

NEST (Nature Education for Students and Teachers)

Animal Adaptations (3–5) Standards



Next Generation Science Standards (NGSS):

Science and Engineering Practices

Disciplinary Core Ideas

Crosscutting Concepts

3-LS3-2 Use evidence to support the explanation that traits can be influenced by the environment.

- **Constructing Explanations and Designing Solutions** – Use evidence to support an explanation.
- **LS3.A: Inheritance of Traits** – Other characteristics result from individuals' interactions with environment, which can range from diet to learning. Many characteristics involve both inheritance and environment.
- **Cause and Effect** – Cause and effect relationships are routinely identified and used to explain change.

3-LS4-4 Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

- **Engaging in Arguments from Evidence** – Make a claim about the merit of a solution to a problem by citing relevant evidence about how it meets the criteria and constraints of the problem.
- **LS2.C: Ecosystem Dynamics, Functioning, and Resilience** – When the environment changes in ways that affect a place's physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others move into the transformed environment, and some die.
- **LS4.D: Biodiversity and Humans** – Populations live in a variety of habitats, and change in those habitats affects the organisms living there.
- **Systems and System Models** – A system can be described in terms of its components and their interactions.
- **Interdependence of Engineering, Technology, and Science on Society and the Natural World** – Knowledge of relevant scientific concepts and research findings is important in engineering.

4-LS1-1 Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

- **Engaging in Arguments from Evidence** – Construct an argument with evidence, data, and/or a model.
- **LS1.A: Structure and Function** – Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction.
- **Systems and System Models** – A system can be described in terms of its components and their interactions.

Michigan Grade Level Content Expectations (MGLCE):

- S.IP.(03,04,05).11 Make purposeful observation of the natural world using the appropriate senses
- S.IP.(03,04,05).12 Generate questions based on observations
- S.IP.(03,04,05).13 Plan and conduct simple (and fair) investigations.
- S.IA.(03,04).12 Share ideas about science through purposeful conversation.
- S.RS.(03,04).11 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.
- S.RS.05.15 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.
- S.RS.(03,04).15 Use evidence when communicating scientific ideas.
- S.RS.(03,04).18 Describe the effect humans and other organisms have on the balance of the natural world.
- S.RS.05.17 Describe the effect humans and other organisms have on the balance of their natural world.
- L.OL.03.32 Identify and compare structures in animals used for controlling body temperature, support, movement, food-getting, and protection.
- L.OL.03.42 Classify animals on the basis of observable physical characteristics.
- L.EV.03.12 Relate characteristics and functions of observable body parts to the ability of animals to live in their environments.
- L.EV.04.22 Identify how variations in physical characteristics in individual organisms give them an advantage for survival and reproduction.
- L.EV.05.11 Explain how behavioral characteristics of animals help them to survive in the environment.
- L.EV.05.12 Describe the physical characteristics (traits) of organisms that help them survive in their environment.
- L.EC.04.11 Identify organisms as part of a food chain or food web.
- E.ES.03.52 Describe helpful or harmful effects of humans on the environment.