# Principles of chemistry

Pearson Edexcel · International GCSE · Chemistry · Vocabulary in context

| Word | Example |
|---|---|
| **melting** /'meltɪŋ/ | **Melting** turns ice into water. |
| **freezing** /'fri:zɪŋ/ | **Freezing** turns water into ice. |
| **boiling** /'bɔɪlɪŋ/ | During **boiling**, bubbles form all through the water. |
| **evaporation** /ɪˌvæpə'reɪʃn/ | **Evaporation** dries wet clothes. |
| **condensation** /kɒnden'seɪʃn/ | **Condensation** forms water droplets as moist air cools. |
| **sublimation** /ˌsʌblɪ'meɪʃn/ | Dry ice undergoes **sublimation** from solid to gas. |
| **solvent** /'sɒlvənt/ | Water is the **solvent** in salt water. |
| **solute** /'sɒlju:t/ | Salt is the **solute** in salt water. |
| **solution** /sə'lu:ʃn/ | Salt water is a **solution**. |
| **saturated solution** /'sætʃəreɪtɪd sə'lu:ʃn/ | A **saturated solution** cannot dissolve any more solid. |
| **solubility curve** /ˌsɒlju:'bɪlɪti kɜ:v/ | Read the **solubility curve** at the temperature stated. |
| **element** /'elɪmənt/ | Each **element** of the array holds one value. |
| **compound** /'kɒmpaʊnd/ | Water is a **compound** of hydrogen and oxygen. |
| **mixture** /'mɪkstʃə/ | Air is a **mixture** of gases. |



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| **filtration** /fɪl'treɪʃn/ | Use **filtration** to remove sand from water. |
| **crystallisation** /ˌkrɪstəlaɪ'zeɪʃn/ | **Crystallisation** gives pure salt crystals from a solution. |
| **simple distillation** /'sɪmpl dɪstɪ'leɪʃn/ | **Simple distillation** gets pure water from salty water. |
| **fractional distillation** /'frækʃənl dɪstɪ'leɪʃn/ | **Fractional distillation** separates crude oil into fractions. |
| **paper chromatography** /'peɪpə krəʊmə'tɒgrəfi/ | Coloured spots separate as solvent moves during **paper chromatography**. |
| **Atomic number** /ə'tɒmɪk 'nʌmbə/ | **Atomic number** eight identifies an oxygen atom. |
| **mass number** /mæs 'nʌmbə/ | Carbon-12 has a **mass number** of 12.<br>Carbon-12 12 |
| **Isotope** /'aɪsətəʊp/ | Carbon-14 is a radioactive **isotope** of carbon.<br>Carbon-14 |
| **group** /gru:p/ | Sodium and potassium are in the same **group**. |
| **period** /'pɪərɪəd/ | The **period** of the wave is 0.02 s.<br>0.02 s |
| **state symbol** /steɪt 'sɪmbl/ | The **state symbol** (aq) identifies a substance dissolved in water.<br>(aq) |
| **mole** /məʊl/ | One **mole** of carbon has a mass of 12 g.<br>12 g |
| **Percentage yield** /pə'sentɪdʒ ji:ld/ | **Percentage yield** falls if some product is lost during transfer. |
| **Empirical formula** /em'pɪrɪkl 'fɔ:mjʊlə/ | Ethene has the **empirical formula** CH2.<br>CH2 |

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| **Ionic bonding** /aɪˈɒnɪk ˈbɒndɪŋ/ | Strong attractions between charged ions explain **ionic bonding**. |
| **cation** /ˈkætaɪən/ | Sodium loses one electron to form a **cation**. |
| **anion** /ˈænaɪən/ | Chlorine gains one electron to form an **anion**. |
| **Covalent bonding** /ˈkəʊvələnt ˈbɒndɪŋ/ | **Covalent bonding** shares electrons between the atoms in chlorine. |
| **Electrolysis** /ɪlekˈtrɒləsɪs/ | **Electrolysis** can extract aluminium from its molten compounds. |
| **cathode** /ˈkæθəʊd/ | Electrons leave the hot **cathode**. |
| **anode** /ˈænəʊd/ | The **anode** is the positive electrode. |
| **oxidation** /ˌɒksɪˈdeɪʃn/ | **Oxidation** is the loss of electrons. |
| **reduction** /rɪˈdʌkʃn/ | **Reduction** is the gain of electrons. |



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