

Everyday Science

by **Bill Gaynor**



Book Summary

From cooking an egg to turning on the light, the impact of science can be seen all around us. This text examines how science doesn't always take place in laboratories and test tubes.

Features of the Book

- Scientific explanations
- Examples from daily life
- Diagrams and photographs
- Causes and effects

Purpose

Everyday Science can be used to introduce and reinforce the following skills and understandings:

- S** asking questions;
- S** making, revising, and confirming predictions;
- S** exploring how science can explain many everyday events;
- S** analysing scientific processes and reactions;
- S** recognising that scientific inquiry has led to the invention of many new technologies.

Investigation Tools

- What's the Background? – Keep It Clean!, page 6
- Digging Deeper – The Fire Triangle, page 14
- Weighing Both Sides – Eating Additives, page 17
- Step by Step – Lemon Power, page 21
- Looking Closer – Shining Bright, page 23
- Making Connections – Fast Information, page 27

The Guided Reading Lesson

- S** Asking questions
- S** Making, revising, and confirming predictions
- S** Exploring how science can explain many everyday events

Introducing the text

Before showing the students the book, ask them what the word “science” conjures up.

– *What do you think “everyday science” could be?*

Encourage the students to consider how science has an impact on their everyday lives. Write some of their ideas on the board.

Give out the books and explain that you'll be encouraging the students to ask questions about the topic and to make predictions.

– *Look at the cover and the title. What do you predict will be in this book? Check out the table of contents. Can you refine your predictions?*

Reading and discussing the text

Read aloud the introduction on page 3 and discuss the questions.

– *Have you ever wondered about these things? Which questions interest you? Why?*

Ask the students to read page 4, then predict what the chapter will cover. Ask the students to justify their predictions before reading Chapter 1 independently.

- *Was this what you thought you'd find out?*
- *Do you agree that soap involves science? Why/why not?*
- *Explain, in your own words, how soap works.*

Draw the students' attention to the last paragraph on page 11 and ask them to make predictions about Chapter 2. Tell them to use their own questions about science in the kitchen to help them predict. You could model this process, for example, what happens when I add milk to my coffee? Why does an egg harden when I cook it?

As the students read Chapter 2 independently, ask them to use sticky notes to record answers to any of their questions. Discuss these when everyone has finished reading.

- *Were your predictions correct? Were some of your questions answered?*
- *What other questions do you have about science in the kitchen?*
- *Reread Weighing Both Sides on page 17. What's your opinion?*

Read page 18 aloud and discuss how the author leads into the next chapter.

- *What connection do you think electrons have with everyday science? What do you predict you'll find out in this chapter?*

The students can read to the end of page 21, then discuss what they've read.

- *Did you already know about the role of electrons in electricity?*
- *What questions do you have?*
- *Where is electricity used in the kitchen? Read the rest of Chapter 3 to find out.*

Read page 24 aloud.

- *What will the next chapter be about? What were you wondering as you read this page?*

Ask the students to read to the end of page 27, then check their questions and predictions.

- *What other household items use waves? Read the rest of the chapter to find out more.*

When the students have finished reading, review their first predictions and questions.


- *What information was new? What surprised or puzzled you? What would you like to find out more about?*

Explain that a book that leaves you wondering or wanting more information can often inspire you to do further reading or research.

Revisiting the Text

The activities below can be used immediately after the guided reading lesson, during later reading sessions as mini-lessons, or as independent activities.

S Asking questions

 Ask the students to record their questions on the blackline master. They can record possible sources of information for each question, then research them and write the answers.

The students can use *Everyday Science* as a model for writing about one or more of their questions and answers, using diagrams or other graphic features. Several students could make a book to share with the class.

S Exploring how science can explain many everyday events

Discuss the Digging Deeper investigation tool on page 14. The students can use this as a model to find out more about a fact from the book. Examples could include, the action of heat on proteins (page 15), how preservatives work (page 17), how different kinds of batteries work (pages 20–21), or how light waves are sent along fibres (page 27).