Magnetism

0507.12.3 Design and explain an investigation exploring the earth's pull on objects
What is magnetism?

Magnetism is a force created by the motion of electrons in atoms.

When the electrons in an atom line up in the same direction, they create a magnetic field.
When the atoms in a magnet align, they create two regions called the north pole and the south pole.

*Like poles repel - opposites attract!*
Which poles repel and attract?
Create an electromagnet

An electromagnet is a magnet created by using an electric current.

Materials: flashlight battery, coil of insulated wire, paper clips, and a nail.
In your Science journal, write down your observations and steps. Also answer these questions:
1. Is the nail magnetic before you begin?
2. Is the nail magnetic after you finish?

Steps:
1. Coil the wire around the nail in the same direction.
2. Tape one bare end of the wire to the positive terminal on the battery and the other bare end to the negative terminal.
3. The nail will now act as a magnet because the electric current passes through the coils. Now try to pick up the paper clips.