

For Creative Minds

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Senses

People learn about the world around them through senses. There are five senses that most people share: sight, hearing, taste, smell, and touch. Some people have senses that work differently (many people wear glasses to help their sense of sight) or have fewer than five senses.

Match the senses to the body part.

ears

eyes

nose

skin

tongue

The sense of taste can detect five flavors: sweet, sour, bitter, salty, and umami (savory or meaty). These five flavors can combine in many different ways.

The sense of smell detects tiny particles (molecules) that travel through the air. The brain interprets these as scent.

The sense of touch can feel different textures, pressure, pain, vibration, and temperature.

The sense of sight uses light to detect color and movement.

The sense of hearing picks up vibrations that travel through the air. The brain translates these vibrations into sound.

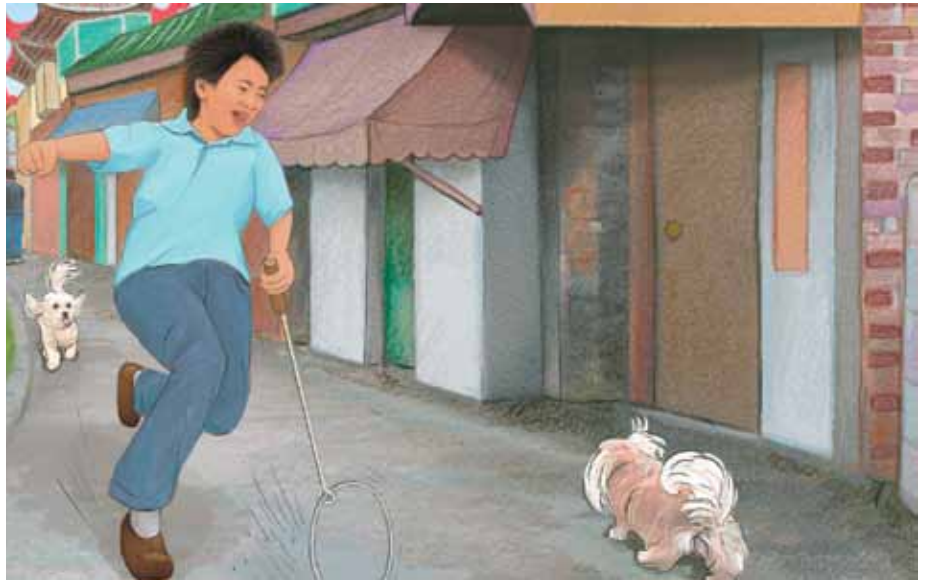


Answer: ears-hearing, eyes-sight, nose-smell, skin-touch, tongue-taste

Match the Sound

Match the sound with its source.

bam
bark
bong
clink-clank
knock
meow



1.



2.



3.



4.



5.



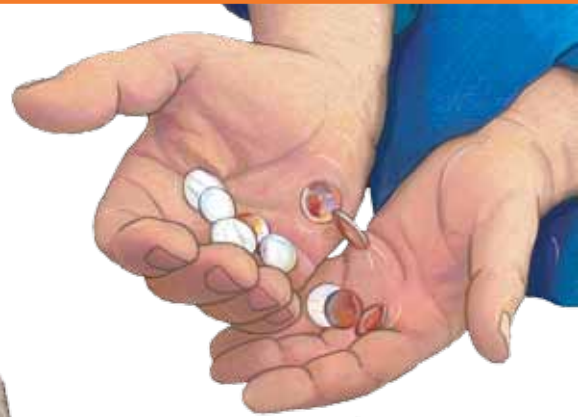
6.



Answers: 1-dog, bark. 2-cat, meow. 3-gong, bong. 4-door, knock. 5-coins, clink-clank. 6-gavel, bam.

Smell

What objects on this page have a strong smell?
What objects have little or no smell?



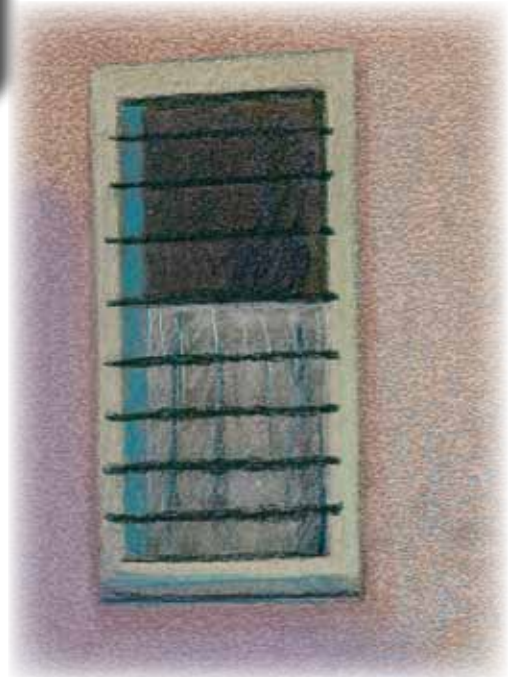
What objects on this page do you think would smell good?
Are there any that you think would smell bad?



How can you describe smells?
What words would you use to tell someone what something smells like or to compare two different smells?



What can you smell from a distance? What things do you have to be close to in order to smell?



Diffusion

When Fu Wang asked his cooks to prepare many delicious meals, the smell spread out the windows and down the street. Soon all the neighbors in the city could smell the food. This is called **diffusion**.

Diffusion is when something spreads out from an area of high concentration to an area of low concentration. Smell is carried by molecules in the air. The smell of Fu Wang's food was highly concentrated in the kitchen, where the cooks were working. The molecules spread out of the kitchen and down the street, to areas of lower concentration. Eventually a smell diffuses so much that it is barely noticeable.



Diffusion in action

You can observe diffusion by adding food coloring to liquid and watching how it spreads.

For this process you will need:

- bowl
- food coloring
- water

Pour water into your bowl. Add a few drops of food coloring. Watch what happens and write down your observations.

After you are finished observing, pour the water down the drain.

Think about it: Would the colors diffuse the same way in different liquids, like syrup, milk, or a smoothie? What if you added soap or oil along with the food coloring? Come up with more questions about diffusion. Create your own experiments to test your hypotheses.