



Module: Electricity and Magnetism

Electrostatics:

At the end of this section, you should be able to:

1. Explain that all substances contain many positive and negative charges.
2. Explain how the charge of an object depends on the total numbers of protons and electrons.
3. Explain why objects are usually charged by moving electrons, and not protons.
4. Predict the behaviour of charges acting on each other.
5. Explain how uncharged objects can be attracted by charged objects via induction.
6. State the principle of conservation of charge.
7. Calculate the final charge on an object when it is brought in contact with another charged object.
8. State the principle of charge quantization.
9. Calculate the number of electrons that are required to create a charge.

Important terms:

- Elementary charge
- Electrical insulators
- Electrical conductors
- Induction
- Conservation of charge
- Charge quantization.

Additional notes: <http://www.everythingmaths.co.za/science/grade-10/16-electrostatics>

Practice questions: