1 · Molecules, Diet, Transport and Health

Pearson Edexcel · International A-Level · Biology · Vocabulary in context

Word	Example
active site /ˈæktɪv saɪt/	The substrate binds at the enzyme's **active site**.
Active transport /ˈæktɪv ˈtrænspɔːt/	**Active transport** uses energy to move things against a gradient.
amylopectin /ˈæmɪləʊpktɪn/	**Amylopectin** is a glucose chain with many branches.
amylose /ˈæmɪləʊs/	**Amylose** is a long glucose chain that coils up like a spring.
Anticoagulants /ˌæntɪkəʊˈægjʊlənts/	**Anticoagulants** reduce the formation of blood clots.
anticodons /ˌæntɪˈkəʊdɒnz/	**Anticodons** on tRNA pair with matching codons on mRNA. tRNA mRNA
Antihypertensives /ˌæntɪˌhaɪpəˈtensɪvz/	**Antihypertensives** are medicines that lower blood pressure.
Atherosclerosis /ˌæθəˌrɒsklə'rəʊsɪs/	**Atherosclerosis** narrows arteries as fatty plaques build up.
Atrial systole /ˈeɪtrɪəl ˈsɪstəʊl/	**Atrial systole** pushes blood from the atria into the ventricles.
Blood pressure /blʌd ˈpreʃə/	**Blood pressure** is the force per area against vessel walls.
Bohr effect /ˈbəʊə ɪˈfekt/	The **Bohr effect** helps active tissues receive more oxygen.

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Competitive inhibitors /kəmˈpetɪtɪv ɪnˈhɪbɪtəz/	**Competitive inhibitors** compete with substrates for the enzyme's active site.
Condensation /kɒndenˈseɪʃn/	**Condensation** joins two sugars while releasing a water molecule.
confounders /kənˈfaʊndəz/	Differences in age can be **confounders** in this diet study.
cooperative binding /kəʊˈɒpərətɪv ˈbaɪndɪŋ/	Oxygen binding makes further oxygen binding easier through **cooperative binding**.
Correlation is not causation. /ˌkɒrɪˈleɪʃn ɪz nɒt kɔːˈseɪʃn/	Ice-cream sales and drownings both rise in summer. **Correlation is not causation.**
degenerate /dɪˈdʒenəreɪt/	The genetic code is **degenerate**: several codons code for one amino acid.
deletion /dɪˈliːʃn/	A **deletion** of one base changes every codon after it.
Diastole /ˈdaɪəstəʊl/	During **diastole**, heart muscle relaxes and chambers begin to refill.
Diffusion /dɪˈfjuːʒn/	Oxygen moves into the blood by **diffusion**.
dipole /ˈdaɪpəʊl/	HCl has a **dipole**: one end is slightly positive, the other slightly negative. HCl
DNA polymerase /ˌdiː en ˈeɪ ˌpɒlɪməˈreɪz/	**DNA polymerase** builds a new DNA strand. DNA
endothelium /ˌendəʊˈθiːlɪəm/	The **endothelium** is the thin, smooth layer of cells on the inside of every blood vessel.

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enzyme /ˈenzaɪm/	The **enzyme** speeds up the reaction.
ester bonds /ˈestə bɒndz/	**Ester bonds** link fatty acids to glycerol in a triglyceride.
Facilitated diffusion /fəˈsɪlɪteɪtɪd dɪˈfjuːʒn/	**Facilitated diffusion** uses proteins to help molecules cross.
fibrin /ˈfɪbrɪn/	Threads of **fibrin** trap blood cells in a clot.
fibrinogen /ˈfɪbrɪnədʒn/	**Fibrinogen** is a protein in the blood.
fluid mosaic model /ˈfluːɪd məˈseɪɪk ˈmɒdl/	The **fluid mosaic model** shows a membrane as moving lipids with proteins dotted through it.
frameshift /ˈfreɪmʃɪft/	A **frameshift** changes every codon after the mistake.
Genetic screening /dʒɪˈnetɪk ˈskriːnɪŋ/	**Genetic screening** can identify people carrying a particular allele.
glycogen /ˈglaɪkədʒn/	The liver stores **glycogen**.
glycosidic bond /ˌglaɪkəˈsɪdɪk bɒnd/	A **glycosidic bond** joins two sugar units together.
hydrogen bonds /ˈhaɪdrədʒn bɒndz/	**Hydrogen bonds** hold water molecules together.
Hydrolysis /haɪˈdrɒləsɪs/	**Hydrolysis** breaks a sugar bond by adding water.
induced-fit /ɪnˈdjuːst fɪt/	The **induced-fit** model allows an active site to change shape.

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Word	Example
insertion /ɪn'sɜːʃn/	An **insertion** adds an extra base into the DNA. DNA
mass transport /mæs 'trænspɔːt/	Blood flow supplies distant cells through **mass transport**.
mononucleotide /'mɒnəʊnjuːklɪɒtaɪd/	A **mononucleotide** contains a sugar, phosphate and nitrogenous base.
mRNA /em ˌɑːˌre'neɪ/	**mRNA** carries a gene's coding information to a ribosome. RNA (mRNA)
Mutations /mjuː'teɪʃnz/	**Mutations** can alter a protein, but some leave it unchanged.
non-competitive inhibitors /nɒn kəm'petɪtɪv ɪn'hɪbɪtəz/	**Non-competitive inhibitors** bind away from the active site.
non-overlapping /nɒn ˌəʊvə'læpɪŋ/	The **non-overlapping** code reads each base in only one triplet.
Osmosis /ɒz'məʊsɪs/	**Osmosis** is the movement of water across a membrane.
peptide bond /'peptaɪd bɒnd/	A **peptide bond** joins two amino acids.
phosphodiester bonds /'fɒsfəʊdɪstə bɒndz/	**Phosphodiester bonds** form the backbone of each DNA strand. DNA
plaque /plæk/	An arterial **plaque** can restrict the space for blood flow.
polar solvent /'pəʊlə 'sɒlvənt/	Water is a **polar solvent** that dissolves many charged substances.

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Word	Example
primary structure /ˈpraɪmərɪ ˈstrʌktʃə/	The order of amino acids in a chain is its **primary structure**.
prothrombin /ˈprɒθrəmbɪn/	**Prothrombin** is converted into thrombin during the clotting cascade.
quaternary /kwəˈtɜːnəri/	**Quaternary** structure describes how several polypeptide chains fit together.
ribosome /ˈriːbəʊsəʊm/	The **ribosome** builds the protein.
risk factors /rɪsk ˈfæktəz/	Smoking and high blood pressure are cardiovascular **risk factors**.
Saturated /ˈsætʃəreɪtɪd/	**Saturated** fatty acids contain no carbon-carbon double bonds.
secondary /ˈsekəndəri/	**Secondary** structure includes coils held by hydrogen bonds.
semi-conservative /ˈsemi kənˈsɜːvətɪv/	**Semi-conservative** replication puts one original strand into each DNA molecule. DNA
Statins /ˈstætɪnz/	**Statins** inhibit an enzyme involved in making cholesterol.
substitution /ˌsʌbstɪˈtjuːʃn/	In a **substitution**, one base is replaced by another.
tertiary /ˈtɜːʃjəri/	**Tertiary** structure gives a polypeptide its overall three-dimensional shape.
thrombin /ˈθrɒmbɪn/	**Thrombin** acts on fibrinogen during blood clot formation.
thromboplastin /ˈθrɒmbəplæstɪn/	**Thromboplastin** helps start the reactions leading to a blood clot.

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triglyceride /ˈtrɪglɪsəraɪd/	A **triglyceride** is one glycerol joined to three fatty acids.
triplet /ˈtrɪplɪt/	Each **triplet** of three bases codes for one amino acid.
tRNA /ˌtiːˌɑːˌreˈneɪ/	**tRNA** brings a matching amino acid to the ribosome. RNA (tRNA)
Unsaturated /ʌnˈsætʃəreɪtɪd/	**Unsaturated** fatty acids have at least one carbon-carbon double bond.
Ventricular systole /venˈtrɪkjʊlə ˈsɪstəʊl/	**Ventricular systole** drives blood into the aorta and pulmonary artery.
water potential /ˈwɔːtə pəˈtenʃl/	Water moves from high **water potential** to low water potential.

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