

# BUILD A CRITTER



## Description:

Students use knowledge gained to design their own creature adapted to survive in an urban habitat.

## Objective:

Students will reinforce concepts related to animal adaptations and habitat. Students will apply knowledge gained in a creative way to design a model.

## Standards:

### All Grades

- LA.X.1.5 - Acquire new academic and content-specific grade-level vocabulary, relate to prior knowledge, and apply in new situations.

### Kindergarten

- SC.K.7.2.C - Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.

### 2nd Grade

- SC.2.7.2.C - Make observations of plants and animals to compare the diversity of life in different habitats. Assessment does not include specific animal and plant names in specific habitats.

### 3rd Grade

- SC.3.7.2.C - Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

### 5th Grade

- SC.5.8.2 - Gather and analyze data to communicate understanding of matter and energy in organisms and ecosystems.

## Materials:

- Pipe cleaners
- Video
- Copies of student page



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## Background Info:

During the last several activities, students learned about the features and adaptations of several groups of urban animals, including insects, spiders, birds, and mammals. They also learned about habitats and ecosystems. Here is a brief review:

- Insects have 6 legs, 3 main body parts, 2 antennae, sometimes wings, and compound eyes.
- Spiders have 8 legs, 2 main body parts, spinnerets to spin webs, and mandibles.
- Bird beaks are adapted to allow birds to eat specific foods.
- Mammal teeth are adapted to allow mammals to best chew and eat their food source.
- Predator animals usually have their eyes facing forward to best see depth so they can more easily catch their prey.
- Prey animals usually have eyes on either side of their head (facing left and right, not forward) so they can more easily spot predators who might attack them.
- A habitat is a place where an animal lives that provides them with food, water, shelter and space.
- An ecosystem is comprised of all the biotic and abiotic factors in an area. **National Geographic** describes an ecosystem as *“the interaction between organisms living together in a particular environment. This definition encompasses both biotic and abiotic factors, such as water, climate, and soil. Additionally, ecosystems are defined by the flow of energy and nutrients throughout the system.”*



## Activity:

1. Remind students of the animals they learned about and the animals they saw during their outdoor explorations.
2. Remind students of the 4 elements of a good habitat: food, water, shelter, space.
3. Give each student 2-3 pipe cleaners.



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## Activity continued:

4. Instruct students that they will be designing an animal that could survive in the habitat around your school or their home. Encourage them to think of the water, food, shelter, and space resources available.

5. After considering what sort of an animal they want to design, they should bend their pipe cleaners into the shape of their creature. This creature will likely have elements of real animals (6 legs if it's an insect, wings if it's a bird, etc.) but should be fictional.

6. Once their animal is complete, students should use the student page to articulate the adaptations their animal has to survive in their habitat. Encourage students to draw their answers if they cannot write them. If time allows, students can present their animal to the class.



## Suggested adaptations:

- Take students outside to place their critter in its “natural” habitat. Take a walk as a class to each student’s critter and allow students to present about their critter in its habitat.
- Encourage students to design a diorama or scene to show their critter’s shelter. Put these scenes on display in your classroom.
- For older students, consider the larger ecosystem. Encourage students to work in small groups to design critters that create a food chain.

## Assessment:

- Pipe cleaner critters
- Completed student sheets

