

Science Unit 3: From Molecules to Organisms: Structures and Processes(Grade 4)

Content Area: **Science**
Course(s): **Science 4**
Time Period: **Marking Period 4**
Length: **6 weeks**
Status: **Published**

Established Goals/Standards

Please choose the appropriate Goals/Standards from the Standards tab above.

SEL.PK-12.1.3	Recognize one's personal traits, strengths, and limitations
SEL.PK-12.1.4	Recognize the importance of self-confidence in handling daily tasks and challenges
SEL.PK-12.2.1	Understand and practice strategies for managing one's own emotions, thoughts, and behaviors
SEL.PK-12.2.2	Recognize the skills needed to establish and achieve personal and educational goals
SEL.PK-12.2.3	Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one's goals
SEL.PK-12.3.1	Recognize and identify the thoughts, feelings, and perspectives of others
SEL.PK-12.3.3	Demonstrate an understanding of the need for mutual respect when viewpoints differ
SEL.PK-12.3.4	Demonstrate an awareness of the expectations for social interactions in a variety of settings
SEL.PK-12.4.1	Develop, implement and model effective problem-solving, and critical thinking skills
SEL.PK-12.4.2	Identify the consequences associated with one's actions in order to make constructive choices
SEL.PK-12.4.3	Evaluate personal, ethical, safety, and civic impact of decisions
SEL.PK-12.5.1	Establish and maintain healthy relationships
SEL.PK-12.5.2	Utilize positive communication and social skills to interact effectively with others
SEL.PK-12.5.3	Identify ways to resist inappropriate social pressure
SEL.PK-12.5.4	Demonstrate the ability to prevent and resolve interpersonal conflicts in constructive ways
SEL.PK-12.5.5	Identify who, when, where, or how to seek help for oneself or others when needed
CAEP.9.2.4.A.1	Identify reasons why people work, different types of work, and how work can help a person achieve personal and professional goals.
CAEP.9.2.4.A.2	Identify various life roles and civic and work - related activities in the school, home, and community.
CAEP.9.2.4.A.3	Investigate both traditional and nontraditional careers and relate information to personal likes and dislikes.
CAEP.9.2.4.A.4	Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
4-LS1-2	Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.
4-LS1-1	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

4-LS1-2.2.1	Use a model to test interactions concerning the functioning of a natural system.
4-LS1-1.4.1	A system can be described in terms of its components and their interactions.
4-LS1-2.4.1	A system can be described in terms of its components and their interactions.
4-LS1-1.7.1	Construct an argument with evidence, data, and/or a model.
4-LS1-1.LS1.A.1	Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction.
4-LS1-2.LS1.D.1	Different sense receptors are specialized for particular kinds of information, which may be then processed by the animal's brain. Animals are able to use their perceptions and memories to guide their actions.

Essential Questions

Please add your Essential Questions by clicking on the Lists tab above.

- How do parts of a plant system move in response to their environment?
- How do plants grow and reproduce?
- How do plants obtain and transport water and food?
- What are some external structures of animals and how do they aide in their survival?
- What are some internal structures of animals and how do they aide in their survival?
- What is the function of each of a plant's parts? (root, leaf, stem, flower)
- What is the function of the circulatory system?
- What is the function of the digestive system?
- What is the function of the nervous system?
- What is the function of the respiratory system?

Core Ideas

Please add your Enduring Understandings by clicking on the Lists tab above.

- A system can be described in terms of its components and their interactions.
- Construct an argument with evidence, data, and/or a model
- Different sense receptors are specialized for particular kinds of information, which may be then processed by the animal's brain. Animals are able to use their perceptions and memories to guide their actions.
- Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction.
- Use a model to test interactions concerning the functioning of a natural system.

Content

Students will be able to:

- explore the functions of internal and external plant structures
- examine how plant structures aid in growth, survival, behavior, and reprodcution

- learn how different plant structures work together as a system
- explore the functions of internal and external structures of animals
- examine how animal structures aid in growth and survival
- learn about how different senses work

Resources

- HMH Science Dimensions textbook
- ActivBoard flipcharts
- Labs Activities
- United Streaming videos
- Brainpop
- Newsela