

Environments Storyline

FOSS

Big Idea: All living things depend on conditions in their environment for their survival.

Concept I: An environment is everything that surrounds and influences an organism. It includes living and non-living components.

Concept II: Every organism has a set of preferred environmental conditions.

Concept III: The interactions of organisms with one another and with the nonliving environment is an ecosystem.

Investigation 1: Part 1 Setting Up Terrariums
Plant terrariums and create a map. Determine how much water the plants need.

Investigation 1: Part 2 Recording Changes
Record changes taking place in terrariums. Read about living and non-living factors that affect the rain forest and the desert.

Investigation 2: Parts 1, 2 and 4
Conduct investigations to see the affect of light an moisture on the behavior of isopods and beetles.

Investigation 2 Part 3
Observe that many plants depend on animals for pollination and seed dispersal, and animals depend on plants for food and shelter.

Investigation 3: Part 1 Goldfish Aquariums
Assemble and monitor freshwater aquariums for water and temperature.

Investigation 3 Part 2: New Organisms
Introduce snails, scuds and plants into aquarium ecosystem and discuss interactions of living and nonliving components.

Concept IV: Producers, consumers and decomposers are related in food chains and webs and may compete with each other for resources.

Concept V: In any particular environment, some kinds of plants and animals survive well, some less well, and some not at all.

Investigation 3: Part 3 Food Chains and Food Webs
Create food chains and webs in a forest ecosystem with cards. Learn about the different functional roles that organisms play in food chains.

Investigation 3: Part 4 Kelp Forest Food Web
Create food webs in a kelp forest with organism cards. Discuss feeding relationships and competition for resources.

Investigation 4 Parts 1 and 2
Investigate the environmental factor of salinity in hatching bring shrimp eggs.

Investigation 4: Part 3 Determining Viability
Design an investigation to get dormant eggs to hatch. Read about the role of microorganisms in several ecosystems.

Investigation 5: Part 1 Water Tolerance and Plants
Investigate the range of water tolerance on the early growth of four plants.

Investigation 5: Parts 2 and 3 Salt Tolerance and Plants
Test the effect of salinity of four kinds of plants. Read about environmental scientists.