

TaHome Nature Education: Sensory Adventure

Grades 3-5



Reading: Human and Animal Senses

Our many senses work together to help us experience and understand the world around us, and help us to survive. Through senses, humans and other animals are able to avoid danger or harm, find food, and move their bodies. Different species can have unique or similar senses that they use in different ways.

Most people only think of the five basic human senses: sight, smell, touch, taste, and hearing. Scientists have found that animals have many more senses than this. We have senses that help us know where our body parts are without looking, so that we can walk without looking at our feet, a sense of passing of time, senses that help us feel pain, and senses that help us to determine if the place we are in is too hot or cold. These extra senses help us to survive just like our basic senses. Sensing pain helps us to avoid danger. Sensing temperature helps us avoid overheating or freezing.

Many animals often use senses that are poorly developed, or even lacking, in humans. Bats and dolphins use their sense of echolocation to locate their food. Birds, butterflies, and sea turtles can sense the magnetic fields in the earth like a compass to help them know where to fly or swim. Sharks and platypuses can sense electrical fields coming from their prey, so they can find them in murky water or just below the muddy or sandy bottom. Many animals can predict incoming stormy weather because they can sense a drop in air pressure, such as foxes and fish. Perhaps you have a parent or grandparent that can feel this pressure change in an old injury.



Kokanee Salmon



Juba Skipper

Sometimes we have a sense in common with an animal, but their sense may be different than ours. Birds, bees, and butterflies have excellent vision, and they may sense more and richer color than people do, while dogs see fewer and duller colors than most people. Salmon have an incredible sense of smell that help them to find the stream they hatched in when they return from the ocean. Scientists say moths have the most sensitive hearing, to help them escape their quiet predators.

Activities for 3-5 Grade Students

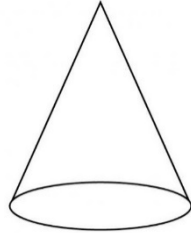
Shape Hunt

What shapes are found in nature? Are they the same shapes you see in your home? Use your sense of sight to find out.

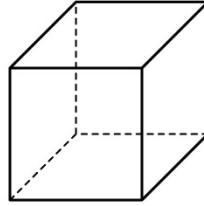
1. Draw each of these shapes on your own piece of paper. Label what each shape is.



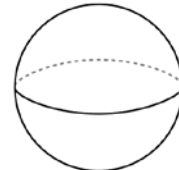
Cylinder



Cone



Cube



Sphere

2. Look around your home for these shapes. For each of the four shapes, write down at least **two** things you find that in your home that are that shape or have that shape within it. For example, you might find a ball in the shape of a sphere.
3. Next, go outside to look for shapes in nature. For each of the four shapes, write down at least **three** things you find outside that are that shape or have that shape within it. For example, you may find that a pinecone got its name from its shape.



4. Compare your lists by talking with a family member about what you found.



Nature Smells

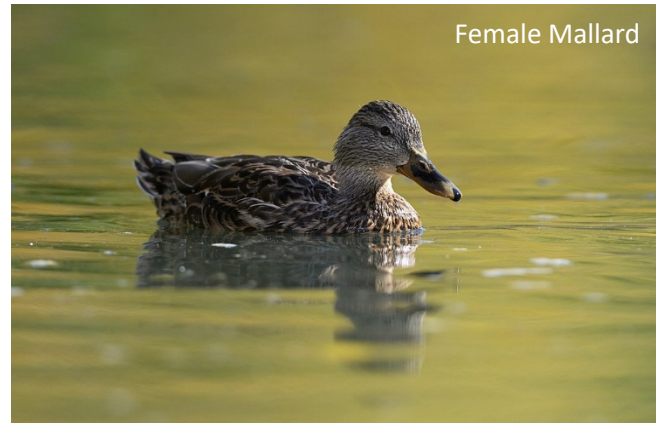
Smell has a strong connection to our memories, but to help us understand the things we smell, we often use describing words, called adjectives. For example, we might say a cookie smells sweet or that trash smells moldy. Smells help us to identify what something is and what we should do with it, like when we should take out the trash or if something is food that we can eat.

1. For this activity, find at least **five** things that have a smell you can detect in nature, such as pine needles, mud, or tree bark.
2. Write down the name of each object you find. Smell each of them, thinking about how to describe the smells.
3. Write **three** adjectives about the smell of each object. Do they smell good? Bad? Weak or strong? Do they bring up any memories for you?
4. Discuss what you found with your family or friends. Tell them your answers to these questions:
 - a. What was your favorite smell that you found? What did you like about this smell?
 - b. What smell was the strongest? Did you like the strong smell?
 - c. Do you think any of the smells you found could be food to some animal? Why or why not?



Listen to the Birds

Birds can be hard to spot, but they often are easy to hear. Ornithologists (scientists who study birds) train their ears to identify a bird based on sounds they make. One way they learn these vocalizations are by thinking of a phrase that reminds them of a bird's vocalization. For example, [Mountain Chickadees](#) are known for their CHEESE-BURGER song and CHICK-A-DEE-DEE-DEE calls. The QUACK sound we think of from a [Mallard](#) is actually only made by females. Male and female Mallards make many other sounds besides QUACK.



Female Mallard

Discussion Questions: Tell your answers to these three questions to someone in your home.

1. Do you think birds generally have better hearing than people? Why or Why not?
2. What kind of things do you think birds say to each other?
3. Do you think noise pollution, such as a busy highway or construction site, might interfere with bird communication?

Birding

1. Warm, sunny days make the best conditions for bird watching and listening, especially in the morning. Take a family member and head outside to listen for bird sounds. Bring a notebook and a pencil. Stay quiet and still.
2. When you hear a bird, focus on that one sound. Listen for things like the pattern of sound, when the sound is high or low, and whether it is repeated.
3. After listening a few times, think of words or a phrase to describe the sound you are hearing and write it down.
4. Write a phrase for at least **three** different bird sounds. If you can't hear birds, listen for other nature sounds.
5. Pick one of the sounds that you heard. Did the sound come from the trees, water, or on the ground? Was it a loud, deep sound or a small, high sound? What might these observations tell you about what this bird looks like?
6. Draw, paint, sculpt, or build your ideas about what this bird looks like. Show your family and tell them why you think it looks this way.



American Dipper



Red-breasted Sapsuckers

Touch Scavenger Hunt

Before you go exploring, predict one thing you might find in nature that has each of the textures below. Write down your predictions. For example, you might predict that a rock would be rough. In your neighborhood or backyard find one object, like a leaf, flower, or root, that has each of the textures below and write down what you find:

1. Smooth
2. Rough
3. Pokey
4. Slimy
5. Hard
6. Soft
7. Wet
8. Hairy
9. Bumpy



Balance Games



One extra sense that most people have is our ability to balance. This sense helps us to do things like walk upright, jump and land on our feet, play hopscotch, ski, and climb ladders. Many animals have great balance because they have tails, such as martens, tree weasels that use their long tails to balance as they move from tree to tree. Squirrels, mountain lions, and even beavers and elephants use their tails to help them balance. Next time you watch a squirrel or cat, note how they use their tail to balance. To improve your sense of balance, try at least two of these fun games.

Hopscotch Challenge

1. Use chalk to draw a [hopscotch challenge course](#) somewhere safe.
2. Try out the hopscotch course on one foot and then the other.
3. When this becomes too easy, try to do the challenge course with something balancing on your head, like a tissue or bean bag, without letting it fall.



Ball and Spoon Race

1. Set a start and finish line somewhere safe outside, such as from one end of a driveway to another.
2. Balance a small round object, like a golf or ping pong ball, in a spoon.
3. Race with a partner or two from start to finish without dropping your ball or object.

Balance Juggling

1. Stand on your left leg and raise your right leg so your right knee is bent and as high as your hip.
2. Hold a ball in your right hand.
3. Toss the ball with your right hand over your right knee, and quickly move your right hand under your raised knee to catch the ball.
4. Keep practicing and then try it on your other side.

Create your own balancing challenge and practice with your family.



Further Learning

Watch [this video](#) and use the lesson materials below the video on how animal senses work.

[Read](#) about five animals and their amazing senses.

Learn about the five basic senses in [this video](#) and take a quiz to test your knowledge.

Watch [this video](#) and use the lesson materials below the video to learn more about the five basic senses.

Play this [balancing Twister game](#).