by John Bonallack

Tunnel under the Sea

Summary

How do you get from England to France without using a plane or a boat? Engineers came up with the idea of digging a tunnel under the sea. This title examines the many problems faced in this project and the solutions that the engineers provided.

Features of the Text

- Photographs and illustrations
- Graphs, cross-sectional diagrams, map
- Captions and labels
- Problem/solution format
- Specialized vocabulary
- Report structure

Purpose

Tunnel under the Sea can be used to introduce and reinforce the following skills:

- **S** using graphic sources of information;
- retrieving and classifying information from a text;
- **S** identifying the problems and solutions in a text.

The Guided Reading Lesson

- **S** Using graphic sources of information
- **S** Retrieving and classifying information from a text

Introducing the text

Remind the students of the elevator in Stuck!

- What other ways has technology been used to help people to get from one place to another?
- How can technology help people to cross rivers or mountains?

Encourage the students to think about bridges and tunnels. Using a map of your state, discuss the places where bridges or tunnels are used or needed.

Reading and discussing the text

Show the students the cover of the book and the title page.

- Why do you think a tunnel was built in this particular place?
- What problems would engineers have to overcome to make a tunnel through land that's under the sea?

Ask the students to look at the map and photograph on page 2.

- What can we learn from these?
- Why do you think people would want a tunnel between England and France?

Look through pages 2 to 5 with the students, discussing the ideas in the text and the illustrations.

- How does the diagram at the bottom of pages two and three help you to understand why a suspension bridge would not be a good solution?
- Why do you think the solution was to build three tunnels?

Ask the students to read to the end of page 9, paying special attention to the information in the diagrams. Go through these carefully together to ensure that they understand them.

- How do the diagrams, labels, and fact box on page six give you a clear idea of the tunnel design?

Ask the students to explain the diagram on page 8 in their own words.

The students can now read the rest of the text silently while you check their understanding by sitting alongside each student and asking them to explain the paragraph they are reading.

Complete the guided reading lesson by discussing how the tunnel is used today.

- What are the main safety issues associated with the tunnel?
- What would you do if there was an emergency when you were in the tunnel?
- How many people use the tunnel each year?
- Which fact do you find the most interesting/surprising? Why?

Following Up

The students can:

- make a model of the Channel Tunnel using cardboard tubes use the glossary to clarify the vocabulary that relates to special equipment choose one aspect of the tunnel-building process from the text and describe this orally to the class
- list the problems and solutions the engineers had while the tunnel was being built by completing the copy master on page 21.