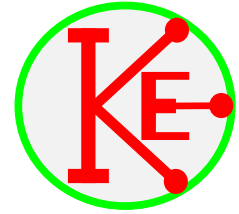


Investigation of a Magnet and a coil of wire.



SAFETY ISSUES. Some of these investigations use Neodymium magnets. These magnets are very strong and can cause painful blisters if skin becomes trapped between the magnets or between the magnets and other metals.

- (a) Connect the COMMON and CONTINUITY leads of Squeekie together.
Note the pitch of the tone from Squeekie.

.....

- (b) Connect the coil of wire to Squeekie:-
COMMON to the one coil connection and CONTINUITY to the other

Note the pitch of the tone from Squeekie.

.....

What can you conclude about the wire used to make the coil?

.....

- (c) (i) With Squeekie connected to the coil, bring the magnet near to the coil.
What happens to the pitch of the tone from Squeekie?

.....

- (ii) Pull the magnet away from the coil.
What happens to the pitch of the tone from Squeekie?

.....

- (iii) Turn the magnet round and bring it near to the coil.
What happens to the pitch of the tone from Squeekie?

.....

- (iv) Pull the magnet away from the coil.
What happens to the pitch of the tone from Squeekie?

.....

- (v) What happens to the pitch of the tone from Squeekie if the magnet is at rest near to the coil

.....

- (d) Summarise your observations in the investigations in (c)

.....

.....

.....

.....

.....

- (e) The pitch of the tone from Squeekie is depends on how much electric current passes from either the CONTINUITY or INSULATION terminal to the COMMON terminal.

The resistance of the coil of wire is fixed and is not changed by a magnetic field.

Other than resistance changing between the terminals of Squeekie, how else the electric current passing between the terminals of Squeekie could be made to change.

Use this to explain your observations in (c).

.....

.....

.....

Further investigations.

- (f) Use the Internet / books to research how electricity is generated in a power station. Present your findings below and remember to give your sources.

.....

.....

.....

.....

.....

.....

.....

.....