

# Unit 5: Genetics

## Lesson Plan 5-1A

<b>Disciplinary Core Areas</b>	<b>From Molecules to Organisms: Structures and Processes</b>  <b>Heredity: Inheritance and Variation of Traits</b>
<b>NGSS:</b>	<ul style="list-style-type: none"> <li>• <b>MS-LS1-4</b> Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.</li> <li>• <b>MS-LS1-5</b> Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.</li> <li>• <b>MS-LS3-1</b> Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism.</li> </ul>
<b>Lesson Title</b>	Introduction to Genetics
<b>Lesson Number</b>	5-1a
<b>Learning objectives:</b>	<ul style="list-style-type: none"> <li>• Describe animal behaviors that increase the probability of reproduction</li> <li>• Explain how specialized plant and animal structures increase the probability of reproduction.</li> <li>• Explain a cause and effect relationship between traits and the probability of successful reproduction/survival of the species.</li> </ul>
<b>“I can” statement:</b>	I can explain why plants and animals have different physical traits in order for the species to survive.
<b>Prior Knowledge:</b> Cells and organism structures	

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**Vocabulary:** Genetics, heredity, traits, inherited, acquired or behavioral, DNA, organism, survival, offspring, respond.

**Summary of Activities:**

1. Distribute and complete the bell ringer activity.
2. Discuss guided notes and slideshows with students.
3. Lab Activity
4. Exit quiz

**Additional Resources:**

- Online Activities

**Assessment:**

- Bell work
- Lab Activity
- Exit quiz
- End of unit review