The structure and behavior of animals in their environment depend on physical and chemical conditions. Animals have unique structures and behaviors which are necessary for survival and which are influenced by internal and external cues.

Sub-concept: Animals (snails) have unique structures and behaviors which are necessary for survival and which are influenced by internal and external cues.

Sub-concept: Earthworms (redworms and night crawlers) have unique structures and behaviors which are necessary for survival and which are influenced by internal and external cues.

Sub-concept: Fish have unique characteristics that perform specific functions and demonstrate certain behaviors influenced by internal and external cues.

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Kindergarten Grade Level Concept: Animals have unique structures, behaviors, and basic needs such as food, water, and waste removal. Water and waste removal in order to survive.

K-12 Unifying Concept: Living things have characteristics that can be used to categorize them. Science is organized into systems that are interconnected and interrelated with one another.

Lesson 1.1: The Structure of Goldfish
Students observe goldfish, particularly looking at body structures, and how they compare to all fish.

Lesson 1.2: Goldfish Behavior
Students observe goldfish behavior before, during, and after being fed, as well as when a plant is added to the aquarium.

Lesson 1.3: Fish Tunnels
Students add a fish tunnel to the aquarium and observe the goldfish behavior. They make a paper aquarium and act out what they see.

Lesson 1.4: Comparing Guppies to Goldfish
Students observe guppies side-by-side with the goldfish and are guided through observations and comparisons of the two types of fish.

Lesson 2.1: Land Snails
Students are guided through an observation of snail activities and structures. They observe the snail's reaction to a barrier placed in its path.

Lesson 2.2: Snail Races
Students conduct a snail race, discuss the results and how to make the snail go faster, and hold several more races.

Lesson 2.3: Observing Water Snails
Students are guided through an observation of water snails and watch how the snail interacts with Elodea. They compare water snails with land snails.

Lesson 2.4: Shells
Students are given an assortment of shells and guided through an observation. They are asked to sort and seriate the shells.

Lesson 3.1: The Structure of Earthworms
Students are guided through an observation of a redworm, looking at body structures.

Lesson 3.2: Earthworm Behavior
Students observe redworm movement and watch to see how the worm reacts when its path is blocked.

Lesson 3.3: Comparing Redworms to Night Crawlers
Students carefully observe and compare two different species of worms.

Lesson 3.4: Animals Living Together
Students set up a terrarium in which earthworms, isopods, and land snails live. They discuss ongoing care.

Lesson 4.1: Isopod Observations
Students observe both sowbugs and pillbugs and investigate their movement and behavior using miscellaneous objects from the classroom.

Lesson 4.2: Identifying Isopods
Students observe both sowbugs and pillbugs, consider their differences, and sort them into two groups.

Lesson 4.3: Isopod Races
Students consider which type of isopod moves faster then conduct races. They discuss the results and draw some conclusions.

Lesson 4.4: Animals Living Together
Students set up a terrarium in which earthworms, isopods, and land snails live. They discuss ongoing care.

Sub-concept: Isopods (pillbugs and sowbugs) have unique structures and behaviors which are necessary for survival and which are influenced by internal and external cues.

Sub-concept: Animals survival depends on the space and conditions that make up their environment including water, food, air, waste removal and a particular temperature range.