



Adaptations Lesson 2: “The Make”

Student Handout

Directions:

Have you ever thought about where certain traits come from? Today you’re going to choose a specific trait to research and create a filmstrip of that trait. In order to do that, you will:

1. Choose one trait of any plant or animal.
2. Research your plant or animal to find out how this adaptation came about.
3. Make a filmstrip that shows your plant or animal’s trait changing over time.
4. On your filmstrip, add:
 - A title with the name of your animal/plant and the trait you are focusing on
 - A description of how the environment has affected the development of this trait.

A sample filmstrip showing why the dark-winged moth population increased:



1. There are two types of peppered moths: moths with dark wings and moths with light wings.
2. During the Industrial Revolution, the smog from the factories killed the white lichen on the tree, making the bark appear dark. During this time, the dark-winged moths camouflaged against the dark bark.
3. Predators like birds could easily see the light-winged moths and eat them.
4. This means that more dark winged survived and mated with each other. This caused the dark-winged population to increase.



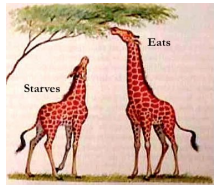
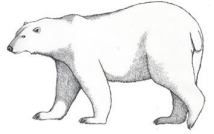



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Examples of Adaptations

Fill in the adaptation type as your teacher goes through the presentation.

	Type of Adaptation
	
	
	
	
	



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Planning Organizer

What is your plant or animal?



Describe the trait you are focusing on



**Plan out each frame of your filmstrip below by sketching the image in the top box and the text in the bottom box:
(you may add boxes if necessary!)**



Construct the final draft of your filmstrip on a separate piece of paper



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Name: _____

Date: _____

Exit Ticket: Connection to the Design

1. What is the function of the trait you chose?
2. How does it help your organism survive and/or reproduce?
3. Explain the process which made this trait become more common in your population of animal/plant over time. (Hint: how does adaptation work?)
4. How would this trait be helpful to humans?
5. Brainstorm one way we could make this trait available for human use.



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Assessment Rubric/Checklist:

Use the checklist and Science & Engineering Practices rubric to ensure you have addressed all aspects of the “Make” with quality work.

Adaptations Make Checklist: Content Concepts and Practices

- Title identifies both the name of the plant/animal and the focal trait
- Filmstrip shows change in a plant/animal population over many generations
- Annotations explain why this trait became more common in the specific environment
- Filmstrip has at least 5 frames
- Filmstrip is in color and done neatly

Science & Engineering Practices:

	Emerging (1)	Developing (2)	Proficient (3)	Advanced (4)
Developing and Using Models	Drawings, diagrams, or visual models include major misconceptions or has missing parts. Explanation of the model is minimal or not present.	Drawings, diagrams, or visual models include minor misconceptions or has missing parts. Explanation of the model is minimal.	Drawings, diagrams, or visual models are complete, but contain a minor misconception. Explanation of the model is complete but lacking complexity.	Drawings, diagrams, or visual models have no misconceptions and contain all details. Explanation of the model is complete and complex.
Constructing Explanations or Arguments From Evidence	Constructs an explanation with no clear sources of evidence.	Uses scientific principles and/or data from at least one source to construct or evaluate an explanation, but explanation contains minor misconceptions.	Uses accurate but incomplete scientific principles and/or data from multiple sources to construct or evaluate an explanation.	Uses accurate and complete scientific principles and/or data from multiple sources to construct or evaluate an explanation.