the 2 ends of a bar magnet are called —— parts of a magnet where its magnetic field is strongest	when two like poles (e.g. two north poles or two south poles) are put together, they each other	the only way to tell if an object is magnetised is to see if it another magnetised object	magnetic field lines go from to
poles	repel	repels	North to South
the lines represent	what do these do the strength of an electromagnet? • increasing the number of turns • increasing the current • using a soft iron core	what type of magnet do an electric bell, & an electronic switch (relay) use?	some cranes use electromagnets to pick up cars & drop the car by turning off the
field patterns around a bar magnet	make it stronger	electromagnet	current
a magnet that keeps it magnetism is called a magnet	a region in which the magnetic effect is felt is called	•	
permanent	a magnetic field	repulsion	attraction
the Earth has a huge magnetic field because the core is filled with molten	2 ways to make a magnet lose its magnetism	type of train that does not contact the rails, but is suspended slightly above, & propelled using electro- magnetism	
iron	heat it drop it	Maglev	field patterns around a bar magnet

the 3 magnetic metals are, &	the alloy steel is magnetic because it contains (metal)	when two unlike poles (e.g. a north and a south pole) are put together, they each other	electromagnets can be used in scrap yards because
iron, cobalt, nickel	iron	attract	they can be turned on and off
magnet made by passing electricity through a coil of wire, which often has a core inside	electricity is a form of	name these 3 circuit symbols ———— —— —— ——— ——— ————————————————	name these 3 circuit symbols ————————————————————————————————————
electromagnet	energy	lamp cell voltmeter	ammeter fuse battery
name these 2 circuit "symbols" ————————————————————————————————————	conductor or insulator? 1. gold ring 2. plastic spoon 3. wood	One bulb breaks - what happens to the other?	will it work?
wire, and 2 joined wires	1. conductor 2. insulator 3. insulator	it stays lit	no (cells need to both face the same direction)
a stationary electric charge that is built up on a material is called ——————	rubbing a balloon on your hair removes some electrons off your hair and gives the balloon a slight charge	using the trampoline, the tumble drier, & brushing your hair can all lead to	part of the atom; a positively charged particle that is found inside the nucleus of the atom
static electricity	negative	static electricity	proton

name the circuit	name the circuit	a substance that allows electricity to pass through it.	a substance that does not allow electricity to pass through it.
series circuit	parallel circuit	conductor	insulator
part of the atom; a negatively charged particle that is found outside of the nucleus of the atom	a safety device used in a circuit to prevent overloading	electrodes surrounded by an electrolyte. A chemical reaction generates electricity (releases electrons).	a complete path for an electric current.
electron	fuse	cell	circuit
device used to control the flow of electricity.	circuit where the electricity has to flow through all the components	the push of an electrical supply	will the bulbs light?
switch	series circuit	voltage	no (rubber is an insulator)
name these 3 sources of electrical energy.	a circuit where the electricity has a choice of pathways	what would you use to measure the voltage produced?	name the device that produces an electrical charge on its dome
mains electricity, battery, solar cell	parallel circuit	voltmeter (or a multimeter set to read voltage)	Van de Graaff generator

what happens when the generator is turned on?	each strand of hair is positively charged so the strands each other	a circuit is when the terminals of the battery or the supply are joined together directly	a transfers electrical energy to another form of energy, eg a lamp or a resistor
hair stands on end	repel	short	component
a cell, a battery, the mains supply and solar cells (panels) are all sources of	name this device	The light is on because	The light is off because
electrical energy	electric bell	there is a complete circuit	there is NOT a complete circuit
what kind of switch?	what has a student made?	why wouldn't this torch work?	This could be used to test if substances are or
two-way (switch)	an electromagnet	broken filament/ no complete circuit	conductors (or) insulators
2 metals that produce a "good" voltage in the lemon battery are &	to do a fair test to compare different pairs of metals in a lemon battery, to find the biggest voltage, the metal pieces should be	2 metals of the same type can't be used in a lemon battery as there is no	where does a magnet always point?
zinc copper	the same size, immersed to same depth & kept the same distance apart	chemical reaction	magnetic north pole