# States of matter

A-Level Chemistry · Vocabulary in context

| Word | Example |
|---|---|
| **collide** /kə'laɪd/ | Particles must **collide** to react. |
| **pressure** /'preʃə/ | A sharp knife puts a large **pressure** on the bread. |
| **ideal gas** /aɪ'dɪəl gæs/ | An **ideal gas** follows pV = nRT exactly. $pV = nRT$ |
| **intermolecular forces** /ˌɪntəmə'lekjʊlə 'fɔːsɪz/ | Weak **intermolecular forces** let a gas boil at a low temperature. |
| **real gas** /rɪəl gæs/ | At high pressure, a **real gas** does not follow pV = nRT exactly. $pV = nRT$ |
| **ideal gas equation** /aɪ'dɪəl gæs ɪ'kweɪʒn/ | Use the **ideal gas equation**, pV = nRT. $pV = nRT$ |
| **kelvin** /'kelvɪn/ | Water freezes at 273 **kelvin**. 273 |
| **gas constant** /gæs 'kɒnstənt/ | R is the **gas constant**. R |
| **molar mass** /'məʊlə mæs/ | The **molar mass** of water is 18 g/mol. 18 g/mol |
| **crystalline solid** /'krɪstəlaɪn 'sɒlɪd/ | Salt is a **crystalline solid**. |
| **giant ionic** /'dʒaɪənt aɪ'ɒnɪk/ | Sodium chloride has a **giant ionic** structure. |
| **lattice** /'lætɪs/ | The ions in salt sit in a regular **lattice**. |
| **ion** /'aɪɒn/ | An **ion** is an atom that has gained or lost electrons. |



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| **simple molecular** /ˈsɪmpl məˈlekjʊlə/ | Iodine has a **simple molecular** structure. |
| **molecule** /ˈmɒlɪkjuːl/ | A water **molecule** has two hydrogen atoms and one oxygen atom. |
| **fullerene** /ˈfʊləren/ | A **fullerene** is a ball of carbon atoms. |
| **giant molecular** /ˈdʒaɪənt məˈlekjʊlə/ | Diamond has a **giant molecular** structure. |
| **covalent bonds** /ˈkəʊvələnt bɒndz/ | Atoms in a water molecule share electrons in **covalent bonds**. |
| **silicon(IV) oxide** /ˈsɪlɪkən ˈɒksaɪd/ | Sand is mostly **silicon(IV) oxide**. |
| **graphite** /ˈgræfaɪt/ | Pencils contain **graphite**. |
| **diamond** /ˈdaɪəmənd/ | **Diamond** is the hardest natural material. |
| **giant metallic** /ˈdʒaɪənt məˈtælɪk/ | Copper has a **giant metallic** structure. |
| **delocalised electrons** /dɪˈlɒkəlaɪzd ɪˈlektrɒnz/ | **Delocalised electrons** let metals conduct electricity. |
| **melting point** /ˈmeltɪŋ pɔɪnt/ | The **melting point** of ice is 0 °C.<br>0 °C |
| **boiling point** /ˈbɔɪlɪŋ pɔɪnt/ | The **boiling point** of water is 100 °C.<br>100 °C |
| **electrical conductivity** /ɪˈlektrɪkl kɒndəkˈtɪvɪti/ | Copper has a high **electrical conductivity**. |
| **solubility** /ˌsɒljuːˈbɪlɪti/ | Sugar has a high **solubility** in water. |



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