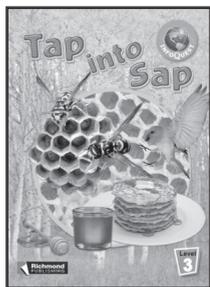


Student Book Notes—*Tap into Sap*



Synopsis

Tap into Sap outlines ways that people and animals obtain and use sap for a variety of purposes. The book includes a major section looking at maple syrup, from a historical and contemporary perspective, and concludes with a delicious recipe.

Vocabulary Development

amber, gummivore, migrate, mineral, nocturnal, nutrient, pygmy, vitamin

Challenges in the Text

procedural text; historical perspective

Cross-Curricular Connections

earth science; life science—biology; history

Learning Outcomes

Students will:

1. understand why sap is important to humans and other animals.
2. be able to state two products that gum provides for humans and other animals.
3. articulate one way that maple syrup is made.

For Independent Readers

Provide these questions before students read the text:

- Why do trees produce sap?
- In what ways is sap important to people?
- How do people get sap from trees?
- Are there any dangers involved in taking too much sap from a tree?

Visual Elements

Students have the opportunity to:

1. read a cross-sectional diagram.
2. view magnified, close-up photographs.
3. interpret diagrams with numbered text.
4. view double-page spreads

Purposes for Reading

Possible choices include:

1. to learn how people and other animals use sap.
2. to continue to effectively use an index and a glossary.
3. to learn about the gathering and production of maple syrup.

Critical Thinking

Students have the opportunity to:

1. compare traditional and contemporary methods of making maple syrup.
2. summarize and sequence important information.
3. locate and organize information in the form of a glossary.

Special Features

- “Try This!” shows readers how to make delicious maple muffins.
- How do insects get trapped in amber? Read “Time Link” to find out.
- Read “Fast Facts” to discover how sap has been used to make shoes.

Guiding Learning

Before Reading

Read aloud the synopsis on the back cover and have students tell what they know about sap. Then write the headings of the Contents on a chart, inviting students to record predictions of content in each section. Keep the chart for the “After Reading” session.

During Reading

Key text to guide:

Pages 4–5: Read these pages to students. Then ask, *What is sap? Why is it important to both people and animals?* Students should understand trees mainly use sap to transfer sugars which are vital to growth. Say, *Maple syrup is mentioned here. It’s also in other parts of the book. Where can we look to find out where?* Ensure students understand it’s best to use the index.

Pages 6–11: Say, *Pages 6–11 highlight birds and insects that gather sap. Find out how they get the sap and what they do with it.* Remind students to refer to the glossary when appropriate. As some students read independently, share read with any needing further support. Then discuss what they have found out.

Pages 12–13: Ask, *What is gum? Why is it important?* Read these pages to students. Discuss the different ways animals and humans use gum.

Pages 14–15: Say, *Have you tasted maple syrup? How is it made?* Have students read these pages and then discuss the information. Reread page 15 to students, ensuring they understand how maple syrup was first made.

Page 16–19: Read aloud pages 16 and 17. Write the following steps and invite individual students to put them in sequence. (2, 4, 5, 1, 3)

- tubes hammered into holes
- sap poured into barrels
- taken to sugarhouses
- holes drilled into tree trunks
- sap flows into buckets

Read aloud pages 18 and 19. Discuss the similarities and differences between traditional and modern methods of maple sugar production.

Pages 20–21: Help students read the procedural text. Point out how it is different from expository text. Have the students take turns reading sections of the text in step sequence.

After Reading

Responding: Reread the chart from the “Before Reading” session. Discuss which headings helped students predict the correct content and why.

Thinking Activity Master 17

Maple Syrup Glossary: Locating and Organizing Information

Tell students they will make their own glossaries about maple syrup and clarify the instructions. When finished, students can compare definition clarity.

Maple Syrup Glossary

Name _____ Date _____

1. List all the words below in alphabetical order.
2. Use *Tap into Sap* to write your own definition for each word.
3. Look up and record a dictionary's definition for each word.

sap maple syrup trunk
sugar harvest festival flavor

Word	My Definition	Dictionary's Definition

Nonfiction Assessment Record

Book Title: <i>Tap into Sap</i>	
Student _____ Date _____	
Say, <i>Read pages 4 and 5 silently.</i> Ask, <i>What is one use of sap that is common to people and animals?</i>	Did the student say “treats” or “sugar”? (Purpose for Reading 1) <input style="float: right; margin-left: 20px;" type="checkbox"/>
Say, <i>Show me where in the book we can find out what minerals are.</i>	Did the student turn to the glossary? (Purpose for Reading 2) <input style="float: right; margin-left: 20px;" type="checkbox"/>
Ask, <i>How can we find out if rubber is mentioned any other place in the book?</i>	Did the student specify the index? (Purpose for Reading 2) <input style="float: right; margin-left: 20px;" type="checkbox"/>
Say, <i>Read pages 12 and 13 silently.</i> Ask, <i>What are two things gum provides for humans and other animals?</i>	Did the student mention two different things? (Learning Outcome 2) <input style="float: right; margin-left: 20px;" type="checkbox"/>
Say, <i>Read pages 14 through 19 silently.</i> Ask, <i>Can you tell me the steps involved in tree tapping?</i>	Could the student sequence the steps in the appropriate order? (Purpose for Reading 3; Critical Thinking 2) <input style="float: right; margin-left: 20px;" type="checkbox"/>
Ask, <i>Can you tell me how maple syrup was gathered in the past?</i>	Was the student able to provide a suitable response? (Learning Outcome 3) <input style="float: right; margin-left: 20px;" type="checkbox"/>
Ask, <i>What is one main difference between past and modern methods of making maple syrup?</i>	Was the student able to state a major difference? (Critical Thinking 1) <input style="float: right; margin-left: 20px;" type="checkbox"/>
Ask, <i>In general, what is one reason sap is important to humans, and one reason it is important to animals?</i>	Did the student specify one importance for humans and a different importance for animals? (Learning Outcome 1) <input style="float: right; margin-left: 20px;" type="checkbox"/>