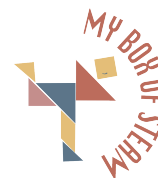




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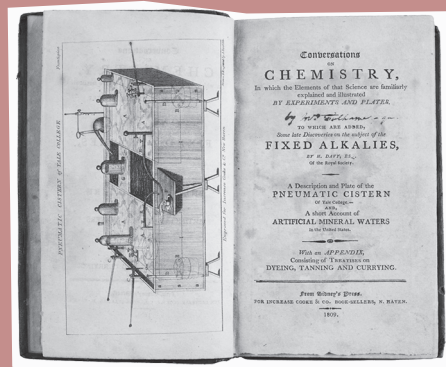
Science "HOW MAGNETS WORK"
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Michael Faraday



Jane Marcet

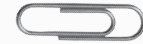


BOX INSTRUCTION

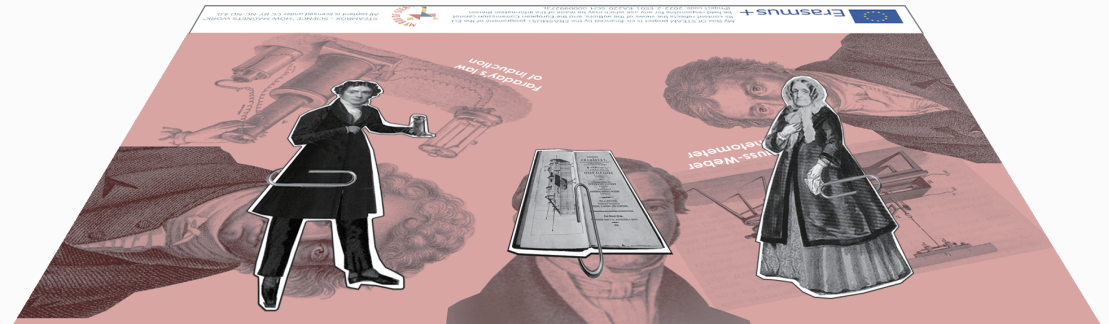
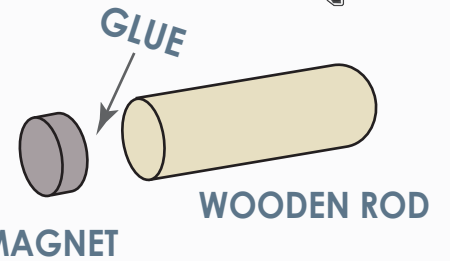
1) Cut out the figures.



2) Put a clip on each figure.



3) Prepare a magnet.



4) Put the figures on the paper-base.
Use a magnet underneath the paper-base to manipulate the figure with a clip.



Carl Friedrich Gauss

(1777 – 1855)

German mathematician, geodesist, and physicist. He is one of the greatest mathematicians, is said to have claimed:

"Mathematics is the queen of the sciences and number theory is the queen of mathematics."



André-Marie Ampère

(1775 – 1836)

French physicist and mathematician, founder of the science of electromagnetism. He is also the inventor of numerous applications, such as the solenoid (a term coined by him) and the electrical telegraph.



Wilhelm Eduard Weber

(1804–1891)

German physicist who, with his friend Carl Friedrich Gauss, investigated terrestrial magnetism and in 1833 devised an electromagnetic telegraph. The magnetic unit is the weber (symbol **Wb**) which owes its name to him.



Michael Faraday

(1791-1867)

English scientist who contributed to the study of electromagnetism and electrochemistry. His main discoveries include the principles underlying electromagnetic induction, diamagnetism and electrolysis.



THE FORMULA OF KNOWLEDGE

Why are there so many “why”?

Why does the sun rotate?

Why are the leaves green?

Why, why, why... Jane, from an early age, would ask “why” all the time.

Despite the fact that, in the eighteenth and nineteenth centuries, women were not allowed to study science subjects in depth, her father, a wealthy London banker, encouraged her.

Thus, Jane Haldimand deepened her curiosity and, as an adult, married the physician Gaspar Marcet, with whom she shared an interest in chemistry.

They got into the habit of attending conferences on the subject, and talked about them from the comfort of their home, where they began to invite other scientists. Jane thought of writing a book about these conversations so that other girls would follow her example.

She imagined a teacher and two girls and entitled it “Conversations on Chemistry”.

It was a real success which was published in sixteen editions.

It was also released in the United States, France and Germany.

The book was in all English bookshops, even in the far suburbs of London.

One day, in the Newington Butts bookshop, a young boy of just over thirteen came to work as a shop assistant. His family was very poor, he had to work and had no opportunity to study.

At first, the bookseller made him deliver the books that people ordered from him.

Michael Faraday ran from one end of town to the other. The following year, however, the owner offered him to become a bookbinder.

Paper had a special scent, and for Michael it was wonderful to stitch the pages together into a book. He had the chance to read them and discover many things: finally, he could find an answer to his never-ending “whys”.

One day, he came across Jane Marcet’s book. It was so well written that he read it in a puff.

He became fascinated by chemistry, which he began to study as an autodidact.

Years later, he became such an eminent scientist that a crater on the Moon was named after him.

Jane Marcet (1769–1858)

English salonnière and an innovative writer known for her accessible educational books, many of which were aimed at female readers. Her best-known work, “**Conversations on Chemistry**” (1805), was one of the first basic science textbooks.

