

5 Animals Superpowers

Concept	Background knowledge	Thinking and Skills
Organisms develop various physical characteristics to survive.	<p>Animals experience the world using various biological mechanisms.</p> <p>Organisms develop defense mechanisms to survive:</p> <p>They have hard shells to keep themselves protected from predators. They can pretend to be dead or let off an awful odor.</p> <p>They can sting or bite and use mimicry, when an animal imitates another animal that is dangerous</p>	<p>identify>compare> describe</p>

Curriculum

Classification, Evolution, Habitat, Food-Chain, Adaptation

Scientific Vocabulary

- **Organism:** any living biological entity, such as an animal, plant, fungus or bacterium.
- **Venom:** a poisonous substance secreted by animals such as snakes, spiders, and scorpions and typically injected into prey or aggressors by biting or stinging.
- **Nocturnal:** Nocturnal animals are awake and active at night and then sleep during the day. Some nocturnal animals can be seen during the day, but most of ...
- **Crustacean:** The Crustacea are a subphylum of arthropods with 67,000 described species. They are part of the phylum Arthropoda. Crustaceans include crabs, lobsters, ...
- **Bioluminescent :** Bioluminescence is the production and emission of light by a living organism. Bioluminescent creatures are found throughout marine habitats, from the ocean surface to the deep seafloor
- **Photoproteins:** are a type of enzyme, made of protein, from bioluminescent organisms. They add to the function of the luciferins whose usual light-producing reaction is catalyzed by the enzyme luciferase.

Key Knowledge	
<ul style="list-style-type: none"> • Living organisms have body parts that carry out different functions (e.g. arms, legs, wings). • Living things are classified based on their physical characteristics, needs and their habitats. • There two main groups of Vertebrates and Invertebrates in the animal Kingdom. • Vertebrates are subdivided into 5 main groups of mammals, birds, fish, reptiles, amphibians. • In vertebrates are subdivided into 3 main groups: Insects, molluscs and arachnids 	
Key Questions	Complimentary questions
<ul style="list-style-type: none"> • What makes something living? • Where are the most suitable habitats for these animals? Why? • How do these animals survive in their environments ? 	<ul style="list-style-type: none"> • Do animals get scared? • Can animals create defense mechanisms for themselves?
Working Scientifically	
<ul style="list-style-type: none"> • Using the pictures of the 5 selected animals discuss their physical features • Students in groups or in pairs, to match the animals with their classification groups • Students to observe and identify the shapes, patterns and colours in each animal and describe them in detail • Students to compare and spot the similarities and differences of each animal in a mind-map • Students are required to recall their own knowledge to interpret and explain the observation and guess the animals super power. 	
Practical Resources	Online resources
<ul style="list-style-type: none"> • Animal images • Classification sheet <p><u>Extended activities:</u></p> <ul style="list-style-type: none"> • Microscope / magnifier lenses • Samples of pond water animals , e.g sea monkeys • Gloves • Tweezers 	<p><u>Student</u></p> <ul style="list-style-type: none"> • Itza.io/ Top 5 animals Superpowers (students can sign up for free) <hr/> <p><u>Background resources for teachers:</u></p> <ul style="list-style-type: none"> • See 'Superheroes classroom ideas' on teacher portal for access to videos