

## ELECTRICITY AND MAGNETISM

### Magnetism

#### **TRUE or FALSE**

**1.** Magnetism is the force of attraction or repulsion made by magnetic materials to one another and to other metal materials.

- a) True
- b) False

**2.** We use magnets to separate plastics from other materials.

- a) True
- b) False

**3.** Electromagnetism is a force that comes from a process that involves matter and heat.

- a) True
- b) False

#### **MULTIPLE CHOICE**

**4.** This was one of the first scientists in the 18<sup>th</sup> century who investigated electricity and discovered the relationship between electricity and lightning.

- a) Thomas Edison
- b) Andre-Marie Ampere
- c) Benjamin Franklin
- d) Alexander Graham Bell

- 5.** Hans Christian Oersted discovered the \_\_\_\_\_ between electricity and magnetism.
- a) conflict
  - b) connection
  - c) complexity
  - d) love
- 6.** He noticed that his compass was affected when a(n) \_\_\_\_\_ was switched on and off nearby.
- a) light
  - b) TV
  - c) electric current
  - d) fuse box
- 7.** Oersted discovered that, in addition to thermal energy, lightning produces a magnetic force.
- a) True
  - b) False
- 8.** If we place a compass next to a \_\_\_\_\_, the compass needle moves.
- a) TV
  - b) magnet
  - c) electric circuit
  - d) fuse box
- 9.** Ampere discovered that a common particle was producing both electricity and magnetism. What was it?
- a) neutrons
  - b) electrons
  - c) protons
  - d) heat

**TRUE or FALSE**

**10.** Bar magnets are temporary magnets. This means they can be switched on and off.

- a) True
- b) False

**11.** The North Pole is positively charged, and the South Pole is negatively charged.

- a) True
- b) False

**12.** Bar magnets repel metals such as iron, steel, cobalt and nickel.

- a) True
- b) False

**13.** What happens when we put two magnets together?

Complete the pictures with the NORTH (**N**) and SOUTH (**S**) poles, and arrows

→ ← to show the direction of the magnetic force.

**Attract**


**Repel**
