

# What are Sense Organs and Senses?

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Sense organs & Senses

- What is your favorite sense? Why?
- What would happen to your other senses if your ears were damaged and no longer worked correctly?
- How many senses can you think of in your body? Try to come up with as many as possible and then prioritize your list.
  
- You are aware of what is going on around you and inside your body because of \_\_\_\_\_.
- A \_\_\_\_\_ is a specialized cell that receives information from its surrounding and provides it to the brain.
- Receptors let you \_\_\_\_\_ huge trees, hear delightful melodies, taste delicious flavor, \_\_\_\_\_ flows scents, or feel soft textures.
- These receptors also keep you \_\_\_\_\_ from harm, because they make it possible for you to see, hear, taste, smell, or feel things that might be dangerous.
- Sense organs include...
  - \_\_\_\_\_
  - Ears
  - Mouth
  - \_\_\_\_\_
  - Nose
  - \_\_\_\_\_
- Service \_\_\_\_\_ are trained to assist people, who have disabilities, such as sensory disorders, and help them lead fuller lives.

## Sense Organs and Senses: Eyes & Sight

- Humans are able to look at object with \_\_\_\_\_ eyes.
- They can see an object's \_\_\_\_\_, width, depth, and color.
- Your eyes can tell you if an object is \_\_\_\_\_, or how far away it is from you.

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- The \_\_\_\_\_ is a colored ring surrounding the pupil that absorbs light and stops reflection so you see clearly.
- This layer has blood vessels that bring \_\_\_\_\_ to the eye.
- The \_\_\_\_\_ is the center of the iris that contracts and expands to regulate the amount of light entering the eye.
- The \_\_\_\_\_ is the clear tissue covering the front part of the eye that is responsible for letting light pass into your eye.
- The \_\_\_\_\_, which sits behind the pupil, is curved and focuses images in the eye.
- The \_\_\_\_\_ **nerve** carries impulses to the brain, which interprets them as images.
- The \_\_\_\_\_ is found in the inner layer of tissue at the back of the eye.
- The retina has rod- and cone-shaped \_\_\_\_\_ receptors.
- The rods allow you to see \_\_\_\_\_ and \_\_\_\_\_ and shades of gray.
- The cones allow you to distinguish \_\_\_\_\_.
- There are no light receptors in the area where the optic nerve leaves the eye on its way to the \_\_\_\_\_.
- Since there are no receptors, there is no \_\_\_\_\_ there.
- This area is the \_\_\_\_\_ spot.
- When people who have perfect vision look at an object, the light rays enter the eye and focus on the \_\_\_\_\_.
- Many people do \_\_\_\_\_ have perfect vision.
- They have \_\_\_\_\_ see far or near.
- If a person is \_\_\_\_\_, the shape of the eye directs light rays toward a point behind the retina.
- So, the person sees a blurry image of objects that are \_\_\_\_\_.
- If a person is \_\_\_\_\_, the shape of the eye directs light rays toward a point that is in front of the retina.
- So the person sees a blurry image of objects that are \_\_\_\_\_ away.
- A person can see at night using a night \_\_\_\_\_ scope.
- The night vision scope helps people see objects at night by recording the infrared, or \_\_\_\_\_, radiation the object gives off.
- Some scientist use the night vision scope to study night \_\_\_\_\_, such as bats and owls.

Sense Organs and Senses: Ears and Hearing

- Your ears are the sense organs that are responsible for your \_\_\_\_\_.
- They are also important in helping you maintain your \_\_\_\_\_.

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- When the inner ear membrane begins to move, the \_\_\_\_\_ in the cochlea also moves.
- This stimulates the \_\_\_\_\_ of the receptor cells.
- These cells send signals to the \_\_\_\_\_, which interprets them as sounds.
- The semicircular canals are also in the \_\_\_\_\_ ear.
- These organs have fluid and help you maintain your balance by responding to \_\_\_\_\_ movement.
- People can damage their hearing by continually listening to sounds that are too \_\_\_\_\_.
- Music volumes, especially when listening through earphones, should be \_\_\_\_\_ so hearing loss does not occur.
- Hearing loss can also be caused by \_\_\_\_\_ or injury to the cochlea.
- Follow the path that sound waves travel to produce sound:
  1. The \_\_\_\_\_ ear is the part you see and where sound travels down to the ear canal.
  2. The \_\_\_\_\_ stretches across the ear canal and vibrates when sound waves hit it. The eardrum separates the outer and middle ear.
  3. The \_\_\_\_\_ ear contains three tiny bones called the hammer, the anvil, and the stirrup. These tiny bones amplify, or increase, the effects of sound waves.
  4. The \_\_\_\_\_ of the ear drum moves the bones of the inner ear.
  5. The \_\_\_\_\_ is the bony, coiled tube that is filled with fluid and lined with hair cells.
- Sound waves are created when objects vibrate. Humans can hear sounds of between 20 and 20,000 vibrations a \_\_\_\_\_.

Scripture Spotlight

- *What does Psalm 34:15 say about the Lord's eyes and ears?*