Quick & Easy Restoration Education
Dead or Dormant?
Developed by Heidi Bohan/Starflower Foundation

**Description:** Students will understand that not all plants die in winter, and gain knowledge about the difference between a dormant plant, a dead plant, and an herbaceous perennial. Students will use this knowledge during other activities.

**Objectives:**
- Students will understand that plants have the ability to adapt to extremes in seasons by changing into a dormant state which may appear to be dead.
- Students will be more aware and careful when working in habitat restoration projects during winter.

**Materials:**
- Images: “Dormant, Herbaceous and Dead”
- ‘Starflower Plant ID Cards’ (which note whether a plant is evergreen, deciduous or herbaceous)

**Teacher supplied:**
- Optional: 4”-1 gallon containerized herbaceous perennial (ideally a ground cover species such as false lily of the valley, bleeding heart, iris, pearly everlasting, fireweed, lady fern) to show active underground root system with dead or nonexistent above ground growth.

**Vocabulary**

- **Dormant:** A state in which activity, such as growth and water flow slows down, usually during drought and cold.
- **Annual:** A plant that only lives one year.
- **Biennial:** A plant that lives two years, producing flowers the second year.
- **Woody plant:** Plants whose aerial parts (above ground) are made up of woody branches upon which new growth occurs.
- **Herbaceous perennial:** Plants whose aerial parts die each year, and regenerate from roots the next growing season.

**Washington State EALRs**

- **Science 1.1.6** Understand and identify observable characteristics of living organisms. Describe and sort living organisms using characteristics.
- **Science 1.3.6** Know common weather indicators and understand that weather conditions change from season to season.
- **Science 1.3.10** Understand that an organism’s ability to survive is influenced by its behavior, the environment, other life forms, and the availability of air, light, water, nutrients and food.

**Before activity:**
Identify a spot in the habitat that has a good mix of dormant deciduous woody plants, herbaceous perennial plants and, if possible, a dead woody plant (plant or branch that has not survived transplant, windstorm, drought, etc). Use Plant ID cards, ‘Deciduous and Herbaceous’ plant list and other sources to identify these plants as needed.

**Activity:**
- Ask students to look around and describe the condition of the plants in the habitat.
- Take students to the area selected before activity. Ask students to look at the plants you have selected and tell them that there are “x” number of living plants and “x” number of dead here (“x” represents a number, depending on your site).
- Point out a dormant deciduous woody plant. Show how to distinguish this as a living plant.
  - Flexible branches, green inner bark, soft living buds.
- Point out dead woody plant. Compare with living dormant woody plant.
  - Break branches to show brittleness, dead inner bark and wood, dry or nonexistent buds.
  - Note that, “It is possible for some damaged plants to grow new growth from roots so we usually leave an apparently dead plant until late spring to see if it might recover.”
- Point out a dormant herbaceous plant.
  - Show dead aerial parts and discuss that this will decompose, helping to nourish the soil, supply cover for new seedlings and new growth. Seedheads provide food, and fall to earth during the winter to propagate.
  - Look for evidence of new shoots, often hidden under dead leaves, or at the base of stems.
  - Optional: Expose the roots of a containerized herbaceous perennial. Show that roots are alive (succulent, flexible, usually white or red new growth) and look for active underground growth.
- Discuss, “Plants in winter continue to grow underground and send out new roots. Imagine the growth taking place under the ground right now. How will this affect our activities while we are visiting restoration projects in winter?”
- Ask students to suggest ways to make sure dormant plants aren’t damaged during stewardship activities (flag small woody plants, flagged stakes in ground for herbaceous perennials, etc.)
- If doing a planting enhancement emphasize that, “The plants already growing on a project are more important than the new ones we are planting. They have already survived winter, drought, wildlife and humans and we need to take care of them.”

**Middle School**

**Season: Winter**