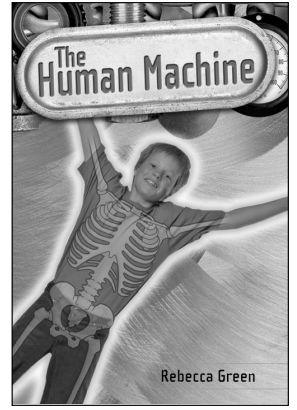


The Human Machine



by **Rebecca Green**

Book Summary

The human body is made up of many parts, just like a machine. This text examines the main parts of the human body and how they work together to keep us fit and healthy.

Features of the Book

- Extended metaphor (body as a machine)
- Explanation
- Diagrams and captions

Purpose

The Human Machine can be used to introduce and reinforce the following skills and understandings:

- S** identifying the author's purpose and point of view;
- S** using figurative language to make meaning;
- S** making connections;
- S** exploring how the human body is made up of many parts, each with a specific function;
- S** recognising how some parts of the body work together in systems, for example, the heart and lungs.

Investigation Tools

- What's the Background? – Cells, page 5
- Looking Closer – The Brain, pages 10–11
- Step by Step – How Bones Heal, pages 16–17
- Making Connections – Spare Parts, page 19
- Digging Deeper – Bacteria, page 26
- Weighing Both Sides – Living Longer, page 29

The Guided Reading Lesson

- S** Identifying the author's purpose and point of view
- S** Using figurative language to make meaning
- S** Making connections
- S** Exploring how the human body is made up of many parts, each with a specific function
- S** Recognising how some parts of the body work together in systems, for example, the heart and lungs

Introducing the text

- *What is a machine? What are its main characteristics?*
- *The book we're going to read is called The Human Machine. Why would the author use this metaphor? How are humans like machines?*

Discuss the students' responses, highlighting those that explore how the body operates.

Tell the students that they'll be looking for the author's point of view and finding where their personal connections help them to make meaning of the text.

Reading and discussing the text

Read the introduction on page 3 together, then discuss why the author wrote this book and who she expected to read it. Point out that using “you” and “your” shows that she is directing the book at specific readers.

- *What can you tell about her point of view? (The tone and language indicate she thinks the body is wonderful; she wants to tell the reader all about it and how to look after it.)*
- *Have you ever thought of your body as a machine? Is it a good metaphor? Why?*
- *Chapter 1 is called “Nuts and Bolts”. How does this fit with the machine metaphor? What do nuts and bolts do? What are the nuts and bolts of the body?*

Explain that when a metaphor is used in this way, it’s called an extended metaphor or an analogy.

The students can read Chapter 1 silently, using the idea of the body as a machine to help them understand the text.

- *On page 5, there is a metaphor about cells. (Cells were named because they looked like rooms.) Can you find another metaphor on page 6? (Cells are the building blocks of organs.)*

Discuss how metaphors can make it easier to understand a text.

Ask the students to read the remaining chapters. As they read, they should continue to think about how the extended metaphor helps to make the author’s meaning clear.

When the students have finished reading, return to some of the diagrams, ensuring the students have understood them. Encourage them to make personal connections to deepen their understanding. Some examples of discussions could be:

- *How do you think scientists know the information on pages 10 and 11? What would be the result of injuries to different parts of the brain?*
- *In Chapter 3, the author says the skin is like a waterproof barrier, and the skeleton is a hard framework. What other structures have these features? (a building, a tent, an umbrella)*
- *Look at the diagrams on pages 14 and 15. How useful is the machine analogy? Have you used tools or machines with joints like these?*

- *Hold your shoulder, elbow, or knee and feel the joint working as you move. Does this help you to visualise what the bones are doing?*
- *Examine the information on pages 16 and 17 and discuss what happens when a bone mends. Have you ever broken a bone? Did you know that this was happening inside the cast?*

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 Making connections

Ask the students to write about a significant event that involved their bodies. These could include a broken limb, surgery, an injury, working out to increase fitness, or needing glasses or hearing aids. The students can use the text and other sources to show how their story relates to the information in the book.

S Using figurative language to make meaning

The students can think of another metaphor that describes something familiar. For example, “the river of life”, “the game of life”, “the classroom is the school’s beating heart”.

 The students can use the blackline master to analyse and record their own metaphors.

S Exploring how the human body is made up of many parts, each with a specific function

S Recognising how some parts of the body work together in systems, for example, the heart and lungs

How much exercise is too much? The students can survey their classmates and find out what people think about the statement “Too much exercise is bad for you.”