

Predator/Prey

Program Summary: Participants will learn about the inter-relationships, characteristics, and adaptations between predator and prey animals.

K – 2nd Grade:

Discuss the basic concepts of predator/prey animals (what is a predator? What is prey?). Compare and contrast what predator and prey animals need to survive (food = both, water = both, shelter = both, etc.). Observe and discuss the senses that predator and prey animals use (eyes, nose, ears, etc.). Observe and discuss how different body parts help these animals to catch their food or defend themselves. Analyze which animals need to be fast, slow, near each other, or far away from other animals. Compare predator and prey colors, sizes, and textures and discuss how these things might help the animal.

- ✓ SC00-S1C1-01: Observe common objects using multiple senses
- ✓ SC00-S1C1-02: Ask questions based on experiences with objects, organisms, and events in the environment
- ✓ SC00-S4C1-01: Distinguish between living and non-living things
- ✓ SC00-S4C1-02: Name human body parts
- ✓ SC00-S4C1-03: Identify the 5 senses and their corresponding body part (touch - skin, smell - nose, taste - tongue, hearing - ears, sight - eyes)
- ✓ SC00-S4C3-01: Identify some plants and animals that exist in the local environment
- ✓ SC00-S4C3-02: Identify that plants and animals need the following to survive - food, water, air, and space
- ✓ SC00-S5C1-01: Identify the following observable properties of objects using the senses - shape, texture, size, color
- ✓ SC00-S5C1-02: Compare objects by the following observable properties - size, color, type of material
- ✓ SS00 - 3SS-R1: Demonstrate understanding of the concept of location, with emphasis on:
01: determining the relative location of objects using the terms near/far, behind/in front, over/under

- ✓ SC01-S1C1-02: Ask questions based on experiences with objects, organisms, and events in the environment
- ✓ SC01-S4C1-01: Identify characteristics of living things
- ✓ SC01-S4C1-02: Compare observable features of living things - movement (legs, wings), protection (skin, feathers, tree bark), respiration (lungs, gills)
- ✓ SC01-S4C1-03: Identify similarities/differences between/among different groups of animals (#of legs, body coverings, size)
- ✓ SC01-S4C2-02: Identify similarities and differences between animals and their parents
- ✓ SC01-S4C3-01: Identify some plants and animals that exist in the local environment
- ✓ SC01-S4C3-02: Compare habitats in which animals live (desert, prairie, forest, water, underground)
- ✓ SC01-S4C3-03: Describe how plants and animals within a habitat are dependant on each other
- ✓ SC01-S5C1-01: Classify objects by the following observable properties - shape, texture, size, color, weight

- ✓ SC01-S5C2-01: Demonstrate the various ways that objects can move (straight line, zigzag, back-and-forth, round-and-round, fast, slow)
- ✓ SC02-S1C1-02: Formulate relevant questions about the properties of objects, organisms, and events in the environment
- ✓ SC02-S1C1-02: Predict the results of an investigation (in animal life cycles, phases of matter, the water cycle)
- ✓ SC02-S4C1-01: Identify animal structures that serve different functions (sensory, defense, locomotion)
- ✓ SC02-S4C1-02: Identify the following major parts of - digestive system (mouth, esophagus, stomach, small/large intestines), respiratory system (nose, trachea, lungs, diaphragm), circulatory system (heart arteries, veins, blood)
- ✓ SC02-S4C1-03: Describe basic functions of systems (digestive - breakdown and absorption of food, disposal of waste, respiratory - exchange of oxygen and carbon dioxide, circulatory - transportation of nutrients and oxygen throughout the body)
- ✓ SC02-S4C2-01: Describe the life cycle of various insects
- ✓ SC02-S4C2-02: Describe the life cycles of various mammals
- ✓ SC02-S4C2-03: Compare the life cycles of various organisms
- ✓ SC02-S5C1-01: Describe objects in terms of measurable properties - length, weight, temperature

3rd – 4th Grade:

Discuss concepts mentioned above. Emphasize discussion on the importance of the web of life and the inter-relationships between animals/plants/habitats (consumers, producers, decomposers). Emphasize analysis of how camouflage, mimicry, physical characteristics, and mutualism assist predator and prey animals.

- ✓ SC03-S1C1-01: Formulate relevant questions about the properties of objects, organisms, and events in the environment using observations and prior knowledge
- ✓ SC03-S4C2-02: Explain how growth, death, and decay are part of the plant life cycle
- ✓ SC03-S4C3-01: Identify the living and non living components of an ecosystem
- ✓ SC03-S4C3-03: Explain the inter-relationships among plants and animals in different environments - consumers, producers, and decomposers
- ✓ SC03-S4C4-01: Identify adaptations of plants and animals that allow them to live in specific environments
- ✓ SC04-S4C1-02: Classify animals by identifiable group characteristics - vertebrates (mammals, birds, fish, reptiles, amphibians) and invertebrates (insects and arachnids)
- ✓ SC04-S4C4-02: Give examples of adaptations that allow plants and animals to survive - camouflage (horned lizards, coyotes), mimicry (Monarch and Viceroy butterflies), physical (cactus spines), mutualism (species of acacia that harbor ants which repel other harmful insects)

5th - 6th Grade:

Review concepts from above. Emphasize discussion and analysis of the differences/similarities between predators and prey (their speed, color, sound, physical characteristics, and behaviors). Encourage analysis of how the different body systems that animals use help them to be effective as predators or

prey. Briefly discuss environmental hazards that could disrupt predator/prey relationships and affect the ecosystem.

7th grade and up:

Review concepts from above. Emphasis can be on particular ecosystems and the predator/prey relationships that develop within. Discuss animal populations, carrying capacity of predators vs. prey, and how animals fit into niches. Discuss the environmental risks caused by human interaction and the environmental benefits resulting from human interaction.

- ✓ SC07-S4C3-01: Compare food chains in a specified ecosystem and their corresponding food web
- ✓ SC07-S4C3-02: Explain how organisms obtain and use resources to develop and thrive in - niches, predator/prey relationships
- ✓ SC07-S4C3-03: Analyze the interactions of living organisms with their ecosystems - limiting factors, carrying capacity

- ✓ SC08-S4C4-01: Explain how an organism's behavior allows it to survive in an environment
- ✓ SC08-S4C4-04: Compare symbiotic and competitive relationships in organisms within and ecosystem (lichen, mistletoe/tree, clownfish/sea anemone, native/non-native species)
- ✓ SC08-S4C4-06: Describe the following factors that allow for the survival of living organisms - beak design, pollination, seed dispersal, protective coloration

- ✓ S4C3-01: Identify the relationships among organisms within populations, communities, ecosystems, and biomes
- ✓ S4C3-02: Describe how organisms are influenced by a particular combination of biotic (living) and abiotic (nonliving) factors in an environment