

Sonoma Ecology Center K-12 Watershed Education Program

WATER WONDERS

LESSON 2

GOALS

- Students will understand what a watershed is and how it functions
- Students will understand how water quality is affected by actions in the watershed
- Students will understand how water pollution affects the health of the watershed

BEFORE CLASS PREP – On board write SEC, instructor name, presentation overview, hang Sonoma Creek watershed map, get water bottles ready, and paper out.

MATERIALS – Sonoma Creek watershed maps, magnets, watershed worksheets, colored pencils (green, blue, brown- class set), white scratch paper, spray bottles, sharpie pen, post-it notes

PART 1: REVIEW OF LESSON 1 (5 minutes)

PART 2: WHAT IS A WATERSHED?

Who has a reptile? How about a dog or cat? Call on students. Ask if their animal “sheds” anything and what that means? Does it mean they live in a shed? Did you know that mountains also shed? What are they shedding?

Draw two upside-down V’s, discuss that we are in Sonoma *Valley*. Draw clouds above the upside-down V mountains and ask a student to draw lines down it to show where the water flows.

Repeat-after-me activity: Hold up arms, “A watershed is mountain to mountain and all the water that drains in between.”

Pull up Sonoma Valley Watershed map. Identify points via post-it notes (Headwaters/Sugarloaf, San Pablo Bay, Your School).

PART 3: WATERSHED MAP CHALLENGE (10 minutes)

- Orient students to Sonoma Creek Watershed map
 - In which direction does water flow?
 - What are the ridges of our watershed?
 - What is to the north, east, south, and west of our watershed?
 - Sonoma Creek flows into which larger body of water?
- Explain that students will be creating their own maps of our watershed
- Review laminated student questions and worksheets
- Pass out colored pencils
- Facilitate activity of “Map Watershed Challenge” in student packets, coloring and labeling their watershed map with help from volunteers.

PART 4: ACTIVITY: REALITY WATERSHED MODEL

- Introduction to the watershed: definition, characteristics
- Pass out scratch paper and markers (water soluble)
- Have student crumple and open papers to form ridges and valleys
- Have students draw in the areas they think the water will shed down the mountains and make rivers, streams and lakes.
- Take students outside with spray bottles and have each student spray their paper 5-6 times and pass around. Watch the ink slowly drip down papers and see where it ends up. How many separate watersheds are on the map? How are they divided? What are their boundaries?
- Bring class back in; review concept by referencing Sonoma Creek watershed map. Use packet questions if time allows.

PART 5: WRAP-UP (5 minutes)

- Ask students to describe what a watershed is and how it functions