Science	Gas Exchange, Chemical Reactions and Forces	Year 7	Term 3

Trinity Academy Cathedral

1: Diffusion

diffusion	the net movement of particles moving from a region of high concentration to an area of low concentration
concentration	the amount of particles of a substance in a set volume
exchange	the act of giving one thing and receiving another
net movement	the overall movement
particle	the smallest unit of a substance

2: Cell Structure

alveolus	tiny air sacs in the lungs where gas exchange occurs
stomata	small opening on the surface of a leaf where gas exchange occurs
diaphragm	a sheet of muscle found under the ribs
ribs	bones that encase and protect the lungs, heart and other organs.
intercostal muscles	muscles in between the ribs that help move the ribcage
inhale	the process of breathing air into the lungs
exhale	the process of breathing air out of the lungs

3: Chemical Reactions

molecule	2 or more atoms bonded together
chemical reaction	a process which involves the rearrangement of atoms to form new substances
reactants	the substances found at the beginning of a reaction
products	the new substances produced at the end of a reaction
physical change	a process which involves the rearrangement of particles but no new substance is formed
precipitate	an insoluble solid formed from a reaction

4: Combustion and Oxidation

combustion	the reaction between a fuel and oxygen
oxidation	the addition of oxygen to an element
oxide	the second name of a substance to indicate that oxygen is joined *e.g. calcium oxide*
fuel	a substance that is burned to release energy
mean	*a type of average to make results more reliable and increase accuracy*
	Calculated by added all values together

5. Forces

force	a push or a pull effect
contact force	a force produced by two objects touching
non-contact force	a force produced when two objects are not touching
friction	a force that goes against a moving object
air resistance	a force created by air particles acting against a moving object
normal contact	a force applied to an object by a supporting surface
upthrust	an upward force created by water against floating objects

6: Weight, Mass and Gravity

weight	the force an object applies downwards due to gravity
mass	the amount of matter in an object
gravity	the force that attracts an object to the centre of the earth
gravitational field strength	the strength of the gravity acting on an object

Equation

Weight (N) = Mass (kg) x Gravitational Field Strength (N/kg)