

You Are Weird

Your Body's Peculiar Parts and Funny Functions



Written by
Diane Swanson

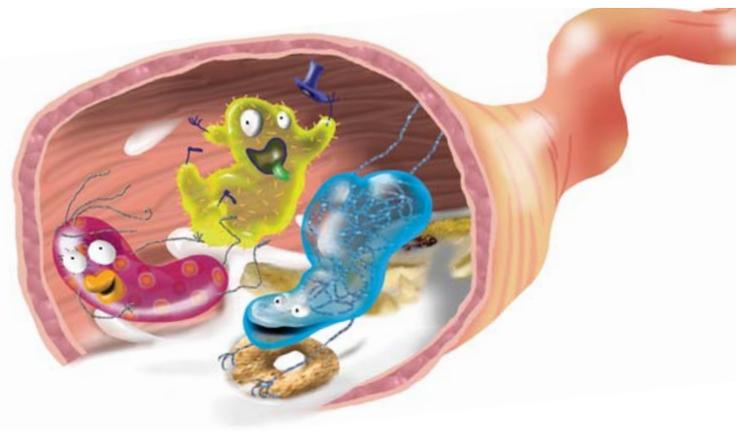
Illustrated by
Kathy Boake

About *You Are Weird*

The human body does amazing things, like shedding 50 million skin cells each day. But there are parts of the body that appear to have no purpose at all, such as muscles in our arms and legs that we just don't use very much no matter how active we are. In *You Are Weird*, children will discover dozens of unusual body parts and functions, all explained through engaging text and humorous illustrations.

About The Author

Diane Swanson is an award-winning writer of more than 70 books for children, including *Bugs Up Close*. A science writer for many years, she knows she's weird and is proud of it.



Discussion Questions and Activities

The following discussion questions and activities support science curriculum for children aged 8–12. Please note that some of these activities require students to use their school or local library or the Internet for research.

1. Why Do We Have...?

Before reading *You Are Weird*, ask your students to think about some of the weird body parts and functions they will find discussed in the book. For example, ask them to suggest reasons why we sweat (see pages 10–11), why we have wisdom teeth (see pages 18–19) or why we have two nostrils instead of one (see pages 28–29).

2. My Great-Grandfather Had What?

Some scientists believe we inherited our fine body hair from our distant relatives who no longer needed the warmth of a heavy coat of fur once they started to spend more time in the heat (see page 13). After reading *You Are Weird*, ask your students to name other body parts or functions that scientists



believe we have inherited from our distant ancestors. Then ask your students to identify some of the physical characteristics that they have inherited from their not-so-distant ancestors, such as parents and grandparents.



3. I Didn't Do That!

Many of the human body's functions happen without any conscious effort on our part. These are called reflex actions (see page 15). Encourage your students to test some of the body's reflexes as follows:

- a. Wet a part of your arm and blow on it. Look at your skin carefully. What happens?
- b. Sit with your legs dangling and have a friend gently tap just below your kneecap. What happens?

- c. Choose a partner while your teacher turns down the classroom lights. After a few minutes, look into your partner's eyes, specifically noting the size of the pupils. When your teacher turns the lights up again, observe the size of your partner's pupils again. What do you notice?

4. The Longest Journey

Use two balls of different colored yarn, a measuring tape and scissors to demonstrate just how far some bacteria travel. First measure out 6 m (20 ft) from one of the balls of yarn. This is the length of the average adult small intestine. Using the second ball of yarn, measure out 1.5 m (5 ft). This is the length of the average adult large intestine. Tie the two pieces of yarn together, and ask a couple of students to take an end each and stretch out the tied pieces to their full extent. While you do this exercise, students may wonder why the large intestine is shorter than the small intestine. Ask your students to use the library or the Internet to research to discover why.



5. What Did You Say?

You can demonstrate how the human ear works using the following materials: index cards, plastic wrap, a cardboard tube (from a toilet roll), tape, a flashlight, a sheet of paper, an elastic band and a lump of modeling clay.

- a. Stretch the plastic wrap over one end of the tube and hold it in place with the elastic band.
- b. Roll the sheet of paper into a cone shape, making sure there's a small opening at the narrow end. Tape it so that it does not unroll.
- c. Insert the narrow end of the cone into the open end of the cardboard tube. This is the "ear."
- d. Stand the index card up, using the modeling clay as a base. Lay the tube in front of it. Shine the flashlight on the plastic wrap so that a spot of light reflects onto the card.
- e. Shout or sing loudly into the cone.

You and your class should see the spot of light shake very fast when sound waves are captured. Try moving the sound source and the "ear" to show that if human ears could swivel like a cat's ears, they could capture sound waves from different directions.

6. What If I Had a Tail?

In *You Are Weird*, author Diane Swanson and illustrator Kathy Boake celebrate the wonderfully weird things about the human body. Some of these features are similar to those found on animals, such as the hair that covers our bodies (see pages 12–13) or our tailbone (see pages 32–33). Ask your students to use the library or the Internet to research one of their favorite animals. Have your students imagine they have a body part that is similar to that animal. What would it be called? What is special about it? What would it allow them to do that they can't do now?

