

Title: Adaptations 2 & 3

Grade: 2nd	Date of Delivery: 4/22/19
Unit: Ecology 201	Time: 2 x 45 min (number of lessons and minutes. E.g. 2 days/50 min periods)

Unit overview and background information:

Nature forms a complex web connecting the living to the nonliving. Our garden as a whole functions as an ecosystem and the better we care for it as a whole, the more it will produce for us. A large ecosystem is made up of several smaller ecosystems and within each dozens of different habitats. In order for our students to begin to understand how the entire garden functions they first must care for our habitats.

Objectives:

- SWBAT match animals to their habitats and explain how animals are suited for their habitat
- SWBAT build a healthy habitat

Academic component:

In our garden we define habitats as places where living things make a home. In order to be healthy, all habitats must have 4 components: food, water, air, and shelter. At the same time each organism has special characteristics that help it survive and thrive there. Each organism fits in a certain habitat and the other organisms there rely on its presence. Camouflage is one way animals have adapted, but there are many others as well.

Key Academic and Culinary Vocabulary (intentionally taught)	Secondary Vocabulary (language used in other classes; increase exposure)
Adaptation - a special feature that helps a plant or animal survive	

DAY 2

Key Preparation/Materials:

- Beak materials (4 of each): plastic spoons, unbent paper clips, straws, popsicle stick, pipe cleaner (bent to make a type of tweezers)
- 4 Large wide pans or bowls with rubber bands and beans
- Adaptation worksheet (see below)
- [Garden animal cards](#)

Lesson Flow

Driving Question: How do our garden animals survive in our garden?

Lesson Intro - Engagement/Inquiry: (10min)

Explain that today, again, you will all become imaginary birds. You are all hungry birds and each has a different beak. Pass out the different beaks. Split your group into 2 groups, each with their own space or at their own table.

Explain that the food in your habitat is either “bugs” (beans) or “worms” (rubberbands). Are you ready to eat?!

Have students put 1 hand behind their back. They are only allowed to use the “beak” in the game. Place pans/bowls out in front of each group and allow them to hunt.

Call time.

Which beaks were best adapted for this prey? Why? Which ones didn’t work and why? Which birds will survive? What did they have that allowed them to survive?

Explain that this is an example of an adaptation.

Body - Exploration: (25min)

Explain how in last class we saw that some animals have camouflage to help them survive in their habitat. Camouflage is an example of adaptations. What other adaptations do animals have?

Pair work:

In pairs students will list out possible adaptations that might help animals get food, avoid danger, or live in a certain climate? (See worksheet below)

Share out

Take a walk in the garden and observe 2 different habitats focusing on the adaptations that creatures have (plant and animal). At each spot select the picture cards of the animals that reside there. Then identify the adaptations these creatures have for their habitat.

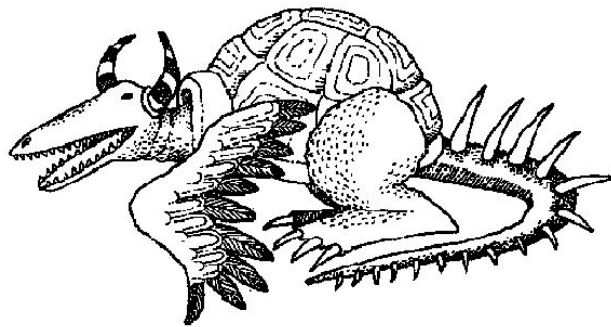
Closing - Final check for Understanding/Summarization: (10min)

Each student is given a set of 4 animal cards and holds a card up to their partner. If the partner can name the animal, its habitat, and what adaptation helps it survive there then that student wins the card and adds it to their stack. Then the other partner gets a turn to try to win one back. Students continue like this and can switch partners.

Adaptations help living things survive in their habitat.

What adaptations do our garden animals have?

Adaptations to help animals get food.	Adaptations to help animals avoid danger.	Adaptations to help animals live in their environment.
Long tongue	Stingers	Gills



DAY 3

Key Preparation/Materials:

- Toy insects - 4 per group
- [Garden animal cards](#)
- Paper and crayons OR playdoh

Lesson Flow

Driving Question: How do our garden animals survive in our garden?

Lesson Intro - Engagement/Inquiry: (10min)

Reveal one of the toy insects

Pair Share

How does this animal get food?

How does it avoid danger?

What helps it survive in its environment?

Explain that these are all adaptations

Body - Exploration: (25min)

Explore habitats in the garden.

Pairs of students are given a set of animal card. One student fans them out. The other picks one, goes to that habitat, tries their best to locate it and identifies one adaptation it has to survive there.

Find animals and plants and identify adaptations

Closing - Final check for Understanding/Summarization: (10min)

Students will draw an imaginary organism with 3 special adaptations (drawing or with playdoh) for one extreme habitat: dessert, ice world, bottom of the ocean,