5 · Energy changes

AQA · GCSE · Chemistry · Vocabulary in context

Word	Example
fuel cell /ˈfjuːəl sel/	A **fuel cell** produces electricity while fuel and oxidant are supplied.
surroundings /səˈraʊndɪŋz/	In an exothermic reaction, the **surroundings** get warmer.
exothermic /egzəˈθɜːmɪk/	Burning is **exothermic**: it gives out heat.
combustion /kəmˈbʌstʃn/	**Combustion** of petrol powers a car.
oxidation /ˌɒksɪˈdeɪʃn/	**Oxidation** is the loss of electrons.
neutralisation /ˌnjuːtrəlaɪˈzeɪʃn/	**Neutralisation** of an acid with a base gives a salt and water.
hand warmer	A **hand warmer** uses an exothermic reaction to give out heat.
endothermic /ˌendəʊˈθɜːmɪk/	Melting ice is **endothermic**: it takes in heat.
thermal decomposition /ˈθɜːml ˌdiːkɒmpəˈzɪʃn/	**Thermal decomposition** of calcium carbonate gives calcium oxide and carbon dioxide.
instant cold pack	An **instant cold pack** takes in heat and feels cold.
dissolving	**Dissolving** ammonium nitrate in water makes the water colder.
best-fit line /best fɪt laɪn/	Draw a **best-fit line** through the points.
activation energy /ˌæktɪˈveɪʃn ˈenədʒi/	A match gives the **activation energy** to start the fire.

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reaction profile /rɪˈækʃn ˈprəʊfaɪl/	A **reaction profile** shows the energy of reactants and products.
catalyst /ˈkætəlɪst/	A **catalyst** speeds up a reaction without being used up.
bond energy /bɒnd ˈenədʒi/	The C–H **bond energy** is about 413 kJ/mol. C–H 413 kJ/mol
mole /məʊl/	One **mole** of carbon has a mass of 12 g. 12 g
double bond /ˈdʌbl bɒnd/	A **double bond** shares two pairs of electrons between two carbon atoms.
cell /sel/	One **cell** gives 1.5 V. 1.5 V
electrode /ɪˈlektrəʊd/	The positive **electrode** is the anode.
electrolyte /ɪˈlektrəlaɪt/	Salt water is an **electrolyte**: ions carry the current.
external circuit /ekˈstɜːnl ˈsɜːkɪt/	Electrons flow through the wires of the **external circuit**.
voltmeter /ˈvəʊltmiːtə/	Connect the **voltmeter** across the lamp.
potential difference /pəˈtenʃl ˈdɪfrəns/	The **potential difference** across the lamp is 6 V. 6 V
battery /ˈbætəri/	A **battery** is two or more cells joined together.
series /ˈsɪəriːz/	Springs in **series** stretch more than one spring.
non-rechargeable /nɒn rɪˈtʃɑːdʒəbl/	A **non-rechargeable** battery stops working when its chemicals run out.

Word	Example
alkaline battery	An **alkaline battery** is a common non-rechargeable battery.
rechargeable /rɪ'tʃɑ:dʒəbl/	A phone battery is **rechargeable**: you can use it again and again.
oxidised /'ɒksɪdaɪzd/	Iron is **oxidised** when it loses electrons.
anode /'ænəʊd/	The **anode** is the positive electrode.
cathode /'kæθəʊd/	Electrons leave the hot **cathode**.
reduced /rɪ'dju:st/	Copper ions are **reduced** when they gain electrons.
half-equation /hɑ:f ɪ'kweɪʒn/	Write a **half-equation** for each electrode.
electrolysis /ɪlek'trɒləsɪs/	**Electrolysis** of brine makes chlorine.

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