

WILDLIFE DEFENDERS

LESSON 1: Oak Tree Life Cycle

Learning Goal: (Write on board) We will learn the life cycle of an oak tree

NGSS: SEP Developing and using models, planning and carrying out investigations, asking questions and defining problems. DCI Plants depend on water and light to grow.

BEFORE CLASS PREP – On board write SEC, instructor name, lesson overview, put tree parts and hand lenses on plates, 1 plate per two students, and set aside

MATERIALS – Student pre-assessments, folders, unit packets, index cards for name tents, oak tree parts, plates, hand lenses, friends of the oaks story folder

PART 1: INTRODUCTION (5 minutes)

- What is the Sonoma Ecology Center (protects the land, water, and air in Sonoma = healthy plants, animals, people)
- Personal Introduction(s)
- Pass out name tags and folders, have students write their names on them
- Wildlife Defenders Program Overview (class lessons and field trip)
- Focus on Native & Local Environment: Oak Woodlands

PART 2: PRE-ASSESSMENT (10 minutes)

- Have students complete pre-assessment. Ask students why it is helpful for you to know what they do and don't know already?

PART 3: ACTIVITY – OAK LIFE CYCLE (15 minutes)

- Ask students, “Is a tree alive?” “How do we know?” Have students describe things you can notice about a tree that are clues it is alive. Students may say “they grow”—which leads into topic of **life cycle**: *the stages a living thing goes through in its life*. Draw oak tree life cycle with student input (i.e. “Does a sprout become a mature tree right away, or is it a teenage tree first?”) Draw stages acorn, sprout, sapling, mature oak tree, dead tree, back to acorn. Have student repeat the names of each stage in English and Spanish. (Acorn= bellota, oak tree=roble)
- “Plant Personification” activity: role play life cycle of oak. Most successful on rug in a circle when you set the expectation to not make noise (otherwise can get silly.)

PART 4: OAK PART INVESTIGATION (20 minutes)

- Ask students what does a scientist do? (Ask questions, observe, use their senses)
- Say we are going to be scientist and observe these oak tree parts using our senses. Write “I notice...I wonder... and This reminds me of...” on the board and ask them to use those sentence starters while they are observing.

- Demonstrate how to use the hand lens. Stress that they are to share. Pass out plates with hand lenses and oak parts to partners
- Circulate and ask students what do they notice, what do they wonder and what does it remind them of?
- If time, students can complete page 1 of their packet, OR you can gather the class and ask volunteers to share what they noticed and wondered.

PART 4: STORY “THE OAK COMMUNITY” (8 minutes) (If time)

- Show pictures of animals/plants that students will hear about during the story
- Read story
- Debrief: What do oaks provide for the creatures of the oak woodland? How do the animals help the oak trees?