



# Genetic Adaptation

By: Amanda Martin  
Elementary school music teacher; M.A.Ed. In Curriculum and Instruction

Science  
Grades 6-8



## Introduction

Genetic variations are present in the world around us. Students will research a specific genetic variation found in an animal or insect and explain how that variation allows them to survive for longer periods of time in certain environments.

## Learning Objectives

- Students will construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment. ([NGSS- MS-LS4-4 Biological Evolution: Unity and Diversity](#))
- Students will write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content ([CCSS.ELA-Literacy.W.6.2](#))

## Materials Needed

- Journals/notebooks
- Notebook paper
- Laptops/computers

## Procedure

1. Students have been learning about the genetic variations in humans and how they allow some individuals to survive for longer periods of time. Briefly review that information surrounding human genetic variations with the class.
2. Introduce that animals and insects can also present genetic variations that increase their probability of surviving in a specific environment. As the teacher, pick one of the below animals/insects to explain to the class. Discuss its special features that enable it to survive for longer periods of time.
  - Tree colored moths, Camels, Penguins, Wood frogs, African bullfrogs, Cuttlefish, Tubeworms, Insects that look like leaves, Snakes that fly
3. Students will now pick one of the animals/insects (not previously discussed) from the list to research. Students will need access to computers or laptops to research their selected animal/insect and find its adaptations. Students will need to write down their findings. Allow students 10 minutes to research.

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4. When research is complete, ask students to write a 4-5 paragraph informative text outlining the details of their chosen animal/insect. Students may write their informative text in class (if time allows) or complete it at home as homework. Student work will be evaluated using the rubric below.

## Evaluation

Please use the following rubric to evaluate each student's essay.

Genetic Variations	4 (Excellent)	3 (Good)	2 (Okay)	1 (Needs Improvement)
The student includes an introductory paragraph.				
Body paragraph 1 includes appropriate information from research.				
Body paragraph 2 includes appropriate information from research..				
Body paragraph 3 includes appropriate information from research.				
The student includes a paragraph of conclusion.				
The student uses complete sentences with appropriate capitalization, grammar, and punctuation.				