

### UNIT OVERVIEW

The world is full of many types of animals. Animals share many common needs, but they also have diverse habits and characteristics. The Animals unit helps students discover what makes animals similar and what makes them different. Topics include various habitats, diets, body parts, movement, special abilities, and more.

Certain reading resources are provided at three reading levels within the unit to support differentiated instruction. Other resources are provided as a set, with different titles offered at each reading level. Dots on student resources indicate the reading level as follows:

- low reading level
- middle reading level
- high reading level

### THE BIG IDEA

Understanding the diversity among animals helps us appreciate and enjoy the uniqueness of all creatures. We may also think about how we treat animals and how we as humans fit into the animal kingdom.

#### Other topics

This unit also addresses topics such as: adaptations for survival, defense mechanisms, and humans as animals.

### SPARK

The spark is designed to get students thinking about the unit's topics and to generate curiosity and discussion.

#### Materials

- posters or large photographs of various animals, including one human
- posters or large photographs of plants or things made from plant parts
- posters or large photographs of non-living things

#### Activity

Mix the order of the posters. For each poster, invite a volunteer to come forward and hold it up until students are holding up as many posters as you want the rest of the class to see. Call on students to name the subject of each poster.



Below are questions to spark discussion.

*Which of these pictures shows an animal? How can you tell?*

*Why isn't a \_\_\_\_\_ an animal?*

*How are all these animals alike?*

*How are these animals different?*

*What does an animal need that the other things do not need?*

*Are people animals? Why or why not?*

During discussion, you can have the students holding the posters move into groups such as animal/not an animal or other classifications.

Many of the unit's vocabulary terms are related to the spark activity and can be introduced during the spark. For vocabulary work, see the Vocabulary section in this *Unit Guide*.

## PRIOR KNOWLEDGE



Invite students to explain what they know about different types of animals.

### Probing Questions to Think About

Use the following questions to have students begin thinking about what they know about animals.

- What do animals need to live?
- Where do animals live?
- What do animals eat?
- How do animals move? (Encourage demonstrations.)
- What do animals feel like when you touch them?
- What sounds do animals make? (Encourage demonstrations.)

Tell students they will learn more about these topics soon.

## UNIT MATERIALS

Each unit provides a wide variety of resources related to the unit topic. Students may read books and other passages, work in groups to complete hands-on experiments and investigations, discuss science ideas as a class, watch videos, complete writing tasks, and take assessments.

Resources are available for printing or projecting, and many student resources are also available for students to access digitally on [Kids A-Z](#).

Selected unit resources are available in more than one language.

For a complete list of materials provided with the unit, see the Animals unit page on the Science A–Z website.

## VOCABULARY



Use the terms below for vocabulary development throughout the unit. They can be found in boldface in the *Nonfiction Book*, the *Quick Reads*, and/or other unit resources. These terms and definitions are available on *Vocabulary Cards* for student practice. Additional vocabulary lists are provided in the teaching tips for *Investigation Packs* and *FOCUS Books*.

**Core Science Terms**

These terms are crucial to understanding the unit.

<b>animals</b>	living things that can move from place to place and have to eat plants, other animals, or both
<b>baby</b>	a very young animal that can grow into an adult animal
<b>body</b>	all of the parts an animal is made of
<b>body covering</b>	the outer layer of an animal's body
<b>change</b>	to become different
<b>color</b>	any shade or mixture of shades made when light reflects off something
<b>different</b>	not the same
<b>grow</b>	to get bigger
<b>habitat</b>	the place where an animal lives
<b>same</b>	alike; similar; not changing
<b>shape</b>	how something looks around the outside
<b>size</b>	how big or small something is
<b>skin</b>	the outside layer of tissue on an animal's body

**Other Key Science Terms**

The following vocabulary is not essential for comprehending the unit but may enrich students' vocabulary.

<b>claws</b>	hard, curvy nails on the ends of the fingers or toes of some animals
<b>flexible</b>	able to bend without breaking
<b>fresh water</b>	water found in most rivers, lakes, and ponds
<b>fur</b>	the hair that covers the body of most mammals
<b>hatch</b>	to break out of an egg
<b>human</b>	a person
<b>muscle</b>	part of a body that helps it move by getting tight or loose
<b>salt water</b>	water found in oceans and seas

<b>scales</b>	thin, flat plates that cover many fish and reptiles
<b>shed</b>	to get rid of skin, feathers, hair, or horns
<b>shell</b>	a hard cover on the outside of some animals' bodies or their eggs that protects them
<b>survive</b>	to stay alive or continue to exist
<b>talons</b>	claws on the feet of birds like owls and hawks
<b>teeth</b>	hard, white, bony objects in the mouth used to bite and chew food

### Vocabulary Activities

You may choose to introduce all the terms that will be encountered in the unit before assigning any of the reading components. *Vocabulary Cards* with the key science terms and definitions are provided. Dots on the cards indicate the reading levels of the *Nonfiction Book* or the *Quick Reads* in which each term can be found. If all level dots appear, the term may come from another resource in the unit. Students can use these cards to review and practice the terms in small groups or pairs. The cards can also be used for center activity games such as Concentration.

The *Word Work* activity sheets offer fun puzzles and practice with key vocabulary terms from the unit. For further vocabulary practice and reinforcement, you can choose from the vocabulary *Graphic Organizers*. To build customized vocabulary lessons with terms related to the topic, see [Vocabulary A-Z](#).

Students can use the *Word Smart* vocabulary *Graphic Organizer* to organize information on the science terms. You may want to assign each student one to three words to share his or her *Word Smart* knowledge with classmates. Students who have the same word should first compare their *Word Smart* sheets with each other and then report to the larger group.

The science terms can be used in oral practice. Have students use each term in a spoken sentence.

As students read, encourage them to create a science dictionary by recording new vocabulary terms and definitions in their *SAZ Journal*.

### BACKGROUND AND MISCONCEPTIONS

Use this section as a resource for more background knowledge on unit content and to clarify the content for students if misconceptions arise. Refer to Using the Internet below for more ways to extend the learning.



*Q: Is that thing really an animal?*

**A:** There are many types of animals. Students may think that the word *animal* only refers to the four-legged kind or to common pets. But there is almost limitless diversity in the animal kingdom, including some creatures (such as fish, insects, crustaceans, and arthropods) that may not seem like animals at first glance.

*Q: Are plant-eating animals calmer than meat-eating animals?*

**A:** Animals come in various dispositions, regardless of their diet. Some plant eaters, including rhinoceroses and hippopotamuses, are relatively aggressive, while some meat eaters eaters, such as domestic cats and emperor penguins, are relatively passive. Students may make incorrect generalizations because of limited experience or an erroneous assumption that meat eaters are mean because they must kill other animals in order to survive.

*Q: Am I an animal?*

**A:** Students may have an understanding of things that make humans different from animals. But they may not realize that humans are animals, in a scientific sense. Humans share the essential needs and characteristics of all animals. For some purposes, it can be useful to make a distinction between humans and other animals. Students should know what it means when they hear “no animals allowed,” referring to pets. They should also be able to see what humans and animals have in common and why *animal* could be used as a broader category that includes humans.

*Q: Did that animal decide to be that way?*

**A:** Animal species—not individual animals—adapt to their environments over many generations due to random mutations and the survival and continuation of genes. Students may think that animals adapt to their environment through deliberate choices. For example, they may think that giraffes grow longer necks in order to reach leaves that are higher in trees. Make sure students understand that bears don’t decide how to dress for a purpose; they are just born that way.

*Q: Are certain animals mean and are others nice?*

**A:** Some literature and pop culture may affect students’ thinking about an animal species. For example, many stories and movies have painted negative images of wolves and sharks that may not be realistic. The reverse may be true as well. For example, some bears are portrayed in fiction as cuddly and personable, but in nature they behave quite differently.

EXTENSION  
ACTIVITIES

## Using the Internet

Most search engines will offer a wealth of options when the name of an animal species is entered. Try searching by species or location, or pairing the word *animals* with related terms from the unit. Be aware that some sites may not be educational or intended for the elementary classroom. More specific inquiries are recommended, such as:

- sea lion diet
- turtle body coverings
- Idaho animals
- giraffe habitat
- how snakes move
- animals of Australia



## Projects and Activities

- **Writing:** Write a class list of rules for how to treat animals in general or have groups write rules for one animal specifically.
- **Writing:** Brainstorm foods eaten by many animals. Write a funny class menu—to include breakfast, lunch, dinner, drinks, and desserts—made up of foods that animals would eat (for example, Grassy Pancakes, Pond Water Float, or Gopher Meatballs on Worm Spaghetti).
- **Arts:** Decorate a classroom door as an animal or as a montage of animals.
- **Arts/Writing:** Combining one distinctive feature from five different animals, have each student draw and name their new creature (for example, Flying Kitypotamus). They may also enjoy writing or dictating a story or poem about it.
- **Project:** Build a mock animal habitat in the classroom, such as a bird's nest made of real twigs or a bear's den made from covered cardboard boxes.
- **Project:** Create an all-animal newscast. The reporters will be animals, and all stories will pertain to animals, whether fictional or real. Videotape the live performance for later viewing.
- **Field Trip:** Plan a trip to a local zoo or wildlife center. Take photos or provide art materials so students can create pictures of their favorite animals. Back in class, display these on a bulletin board. Use them for further comparisons of animals.
- **Research:** Using comic pages, clip cartoon images of an animal, then find a photo of the same animal in a magazine or from the Internet. As a class or in small groups, compare and contrast on T-charts ways they are the same and ways they differ.
- **Research:** Students can create mobiles, dioramas, or posters displaying information about their favorite or assigned animals. Research can be conducted as a family/home project or in the library/media center.

- **Arts:** Hold an animal dance. Play fun music and invite students to dance as would the animal of their choice or an animal drawn out of a hat.
- **Research/Home Connection:** Students can conduct research as a family/home project or in the library/media center to extend the learning about a topic in one of the *Quick Reads* or other unit resources.

