

1st Grade Activity: Animal Noses

Animals have many amazing adaptations that help them survive. Brown bears, California condors, and snakes all have noses like us, but how they smell and use their noses is very different from how we use our noses.
(NGSS Disciplinary Core Ideas 1.LS1.A and 1.LS1.D Structure and Function, Information Processing)

Pre-Activity Questions

- What are the 5 senses?
- What kinds of information do animals need to grow and survive?
- Do all animals smell objects the same way?

Activity

- Let's take a look at some different animals and their noses.
 - **BROWN BEARS** have arguably the best sense of smell in the animal kingdom. The inside of their nose has over 100 times more surface area than ours, making it so there is lots of space for scent particles to land.
 - **CALIFORNIA CONDORS**, unlike many animals that feed on carrion (dead stuff), have a fairly poor sense of smell and actually rely on their keen eyesight to find their food.
 - **SNAKES** have nostrils to breathe, but they actually use their tongue to smell! Snakes have a special adaptation called a Jackobsen's organ. When searching for food, a snake sticks out its forked tongue and waves it in the air to collect scent particles. It then brings it back into its mouth and sticks the fork into two holes on the roof of their mouth. Because the tongue is forked, it can even tell which direction the smell is coming from based on which side has more of that scent. Check out this [video to see a snake smell](#).

Test Your Sense of Smell

Materials

- Five clean glass or plastic jars (taken from recycling) or salt and pepper shakers
- Tape
- Scratch paper
- Scissors
- Twine or rubber bands
- Scrap material (e.g. an old t-shirts)
- Various animal and human food items (e.g. grass, spices, banana, leaves, apple slices)

Steps

1. Wrap **scratch paper** around each jar and **tape** the end so you cannot see what's inside. Use **scissors** to cut the paper as needed.
2. Place a different **food item** in each jar.
3. Cover the mouth of the jar with your **material** and secure with **twine** or **rubber bands**.
4. Let's test out our sense of smell. Move the jars around at random so you no longer know which jar is which.
5. Pick each jar up and take a sniff. What does it smell like?
6. Now smell the next and so on.
7. Write your guess on the scratch paper around the jar.
8. Once you've smelled and guessed all the jars, reveal what's inside.
9. Were you able to guess all the smells correctly?

Post-Activity Questions and Activities

- What kind of animal do you think would enjoy these different foods?
- Are there animals that use their sense of smell for other things besides finding food?
- Are some foods easier to find using your sense of smell than others?
- Take a walk and see how many smells your nose can detect!