



## Mulching the Garden

### Goals

Students will be able to understand that mulching is the process of covering the soil with materials that will slow the evaporation of water, inhibit weed growth and keep the soil cool.

### Objectives

Students will demonstrate proper mulching techniques.

### Materials

- Material for mulch (see below)
- Buckets
- Shovels
- Gloves (optional)

**Time:** 35 minutes

### Background Information

Mulching helps to decrease the amount of surface evaporation, reduces soil erosion, aids in maintaining a consistent soil temperature and greatly reduces weeds in your garden.

There are two types of mulch—organic mulch and inorganic mulch. There are benefits and drawbacks to both varieties. Ideally mulch allows air and water movement into the soil, is not a fire hazard, slowly breaks down, is uniform in color, weed-free, attractive and does not blow away.

Organic mulches that easily breakdown in the soil are ideal for vegetable gardens. These include:

- Straw (weed and seed free)
- Grass clippings (be sure they are not treated with chemicals)
- Newspaper
- Shredded paper
- Burlap bags
- Chopped leaves

Wood chips can often be obtained free of charge from Denver's tree companies and the Parks Department, but are best used on perennials, as they break down much slower and would need to be moved between growing seasons.

This activity can be done immediately following a planting activity or shortly after you have planted your beds. Make sure that all beds are free of weeds before you mulch.

### Introduction (10 min)

Discussion: Gather the students and ask them to discuss with a partner: *What do plants need to survive and how do plants get water?* Discuss their answers with the larger group. Make sure that students understand that plants need air, water, sunlight, and food (nutrients) to survive; and that they get the water they need from their roots taking it in through the soil. Then have students discuss with a new partner: *Where does the water come from that plants take in through their*

*roots? How does it get into the soil?* Encourage students to think about where the water comes from that comes out of the hoses in the garden. Discuss their answers as a larger group.

Exploration: Explain to the students that today they will be mulching throughout the garden and that mulch helps the soil hold in water and prevents water from evaporating off the surface. Have the students move throughout the garden and inspect the soil for moisture levels. Ask them to find a few areas that are dry and a few others that are moist.

### **Activity Steps (20 min)**

1. Gather the students together and discuss their findings from the opening exploration activity. Ask students to identify patterns that they may have noticed with the moisture of the soil. Were shady and densely planted areas wet more wet? Were the areas with bare dirt drier?
2. Explain that organic matter, both dead (compost) and alive (roots), helps hold moisture in the ground. Ask the group how mulch helps keep moisture in (by adding organic matter and shielding soil from the sun). Explain that mulching is a way of helping the soil keep more of the water that gets into it. When you mulch, you are adding nutrients and also keeping the soil cool from the heat of the sun.
3. Show the students the organic material that you will be using for mulch (straw, grass clippings, etc.). Explain to them that mulching is a method of recycling materials that might otherwise go into the trash.
4. Demonstrate the proper way of mulching for the students. Show them the proper 2” thickness and that the mulch should never touch the stem of the plant. If the stem of the plant is kept moist it may cause disease or rotting.
5. Provide students with the tools they will need for mulching. They may need gloves, and/or buckets for carrying the mulch.
6. Allow students to mulch the garden beds. You may want to assign specific areas to groups of students. Especially focus on those areas of the garden that they discovered to be dry. Monitor the students and remind them of the proper thickness and to stay away from the stems.
7. If necessary, water the garden after it has been mulched. Have students stick their entire finger into the soil to determine whether the plots need water. Encourage the students to water slowly and low around the base of the plants. Have students take notice of any differences they see from watering after the mulch was applied (soil does not splash onto the plant leaves, the water does not puddle, etc.).

### **Conclusion (5 min)**

Have the students make predictions about what they will see next week in the areas that were mulched. Hopefully students will predict that the soil will be wetter and that there will be fewer weeds.

### **Notes**

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