



Grade Level: K-2

Essential Skills: 5, 9

NGSS: K-LS1-1, K-ESS2-2, 1-LS1-1, 2-LS2-1

CCSS: L.K.5, SL.K.1, SL.K.5, SL.1.4

Time: One class period

Materials:

Growing Bracelet Kit* or:
6 colored beads per student,
one green pipe cleaner per student

* Free kit with all materials available to Oregon educators; order from our [Lending Library](#).

AITC Library Resources:

Books: *Apples to Oregon*, *Apples of Your Eye*; *Apples: A True Book*
Oh Say Can You Seed?: All About Flowering Plants

More Lessons:

Apple Faces
Apple Songs
Seed, Soil, Sun
Living Necklaces
Garden in a Glove

Lesson to Grow

Growing Bracelets

Description:

Students make “growing” bracelets and learn about the basic elements plants need to grow and thrive.

Directions:

For a great way to begin this lesson, read an age-appropriate book, such as *Apples to Oregon*, written by Oregon author Deborah Hopkinson. This “tall tale” is based on a real person who lived in Oregon, Henderson Luelling. Plants need our help to survive sometimes, and this tale is no exception!



- 1) Each student receives a pipe cleaner and six beads (blue, brown, clear, yellow, green, and red).
- 2) Ask students to choose the sunshine bead (yellow), and place the bead on their pipe cleaner, and give them facts about the sun. **See below.**
- 3) Continue with the next three beads - brown (nutrients), blue (water), and clear (air). These four beads represent the essential elements plants need to live.
- 4) Next, have them put the green bead on for the plant. Finally, have them add the red bead, which represents the care and nurturing that goes into raising plants.
- 5) Adults may need to help them close their bracelets, but don't twist them too tightly.
- 6) After the bracelets are made, ask them again to review what each bead represents:
Sun - yellow bead - the source of heat and light on Earth and it sustains life on our planet.
Nutrients- brown bead - these are the vitamins and minerals plants require for healthy growth and development and are transported by the roots. They come in the form of different substances such as fertilizers.
Water - blue bead - is a clear, odorless and tasteless liquid. Water is essential for plants and animals to live. Living organisms are made up of mostly water - plants typically are 90+% water.
Air - clear bead - is a colorless, odorless, tasteless gas. Air provides plants with life giving carbon dioxide. Plants “breathe in” the CO2 through their leaves and “breath out” oxygen.
Plant - green bead - can represent a crop plant, tree, or anything they'd like to grow.
Care - red bead - represents the care and nurturing on which plants thrive.

Extension Activities:

1. Compare and contrast the needs of a human and plant. Draw two circles and label one “humans” and one “plants”, list the needs of each, and the common needs in the overlapping area. This is a Venn diagram (see photo at right).
2. Have students write or draw pictures about how plants can change their environment to meet their needs. Examples: sunflowers turning with the rising and setting sun, tree roots pushing up concrete, fleshy leaves to hold more water, or seeds that stick on fur to move away.