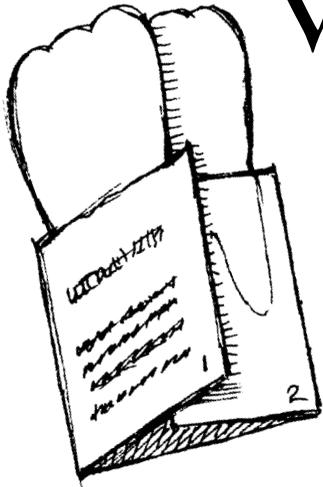




# What's Inside a Tooth?

Students explore the different parts of a tooth.



## MEETING THE SCIENCE STANDARDS

- ☉ Characteristics of Organisms
- ☉ Personal Health

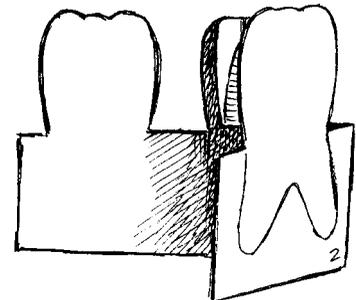
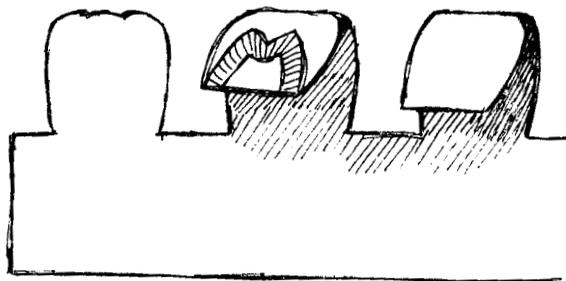
Science

Corner

**T**eeth aid in digestion by crushing food into small pieces. A tooth's outer layer, the enamel, is the hardest material in the human body. Dentin, the layer beneath the enamel, is hard as bone and protects the soft pulp. Blood vessels and nerves thread through the pulp and extend to the tooth's root. The root, which lies under the gums, anchors the tooth in a socket in the jawbone. Natural cement and tough cords called ligaments also help hold the tooth in place.

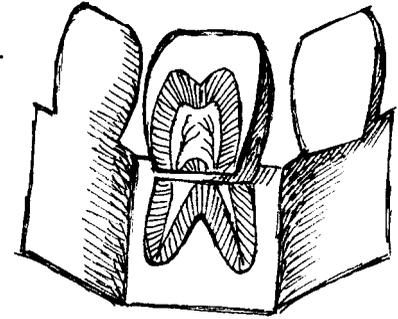
## Making the Book

- 1 Photocopy page 44. Cut out the two patterns along the outer solid black lines.
- 2 Turn the large piece over and fold down the two top flaps as shown. Next, fold in page 2. Then fold the title page over page 2.



- ☉ reproducible page 44
- ☉ scissors
- ☉ tape
- ☉ colored pencils or crayons (optional)

3 Open the book and tape the INSIDE ROOT pattern under the dentin.



## Teaching With the Book

- 1 Ask students: “Why do you think your teeth are important?” (*Teeth chew and break down food into small pieces that can be swallowed and digested easily.*)
- 2 Have students describe their teeth. Ask: “Are all of your teeth the same?” (*no*) “How are they different?” (*Some teeth are sharp, while others have a flat, broad surface.*) Encourage students to draw pictures of the different shapes of teeth.
- 3 Invite students to color, assemble, and read their tooth books.
- 4 Turn students’ attention to the back of the book. Explain that the picture shows 32 adult teeth. Young children start out with 20 temporary, or baby, teeth. At about age six or seven, baby teeth start to fall out and permanent teeth emerge. Permanent teeth include eight incisors—four upper and four lower front teeth—for biting, slicing, and cutting food. Four pointed canines or cuspids next to the incisors tear food. Eight premolars and eight molars at the back grind, crush, and chew food.
- 5 Ask students: “Why is it so important to brush your teeth?” (*Brushing helps prevent cavities and keeps teeth healthy.*) The extension activity below shows you how to use the book to explain to students what a cavity is and how it develops.

## More to Do

### Save Those Teeth

Make your own tooth book and hold it up in front of the class. Inform students that everyone has bacteria—tiny living things made up of one cell—in his or her mouth. Some bacteria stick to teeth and form a film, called plaque, near the gum and between teeth. Bacteria need sugar to grow and multiply. As bacteria multiply, they produce acids that eat away at tooth enamel. Take a pair of scissors and cut a little hole in the crown of the tooth in your book. Explain that the hole is a cavity, formed when acid wears down enamel. Cut the hole a little bigger, then a little bigger, to show that bacteria are multiplying. Open your book and show how the cavity is making its way toward the dentin. If the cavity reaches the nerves, the tooth will ache. If bacteria get into the blood vessels, they may cause an infection. Inform students that regular brushing and flossing help keep cavity-forming bacteria away.

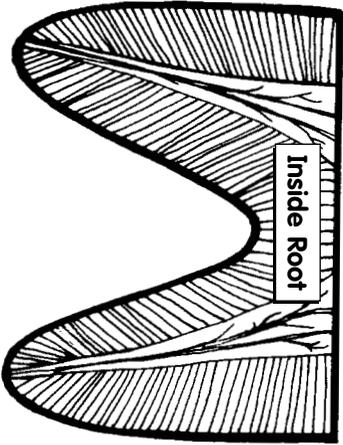
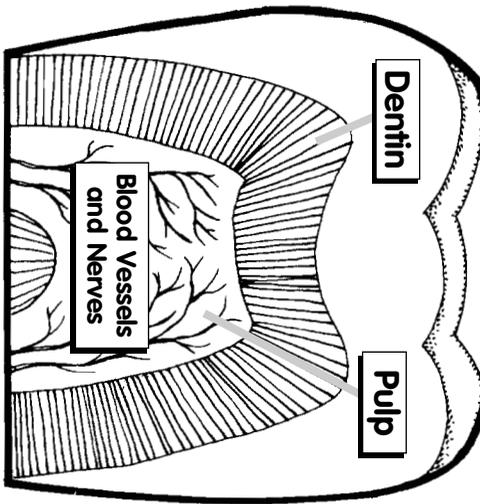
## Resources

✿ **Arthur’s Tooth**  
by Marc Brown  
(Little, Brown, 1987).  
All of Arthur’s classmates have lost at least one of their baby teeth. So when is Arthur’s coming out?

✿ **How Many Teeth?**  
by Paul Showers  
(HarperCollins, 1991). Find out how many teeth babies, toddlers, kids, and adults have, then see how permanent teeth replace baby teeth.

3

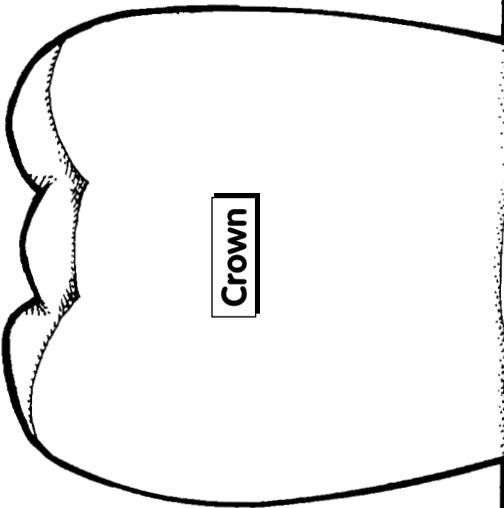
Under the enamel is hard dentin. Below the dentin is soft pulp. Inside the pulp are a tooth's blood vessels and nerves.



**Enamel**

A tooth's outer layer is hard enamel.

A tooth's root is in your jawbone.



**Root**

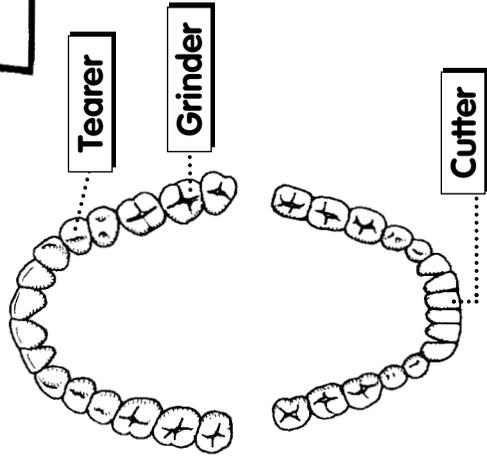
**Jawbone**

You have different kinds of teeth.

Teeth with sharp edges bite and cut food.

Pointy teeth tear food.

Flat teeth in the back chew and grind food.



2

4

# What's Inside a Tooth?

Your mouth is full of teeth. Each tooth sits in your gums. You can see a tooth's crown above the gums.

**Gum**

