

Name: Elementary Example

Chapter Title: Magnets



SQ4R



<http://www.itrc.ucf.edu/forpd/>

Survey: Look at the headings and subheadings; pictures, charts, graphs, and maps; and if there is one, the chapter summary.

What do I already know?

magnets are attracted to metal

my parents use magnets to put my work up on the refrigerator

two magnets will either stick together or push each other apart

What do I predict I might learn?

how magnets are used

where magnets come from

why or how magnets attract objects

Questions: Turn the headings and subheadings into questions.

1. What are magnets?
2. What is magnetite?
3. What are magnetic force fields?
4. How does a compass work?

Read & Recite: Actively read the text. Pay attention to information that will answer your questions. Close the book and answer the questions you developed. Write the answers in your own words. Check your answers and revise if needed.

1. Magnets are objects that can push or pick up materials made of iron, nickel, or steel. They have been made by placing the magnetic material in a strong magnetic field.
2. Magnetite is an iron rock that is magnetic because of the Earth's magnetic field.
3. The magnetic force field is the area of force surrounding a piece of magnetite or a bar magnet. It helps explain how magnets attract other magnets. Magnets have poles. The magnetic force field surrounds the magnet and when opposite poles of a magnet are brought together, the lines of force join up and the magnets pull together. When like poles are brought together, the lines of force push away from each other.
4. Because of Earth's iron-nickel core, the Earth behaves like a magnet. A compass needle is also a magnet, with north and south poles. The compass needle marked S, is south-seeking and will always point to the Earth's south magnetic pole. Same for the North compass needle, it will always point North.

Review: Check your memory. Retell by verbalizing what you read in your own words.

Reflect: Make connections with what you already know about the topic. How can you use this information?

This information helped me understand the magnet lab we did in class.

What do I know now?

I know how compasses work now. The needle is a magnet and is attracted to the magnetic poles of the Earth. I also know how magnetic forces work. It explains why when two South ended magnets will always push apart.

What do I need to know more about?

I would like to know more about other uses of magnets.