Looking Skyward

by David Hill



Book Summary

There are many amazing objects in the sky. From the clouds, the sun, the moon, the planets, stars, and satellites, people have been exploring the sky for thousands of years and there are still many discoveries to be made.

Features of the Book

- Scientific explanations
- Examples include natural and human-made objects in the sky
- Diagrams, photographs, illustrations, and a table
- Explanations of "how" and "why"
- Specialied vocabulary
- Historical and mythological, information
- · Table of contents, glossary, and index

Purpose

Looking Skyward can be used to introduce and reinforce the following skills and understandings:

- **s** making predictions;
- **s** asking questions;
- discussing the many animals and objects that can be seen above and beyond Earth's surface;
- **S** exploring the derivations and meanings of words.

Investigation Tools

- What's the Background? The Ancient Sky, page 4
- Step by Step How a Cloud Forms, pages 8–9
- Digging Deeper Space Junk, page 17
- Looking Closer The Phases of the Moon, page 19
- Weighing Both Sides What Is a Planet?, page 23
- Making Connections Superstars, page 28

The Guided Reading Lesson

- **S** Making predictions
- **S** Asking questions
- S Discussing the many animals and objects that can be seen above and beyond Earth's surface

Introducing the text

Ask the students to identify the objects on the cover of the book, then discuss the blurb and the contents page.

- What do you predict each of these chapters will contain?
 Why?
- What information did you use to make your predictions?

Explain that in this lesson, the students will be refining their skills at predicting and asking questions to deepen and extend their understanding of a text.

Make a three-column chart with the headings "What we know", "What we want to know", and "What we learn". (K-W-L chart). Tell the students that they will use this chart as they read each chapter.

Reading and discussing the text

Read page 3 with the students. This page sets the scene for the diverse exploration of the topic that is covered in this book. Encourage them to share their own observations and questions about what they see when they look skyward.

- What stories might people have told in ancient times?
 Why do you think they did this?
- What do you know about the sky? Why is the sky blue? What is the atmosphere?

Chart the students' prior knowledge in the first column of the chart, list their questions in the second column, then ask them to read Chapter 1.

Ask the students to share any new information, and record it on the chart.

Ask the students to skim through Chapter 2, then share their predictions with a partner about what it will cover.

– What do you already know about clouds? Which questions may be answered in this chapter?

Once again, chart the students' prior knowledge in the first column of the chart, list their questions in the second column, then ask them to read the chapter. Discuss new information (along with answers to their questions) and record it in the third column. Repeat this pattern with the remaining chapters, eliciting predictions, prior knowledge, and questions. Discuss the answers found and any other new knowledge.

As the students work through the text, spend time discussing the investigation tools.

When the students have finished reading, review the K-W-L chart.

– 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.

With the students, return to the text and discuss some of the specialised vocabulary. Point out the explanation on page 20 for "planet". Discuss how many words in English are derived from Latin and Greek and that knowing these original meanings can help us to understand them. Many technical words have been created by combining Greek or Latin words, for example, telescope, television, telephoto. Show the students how to find meanings in a dictionary that include derivations. There are also websites that give this information, for example, www.etymonline.com.

↑ The students can complete the blackline master to find and record the derivations and meanings of words in *Looking Skyward*.

Discussing the many animals and objects that can be seen above and beyond Earth's surface

The students can discuss the ideas on pages 4 and 28 concerning different ways of understanding the objects in the sky. Ask them to think about another connection they can make with this text, for example, another legend or another system for naming the stars and constellations.

Using the information on page 28, the students can investigate a constellation and record their findings.