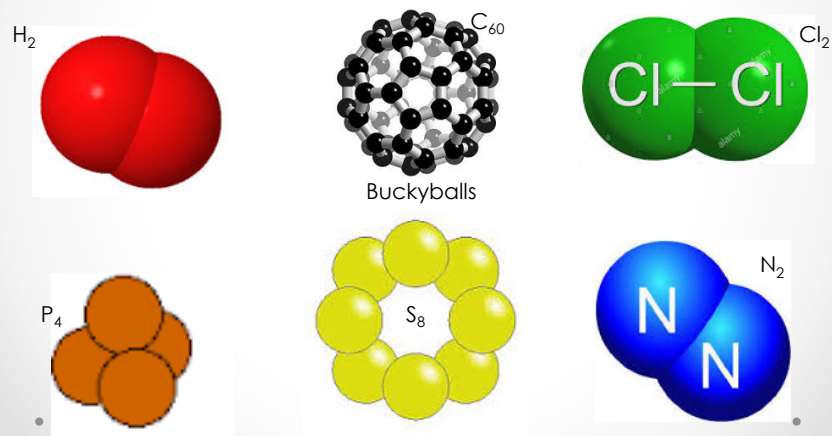


Chemical formula, Part 1

• • •
Year 8 Chemical Sciences

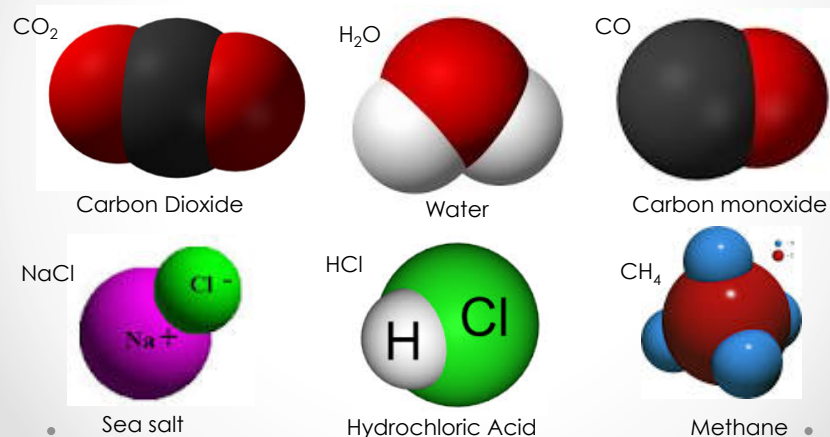
Molecular Elements

- All molecules identical



Molecular Compounds

- More than ONE type of atom



From symbols to formula

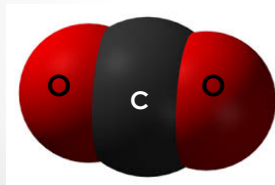
- Chemical symbols are the same around the world
- Elements and compounds can have different atoms and/or numbers of these atoms
- Chemical formula are used to represent these differences
- Why is this important?
- Can you think of any areas of science where this universality is important?
- Can you think of any occupations where this universality would be important?

Chemical formulae

- **Chemical symbols** of elements in the molecule of a substance
- **Number** of each atom present in the molecule
 - In proportion to each other i.e. ratio

Carbon dioxide

How many carbon atoms?



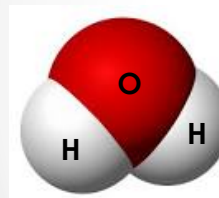
How many oxygen atoms?



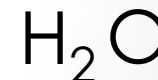
Ratio is 2 atoms of oxygen: 1 atom of carbon

Another example

Water



How many hydrogen atoms?



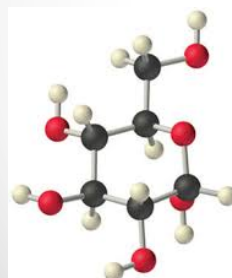
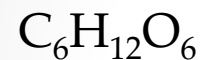
How many oxygen atoms?

Ratio is 2 atoms of hydrogen: 1 atom of oxygen

Draw a molecule

Numbers of Atoms

Glucose



D-Glucose

	Carbon	Hydrogen	Oxygen
$\text{C}_6\text{H}_{12}\text{O}_6$	6	12	6

Counting atoms in Compounds Activity

Why are chemical formula useful?

Activity 11 complete TABLE at home

Resources on Moodle

Chemical formula

<http://www.chemicalformula.org/chemistry-help/chemical-formula-basic>

Common element hangman

<http://www.chemicalformula.org/chemistry-games/chemical-formula/common-elements/hangaroo/>

Education Perfect

Access 3. Compounds and Molecules->3. Chemical Formula

