

C1 – Chemistry Fundamentals Core Questions

| | Question | Answer |
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| 1 | What is a particle? | An incredibly tiny object |
| 2 | What is an atom? | A particle made of protons, neutrons and electrons |
| 4 | What are the three subatomic particles? | Protons, neutrons and electrons |
| 5 | How are the subatomic particles arranged in an atom? | Protons and neutrons in a nucleus, electrons travel around the nucleus in shells |
| 6 | What is the charge of a neutron? | Neutral / 0 / No charge |
| 7 | Where in an atom would you find neutrons? | The nucleus |
| 8 | Which particle orbits the nucleus of an atom? | Electrons/ e- |
| 9 | What is the charge of a proton? | Positive/ +/ +1 |
| 10 | How can atoms be different to each other? | In the number of protons, neutrons and electrons they have |
| 11 | What is a chemical bond? | A strong connection between two atoms |
| 12 | What is an element? | All substances are made of elements. They are made up of one type of atom |
| 13 | What is a compound? | A substance made of atoms of different elements chemically bonded together |
| 14 | What is a mixture? | Different objects together but not chemically bonded |
| 15 | Is air an example of an element, a compound, or a mixture? | A mixture |
| 16 | What is a molecule? | Two to thousands of atoms joined together |
| 17 | What is a molecular substance? | A substance made of lots of molecules which are not bonded to each other |
| 18 | What is a giant substance? | A substance made of billions of atoms chemically bonded together |
| 19 | Name five molecular substances | Hydrogen, oxygen, water, carbon dioxide and methane |
| 20 | What is a chemical formula? | A combination of symbols and small numbers which tells you which atoms are in a substance |
| 21 | What do the small numbers in a chemical formula represent? | The number of a certain element in a substance |
| 22 | What is the correct chemical formula for Carbon Dioxide? | CO ₂ |
| 23 | What is the correct chemical formula for Water? | H ₂ O |
| 24 | What are reactants? | The substances which you start with in a chemical reaction |
| 25 | What are products? | The substances which you end up with in a chemical reaction |
| 26 | What is a property? | The way something behaves, e.g. colour, magnetic |
| 27 | How are the properties of a compound dependent on the properties of the elements which make them up? | They are not related at all |
| 28 | What is the law of conservation of mass? | Atoms are not created or destroyed in a chemical reaction, they are just rearranged. |

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| 29 | What is a balanced equation? | A symbol equation where all the reactant atoms have become product atoms |
| 30 | What is the name of the process of turning a solid into a liquid? | Melting |
| 31 | What is the name of the process of turning a gas into a liquid? | Condensing |
| 32 | What is the name of the process of turning a liquid into a solid? | Freezing |
| 33 | What is the name of the change of state from a liquid to a gas? | Evaporation |
| 34 | Is air an example of an element, a compound, or a mixture? | A mixture |