Nova’s Guide to the Magic of Magnets

Get ready to attract some knowledge with Nova the Owl!

- **Magnets create an invisible area of influence around them called a magnetic field, where the magnetic force is strongest at the poles.**
- **Every magnet has two ends called poles: a North pole and a South pole. Opposite poles attract each other, while like poles push away, or repel.**
- **Only certain metals are magnetic. Materials like iron, nickel, and cobalt are strongly attracted to magnets; these are known as ferromagnetic materials.**
- **A magnet's force can act at a distance, meaning it does not need to touch an object to pull it toward itself.**
- **You can create a temporary magnet, called an electromagnet, by wrapping a wire around an iron nail and running an electric current through it.**

Did you know? Did you know that the Earth itself acts like a giant magnet? This is because of the molten iron and nickel in our planet's outer core! This magnetic field creates the magnetosphere, which protects our atmosphere from harmful solar winds and helps migratory birds find their way home.

Key vocabulary: Magnetic field · Attract · Repel · North pole · South pole · Ferromagnetic · Force