

Build a Watershed - **GRADE THREE**

[CA Science Framework](#) (p.228-252)

GRADE THREE INSTRUCTIONAL SEGMENT 3: SURVIVING IN DIFFERENT ENVIRONMENTS

Guiding Questions

- How does the environment affect living organisms?
- How do organisms' traits help them survive in different environments?
- What happens to organisms when the environment changes?

Performance Expectations

Students who demonstrate understanding can do the following:

3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment [Clarification Statement: Examples of the environment affecting a trait could include normally tall plants grown with insufficient water are stunted, and a pet dog that is given too much food and little exercise may become overweight] (eg. [here](#))

3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all [Clarification Statement: Examples of evidence could include needs and characteristics of the organisms and habitats involved. The organisms and their habitat make up a system in which the parts depend on each other] ([label the living and nonliving features found in a watershed](#))

3-LS4-1. Analyze and interpret data from fossils to provide evidence of the organism and the environments in which they lived long ago ([Chert, which is the shells of marine plankton, shows some land in Marin Headlands used to be under water](#))

3-LS4-4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change * [Clarification Statement: Examples of environmental changes could include changes in land characteristics, water distribution, temperature, food, and other organisms] [Assessment Boundary: Assessment is limited to a single environmental change. Assessment does not include the greenhouse effect or climate change.] ([Dams shorten the length of a river and decrease salmon spawning habitat – what can we do to then help the salmon?](#)) ([Certain animals can hibernate longer if conditions stay cold but they need access to this habitat.](#))

GRADE THREE INSTRUCTIONAL SEGMENT 4: WEATHER IMPACTS

Guiding Questions

- What is typical weather in my local region?
- How does it compare to other areas of California and the world?
- What weather patterns are common for different seasons?
- What weather-related hazards are in my region?
- How can we reduce weather-related hazards?

Performance Expectations

Students who demonstrate understanding can do the following:

3-ESS2-1. Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season [Clarification Statement: Examples of data at this grade level could include average temperature, precipitation, and wind direction] [Assessment Boundary: Assessment of graphical displays is limited to pictographs and bar graphs. Assessment does not include climate change.] (Show graph of yearly rainfall over past 100 years)

<http://www.marinwater.org/DocumentCenter/View/313/Rainfall-History-at-Lake-Lagunitas?bidId=>

3-ESS3-1. Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard * [Clarification Statement: Examples of design solutions to weather related hazards could include barriers to prevent flooding, wind-resistant roofs, and lightning rods] (what do to mitigate flooding, what to do to prepare for drought, what to do to avoid landslides...)

3-ESS2-2. Obtain and combine information to describe climates in different regions of the world

3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost (see 3-ESS3-1 above)

3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem (see 3-ESS3-1 above)