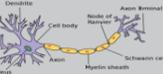
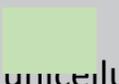


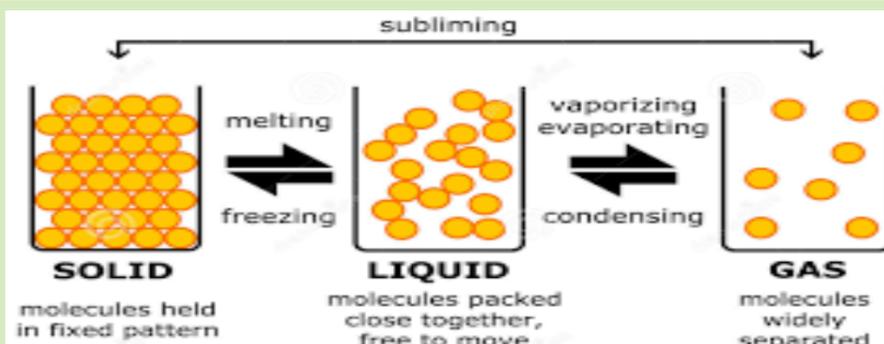
1. Biology

Specialised Cell	How specialised
 Red blood cell— carries oxygen	<ul style="list-style-type: none"> Contains haemoglobin which carries oxygen Doesn't have a nucleus so there is more space for oxygen Has a biconcave shape for a large surface areas
 Ciliated epithelial cell - moves particles	<ul style="list-style-type: none"> Contain cilia which move mucus
 Nerve cell — transmits electrical signals	<ul style="list-style-type: none"> Thin and long so they can carry messages over long distances Have branches to join to other nerve cells Have a myelin sheath which increases the speed of messages
 Sperm cell—fertilises the egg	<ul style="list-style-type: none"> Have a tail so they can move
 Egg cell— fertilised by sperm	<ul style="list-style-type: none"> Very large and has a nutrient rich cytoplasm to support embryo growth
 Bacteria— unicellular organism	<ul style="list-style-type: none"> Don't have a nucleus Have a flagellum that spins allowing for movement
 Protozoa— unicellular organism	<ul style="list-style-type: none"> Has pseudopodia (false feet) that allow movement
 Yeast— unicellular organism	<ul style="list-style-type: none"> Have a cell wall like a plant cell but no chloroplast

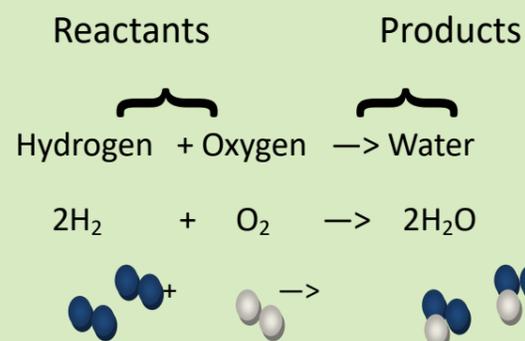
Drug— a substance that effects chemical reactions in the body.

Stimulant	Depressant
Speed up messages in the brain. Can cause more alertness and an increase in energy, insomnia, nervousness. Can cause liver and heart damage, loss of memory and concentration. E.g. nicotine	Slow down messages in the brain. Can cause; feelings of lowered inhibition, slowed thinking, slowed muscular activity, hallucinations. E.g. alcohol.

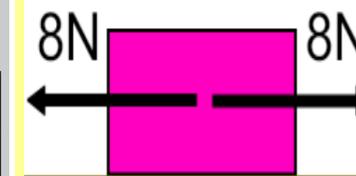
2. Chemistry



Atom	A single sphere that makes up all matter
Molecule	A group of two or more atoms chemically bonded.
Particle	An atom or a molecule



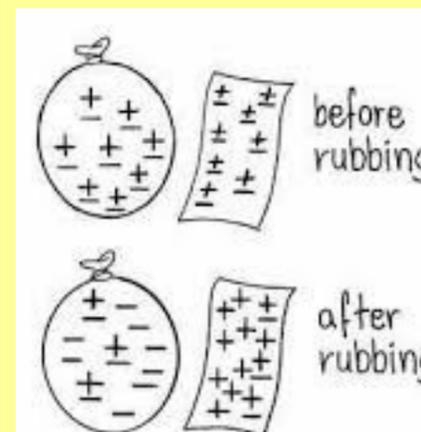
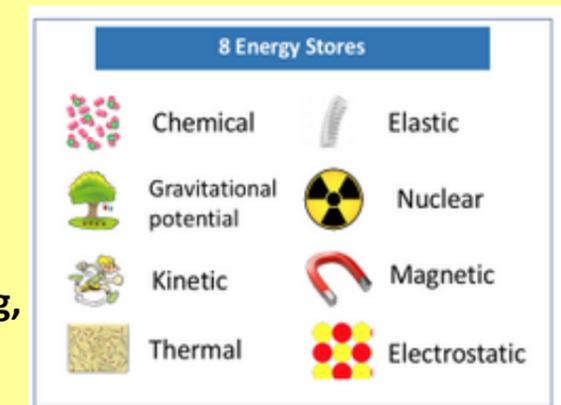
3. Physics



A **force** can be a **push** or a **pull**. Force diagrams show the **size and direction** of a force. When objects are moved by a force work is done. Work can be calculated by **Work done (J) = Force (N) x Distance (m)**

Contact Forces	friction, air resistance, water, resistance, normal contact.
Non-contact	Gravity, magnetism, weight
Fluid	A liquid or gas that can change shape and flow from one place to another

Energy cannot be created or destroyed only **transferred** from one store to another. Energy can be transferred **by, heating, mechanically, electrically or by radiation.**



All matter has a **charge**. Charges can be **positive** or **negative**. When charges are **separated** from an object, this causes **static electricity**. When objects are charged they can **attract or repel** when not in contact.