Lesson Plan Overview:
Grades K-4
Mammals

SOL’s Covered:

- Science: K.7a & d, 1.5a-c, 1.7a & b, 2.5b, 2.7a, 3.5a-c, 4.5a, d & f
- Visual Arts: K.2, K.5, K.11, 1.8, 1.9, 2.4, 3.8, 4.1

Objectives:

The student will:

- List the traits that all mammals have in common;
- Identify animals that are mammals;
- Describe ways that animals deal with seasonal and weather changes and other changes in their habitat;
- Discuss and understand the difference between herbivores, carnivores and omnivores;
- Explain predator and prey relationships;
- Look at, describe and respond to 3 different mammal species.
- Understand and explain the difference between tame and wild animals;
- Create a craft project meant to show a viable habitat.

Lesson:

This lesson involves a close examination of three different species of mammals in order to help teach students about mammalian traits, predator/prey relationships, how changes in an animal’s habitat can change its behavior, as well as the differences between tame and wild animals.
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Pre-Lesson Prep:

1. Have a computer on hand to bring up images of different animals and to watch the videos.
2. Have all handouts ready to pass out.
3. Have something large to write on.
4. Have construction paper, glue sticks, construction paper crayons and scissors for habitat craft ready to take out.

The Lesson:

1. Have the child(ren) watch the Smile and Learn video on mammals on YouTube https://www.youtube.com/watch?v=O6_sRpHkQic.
2. Ask the child(ren) if they can list the characteristics that all mammals have in common.
   - Warm-blooded
   - Have hair
   - Have vertebra (spines)
   - Mammary glands (baby mammals drink milk that comes from their mothers)
3. Once they’ve had a chance to discuss these things, ask them to list as many mammals as they can think of. Give them clues and correct them as needed.
4. Once they’ve listed a nice variety of mammals, ask them if they can remember what we call the place where an animal lives.
   - Habitat
   - Then have them watch What is a Habitat? https://www.youtube.com/watch?v=CxrlEajA398
5. Have them list the things that a habitat must have in order to be a good habitat for an animal.
   - Food
   - Water
   - Air
   - Shelter
6. Now have them think about an animal’s habitat and ask them how a habitat may change. If they need help, ask them what things can happen naturally that can alter a habitat.
   - Weather changes, like rain, snow, flooding
• Forest fires
• Landslides
• Earthquakes

7. Then, ask them what some examples of man-made alterations to habitat would be.
• Deforestation
• Warfare
• Dams
• Pollution/litter

8. Once they’ve had a chance to think about these things, ask them how animals may adapt to or react to these changes.
• Hibernation
• Migration
• Change in diet
• Winter/summer coats

9. Now ask them what they think will happen to a population of animals that cannot use any of these tools to adapt to changes in their habitat.
• Death
• Extinction

10. Since one of the things animals can do to adapt is to alter their diet, tell them it seems like a good time to talk about the 3 main kinds of diets animals can have.

11. See if they can tell you what an herbivore is.
• Plant eater

12. Then ask them if they can tell you what a carnivore is.
• Meat eater

13. Finally, see if they can tell you what an omnivore is.
• An animal that eats plants and meat

14. Look up pictures or videos of chinchillas and ask the child(ren) if they think they are an herbivore, carnivore or omnivore.

15. Give them time discuss what they think and why, and then explain that chinchillas are herbivores.

16. Tell them that there are 3 main ways to easily identify herbivores and ask them if they can tell you what they are.
• Teeth for chewing plant material
• Eyes set on the sides of their heads
• Large ears

17. Hand out the sheet that shows a side by side view of herbivore, omnivore and carnivore teeth.

18. Tell them that some herbivores have the addition of large front teeth called incisors that help them gnaw on harder plants.
19. Ask them why they think herbivores have eyes on the sides of their head.
   - To allow them to watch out for predators
   - Having eyes on the sides of the head gives them an almost 350-degree view around their bodies.
20. At this point, hand out the sheet comparing carnivore and herbivore (predator vs. prey) vision.
21. Ask them what they think the large ears are for.
   - Same reason—large ears amplify sound so they can hear danger that may be nearby.
22. Now look up images or video of Flemish giant rabbits and ask the children if they think they are an herbivore or carnivore and why.
   - Herbivore
     ➢ Large ears
     ➢ Eye placement
23. Now look up images or video of ferrets and ask the child(ren) if they think they’re herbivores or carnivores.
   - Carnivore
24. Ask them how they can tell they are carnivores.
   - Eyes set in the front of the head
   - Teeth for ripping meat
   - Claws
25. See if they can tell you why predators have eyes set in the front of their heads.
   - It gives them better depth perception or the ability to judge how far away something is and what speed it’s moving, which aides in their hunting ability.
26. Now see if they know how to identify an omnivore.
27. Tell them that omnivores often look like carnivores and see if they know why.
   - Since omnivores still eat meat, they also need the traits that allow them to be effective hunters.
   - They will also have molars for grinding plant material.
28. Tell the child(ren) they’re going to use chinchillas, Flemish giant rabbits and ferrets to talk about tame and wild animals.
29. Ask them if they know what “wild” means.
   - Living or growing in its natural state without human aide or care
30. Now see if they can tell you what “tame” means.
   - Domesticated, or reliant on human beings for care
31. Ask them if they can give you some examples of both wild and tame/domesticated animals.
32. Now ask them if they think Flemish giant rabbits are tame or wild.
   - Domesticated—that breed of rabbit does not occur in the wild.
33. What about ferrets?
• Ferrets are the domesticated version of the European or Steppe polecat, a member of the weasel family found throughout Europe. They were originally domesticated to hunt rabbits for us.

34. What about chinchillas?
• Some are domesticated as pets or for fur ranches.
• There are also wild chinchillas, although they are critically endangered in the wild due to over-hunting for the fur trade.

35. Now tell them to pick a favorite mammal and to think about all the things it must have in its habitat based on its diet and other needs.

36. Hand out the construction paper, glue sticks, construction paper crayons (or whatever drawing and coloring materials you have on hand) and scissors and tell them to draw or cut out the animal and the necessary components of its habitat to create a picture.

37. Help as needed.