

Naming compounds

1	What is an element?	A substance which contains only one type of atom
2	What is the smallest part of an element called?	Atom
3	What is a compound?	A pure substance made up of more than one type of element chemically joined
4	How do the physical properties of a compound compare to the elements which make it up?	They are different
5	How many of each element are in a molecule of H ₂ O?	Two hydrogen atoms (H), one oxygen atom (O)
6	How many of each atom are in C ₆ H ₁₂ O ₆ ?	Six carbon atoms (C), twelve hydrogen atoms (H), six oxygen atoms (O)
7	Which types of atoms does a hydroxide molecule include?	Hydrogen and oxygen
8	How are metals and non-metals arranged in a chemical name?	The metal comes first and stays the same; the non-metal comes second and changes
9	What do you call atoms of the same element, but with different numbers of neutrons in the nucleus	Isotope
10	I know how a simple model of an atom was proposed by a Greek philosopher called	Democritus
11	Which scientist ordered the elements in order of atomic weight and noticed every eighth element was similar	Newlands

History of the atom

1	What are the two types of charge	Positive and negative
2	What did Thomson think the atom looked like?	A Plum Pudding
3	Which scientist conducted the alpha scattering experiment in which positive alpha particles were fired at thin gold foil?	Ernest Rutherford
4	What did the results for the alpha scattering experiment show about the atom?	Mostly empty space
5	What did Thomson think the atom looked like?	Small dense positive nucleus
6	Which scientist first grouped elements with similar properties into groups	Dmitri Mendeleev
7	How in the modern periodic table arranged?	In order of atomic number. The columns are called the groups and the rows are called periods
8	Why are the elements arranged into groups?	The elements in a group will have similar properties.
9	In which two ways are Group 1 metals different to other metals?	They are soft and they have lower melting points

The Periodic table

1	Which two properties of the Group 7 elements makes them similar to other non-metals?	They have low melting and boiling points and they do not conduct electricity
2	What is the reaction in which a more reactive element will take the place of a less reactive element in a compound?	displacement reaction

Glossary

1	Atom	The smallest quantity of an element that can take part in a chemical reaction, consisting of a positively charged nucleus made up of protons and neutrons, surrounded by negatively charged electrons
2	Nucleus	the positively charged, dense region at the centre of an atom, made up of protons and neutrons, orbited by electrons
3	Proton	a subatomic particle found in the nucleus of an atom, with an electrical charge of +1
4	Neutron	a neutral subatomic particle; a type of nuclear radiation, which can be emitted during radioactive decay
5	Electron	a subatomic particle, with a charge of -1, which orbits the nucleus of an atom
6	Ion	formed when an atom loses or gains one or more electrons to become charged
7	Element	a substance that consists only of atoms with the same number of protons in their nuclei
8	Atomic number	the number of protons in an atom of an element
9	Isotopes	atoms of the same element, but with different numbers of neutrons in the nucleus
10	Periods	Horizontal rows on the periodic table
11	Groups	Vertical columns on the periodic table