Gas exchange in humans

IGCSE Biology · Vocabulary in context

Word	Example
gas exchange /gæs eks'tʃeɪndʒ/	**Gas exchange** happens in the leaves.
oxygen /'ɒksɪdʒn/	Your cells need **oxygen** to release energy.
carbon dioxide /'kɑːbən daɪ'ɒksaɪd/	We breathe out **carbon dioxide**.
diffusion /dɪ'fjuːʒn/	The smell of perfume spreads across a room by **diffusion**.
surface area /'sɜːfɪs 'eərɪə/	Smaller solid pieces provide more **surface area** for reaction.
ventilation /ˌventɪ'leɪʃn/	Breathing gives **ventilation**: it brings fresh air into the lungs.
larynx /'lærɪŋks/	The **larynx** is your voice box.
trachea /trə'kɪə/	The **trachea** carries air down to the lungs.
bronchi /'brɒŋkaɪ/	The trachea splits into two **bronchi**, one for each lung.
bronchioles /'brɒŋkɪəʊlz/	The **bronchioles** are tiny tubes in the lungs.
alveoli /'ælvɪəlɪ/	Gas exchange happens in the **alveoli**.
capillaries /'kæpɪlərɪz/	**Capillaries** carry blood close to every cell.
ribs /rɪbz/	The **ribs** protect the lungs.
diaphragm /'daɪəfræm/	The **diaphragm** moves down when you breathe in.

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intercostal muscles /ˌɪntəˈkɒstl ˈmʌslz/	The **intercostal muscles** move the ribs.
cartilage /ˈkɑːtɪlɪdʒ/	Rings of **cartilage** keep the trachea open.
pressure /ˈpreʃə/	The heart pumps blood at high **pressure**.
thorax /ˈθɔːræks/	The lungs are in the **thorax**.
inhaling /ɪnˈheɪlɪŋ/	When **inhaling**, the chest gets bigger.
exhaling /eksˈheɪlɪŋ/	When **exhaling**, the chest gets smaller.
external intercostal muscles	The **external intercostal muscles** lift the ribs when you breathe in.
internal intercostal muscles	The **internal intercostal muscles** pull the ribs down when you breathe out hard.
antagonistic /ænˈtægənɪstɪk/	The two muscles are **antagonistic**: when one contracts, the other relaxes.
water vapour /ˈwɔːtə ˈveɪpə/	**Water vapour** leaves the leaf through the stomata.
limewater /ˈlaɪmwɔːtə/	Carbon dioxide turns **limewater** cloudy.
spirometer	A **spirometer** measures how much air you breathe.
concentration /ˌkɒnsənˈtreɪʃn/	The **concentration** of the acid is 2 mol/dm^3. $2\ mol/dm^3$
brain /breɪn/	The **brain** controls your breathing.
rate /reɪt/	The **rate** of reaction is faster when it is warm.

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Word	Example
goblet cells /ˈgɒblət selz/	**Goblet cells** make mucus.
mucus /ˈmjuːkəs/	**Mucus** traps dust in your nose.
pathogens /ˈpæθədʒnz/	Bacteria and viruses can be **pathogens**.
particles /ˈpɑːtɪklz/	The **particles** in a gas move all the time.
ciliated cells /ˈsɪlɪeɪtɪd selz/	**Ciliated cells** sweep mucus out of the airways.

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