

**CHAPTER 02****Playing with Magnets**

Kids, let me tell you a story now!

**Story of Shepherd:**

This is a story about a shepherd named Magnus. He was herding his sheep through the mountains. While taking his goats and sheep for grazing on a mountain, he used to carry a stick with a small piece of iron attached to it. One day, while his goats were grazing, Magnus dipped his stick into a spring of water and poked at the pebbles and stones at the bottom with it. Suddenly he felt something pulling his stick. When he took it out of the water, he saw a stone stuck to the iron cap. He

noticed the ferrule of his stick and nails in his sandals got stuck to a rock.

**Can you guess what it is?**

It is a magnet. It's name is Lodestone. It is a natural magnet and possess the property of attracting iron.

Thus, the magnets were not invented rather discovered and named after the shepherd Magnus as Magnetite. Lodestones are natural magnets made from a substance called Magnetite.

**What are magnets?**

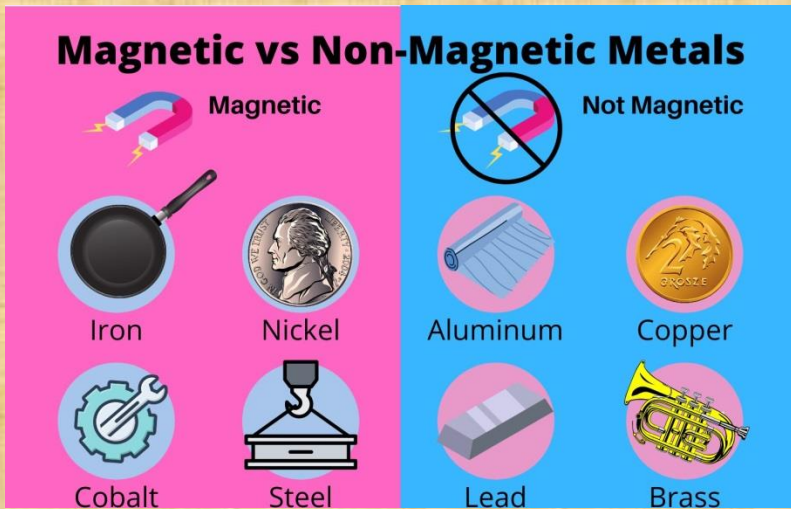
I am sure that you could have played games with magnets right!



Magnets are a big part of our everyday lives. From our cars to computers, to the great earth we walk everyday magnets are everywhere whether they are natural or man-made. Either way, a magnet is an object that creates a magnetic field.

There are two kinds of magnets – the kind you find in nature like the Lode stones and the kind that people make like magnetic materials from steel, iron, cobalt, aluminum etc.

Magnets only attract certain type of metals like iron, steel, cobalt and nickel. The materials that are attracted by magnets are called magnetic materials.



Other materials such as glass, plastic, wood and paper are not attracted by magnets. The materials that are not attracted by magnets are called non-magnetic materials.

Either way, a magnet is a metal or rock that creates a magnetic field and responsible for attracting other magnets and some metals.

### Finding materials attracted by magnets:

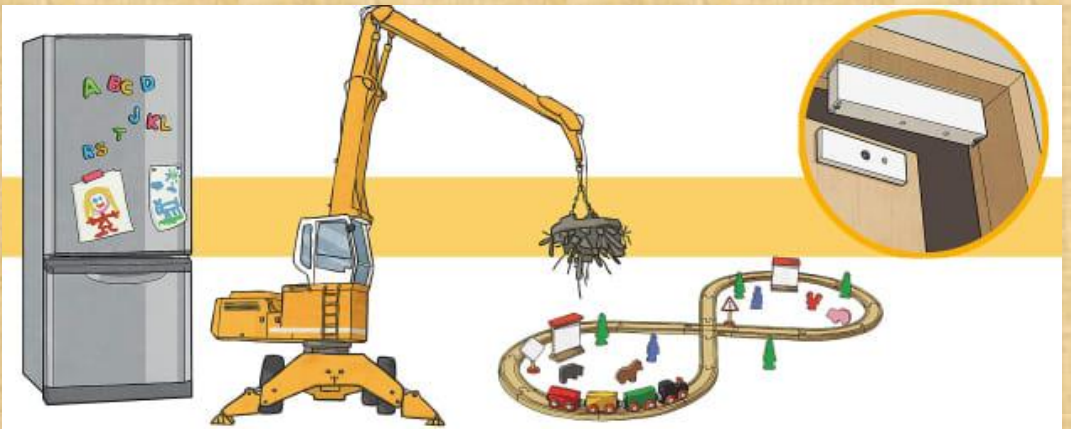
Take a bar magnet, nail, jump-clip, plastic scale, a piece of glass, brass key, paper, iron bolt, pen, blade, pencil, knife, stainless steel spoon, piece of chalk, wood and touch the magnet to each item.

### Does the magnet attract every object?

Name of the object	Material of which the object is made	Attracted by the magnet (yes/no)
Jump clip	Iron	Yes

Scale	Plastic	No
Pen stand	Wood	No
Paper	Paper	No
Iron nail	Iron	Yes

Magnets are used in our everyday life.



- A magnetic needle in a compass shows the direction.
- Magnets are also used in MRI to diagnose the health problems.
- Magnets can stick any note on refrigerator doors to remember the important things and also used indoors in refrigerators to keep the door shut.
- They are also used in food industries to separate small pieces of metals from food grains.

Some farmers give their cows a magnet to swallow. This small magnet attracts nails and wire a cow accidentally eats. Without the magnets, the metal would pass through the cow's stomach and damage the cow's other organs.

Breakfast cereal often contains iron. Some cereals contain enough iron that its pieces are attracted to a magnet.

- One of the main uses of magnet is in the production of electricity.
- Magnets are also used for certain high speed trains, computers, telephones, machines, compasses, computers, televisions, telephones and many more.

