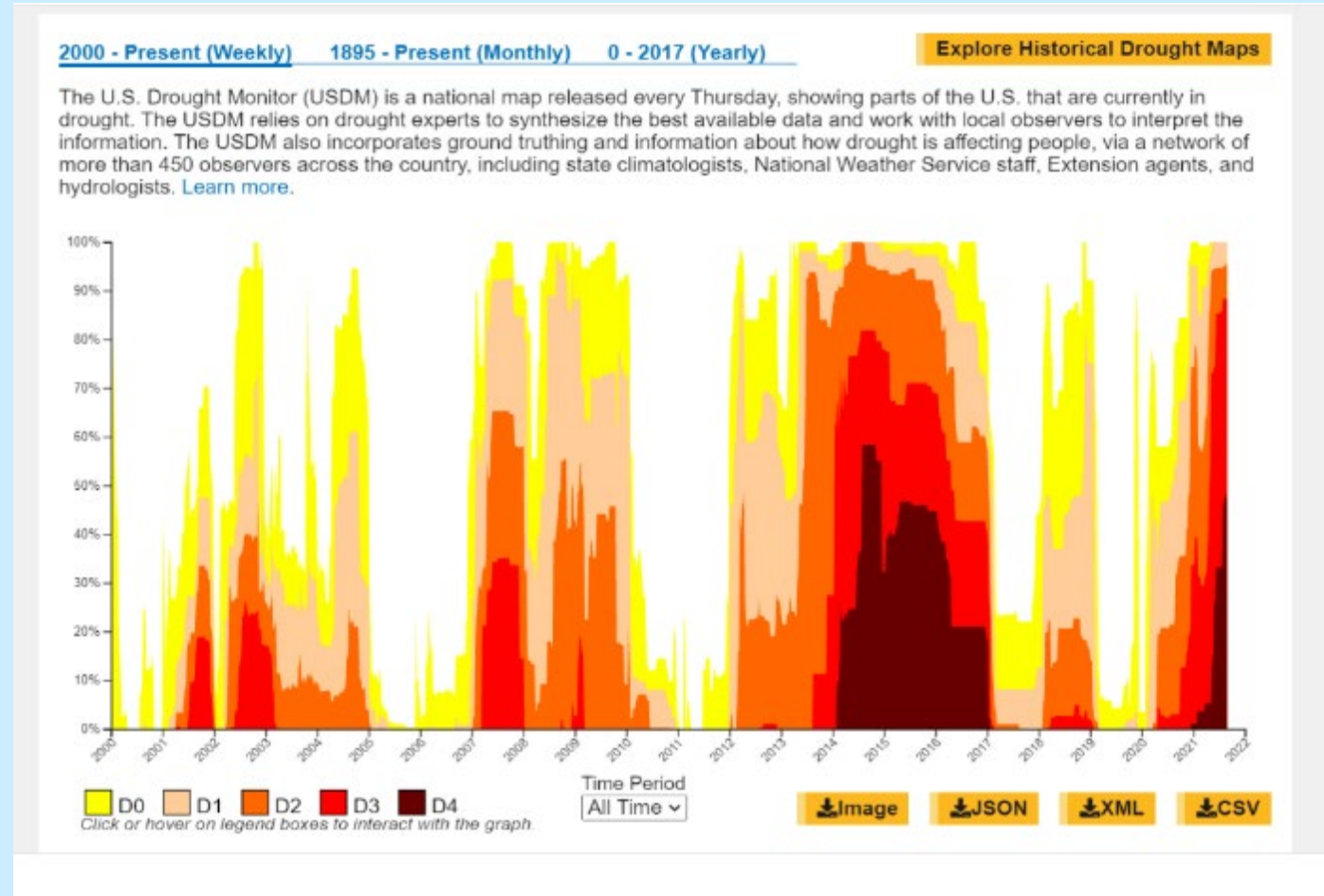


What is a drought?

A drought is a shortage of water from rain and snow

- During a drought we have less water available for people, animals and plants.
- The chart shows changes in California drought conditions from 2000 to 2021.
- Darker areas on chart are times with most extreme drought conditions.

California areas affected by drought are increasing





Researching Ways to Reduce the Drought Impact: Reduce Water Use

What do
you do to
reduce
water use
at home?

Inside

Outside

Home Water Use **Inside**

- Which of the following ways do you save water **inside** your home?
 - Take short showers
 - Use less water in the bathtub
 - Turn water off when brushing teeth
 - Place a bucket in the shower to catch water
 - Avoid letting water run down the drain; use it for something



Home Water Use **Outside**

- Which of the following ways are used to save water **outside** your home?
 - Turn off a hose when not in use
 - Use water saving watering system
 - Have watering system on a timer
 - Water plants in the morning
 - Water plants near the roots system

If you are not sure, ask someone in your household.



Home Garden Watering Methods

- Precipitation
- Watering Can
- Hose
- Irrigation
 - Drip System
 - Sprinklers



How To Water Plants At Home

- Plants need water to the base of the roots to allow the uptake of water and nutrients.
 - Water longer and less often for efficient use of water.
 - Water in the morning to limit evaporation.
 - Water when the soil is dry 1 inch below the surface.
 - Water when plants are stressed
 - Drooping
 - Turning brown
- Plants can die from too much or too little water.



Agricultural Drought

- [Agricultural](#) drought affects crop production or the ecology of an area.
 - This can happen because of poorly planned farming areas. The water that is available in the area has a hard time reaching the plants.
 - An agricultural drought can affect food production and cause food shortages.



Agriculture Water Management

Water Sources: Water sources include **rain, dams, wells, rivers, town water, channels and recycled water**. The quality and availability vary.

Growing Methods: Drought solutions vary by crop because plant needs vary.

Soil Management: Practices that **increase soil organic matter** will reduce soil-moisture loss.

Drought Solutions that Could Increase Water for Farm Crops

Taking salt out of water

Capturing rainwater

New water-saving irrigation technology

Developing crops that use less water

Recycling water



Video: [Water-Wise Farms](#)