Chemistry of the environment

IGCSE Chemistry · Vocabulary in context

Word	Example
anhydrous /ænˈhaɪdrəs/	White **anhydrous** copper sulfate turns blue when water is added.
melting point /ˈmeltɪŋ pɔɪnt/	The **melting point** of ice is 0 °C. 0 °C
boiling point /ˈbɔɪlɪŋ pɔɪnt/	The **boiling point** of water is 100 °C. 100 °C
distilled water /dɪˈstɪld ˈwɔːtə/	We use **distilled water** because it has nothing dissolved in it.
impurities /ɪmˈpjʊərɪtiz/	The water contains **impurities**, such as mud.
oxygen /ˈɒksɪdʒn/	Things burn faster in pure **oxygen**.
sewage /ˈsuːɪdʒ/	**Sewage** in rivers kills fish.
microbes /ˈmaɪkrəʊbz/	**Microbes** in water can cause disease.
nitrates /ˈnaɪtreɪts/	Potassium nitrate is one of the **nitrates**.
phosphates /ˈfɒsfeɪts/	**Phosphates** from fertilisers can pollute rivers.
aquatic life /əˈkwætɪk laɪf/	Oil spills harm **aquatic life**.
minerals /ˈmɪnərəlz/	Tap water contains dissolved **minerals**, such as calcium.
toxic /ˈtɒksɪk/	Carbon monoxide is **toxic**: it stops the blood carrying oxygen.

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deoxygenation /diːˌɒksɪdʒəˈneɪʃn/	Too much algae causes **deoxygenation**: fish die from lack of oxygen.
sedimentation /ˌsedɪmənˈteɪʃn/	In **sedimentation**, mud sinks to the bottom of the tank.
filtration /fɪlˈtreɪʃn/	Use **filtration** to remove sand from water.
carbon /ˈkɑːbən/	All living things contain **carbon**.
chlorination /ˌklɔːrɪˈneɪʃn/	**Chlorination** kills germs in drinking water.
fertilisers /ˈfɜːtəlaɪzəz/	Farmers use **fertilisers** to help crops grow.
nitrogen /ˈnaɪtrədʒn/	Proteins contain **nitrogen**.
phosphorus /ˈfɒsfɔːrəs/	Plants need **phosphorus** for healthy roots.
potassium /pəˈtæsɪəm/	**Potassium** reacts with water and burns with a lilac flame.
noble gases /ˈnəʊbl ˈgæsɪz/	Helium and neon are **noble gases**: they hardly react.
complete combustion /kəmˈpliːt kəmˈbʌstʃn/	**Complete combustion** gives carbon dioxide and water.
carbon monoxide /ˈkɑːbən mʌˈnɒksaɪd/	**Carbon monoxide** is a poisonous gas with no smell.
particulates /pəˈtɪkjʊleɪts/	Diesel engines release **particulates**: tiny bits of soot.
incomplete combustion /ɪŋkəmˈpliːt kəmˈbʌstʃn/	**Incomplete combustion** happens when there is not enough oxygen.

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methane /ˈmiːθeɪn/	Cows give off **methane**.
oxides of nitrogen /ˈɒksaɪdz ɒv ˈnaɪtrədʒn/	Car engines make **oxides of nitrogen**, which cause acid rain.
fossil fuels /ˈfɒsl ˈfjuːəlz/	Coal and oil are **fossil fuels**.
sulfur /ˈsʌlfɜː/	**Sulfur** burns with a blue flame.
carbon dioxide /ˈkɑːbən daɪˈɒksaɪd/	We breathe out **carbon dioxide**.
greenhouse gases /ˈgriːnhaʊs ˈgæsɪz/	Carbon dioxide and methane are **greenhouse gases**.
global warming /ˈgləʊbl ˈwɔːmɪŋ/	**Global warming** is the rise in the Earth's average temperature.
climate change /ˈklaɪmət tʃeɪndʒ/	**Climate change** makes some places hotter and drier.
respiratory /rɪˈspɪrətəri/	Smoke can cause **respiratory** problems, such as asthma.
cancer /ˈkænsə/	Smoking can cause **cancer**.
acid rain /ˈæsɪd reɪn/	**Acid rain** damages trees and buildings.
photochemical smog /ˌfəʊtəʊˈkemɪkl smɒg/	**Photochemical smog** forms in sunny, busy cities.
renewable energy /rɪˈnjuːəbl ˈenədʒi/	Solar and wind power are **renewable energy**.

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Word	Example
catalytic converters /ˌkætəˈlɪtɪk kənˈvɜːtəz/	**Catalytic converters** in cars turn harmful gases into safer ones.
flue gas desulfurisation /fluː gæs diːˌsʌlfjʊəraɪˈzeɪʃn/	**Flue gas desulfurisation** removes sulfur dioxide from power station smoke.
calcium oxide /ˈkælsɪəm ˈɒksaɪd/	**Calcium oxide** forms when limestone is heated.
thermal energy /ˈθɜːml ˈenədʒi/	Rubbing your hands turns work into **thermal energy**.
photosynthesis /ˌfəʊtəʊˈsɪnθəsɪs/	Plants make sugar by **photosynthesis**.
chlorophyll /ˌklɔːrəʊˈfɪl/	**Chlorophyll** makes leaves green.
glucose /ˈgluːkəʊs/	Cells use **glucose** for energy.

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