

Mammals Unit Lesson 1: Characteristics of All Mammals

OVERVIEW Students will analyze images of different land and water based mammals to determine some of their main characteristics.

OBJECTIVES At the end of this lesson, students will be able to identify that all mammals have hair, feed their live offspring with milk, have a backbone, and are warm-blooded.

VOCABULARY mammal, warm-blooded, backbone, mammary glands

MATERIALS PowerPoint Presentation Mammals Unit Lesson 1

Engage		
Teacher Says/Does	Probing Questions	Student Responses
Show students the slide with several different mammals on it. (Mammals Lesson 1 Slide 2)	<i>Turn to your neighbor and brainstorm all the things these animals have in common.</i>	
Make a list on the board of all of the similarities between the animals on the screen.		
<i>These animals are all called mammals. Today we are going to talk about a few of the things that all mammals have in common. (If the class listed the four characteristics from the objectives, circle them on the list. If not, you can add them as you talk about them.)</i>		

Explore/Explain		
Teacher Says/Does	Probing Questions	Student Responses
<i>All mammals have hair or fur. Some have a little, and some have a lot.</i>	<i>Turn to your neighbor and brainstorm a very furry mammal and a not so furry mammal.</i>	Furry: Monkey, Dog, Cat, etc. Not furry: Human, elephant
Show images of mammals with varying amounts of hair. (Mammals Lesson 1 Slide 3)	<i>Why do you think mammals need hair or fur?</i>	To keep warm, to look pretty, etc.
<i>Mammals use fur or hair to keep warm. Some mammals like elephants don't have a lot of hair. Show images of elephants. Elephants live in hotter environments, so they don't need as much hair to stay warm.</i>	<i>Why don't you think elephants have very much hair?</i>	Elephants live where it is hot.
<i>Reach around behind you and touch</i>	<i>What do you feel?</i>	A backbone

<i>the middle of your neck and back.</i>		
<i>All mammals have a backbone. Our backbones and skeletons have very important jobs. They help us move. Bend over and touch your toes.</i>	<i>Can you think of some animals that can't bend over like that?</i>	Insects, crabs, clams, etc.
Show image of pig and piglets. (Mammals Lesson 1 Slide 4)	<i>What are these piglets doing?</i>	Eating, drinking milk, etc.
<i>All mammals have live young, or babies, which means they don't lay eggs. When the babies are born, the mothers feed them with milk. The milk comes out of mammary glands. Some mammals have only a few, while others have many mammary glands.</i>	<i>Why do you think the mother pig has 18 mammary glands?</i>	So many babies
Show image of turtles basking. (Mammals Lesson 1 Slide 5)	<i>Are these turtles mammals? How do you know they aren't mammals?</i>	No No hair, lay eggs
<i>These turtles are sitting in the sun because they need to warm up their bodies. Mammals are warm-blooded, which means they can keep their body temperatures constant most of the time without thinking about it. Some other animals are cold-blooded, so they have to wake up every day and lay in the sun to warm their bodies up.</i>		

Elaborate		
Teacher Says/Does	Probing Questions	Student Responses
Show image of gray whale. (Mammals Lesson 1 Slide 6) <i>This is a gray whale. Let's make some observations about whales' appearances compared to the mammals we have talked about today.</i>	<i>Turn to your neighbor and list some of the similarities and differences you see between the whale and the other animals on the screen. What did you come up with?</i>	No legs, no hair, has eyes, breathes air, etc.

<p><i>Whales are mammals, too! They have some special characteristics that make it easier for them to live in the ocean, so they look a little different than other mammals.</i></p>		
	<p><i>Do you remember the four characteristics of mammals we just talked about? What are they?</i></p>	<p>Fur/hair, live young/feed young milk, warm-blooded, backbone.</p>
<p><i>Whales have all of those characteristics! They don't have a lot of fur because it would slow them down in the water. Instead, they use blubber or fat to keep them warm. They have a few hairs on their bodies, but you'd have to be very close to see them.</i></p> <p><i>Whales don't have legs like other mammals do, but they do have a skeleton with a backbone. They even have hips! Point to hips.</i> (Mammals Lesson 1 Slide 6)</p>		

Evaluation		
Teacher Says/Does	Probing Questions	Student Responses
<p>Show images of different animals. (Mammals Lesson 1 Slide 7)</p> <p><i>Look at these different animals. Let's work together to decide if they are mammals.</i></p>	<p><i>What are the clues you can use to help you determine if these are mammals?</i></p>	<p>Fur, live babies, feeding milk, backbones</p>