

Seed-Root-Flower-Fruit (and other variations) Game

Essential Question: Where do seeds come from?

What you need:

- An even number of students/participants
- An open space, called the “garden”, big enough to fit the group in a big sitting circle (inside or outside)

Objective:

- Students will understand the cyclical nature of the life of a plant
- Students will be able to identify the parts of a plant and the stages of growth
- Students will recognize the various factors that affect plant growth including pollination and weather.

Basic game outline:

- Begin by identifying the parts of a plant (seed, root, stem, leaf, flower, fruit)
- Explain that we are going to play a game that is going to help us determine the life cycle of a plant. This game involves students acting as different parts of the seed, but with two requirements:
 - 1) The human representations are uniform, so all students can identify the plant parts by looking at each other
 - 2) They can still play rock-paper-scissors with each other
- “Where do we begin?” Engage the students in acting out a *seed*, e.g. by crouching on the ground, flat-footed.
- “What happens next?” Next you and the students will take on a new position to represent *roots*. Continue on through the cycle. (With younger students you may just start with seed-root-flower-fruit).
- When you get to fruit, stop. “What happens now?” Work with students to explore how the fruit goes back to seed.
- The game begins with all students as seeds. They find a partner, and quietly/silently play one round of rock-paper-scissors with their partner. Whoever wins the game advances to the next stage of plant growth. Now this student must find an identical plant part to play rock-paper-scissors (a seed *cannot* play a flower).
- The game can continue without end, so stop students after a few minutes and ask for comments and questions.

Variations:

#1 – Begin with only 12 students, with all other students standing outside the “garden” area. The first student to reach *fruit*, takes one more person with them into the “garden.” (This engages students more complex questions of reproduction, and specifically why some plants produce more seeds than others).

#2 – Pick a few students to act as “disturbances” in the garden: drought, flood, snow, animals, humans. Discuss how these disturbances affected the plant life cycle.

#3 – Invite students to choose what specific plants they are. Integrate bees and other pollinators into the “garden,” and discuss how their presence or lack thereof affects the growth of these plants.