Movement into and out of cells

IGCSE Biology · Vocabulary in context

Word	Example
diffusion /dɪˈfjuːʒn/	The smell of perfume spreads across a room by **diffusion**.
net movement /net ˈmuːvmənt/	The **net movement** of oxygen is into the cell.
particles /ˈpɑːtɪklz/	The **particles** in a gas move all the time.
concentration /ˌkɒnsənˈtreɪʃn/	The **concentration** of the acid is 2 mol/dm^3. 2 mol/dm^3
concentration gradient /ˌkɒnsənˈtreɪʃn ˈgreɪdɪənt/	Oxygen moves down a **concentration gradient**, from high to low.
random movement /ˈrændəm ˈmuːvmənt/	Gas particles show **random movement** in all directions.
energy /ˈenədʒi/	Food gives your body the **energy** it needs to move.
kinetic energy /kɪˈnetɪk ˈenədʒi/	A fast car has a lot of **kinetic energy**.
molecules /ˈmɒlɪkjuːlz/	Water is made of **molecules**.
ions /ˈaɪɒnz/	Water molecules surround the **ions** as they dissolve.
cell membrane /sel ˈmembreɪn/	The **cell membrane** controls what goes in and out of the cell.
gases /ˈgæsɪz/	Oxygen and carbon dioxide are **gases**.
solutes /ˈsɒljuːts/	Salt and sugar are **solutes** when they dissolve in water.

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oxygen /ˈɒksɪdʒn/	Your cells need **oxygen** to release energy.
carbon dioxide /ˈkɑːbən daɪˈɒksaɪd/	We breathe out **carbon dioxide**.
surface area /ˈsɜːfɪs ˈeərɪə/	Smaller solid pieces provide more **surface area** for reaction.
temperature /ˈtemprɪtʃə/	The thermometer shows the water's **temperature**.
surface area to volume ratio /ˈsɜːfɪs ˈeərɪə tə ˈvɒljuːm ˈreɪʃɪəʊ/	A small cell has a large **surface area to volume ratio**.
solvent /ˈsɒlvənt/	Water is the **solvent** in salt water.
dissolve /dɪˈsɒlv/	Sugar will **dissolve** in water.
solution /səˈluːʃn/	Salt water is a **solution**.
digestion /daɪˈdʒestʃn/	**Digestion** breaks food into small molecules.
excretion /ekˈskreʃn/	The kidneys carry out **excretion** of urea.
transport /ˈtrænspɔːt/	Blood is used for **transport** of oxygen.
osmosis /ɒzˈməʊsɪs/	Water enters the root by **osmosis**.
partially permeable membrane /ˈpɑːʃəli ˈpɜːməbl ˈmembreɪn/	A **partially permeable membrane** lets water through but not sugar.
water potential /ˈwɔːtə pəˈtenʃl/	Water moves from high **water potential** to low water potential.

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turgid /ˈtɜːdʒɪd/	A **turgid** plant cell is firm and full of water.
turgor pressure /ˈtɜːgə ˈpreʃə/	**Turgor pressure** pushes the cell contents against the wall.
flaccid /ˈflæsɪd/	A **flaccid** cell is soft because it has lost water.
plasmolysis /plæzˈmɒləsɪs/	In salty water, **plasmolysis** pulls the membrane away from the cell wall.
dialysis tubing /daɪˈæləsɪs ˈtjuːbɪŋ/	**Dialysis tubing** lets small molecules through but not starch.
active transport /ˈæktɪv ˈtrænspɔːt/	**Active transport** uses energy to move ions into root cells.
respiration /ˌrespɪˈreɪʃn/	**Respiration** releases energy from glucose.
root hairs /ruːt heəz/	**Root hairs** give the root a large surface area.
protein carriers /ˈprəʊtiːn ˈkærɪəz/	**Protein carriers** move ions across the membrane.

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