



# What Plants Need to Grow

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## Kindergarten Lesson

Goal: Learn about plant needs so students can care for plants in the garden.

# Master Gardeners

The University of California Cooperative Extension (UCCE) Master Gardener Program (MGP) is an educational program designed to teach and effectively extend information to address home gardening and non-commercial horticulture needs in California.

UCCE is the outreach arm of UC's division of Agriculture and Natural Resources (ANR). Master Gardener volunteers (MG volunteers) promote the application of basic environmentally appropriate horticultural practices through UCCE-organized educational programs that transfer research-based knowledge and information.



University of California

Agriculture and Natural Resources

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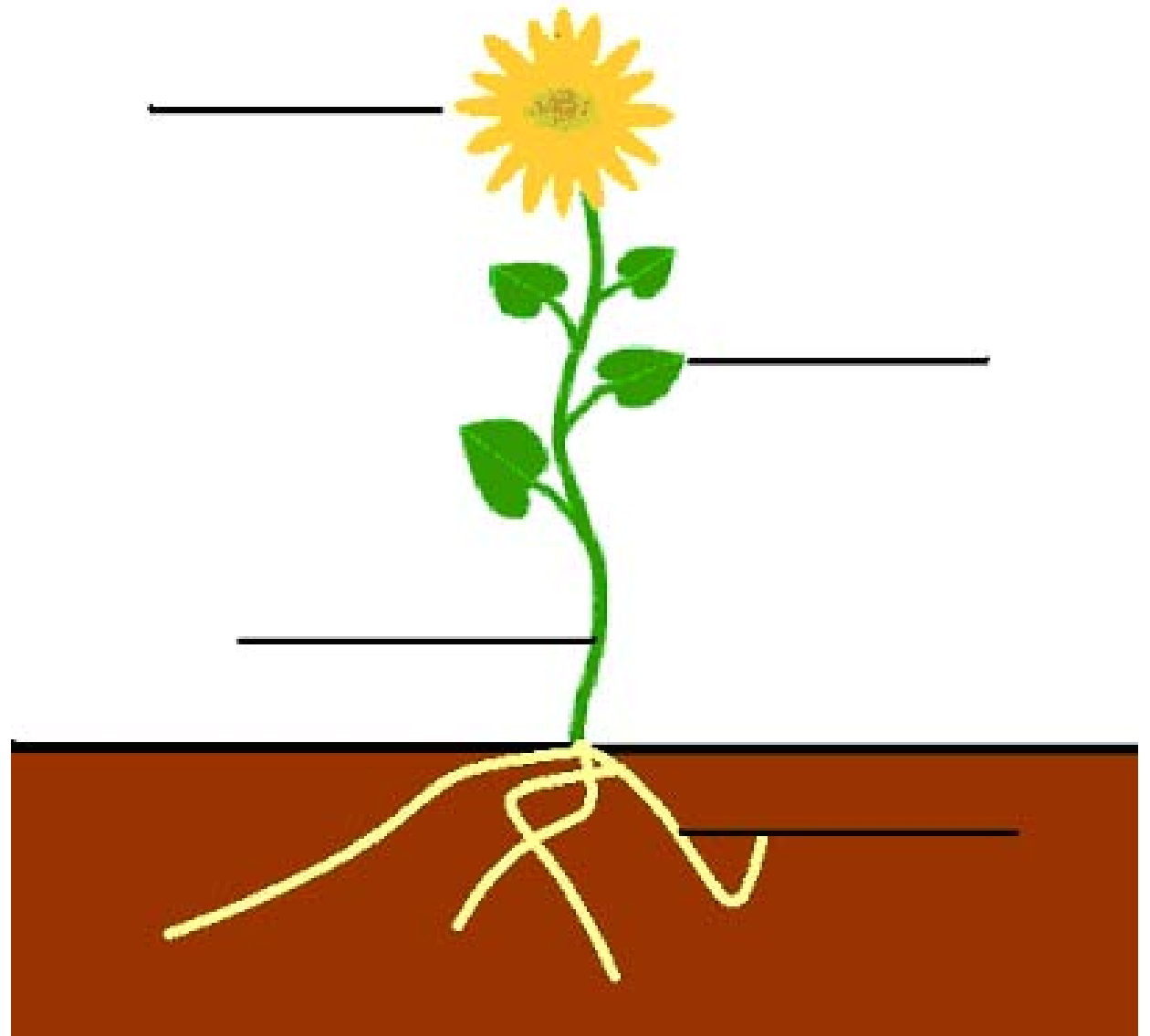
# This is a Plant

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- What do you see?

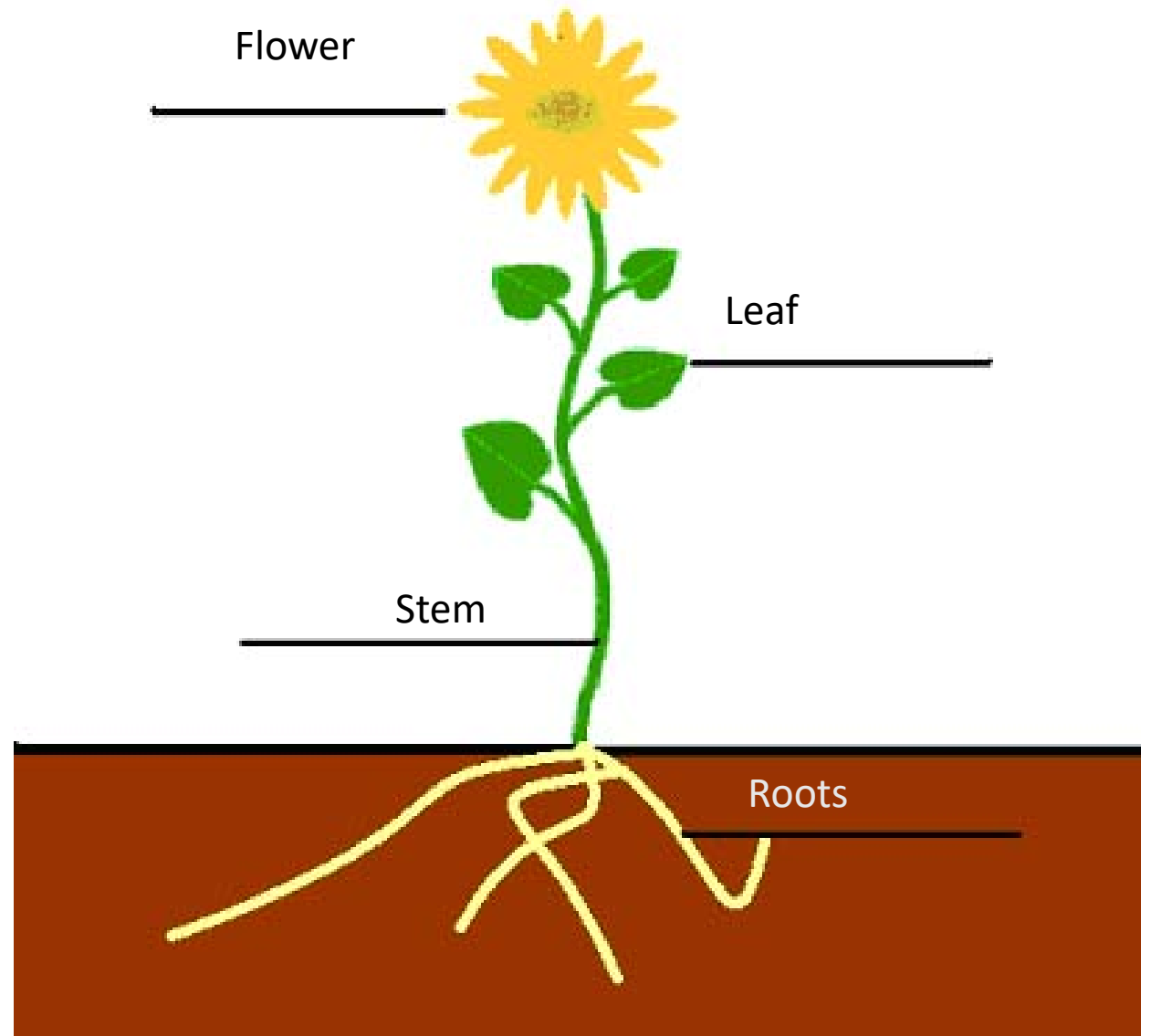


# What are the Parts of the Plant?



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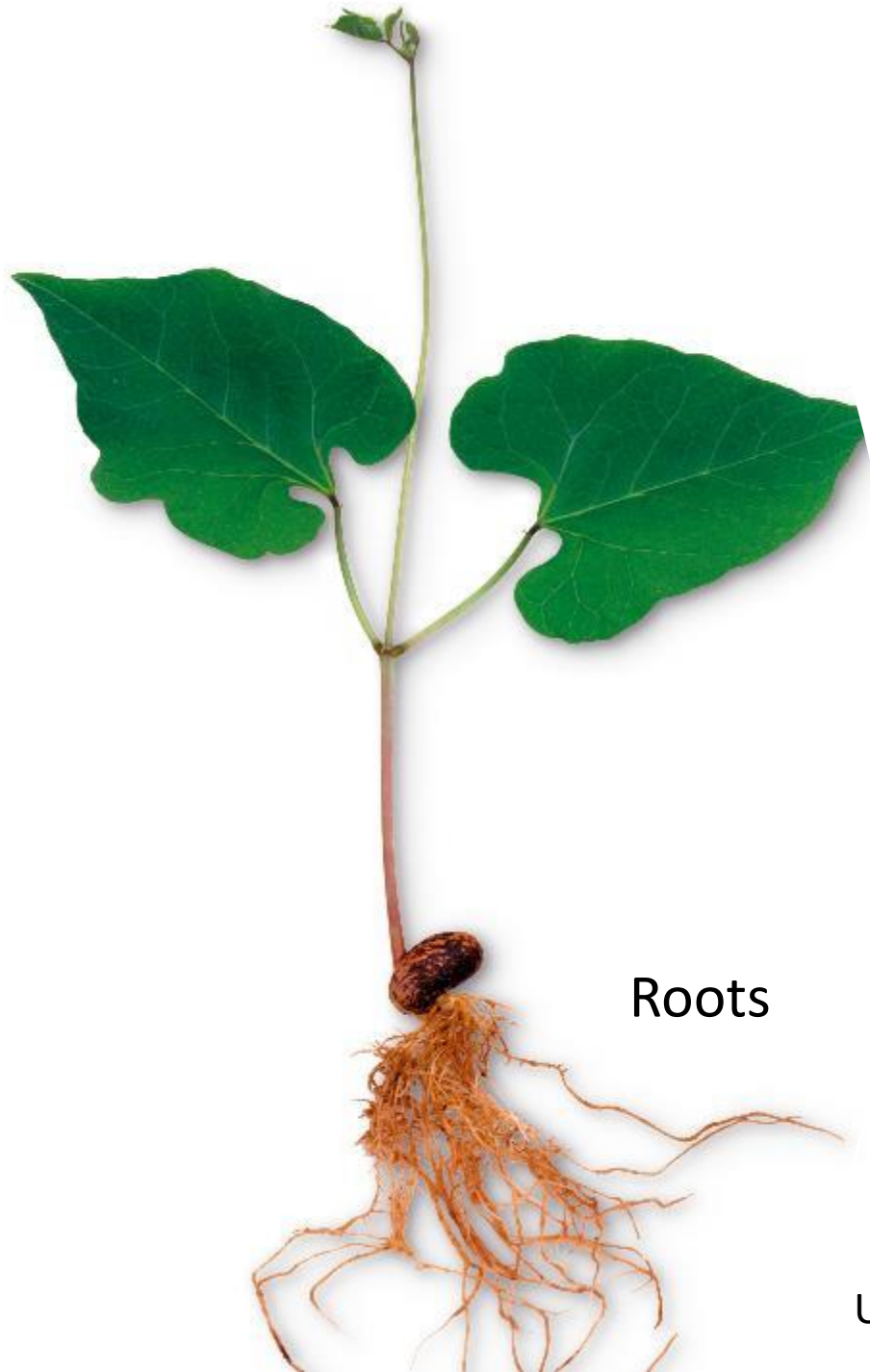
# Parts of the Plant



# What Do Plants Need to Grow?



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# What Plants Need

- **Place to grow**
- **Light or sunlight**
- **Air**
- **Nutrition**
- **Thirsty, so they need water**
- **Soil, or water for roots**





# A Place to Grow

What do you see in the garden?



# Plants Need Air and Sunlight

Plants breathe in air; release  
oxygen

Some plants need full sun;  
some need shade.



# Plants Need Nutrition

Natural nutrients are in the soil.



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# Plants Get 'Thirsty'

## They Need Water

Just enough

Not too much

Tip: Put your pointer finger into the soil of a plant ... if the soil is dry at the tip of your finger, water.





# Where can water come from?

- Rain
- Melting snow
- Watering can
- Sprinklers
- Other??



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# Plants Need Soil

- Most Plants Grow in Soil (or dirt)
- Some Plants Grow in Water!

Water  
Tower



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Soil has  
nutrients



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# How Can People Help Plants Grow?

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- We learned what plants need.
- How can we help plants get what they need?





# We Can Help Plants Grow By

- Planting with the right sunlight.
- Planting outside in a garden.
- Watering, but not too much.
- Planting in healthy soil.
- Adding nutrients to soil if needed.



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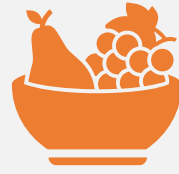
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# What Plants Need to Grow Video

Video: [What Plants Need to Grow](#)



# Garden Science Vocabulary



Nutrition



Oxygen



Soil

# Nutrition

Nutrition is something used by an organism to grow and survive.



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# Oxygen

Oxygen is a substance in the air that supports life.



# Soil

**Soil** is the loose upper layer of the Earth's surface where plants grow.

**Soil** consists of organic matter (decayed plants and animals) and bits of rocks and minerals (nutrients for plants).



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# Review

Name two parts of a plant.

List two things plants need to grow.

How do plants get water?

Why is soil important for plants?

What do plants release when they breathe?

# Application

## How Can We Save Water in the Garden?

**Water just enough but not too much.**

What is an example of one way to save water in the garden.



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# Extension

## People Eat Plants

- People eat parts of plants.
- What plant have you eaten recently that is a plant?
- Draw a picture.



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# Next Generation Science Standards

## Kindergarten

### **LS1.C: Organization for Matter and Energy Flow in Organisms**

All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. (K-LS1-1)

### **ESS3.A: Natural Resources**

Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. (K-ESS3-1)

# Resources

- Master Gardener Handbook, 2015
- Junior Master Gardener Teacher and Leader Guide, Texas A&M
- Images: Creative Commons, [www.kid.kiddle.co](http://www.kid.kiddle.co)
- Video: <https://www.youtube.com/watch?v=dUBIQ1fTRzI&feature=youtu.be>

# Gardening Questions?

- Email or Call the UCCE Master Gardeners of Riverside County
- Email Helpline
  - [anrmgriverside@ucanr.edu](mailto:anrmgriverside@ucanr.edu)
- [Riverside Master Gardeners Website](#)



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