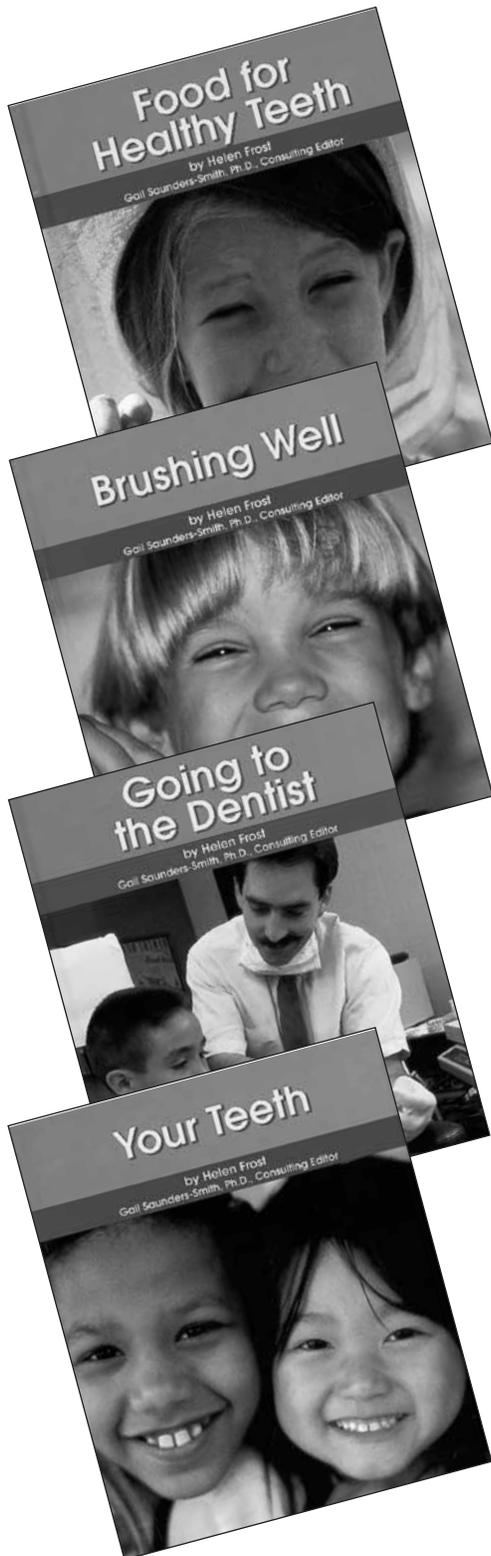


Teaching Guide for the Pebble Books *Dental Health Set*



WELCOME TO PEBBLE BOOKS

Science and language arts are natural partners in education. Thematic units can connect the scientific exploration of our world with reading and writing activities for a meaningful classroom experience.

Pebble Books and their accompanying Teaching Guides link leveled nonfiction texts with science and health content. As a result, each set powerfully consolidates science and language arts instruction and promotes a strategic approach to early literacy learning.

The On Your Mark section of this guide, featured below, highlights the science standards that can be supported through the use of this set. These standards are supported by the reading of the texts and the science activities featured on the back page.

The next two pages of this guide give instructions for using each of the texts in a guided reading session. The Get Set section highlights supports and challenges present in the texts. The Go portion provides instructions for facilitating the reading of the texts with small groups and following up with level-appropriate writing activities.

On the back page of this guide, the Home Stretch section expands on the science knowledge introduced in this set. As written, the science activities are meant to be used after the four reading sessions. You may choose to reverse this order, using the science activities to lead into the topics that are explored in the four texts.

Finally, this guide offers ideas for curriculum connections in other subjects, home activity extensions, and science standard assessments. We hope you find this guide useful in connecting science and language arts instruction in your classroom.

ON YOUR MARK

National Science Education Standards (NAS, 1996)

- Content Standard F: Individuals have some responsibility for their own health. Students should engage in personal care—dental hygiene, cleanliness, and exercise—that will maintain and improve health.
- Content Standard F: Nutrition is essential to health. Students should understand how the body uses food and how various foods contribute to health. Recommendations for good nutrition include eating a variety of foods, eating less sugar, and eating less fat.

Benchmarks for Science Literacy: Project 2061 (AAAS, 1995)

- Standard 6E: Eating a variety of healthful foods and getting enough exercise and rest help people stay healthy.

GET SET

Food for Healthy Teeth:

Early-Intervention Level 4

Starting Blocks (Supports):

- Repetitive sentence structure
- Strong photo support

Hurdles (Challenges):

- Changing between one and two lines of text
- Concept of healthy foods

Text Features:

- Consonant digraphs: *th, ch*



Brushing Well: Early-Intervention Level 5

Starting Blocks (Supports):

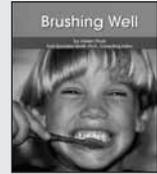
- [sentence stem 'you']
- Strong photo support

Hurdles (Challenges):

- First line of text differs from pattern in rest of book
- Challenging vocabulary: *adult, swish, tongue*

Text Features:

- High-frequency words: *of, the, you, your*



GO

Guided Reading Introduction:

Food for Healthy Teeth (Level 4)

Look at the front cover of the book. Discuss the importance of eating healthy foods. Have students share some examples of healthy foods. Allow students to browse through the book for additional examples of healthy foods. Discuss how healthy foods can make teeth strong.

First Reading:

- Turn to pages 4 and 5. Have students look at the photograph and discuss the different types of food in the photograph. Have students read page 5 to find out what healthy foods can make teeth strong.
- Move to pages 6 and 7. Say, "Look at the photograph and read to find out what else makes teeth strong. Where does it say *milk*? How do you know?" Continue to prompt students through page 13, encouraging students to use the photographs to figure out new words.
- Turn to page 15. Ask, "What can strong teeth bite into? Read page 15 to find out." Move to page 17 and ask, "What can strong teeth chew?" Remind students of strategies at points of need. Continue offering support through page 19.
- On pages 20 and 21, the sentence format changes. Encourage students to point out the word *healthy* in both places on the page. Discuss why people need healthy teeth. Review what foods are healthy for teeth.

Rereading:

Have students reread the text with a partner. Note the students' use of one-to-one matching and return sweep. Do students know if they are making sense? Do they monitor themselves and correct their approximations?

Coaching (Teaching Points):

Double consonants and vowels: *ee, oo, gg, rr, pp, zz*

Writing Connection:

Fill a grocery bag with a variety of foods. Prepare a chart with two columns, one labeled Healthy Foods and the other, Junk Foods. Ask each student to reach into the bag and pull out one item. Discuss which column the food item belongs in and list it in the appropriate column. As you write the foods on the chart, draw attention to the labels to assist with writing. Extension: Have students create a menu of healthy foods for one day.

Guided Reading Introduction: *Brushing Well (Level 5)*

Discuss the importance of brushing teeth. Allow students to share what they know about brushing. Use the front cover to elicit responses.

First Reading:

- Turn to the title page. Read the title and author's name. Turn to the table of contents and explain the purpose of that information.
- Turn to pages 4 and 5. Read page 5 to the students. Ask, "Who is the adult in this photograph? Who helps you brush your teeth?"
- Move to pages 6 and 7. Say, "Look at the photograph and read to find out what you brush." Have students point to their front teeth. Ask students to find the word *front* and share how they found it.
- Turn to pages 8 and 9. Say, "Look at the photograph. Read page 9 to find out what you brush now." Have students point to their back teeth and find the words in the text. Continue to question and guide student responses through page 13.
- On page 15, ask, "After you brush your teeth, what do you do? Read page 15 to find the answer."
- Move to page 17 and discuss the word *swish*. Encourage students to act out swishing water. Ask, "Why do you swish water in your mouth?"
- Guide students through page 21, balancing prompts for word attack with comprehension.

Rereading:

Encourage students to reread the text individually. Remind them to use photographs when needed. Observe other strategy use.

Coaching (Teaching Points):

Consonant blends and digraphs: *br, fr, sp, sw, sh, th*

Writing Connection:

Write the steps for brushing your teeth on separate sheets of paper. Have each student draw a step. Sequence the sentence drawings as a group. Number each step and return to the text to confirm the steps and their order. Extension: Have students bring in toothpaste or toothbrush box labels. Create a class book about toothpaste and toothbrushes.

Going to the Dentist:**Early-Intervention Level 7****Starting Blocks (Supports):**

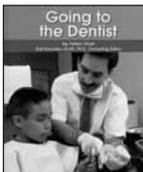
- Moderate photo support
- Specialized vocabulary defined within text

Hurdles (Challenges):

- Specialized vocabulary: *cavity, office, tools, tray*
- Varied sentence structure

Text Features:

- High-frequency words: *down, finds, helps, looks, up*
- Possessive noun: *'s*

**Your Teeth: Early-Intervention Level 8****Starting Blocks (Supports):**

- Labeled photographs
- Specialized vocabulary defined within text

Hurdles (Challenges):

- Specialized vocabulary: *canine, crown, enamel, gums, incisors, molars, roots*
- Varied sentence structure

Text Features:

- High-frequency words: *are, have, makes, out, that, use*
- Vowel digraph: *ou, ou*



GO

Guided Reading Introduction:**Going to the Dentist (Level 7)**

Discuss what is happening in the cover photograph. Discuss the importance of going to the dentist. Ask students to share their experiences at a dentist's office.

First Reading:

- Turn to the title page and read the title and author's name again. Go to the table of contents. Ask questions such as, "What will we read about on page 5?"
- Read page 5 to the students. Think aloud with students. Model reading the first sentence again. Explain that the second sentence gives more detail about the *big chair*.
- On pages 6 and 7, discuss why the dentist uses tools. Ask, "Where does a dentist keep the tools?" Read the first sentence to the students. Have students read the second sentence to learn more about the tray.
- Continue this format of support through page 9. Draw attention to the *'s* in context. (dentist's, people's)
- After looking at page 10, have students read page 11 to find out what the dentist looks at during an exam.
- Move to pages 12 and 13 and ask, "What does a dentist use to look at the backs of teeth?" Continue supporting readers through page 17 asking what the dentist checks to see.
- Turn to pages 18 and 19. Draw attention to the filling in the photograph. Discuss why someone would need a filling.
- Guide readers through to the end, encouraging students to predict answers and work out text to confirm predictions.

Rereading:

Have students reread the book beginning with the front cover. Note strategies students use to problem solve words and maintain meaning.

Coaching (Teaching Points):

Topic sentence with support details

Writing Connection:

Have students work together to create an advertisement for going to the dentist. Students may create a poster to illustrate. Posters should highlight at least one important reason for going to the dentist. Have students share posters with another group for feedback. Display posters around the school to spread the message to other students.

Guided Reading Introduction: Your Teeth (Level 8)

Look at the cover. Discuss the importance of having healthy teeth and gums. Distribute a hand-held mirror to each student. Allow time for observations of teeth and gums. Tell students to look for baby teeth and permanent teeth.

First Reading:

- Turn to the title page and read the title and author's name. Have students notice the photograph, with specific focus on the child's teeth. Review the table of contents.
- Read page 5 to the students. Use the mirrors to identify teeth that are shaped differently. Discuss the different jobs that teeth have.
- Look at the photograph and labels on page 6. Introduce the word *incisors* and allow children to look in their mirrors to find their incisors. Have students read page 7 to find out the job of the incisors.
- Continue this format of support through page 15. Direct students to the photographs and labels for support. Allow them to continue using the mirrors to make personal connections with the text.
- Turn to page 17. Ask, "What holds the teeth in your mouth?" Read page 17 to check predictions. Guide students to the word *roots*. Discuss how roots cannot be seen using the mirror, but dentists can take pictures called x-rays.
- Move to page 19 and ask, "What are your first teeth called?" Allow students to find their baby teeth and locate the words *baby teeth* in the text.
- Continue offering support through page 21. Ask, "Does anyone have permanent teeth yet?" Students may want to share their experiences with losing teeth.

Rereading:

Direct students to reread the text with a partner. Observe the use of strategies for figuring out unknown words.

Coaching (Teaching Points):

Topic sentence with support details

Writing Connection:

Create a list of labels needed for a diagram of the mouth. Have students use their mirrors, paper, and crayons to draw a diagram of their mouths. Students may use the list or go back to the text to label their diagrams. Extension: Students may write a personal narrative about losing a tooth.

HOME STRETCH

The following activities encapsulate concept knowledge gained from the Dental Health set. The Finish Line activities that follow are designed for use as assessment opportunities.

Science Objectives:

The students will:

- Create a model of their teeth.
- Identify the different types of teeth.
- Identify foods that are healthy.
- Learn the importance of flossing.

Preparation:

- Acquire a small, hand-held mirror for each student. If enough are not available, students can work in groups.
- Buy sterile plastic gloves, plasticine clay, and plaster of paris for making molds of students' teeth. Plasticine clay is a nontoxic modeling clay that does not dry out and does not stick to teeth. It can be purchased at a craft store.
- Gather several shoe boxes and paper for the diorama activity.
- Buy fluoride toothpaste and eggs for the egg activity.
- Purchase or gather a paint brush, green tempera paint, yarn, and paper towels for the flossing activity.

Entry Point—Engaging the Learners:

Encourage the students to use the mirrors to look at the teeth in their mouths and count their teeth. Discuss the difference between baby and permanent teeth. Graph the number of baby teeth that each child has lost.

Activities:

- Students can use plasticine clay to make models of their teeth. Students should wear plastic gloves for this activity. Have students shape a piece of clay into a semi-circle that is a little wider than their bite. Have the students bite into the clay with their top teeth. They should mold the clay around their teeth and carefully remove the clay. Students can repeat for their bottom teeth. Have students pour plaster of paris into each mold, making sure all spaces are filled. Let the molds set overnight. Remove clay the next day. Allow students to examine their own teeth and identify the different types of teeth.
- Have students create a diorama of a mouth, individually or in groups. Instruct them to turn a shoebox on its side and line the inside of the mouth with red paper. Students can create teeth with white paper and place them in the mouth. They can make a tongue and attach it to the back of the box. Have students label the different types of teeth.
- Ask students to keep a food log and write or draw the foods they eat during one day. The next day, introduce the concept of food groups. Have students place the foods from their log into the appropriate food groups. Discuss the importance of eating healthy food and staying away from foods high in sugar. Practice reading food labels.
- Show students the importance of fluoride as a substance that keeps tooth enamel hard. Squeeze some fluoride toothpaste into a small cup until it is half full. Place one end of a raw egg in the toothpaste. Let it set for 48 hours. Remove the egg from the toothpaste, and put it in a cup filled with vinegar. Observe. The end of the egg that was in toothpaste remains strong because it was coated with fluoride. The other end begins to feel rubbery because the acid wears away

the shell. Discuss what would happen to students' teeth if they did not have fluoride.

- Go on a field trip to the dentist's office or invite a dentist to visit the class. Toothpaste companies also have representatives that provide educational services to teachers. Suggest that the dentist or representative demonstrate to the students the best way to brush their teeth.
- Ask students what happens to food when they chew it. Explain that the paint represents food in a person's mouth and your fingers represent teeth. Ask students where food goes on their teeth. Holding your hand over the paint container, paint the "food" onto your fingers, allowing some to drip between the "teeth." Next, ask a volunteer to come up and "brush" your "teeth," using a paper towel. Be sure to hold your fingers tightly together to represent teeth. When the student is finished, open your fingers to reveal the paint between your fingers. Explain to students that this represents the food stuck between their teeth. Introduce the concept of flossing. Demonstrate flossing on your fingers, using yarn or folded paper towels.

Challenging and Checking:

Ask students to predict what it would be like to have no teeth. How would their life change? What could they do and not do without teeth? What do people with no teeth do?

Reflecting:

Ask students which teeth they use to eat an apple. Give apples to the students and follow the path, tooth by tooth, that the apples take while the students are chewing. Encourage students to draw the journey of the apple through their teeth.

CURRICULUM CONNECTIONS

Ideas for Theme-Based Instruction:

- Careers—Invite a dental assistant to visit the class, and ask him or her to compare his or her work with a nurse from a hospital or doctor's office.
- Dramatic Play—During center time, ask students to role play a dentist and a dental assistant.
- Math—Ask students to log their brushing habits for one week. Have students tally each time they brush their teeth.

HOME EXTENSIONS

- Encourage students to count the teeth of various family members. Most adults have 24 to 32 teeth, children between 6 and 13 have 20 to 24 teeth, and babies have a varying number of teeth. Have students record the number of teeth for each family member.

FINISH LINE

Possible Assessment Activities:

- With the whole class, make a large mural of a dentist's office. Instruct students to include all of the information they learned on their field trip or from these books.
- In small groups, have students prepare short reports about dental health. Invite another class to hear their reports.