

## Life Cycle Strategies Activity-Frankenstein Species

**Overview:** Students will create adaptations for each stage of an animal's life cycle in order to give it the ability to survive in a new habitat.

### **Materials:**

Paper

Pencils

Pictures of life cycles

Pictures of habitats

Optional: Coloring utensils

### **Outline:**

- Review the terms 'adaptation' and 'habitat' with the class.
- Split students into small groups of 4-5.
- Explain to students that each group will be receiving an example of an animal life cycle and a habitat.
  - Give each group the life cycle of one animal and a picture of a habitat that doesn't match (Ex: A polar bear's life cycle and a picture of a jungle).
  - Ask each group, "Would this animal be able to survive in this habitat? Why not?"
- Once each group has determined that these animals aren't adapted to these habitats, explain that next step: changing something about the animal to increase their chance of surviving.
  - Pass out the life cycle strategy cards. Explain that they will be adding an adaptation to each stage of the life cycle so that the animal can survive in its new environment.
  - Show an example of changing the life cycle up on the board. (Ex: Adult polar bear + green fur = Green polar bear better suited to camouflage in a jungle).
- To make it more challenging, they can only give each life cycle stage up to 1 adaptation. Remind students that they are not required to give an adaptation if a certain stage doesn't need it.
- Allow students to draw a picture of their animals with their new adaptations. They can use their journals, or a separate piece of paper. Feel free to let them present a drawing as a group, or work on their own drawings.
- Afterwards, students can present their groups life cycle with their new adaptations to the class. They should be able to explain why they gave each stage that specific adaptation and how it will be able to survive now.
  - Ask students: "How does your animal look now? Is it a lot different than when you started? Did each of your life cycle stages have the same adaptation or different adaptations?"
- Review the importance that animals inherit certain traits that increase their chance of survival. Allow students to make arguments from evidence of the challenges animals would face if a habitat, or an inherited trait changed suddenly. Ask: Can organisms survive if a habitat changes? What if more animals are introduced to that habitat?

## **Life Cycle Strategies Activity: Animal Mash-Up**

**Purpose:** Students will be able to create a “new” animal, and gain a deeper understanding of the word “adaptation”. Students will be able to compare and contrast other “new” traits to animals depending on habitat with each other.

**Overview:** Students will be given an outline of an animal, and a general habitat that may or may not match the animal. Using various art tools, students may add different physical traits or adaptations to the animal in order to make it fit in the given habitat.

### **Materials**

Coloring pages of animals

Habitat pictures

Your choice of art tools (colored pencils, crayons, markers, paint, tissue paper, etc.)

### **Outline:**

- Review how animals have certain inherited traits based on survival on a specific habitat.
- Ask: Why do some animals live in different habitats? Can all animals live in all kinds of habitats?
- Hand out an outline shadow of an animal of your choice (this could be an outline from a book, from a website, or a previous drawing from students). Then, using various habitat pictures, hand out a habitat to each individual student, or small groups.
- From there, explain to students that the goal is to modify the animal to match the habitat given to them. This means that students can either draw, write, or creating new features to help this animal live in the habitat given.
  - Example: a Bald Eagle outline and an ocean habitat. What will the Eagle need to survive out in the ocean?
  - Using various art tools, students may modify their animal outline, until they feel that they have successfully given the animal what it needs to survive.
- Allow students to share their modifications, explaining what led them to modifying the animal based on the habitat given.