

## Learning Activity

# Broccoli

20  
minutes

Broccoli, and all plants, need several things to survive and grow. Explore these with this variation on the game Simon Says.

1. What do plants need to survive? Point out the importance of sun, water, soil, space, moderate temperatures, and air. Broccoli is often a spring crop in Iowa since it grows best in temperatures 40 to 70 degrees; it does not like our hot summers or cold winters.
2. Broccoli plants need about 2 feet of space to grow. Prepare for the movement activity by students spreading out even further so they can move their arms and legs without hitting each other.
3. In this variation of Simon Says, when the **Farmer** (leader) calls out the following plant needs, students will perform the exercises in the box below. They will continue the exercise for about 30 seconds until the Farmer calls out a new plant need.

| Farmer Says Plants need... | Student action                                       |
|----------------------------|--|
| Sunlight                   | Star jumps   |
| Water                      | Swimming arms  |
| Soil                       | Squat deeply so your feet are rooted into the ground |
| Space                      | Arm swings   |
| Air                        | Deep breathing                                       |
| Spring temperatures*       | Fast feet  |

\* For older students, call out specific temperatures to determine how fast students' feet move. For example, if the Farmer calls, "50 degrees," students will have fast feet to represent a growing plant. If the Farmer calls, "3 degrees," students will stop moving and freeze.

| Farmer calls spring temperatures of... | Student action   |
|--|--|
| 40 - 70 degrees                        | Fast feet  |
| Below 40 degrees                       | Too cold for broccoli!<br>Stop moving and freeze         |
| Above 70 degrees                       | Too hot for broccoli!<br>Bend over to wilt, fan yourself |



## Observation

### Broccoli

20  
minutes

When we eat fruits and vegetables, we are eating parts of plants. Observe those plant parts by sketching broccoli.

**Materials:** Broccoli plant (or photos), paper, crayons

1. Show students a broccoli plant. Can you spot the plant parts? What words describe how each part looks and feels?
  - **Leaves** are like solar panels. Their superpower is they can transform sunlight into energy so the plant can grow.
  - **Stems** provide the support for leaves and flowers.
  - **Roots** are like straws that suck up water in the soil.
  - **Flowers** are the part of the plant that makes seeds. When we eat broccoli, we are eating the stems and buds that are about to become a flower.
2. Students will fold their paper in half. The top half is “above ground”; the bottom half is “below ground”. Color sky, sun, and soil to show the different halves.
3. Sketch a broccoli plant, placing the roots below the soil, and the stems, leaves, and flower buds above the soil.
4. Older students can label key parts such as **leaf, stem, root, flower buds, soil**.
5. Follow up this activity by tasting broccoli.

## Tasting Activity

### Broccoli

10  
minutes

1. Before passing out any samples, review Brave Tasting Expectations, including “Don’t yuck someone else’s yum” and “We all wait and try together.”
2. Broccoli could be steamed, roasted in an oven, cooked in an air fryer, or stir fried in a griddle. Fresh broccoli trees can be compared with roasted broccoli. Offer toppings such as teriyaki sauce, soy sauce, or cheese. Broccoli leaves could be sauteed like spinach.
3. After tasting, ask students to voice their thoughts and “Vote with your thumb.” Thumbs up, to the side, or thumbs down. I like it, it’s okay, or no thank you.