

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

## Human and Robot Sensors Quiz **Answers**

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

eyes (vision), ears (hearing), nose (smell), tongue (taste), skin (touch)

Additional sensors include temperature sensors, body position sensors, balance sensors and blood acidity sensors.

2. Describe how all of the sensors (you listed above) work.

**Eyes:** Take in the surrounding light and relay it to nerve cells that send images to the brain.

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

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

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

**Tongue:** Taste buds are made of small cells that have little hairs that are activated by particles in food. The hairs send signals through nerves to the brain.

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3. Give examples of sensors in robots that your LEGO NXT robot kit does not have.

smell      The LEGO NXT robot kit does not have a smell sensor equivalent.

taste      No robot equivalent.