

## Properties of Materials

Material – what an object is made from.

Magnetic – attracted to magnets.

Hard/soft

Shiny/dull

Rough/smooth

Waterproof

Transparent/translucent/opaque

Solubility – does it dissolve in a liquid? Reversible by evaporation e.g. salt in water.

Conductivity – electrical and thermal.



## Materials and States of Matter

### Changes

Irreversible change – makes a new material cannot be changed back e.g. bread to toast, wood to ash.

Reversible change – dissolving, changes of state e.g. melting, mixing.

Solids – hold their shape e.g. ice (0 degrees Celsius)

Liquids – form a pool not a pile e.g. water

Gases – escape from an unsealed container e.g. steam (100 degrees Celsius).

### How to separate materials

filtering

sieving

evaporating

### How to shape materials

Squash (flat)

Bend (curve)

Twist (curl)

Stretch (longer)

### Uses of everyday materials

Wood – furniture and matches

Metal – cars and coins

Plastic – bags and bottles

Glass – windows and glasses

**Reduce** – use it less

**Re-use** - use it again

**Recycle** - turn it in to something new

### Transparent



### Translucent



### Opaque

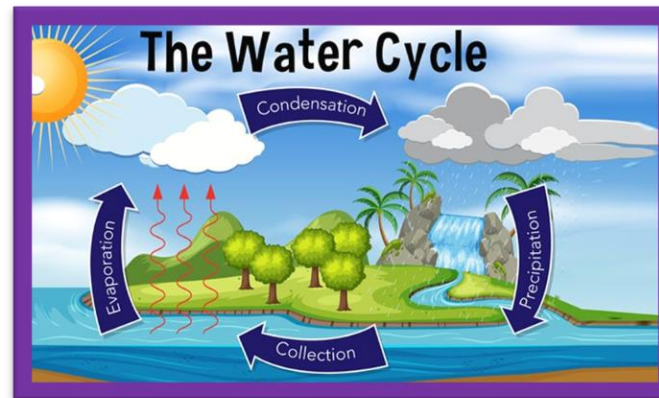


### Water Cycle

Evaporation - sun heats water and it rises as vapour to the air

Condensation - vapour cools back to liquid and forms cloud

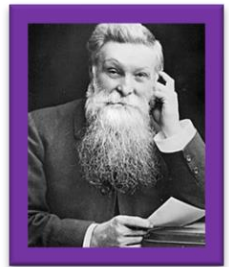
Precipitation - clouds get heavy and water falls to ground as rain or snow.



**Spencer Silver**  
Chemist – invented glue for sticky notes



**John Boyd Dunlop**



**Invented Tyres**

### Rock



### Water



### Plastic



### Wood



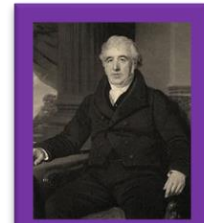
### Glass



### Metal



**Charles Macintosh**



**Invented waterproof raincoat**