

What Is a Sensor? Pre-Quiz **Answer Key**

1. How many sensors or senses to humans have? List them.

Five main sensors: eyes, ears, nose, skin, tongue

(Additional sensors include: detecting temperature, detecting body position, balance sensors, and blood acidity sensors.)

2. Describe how any two of the sensors you listed work.

Eyes take in light from the surroundings and relay that to nerve cells that send images to the brain.

Ears take in sound waves from air and vibrate, sending vibrations through the inner ear to hair cells that send signals to the brain.

Particles are inhaled into the nose and nerve cells contact the particles and send signals to the brain.

Sensors all over the skin are activated and send signals to the brain through nervous system.

Taste buds on the tongue are made of small cells that have little hairs that are activated by food particles; these hairs send signals through the nerves to the brain.

3. Give examples of sensors in robots that are similar to at least three human senses.

A robot's light and ultrasonic sensors are like eyes.

Sound sensors are like ears.

Touch sensors are like skin.