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Hatching Brine Shrimp

Abstract: This lesson can be used to introduce living on nonliving things to students. They will learn about the characteristics of living, nonliving, and dead. They will then observe some of these characteristics and learn about the potential for life by hatching brine shrimp cysts. While meeting Standard 2, Objective 1 for the third grade core curriculum, students will practice their inquiry skills by setting up an experiment using the scientific method.

Grade Level: 3

Core Curriculum:

- Standard 2 Objective 1: Classify living and nonliving things in an environment.
 - a. Identify characteristics of living things (i.e. growth, movement, reproduction).

Instruction time:

- 30-45 minutes

Key words: Introduced in "Lions and Tigers and Bears, Oh My" handout. Terms will also be reinforced as weekly vocabulary words and quiz.

- environment: the living and nonliving things in an area
- interact: act on each other
- living: able to grow, reproduce, and move
- nonliving: not able to grow, reproduce, or move.
- organism: anything that is living
- survive: stay alive
- observe: see or sense through careful study
- aquarium: a container filled with water and water plants and animals
- temperature: how hot or cold something is
- moisture: water
- small-scale: something small in size
- potential for life: under the right conditions something can begin to show characteristics of living things.

Objectives:

- Students will gain knowledge about living things, specifically brine shrimp
- Students will identify necessary conditions for hatching brine shrimp cysts
- Students will observe and report observations
- Students will make predictions and inferences based on observation

Background:

A brine shrimp is considered an *Artemia Salina* this puts them in the same category as crabs and other such crustaceans. Brine shrimp are prone to hyper saline lakes, because they cannot survive in fresh water. The Great Salt Lake is a hyper saline lake. Hyper saline lakes have fewer occupants thus increasing their mortality rate. Brine shrimp can feed on many things, in The Great Salt Lake they eat algae for their survival. Brine shrimp hatch from the cysts in spring and from there they may give live birth up to three times in a season. The brine shrimp are considered adults after twenty-one days.

The brine shrimp found in The Great Salt Lake serve various purposes one of which is providing migratory birds with food. The purpose that we are going to study in these lessons is the