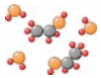
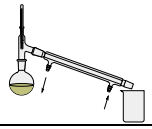
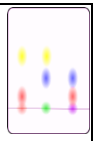
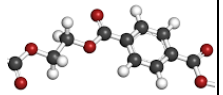
The big picture
The building blocks of everything
The periodic table
Elements, compounds and mixtures
Compounds
Conservation of mass
Is it pure?
Purifying rock salt
Distillation
Chromatography
Metals
Non-metals
Composites, ceramics and polymers

Key ideas and terms	
Periodic table	 Contains useful information about the known elements.
Period	The horizontal rows in the periodic table. 
Group	The vertical columns in the periodic table. The elements in a group react in similar ways. 
Atom	Everything is made from atoms, including you. Atoms are tiny particles that are far too small to see, even with a microscope. They are indivisible. 
Element	There are over a hundred different elements. The atoms in a particular element are identical to each other. 
Compound	A substance that contains atoms of two or more different elements and these atoms are chemically joined together. 

Mixture	A substance that contains different elements, compounds and molecules that are physically mixed but not chemically bonded. Because of this mixtures are easily separated. 
Chemical formula	Tells you the number and types of atoms in a chemical. N_2 means two nitrogen atoms.   H_2O means two hydrogen atoms and one oxygen atom.
Reactants	The substances at the start of a chemical reaction. Reactants —form→ Products
Products	The substances made in a chemical reaction. Reactants —form→ Products
Conservation of mass	The total mass of all the reactants used in a chemical reaction is the same as the total mass of all the products made in the chemical reaction. 
Pure	 A substance is pure when it only contains one substance and is not a mixture. 
Filtration	Used when we want to separate particles of solids from a solvent (liquid). 
Evaporation (the experiment)	Used when we want to remove liquid from a mixture of liquid and dissolved solids. 
Distillation	 A method to separate two liquids based on their boiling points.
Condensation	Where a chemical cools from a gas to a liquid 

Chromatography	The process used to separate a mixture of things in a solution. **Mobile phase:** The liquid that moves. **Stationary phase:** The surface chromatography is done on. It doesn't move. 
Metals	Elements where the usual properties are: high melting points, good heat and electrical conductivity, shiny, hard, dense, malleable, ductile, sonorous.
Sonorous	Rings when hit. 
Malleable	 Bends without breaking.
Ductile	Stretches into wires without breaking. 
Hard	Difficult to scratch. 
Non-metals	Elements where the usual properties are: low melting points, poor heat and electrical conductivity, dull, soft, not dense, not malleable, not ductile, not sonorous.
Ceramics	 Hard and brittle, high melting point e.g. pottery and brick
Polymers	Very long molecules made from small molecules called monomers. 
Composite	 A material made from at least two others.

Year 7
Elements, compounds and mixtures