

# Discover!

# Science

**SAMPLE  
PDF**

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**INSTRUCTOR GUIDE**



# Characteristics of Animals

## Lesson Objectives

By the end of this lesson, your student will be able to:

- identify the needs of animals
- explain how animals and their environments work together to survive and grow

## Supporting Your Student

**Write** (*What do you do when you are hungry, tired, or sick? Write down a list of some ways your needs get met.*)

Have your student reflect on how they communicate their needs. Many will say that they ask their parents for a snack or ask them what is for lunch. Others may say they will look in the pantry and pick out their own snack. Ask, “How do you tell someone you are tired? Do you crawl into bed? Do you just fall asleep on the couch?” These kinds of questions are usually relatable, and your student will have a lot to say. When they are hurt or sick, most children will talk about the doctor’s office. To support your student, remind them that humans have needs that need to be met to survive. This could include help from parents, the doctor, or other trusted adults, as well as kids doing things themselves.

**Write** (*Why would a polar bear have a hard time living in the desert? Write your answer on the lines below.*)

To support your student, talk about what it is like at the North Pole. Have your student think about the kinds of things they do to play outside in the cold. They will likely say they wear a jacket, hat, or mittens. Explain that a polar bear does not need to wear those things in the cold because it has thick fur and is made to live in the cold. You may need to guide your student’s thinking by asking how they would feel in their coat, hat, and mittens in the hot sun. They will likely say they would be uncomfortable, sweating, and wanting to take off the hot layers of clothing. Explain that a polar bear cannot take off his coat. A polar bear would not be able to live and grow in a warm place.

## Take a Closer Look (*Building a Nest*)

This is a great activity to go outside and interact with your student’s outdoor environment. Have your student walk around and collect small materials found outside. This could be small rocks, sticks, twigs, dandelion fuzz, mulch, candy wrappers, or string on the ground. It is easiest to collect them all in a bag.

Then look at what they collected. Have your student draw a sketch of how they will design their nest and put the materials together. Remind your student that birds do not have glue or tape to put their nests together. Support your student by guiding them to other ways to adhere the nest together. This could be using mud or some kind of weaving method. Encourage your student to keep three criteria in mind: the bird has to be able to fit inside the nest, the materials are from the environment, and the nest must stay together when picked up. After the sketch, your student can build their nest!

After your student has completed a nest, make sure to ask about the design. What changes would they make? What was easy or difficult to do?

## Learning Styles

**Auditory learners** may enjoy discussing animals and their needs, hearing read-aloud books about an animal, or talking about how that animal is getting their needs met and how the animal is interacting with the environment to live.

**Visual learners** may enjoy drawing a picture of an animal and how it gets its needs met and labeling needs like food, water, shelter, and room to grow.

**Kinesthetic learners** may enjoy creating a diorama of an animal’s habitat and environment, illustrating where it would get its needs met by building details into the diorama.

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## Extension Activities

### Animal Neighbors

Many different animals live in the same environments, but they all get their needs met in different ways. They interact with the area around them differently from each other. Take a walk and discuss how different animals all live in the same places but find different food and shelter. Do they get some needs met in the same way? Have your student draw a picture of the animals they thought of and how they all live together.

### Build a Bird Feeder

Sometimes humans help animals meet their needs in their environment. Having your student make a bird feeder is one way to provide food for birds when it might be hard to find, like in winter.

**Materials:** a toilet paper tube, a spoon, honey, birdseed, string, scissors, a paper plate

### Directions:

Have your student follow these steps:

1. Take a spoon and spread honey all over the surface of a toilet paper tube.
2. Pour birdseed onto a paper plate.
3. Roll the toilet paper tube in the birdseed enough to cover the tube in birdseed.
4. Cut a piece of string or yarn so that it can fit around the toilet paper tube.

Have your student hang the bird feeder in a tree and watch the birds come to eat! This is a great way to get to know and observe the birds that live in their environment and understand how they get their needs met.

## Answer Key

**Write (What do you do when you are hungry, tired, or sick? Write down a list of some ways your needs get met.)**

Answers will vary. Possible answers: When I am hungry, my parents get me something to eat. When I am tired, I take a nap in my bed or go to bed for the

night. When I am sick, I take medicine, rest, or go to the doctor.

**Write (Why would a polar bear have a hard time living in the desert?)**

Answers may vary. Possible answers: A polar bear has thick fur and relies on ice and snow for its survival. It would be very hot and have a hard time meeting its needs in the desert.

**Take a Closer Look (Building a Nest)**

Answers will vary based on the nest.

### Show What You Know

1. A, B, C, E
2. food
3. Answers will vary. Possible answer: The owl is using the hole in the tree as shelter to protect himself from the environment. It could also be a form of camouflage to protect him from predators or allow him to sneak up on his prey.