



**Course Overview**

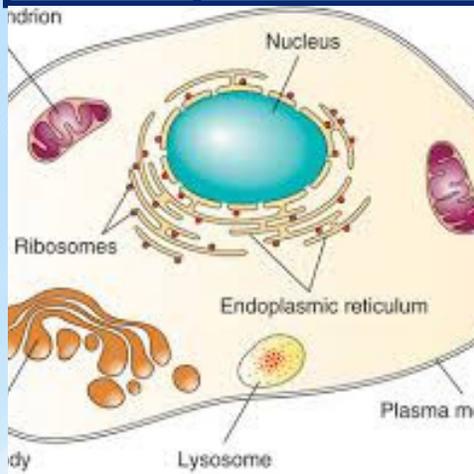
The 6th Grade Life Science course introduces students to the structure, function, and processes of living organisms. Aligned with Pennsylvania STEELS standards, this year-long program encourages students to explore cellular biology, ecosystems, genetics, and evolutionary principles through interactive lessons, labs, and scientific inquiry.

**Unit Title**

**Structure and Function of Living Things**

**Time Frame**

6 Weeks



**Focus of the Unit**

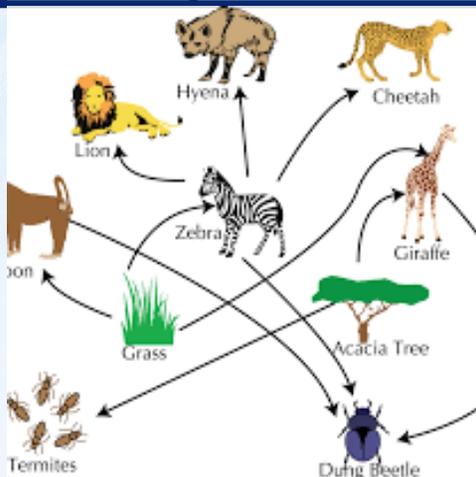
- Cells and Their Functions
- Organization of Living Systems

**Unit Title**

**Matter and Energy in Organisms and Ecosystems**

**Time Frame**

7 Weeks



**Focus of the Unit**

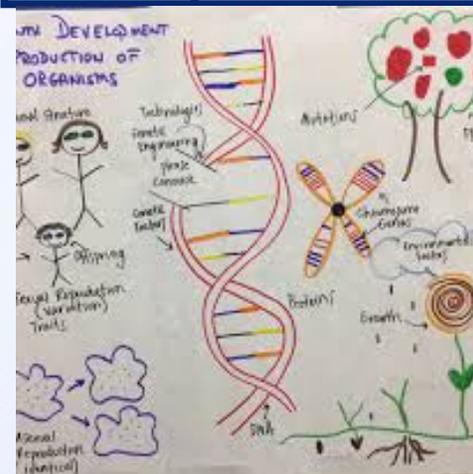
- Photosynthesis and Cellular Respiration
- Ecosystem Dynamics

**Unit Title**

**Growth, Development, and Reproduction of Organisms**

**Time Frame**

6 Weeks



**Focus of the Unit**

- Reproduction and Genetics
- Inheritance and Variation of Traits

**Unit Title**

**Natural Selection and Adaptations**

**Time Frame**

5 Weeks



**Focus of the Unit**

- Evolutionary Evidence
- Natural Selection

<b>Unit Title</b>	<b>Structure and Function of Living Things</b>
<b>Time Frame</b>	6 Weeks



**INNOVATIVE**  
ARTS ACADEMY

	<b>Essential Question(s)</b>
	<p>What is the basic structure of living organisms?          How do the structures within cells contribute to their functions?          How are cells organized in the human body?          How do our senses help us understand and interact with our environment?</p>

	<b>Focus of the Unit</b>
	<p>Explore how cells work and how the body is organized.</p>

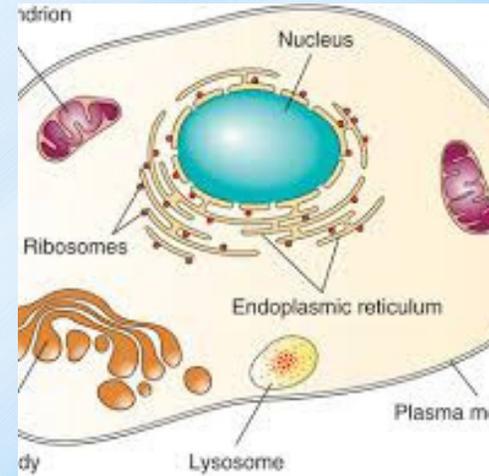
<b>Standards</b>	<p><b>3.1.6-8.A: Understand that all living things are made of cells. 3.1.6-8.B: Structure and function of organelles</b>  <b>3.1.6-8.C: Organization of living systems 3.1.6-8.H: Sensory receptors and stimuli</b></p>
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<b>Learning Targets</b>
I can explain that all living things are made of cells.

<b>Learning Targets</b>
I can explain how our senses use receptors to respond to stimuli.

<b>Learning Targets</b>
I can compare plant and animal cells and describe how the body is organized into systems.

<b>Learning Targets</b>
I can describe the functions of major organelles in plant and animal cells.



<b>Resources</b>	<p>McGraw Hill Inspire Science textbook, digital tools like Google Slides and Schoology, fun activities like 3D cell models and labs, and interactive games like Kahoot to explore how cells and body systems work.</p>
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<b>Unit Title</b>	<b>Matter and Energy in Organisms and Ecosystems</b>
<b>Time Frame</b>	7 Weeks



**INNOVATIVE**  
ARTS ACADEMY

	<b>Essential Question(s)</b>
	<p>How do plants make food?          How do organisms use energy?          What happens when organisms interact?          How do humans affect ecosystems</p>

	<b>Focus of the Unit</b>
	<p>Explore how energy is produced, used, and transferred within organisms and ecosystems, and how human activities can impact these natural processes.</p>

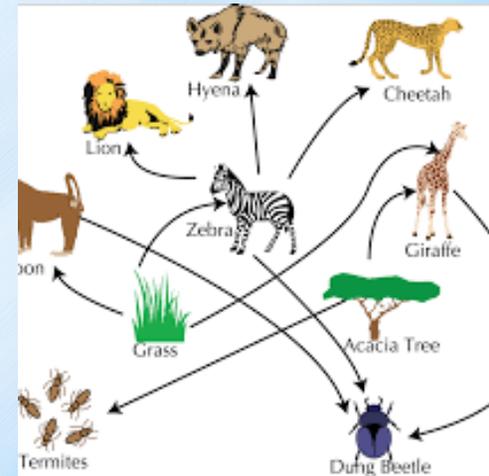
<b>Standards</b>	<p>3.1.6-8.F: Explain how plants make food using sunlight.          3.1.6-8.I: Analyze how resources affect populations.          3.1.6-8.K: Show how matter and energy move in ecosystems.</p>	<p>3.1.6-8.G: Explain how organisms get energy from food.          3.1.6-8.J: Predict how organisms interact in ecosystems.          3.1.6-8.L: Evaluate how humans impact ecosystems.</p>
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<b>Learning Targets</b>
I can explain how plants make their own food through photosynthesis.

<b>Learning Targets</b>
I can describe how organisms get and use energy from food.

<b>Learning Targets</b>
I can model how matter and energy move through an ecosystem.

<b>Learning Targets</b>
I can evaluate how human activities impact ecosystems.



<b>Resources</b>	<p>McGraw Hill Inspire Science textbook, digital tools like Google Slides and Schoology, fun activities like photosynthesis labs and ecosystem simulations, and interactive games like Kahoot to explore how energy flows and organisms interact in ecosystems.</p>
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Unit Title

# Growth, Development, and Reproduction of Organisms

Time Frame

6 Weeks



# INNOVATIVE

ARTS ACADEMY

## Essential Question(s)



What are the differences between asexual and sexual reproduction?  
How are traits passed from parents to offspring?  
How do the environment and genetics affect an organism's growth?  
What adaptations help organisms reproduce successfully?

## Focus of the Unit



Explore how organisms grow and develop, how traits are inherited through reproduction, and how both genetic and environmental factors influence these processes.

Standards

3.1.6-8.D: Adaptations and reproduction  
3.1.6-8.M: Genes and mutations

3.1.6-8.E: Environmental and genetic influences  
3.1.6-8.N: Types of reproduction

## Learning Targets

I can compare asexual and sexual reproduction and explain their effects on genetic variation.

## Learning Targets

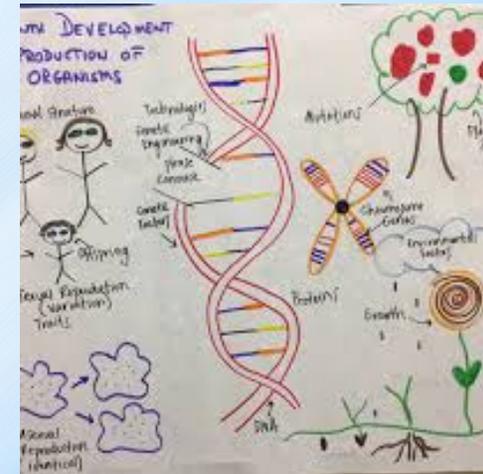
I can describe how traits are inherited and what causes mutations.

## Learning Targets

I can explain how both genes and the environment influence growth and development.

## Learning Targets

I can describe how behaviors and structures support reproduction in organisms.



Resources

McGraw Hill Inspire Science textbook, digital tools like Google Slides and Schoology, fun activities like Punnett square labs and plant growth experiments, and interactive games like Kahoot to explore how traits are inherited and how organisms grow and reproduce.

<b>Unit Title</b>	<b>Natural Selection and Adaptations</b>
<b>Time Frame</b>	5 Weeks



**INNOVATIVE**  
ARTS ACADEMY

	<b>Essential Question(s)</b>
	<p>What evidence supports the theory of evolution?          How does natural selection help species survive in their environments?          How do traits become more or less common in a population over time?          Why is biodiversity important for ecosystem health?</p>

	<b>Focus of the Unit</b>
	<p>Explore how species change over time, how certain traits help organisms survive and reproduce, and how evidence from fossils and anatomical structures supports the theory of evolution.</p>

<b>Standards</b>	<p><b>3.1.6-8.O: Fossil evidence of evolution</b>  <b>3.1.6-8.Q: Patterns in structures</b>  <b>3.1.6-8.T: Math in trait analysis</b></p>	<p><b>3.1.6-8.P: Anatomical similarities</b>  <b>3.1.6-8.S: Natural selection</b>  <b>3.1.6-8.U: Biodiversity and sustainability</b></p>
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<b>Learning Targets</b>
I can explain how fossils provide evidence of how species have changed over time.

<b>Learning Targets</b>
I can compare anatomical structures to identify evolutionary relationships.

<b>Learning Targets</b>
I can describe how natural selection affects which traits become more common in a population.

<b>Learning Targets</b>
I can explain how biodiversity supports the health and stability of ecosystems.



<b>Resources</b>	<p>McGraw Hill Inspire Science textbook, digital tools like Google Slides and Schoology, fun activities like fossil timeline building, natural selection simulations, and trait frequency graphs, and interactive games like Kahoot to explore how species adapt and how natural selection shapes populations.</p>
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