

Science	Respiration, Acids and Alkalis and Energy Transfers			Year 8	Term 2											
1: Aerobic Respiration		3: Neutralisation		5: Energy Sources												
respiration aerobic glucose mitochondria carbon dioxide Aerobic Respiration Word Equation glucose + oxygen → carbon dioxide + water	the chemical process that releases energy for life processes a process that involves oxygen a simple sugar that can be made from larger carbohydrates a subcellular structure where aerobic respiration takes place a waste product that is produced from aerobic respiration as a gas	acid alkali neutral pH scale neutralisation indicator pipette	a substance with a pH < 7 a substance with a pH > 7 a substance with a pH = 7 a scale, from 1 to 14, which measures the acidity or alkalinity of a substance a chemical reaction in which an acid reacts with an alkali to make a salt and water a chemical substance that changes colour at a specific pH a piece of science equipment used for measuring or transferring small amounts of liquid	energy source renewable non-renewable power watts standard form	a source from which useful energy can be extracted or converted an energy source that will not run out an energy source that is used faster than it is replenished and will run out the amount of energy transferred in a set amount of time the units of power a method of writing small or large numbers e.g. 192 = 1.92 x 10 ²											
2: Anaerobic Respiration		4: Reactions of Acids		6: Energy Use												
anaerobic cytoplasm lactic acid breathing rate waste product Anaerobic Respiration (in animals) Word Equation Glucose → lactic acid	a process that does not involve oxygen the jelly like substance that fills the cell, where anaerobic respiration takes place a waste product that is produced from anaerobic respiration how many breaths are taken per minute any substances that are produced in a reaction that are not the desired product	irritant corrosive <table border="1" data-bbox="808 1121 1429 1382"> <thead> <tr> <th>Reaction</th> <th>Observation</th> <th>Explanation</th> </tr> </thead> <tbody> <tr> <td>acid and alkali</td> <td>no fizzing but possible colour change</td> <td>no gas is produced some salts produced are coloured</td> </tr> <tr> <td>acid and metal</td> <td>fizzing</td> <td>hydrogen gas is produced</td> </tr> </tbody> </table> General Word Equations acid + alkali → salt + water acid + metal → salt + hydrogen		Reaction	Observation	Explanation	acid and alkali	no fizzing but possible colour change	no gas is produced some salts produced are coloured	acid and metal	fizzing	hydrogen gas is produced	fuel Joules (J) kilowatt hour (kWh) compare estimate conversion risk		a substance that is burned to release energy the units for all types of energy the unit used to state the amount of energy used by a 1kW appliance for 1 hour to find similarities and differences between to objects a rough calculation the process of changing units by multiplying or dividing something that can cause harm	
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