

Sample Assessment Tasks: 4-LS1-1

4-LS1-1	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. [Clarification Statement: Examples of structures could include thorns, stems, roots, colored petals, heart, stomach, lung, brain, and skin.] [Assessment Boundary: Assessment is limited to macroscopic structures within plant and animal systems.]
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Overarching Question for the Unit

How do internal and external structure support the survival, growth, behavior, and reproduction of plants and animals?

Elements of the DCI:

- Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction (e.g., the heart pumps blood throughout the body, which allows the entire body access to oxygen and nutrients; thorns prevent predation, which allows the plant to grow and reproduce).
- Internal and external structures serve specific functions within plants and animals (e.g., the heart pumps blood to the body, thorns discourage predators).
- The functions of internal and external structures can support survival, growth, behavior, and/or reproduction in plants and animals
- Different structures work together as part of a system to support survival, growth, behavior, and/or reproduction (e.g., the heart works with the lungs to carry oxygenated blood throughout the body.)

Elements of the SEPs:

- Constructing Explanations
- Engage in Argument from Evidence

Elements of the CCCs:

- Structure and Function

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TASK 1:

On a hike in Ringwood State Park in Northern Bergen County, you walk into a field where you see two whitetail deer in locked in battle. After returning to the trailhead, you learn that these were two male deer (bucks), which can be identified by their antlers. Female deer (does) do not have antlers.



1. Construct an explanation for how male deer use their antlers to survive. In your argument, make sure to explain why female deer do not need antlers.

Responses may include: male deer use their antlers to fight with one another to compete for a female partner. This helps them survive by allowing them to reproduce. Females do not compete for the males so they do not require antlers.

Partial Understanding: Male deer use their antlers for protection. They use them to protect themselves and the females.

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TASK 2:

When you get home, you read a book about other animals with antlers/horns and learn that male and female Cape buffalo both have horns. These animals live in Africa.



1. Create an argument for how the Cape buffalo use their horns in a similar or different way than the whitetail deer. In your argument, make sure to explain how the Cape buffalo are using their horns to survive.

Responses may include: Cape buffalo use their horns to protect themselves and others from predators. Males and females both need them in order to protect themselves and the young.

Potential Misunderstanding: Males use their horns to compete with other males and females use their horns to compete with other females to find a mate. Males and females compete with each other using their horns.

2. If a Cape buffalo suddenly lost its horns, how might its ability to survive change?

Responses may include: If a Cape buffalo lost its horns it would not be able to protect itself from predators. This would lower its ability to survive.