Name: Base Group:

Year 11 Knowledge Organiser
Easter Term

Homework at Ipswich Academy

How to use the Knowledge Organiser

You have been provided with an exercise book and a knowledge organiser. Your knowledge organiser contains important facts. These will cover topics from year 7 to year 10.

In order to learn the words you will be expected to use :

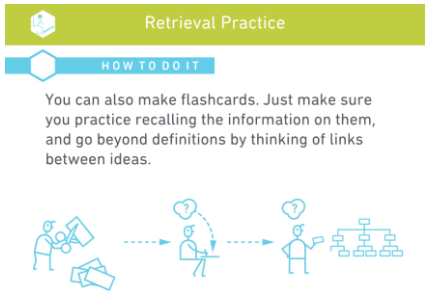
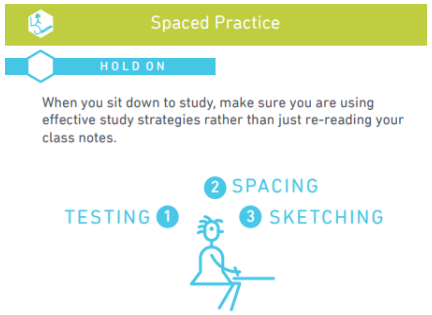
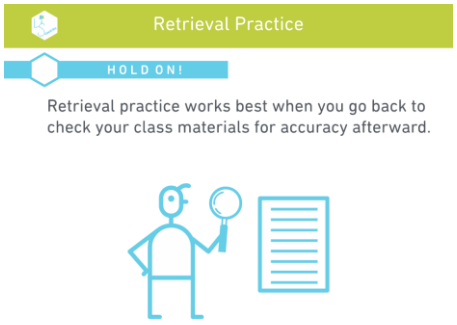
'look, cover, write, check'

You have been given an exercise book to practise your homework in. The expectation is that you will write out neatly the words, along with their definitions. A week later, your teacher will check that you have completed your homework and you will be given a test to check that you have remembered everything.

Your knowledge organiser is for you to use to support your learning and you will be expected to use this alongside your written homework

You will need to remember:

to take your exercise book and knowledge organiser to all lessons;
to take your exercise book and knowledge organiser home each night;
to write neatly;
to practise every night.

<table>
<tr><th colspan="4">Ways to help you remember</th></tr>
<tr>
<td> 
</td>
<td> 
</td>
<td> 
</td>
<td>Once you are confident that you know everything try to :
Make a crossword
Write a quiz
Draw a mind map
Produce a poster
Explain a topic to a friend</td>
</tr>
</table>

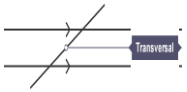
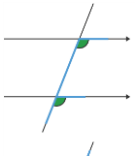
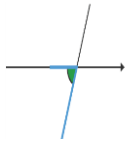
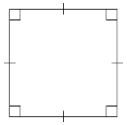
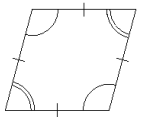
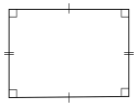
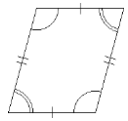
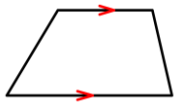
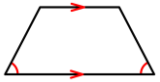
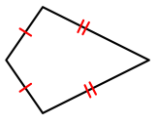
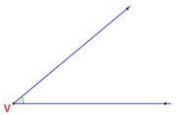
Maths -Number

1

Fraction	Decimal	Percentage		Fraction	Decimal	Percentage
1/2	0.5	50%		**2/10 = 1/5**	0.2	20%
1/4	0.25	25%		**4/10 = 2/5**	0.4	40%
3/4	0.75	75%		**6/10 = 3/5**	0.6	60%
1/10	0.1	10%		**8/10 = 4/5**	0.8	80%
3/10	0.3	30%		**10/10 = 1**	1	100%
7/10	0.7	70%		**1/8**	0.125	12.5%
9/10	0.9	90%		**1/3**	. 0.3	. 33.3 %

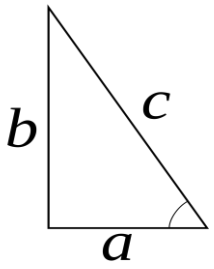
2	**percentage increase**	= increase / original amount x100	3	**percentage decrease**	= decrease / original amount x100
4	**new value after percentage increase**	= original x (100% + % increase)	5	**new value after percentage decrease**	= original x (100% + % decrease)
6	**original amount after percentage increase**	=new amount ÷ % increase	7	**original amount after percentage decrease**	=new amount ÷ % decrease
8	**recurring decimal**	A decimal which continues in a repeated pattern	9	**terminating decimal**	a decimal which ends
10	**profit**	Financial gain.	11	**loss**	financial loss
12	**multiplier**	The number used to multiply another number			

Shape and Space

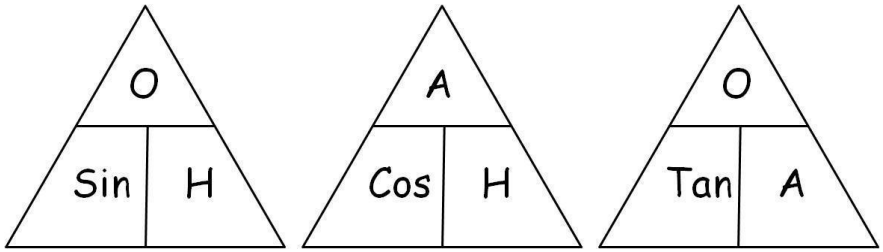
1	**sum of angles on a straight line**	180°	2	**sum of angles in a complete turn**	360°	3	**vertically opposite angles Equal angles**		4	**transversal A line crossing a pair of parallel lines**	
5	**corresponding angles (F angles) Equal angles**		6	**alternate angles (z angles) Equal angles**		7	**interior angles**	sum = 180°	8	**quadrilateral**	shape with 4 sides
9	**isosceles triangle**	triangle with 2 equal sides and 2 equal angles	10	**equilateral triangle**	triangle with 3 equal sides and 3 equal angles	11	**right-angled triangle**	triangle containing one right-angle	12	**scalene triangle**	triangle which has no angles or lengths the same
13	**square** 	4 equal sides 4 right angles	14	**rhombus** 	4 equal sides Opposite angles equal	15	**rectangle** 	2 pairs of opposite, equal sides 4 right angles	16	**parallelogram** 	2 pairs of opposite, equal sides
17	**trapezium** 	1 pair of parallel sides	18	**isosceles trapezium** 	1 pair of parallel sides 1 pair of equal sides	19	**kite** 	2 pairs of adjacent, equal lines	20	**vertex** 	where 2 straight lines meet
21	**area of a triangle**	= ½ base x perpendicular height	22	**area of a trapezium**	½ (a +b) h	23	**perimeter**	distance around the outside of a shape	24	**1cm²** **1m²**	=100mm² 10000cm²

Maths-Trigonometry

1 **Pythagoras**
$c^2 = a^2 + b^2$

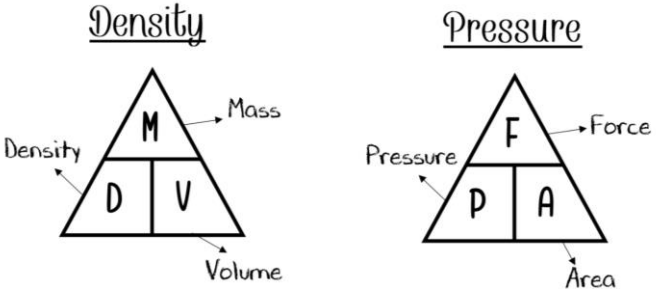


2

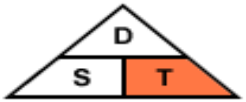


Compound Measures

1



Distance = Speed x Time



Time= $\frac{\text{Distance}}{\text{Speed}}$

Speed= $\frac{\text{Distance}}{\text{Time}}$

Maths- Handling Data					
1	**average**	mean. median, mode	2	**mean**	total÷ number of items
3	**median**	the middle number when all the numbers are in ascending order	4	**mode**	the most popular
5	**range**	highest value- lowest value	6	**line of best fit**	a straight line drawn so that roughly the same number of points are either side of it
7	**negative correlation**	one variable increases as the other decreases	8	**positive correlation**	tone variable increases as the other decreases
9	**interpolation**	using the line of best fit to find values inside the range of the scatter diagram	10	**extrapolation**	using the line of best fit to find values outside the range of the scatter diagram
11	**primary data**	data you collect yourself	12	**discrete data**	certain numerical values eg number of sweets in a bag
13	**qualitative data**	data described in words	14	**quantitative data**	numerical data (discrete & continuous)
15	**continuous data**	any numerical value eg the temperature	16	**trend**	a link between data
17	**random sample**	a selection chosen at random for an experiment	18	**estimate**	calculate using the data. DO NOT GUESS
19	**stratified sample**	population split into strata and a sample taken from the sample	20	**number sampled in a stratum**	= number in a stratum x total sample size number in population

Angles in a pie chart	Number	Angle		Number	Angle		Number	Angle		Number	Angle		Number	Angle		Number	Angle
	360	1°		180	2°		120	3°		90	4°		60	6°		45	8°
	40	9°		36	10°		30	12°		20	18°		15	6°		10	36°

English-An Inspector Calls					
Key Quote/ Technique:	**Key idea**	**Zoom in #1**	**Zoom in #2**	**Big idea**	**Writer's method**
"I was quite justified" Symbolism	Symbolises powerful men of the time	"justified" - arrogance	"quite" - sense of power	Social responsibility	**Priestley shows Birling is the embodiment of capitalism**
"Millions and millions of Eva Smiths" Symbolism	Eva represents all women and Smith represents all people	"Millions" - the working class	"Eva" - symbolic of all women	Social responsibility Equality	**Priestley shows that The Inspector is an embodiment of socialism**
"Suffering chance of happiness" Symbolism	Working class people have a slim chance of happiness, it is getting slimmer	"Suffering" - enduring pain	"Chance" - unlikely to occur	Social responsibility Cause and effect	**Priestley presents his idea of all actions having a consequence**
"A girl of that sort" Symbolism	An upper class view of those below them	"Girl" - Eva is seen as unimportant	"Sort" - socially Eva is below Mrs Birling	Equality Class	**Priestley shows that class plays an important role in inequality**
"He ought to be made an example of" Dramatic irony	Mrs Birling placing judgement without knowing all of the facts	"He" - reference to Eric/ seen as unimportant	"Example of" - capital punishment was viewed positively	Class	**Priestley shows that the arrogance and lack of understanding of the upper class**
"Why - you fool - he knows" Foreshadowing	Shows the increasing realisation of Sheila about her responsibility	"You fool" - disrespectful words towards her parents	"He knows" - an understanding of her own responsibility	Social responsibility	**Priestley shows the growing divide between young (socialist) and old (capitalist)**
"We all helped to kill her" Symbolism	Symbolises the divide between young and old/ conservative and socialist	"We" - collective responsibility	"Helped" - all had a part to play	Cause and effect Equality	**Priestley shows a clear divide between young/ old and a change in society**

English-An Inspector Calls					
"Unsinkable, absolutely unsinkable" Metaphor	Birlings metaphorical ship is about to sink	"Unsinkable" - shows arrogance	"Absolutely" - an absolute view (upper class)	Class Time	**Priestley shows the arrogance of the upper class and also a stark contrast of 1912 to 1946**
"I'm ashamed of you… yes both of you" Symbolism	Social responsibility is vital in order to rebuild society	"Ashamed" - Eric understands what is morally right and wrong	"Both" - turns against his parents	Youth and age	**Priestley shows that 1946 should be a time of social change**
"We are members of one body" Extended Metaphor	We are all connected in one way or another	"Members" - elected to join	"One body" - all part of the same organism	Socialism	**Priestley uses the Inspector's final words to embed his idea of socialism and show that we are all accountable for our actions**
"Fire, blood and anguish" Foreshadowing	Foreboding events between 1912 and 1946	"Fire" - link to war	"Blood and anguish" - link to death	Social responsibility	**Priestley uses the Inspector to express that if things do not change, then the world will pay a heavy and unforgivable price**
"We are not alone" Extended metaphor	All people are connected in one form or another	"We" - collectively	"Alone" - implies selfishness/ selfish actions	Cause and effect	**Priestley's obsession with how all acts lead to another is clearly demonstrated here**
"Chain of events"	Everything is interlinked, meaning actions have repercussions	"Chain" - holds something together	"Events" - series of happenings	Cause and effect	**Priestley focuses once more on how all people had a part to play in Eva's death**

English- An Inspector Calls					
1	Written by J.B Priestley and first published in 1946		2	J.B Priestley was interested in socialism and equality	
Character information:					
3	**Birling**	Embodiment of capitalism	6	**Mrs Birling**	Embodiment of the upper class
4	**The Inspector**	Embodiment of socialism	7	**Sheila**	Embodiment of the changing youth
5	**Eva Smith**	Embodiment of the working class	8	**Eric**	Embodiment of innocence and ignorance
6	**Gerald Croft**	Embodiment of the ignorant youth	9	**Edna**	An example of the working class
Big ideas (context):					
10	**Social responsibility** Priestley wanted the audience to learn from the lessons of two World Wars and not make the same social mistakes again. The big idea here is that people need to be responsible for their own actions as well as supporting others to ensure society comes together.		11	**Equality** In 1946, women and men were more equal than they had been in 1912, however there was still a clear divide between the genders in terms of role. In addition, there was disparity between the higher and lower classes in both 1912 and 1946 - this caused a lot of political tension during the 20th Century.	
12	**Class** The social divide created by money in 1946 meant that there was a stark difference in the ways the higher and lower social classes lived. This is mirrored by the class structure in 1912, showing the rich had complete control over the poor.		13	**Cause and effect** The Inspector speaks of a "chain of events" that may have led to Eva's death. Her suicide is not the product of one person, but of many people each acting alone. This links to Priestley's fascination with time and how things in time cause or are caused by others.	
14	**Youth and age** Priestley was well aware that the older generation would find it hard to change their mindset, so he focused his messages on the younger generations and tried to conceptualise for the older generations the errors of their ways.		15	**Time** Priestley tries to get us to consider the significance of time passing and things changing. His messages about learning lessons are based around the idea that we only have a limited amount of time to change before it's too late.	
16	**Socialism** Socialism was seen as something that led to communism after WW2; therefore, Priestley needed to be careful how he presented the idea for a Western audience. There was a lot of tension between the East and West over post-war issues which eventually led to The Cold War.		17	**The Supernatural** The Inspector's name, though explicitly spelled "Goole" in the play, is often interpreted through an alternative spelling: "ghoul." The Inspector, is not a real Brumley inspector and could possibly be a ghost who makes the Birling's morally accept their roles - Priestley provides no evidence otherwise.	

PHYSICS					
1	**distance travelled**	average speed x time	13	**power**	work done divided by time
2	**acceleration**	rate of change in velocity	14	**moment of a force**	force x distance normal to the direction of force
3	**resultant force**	overall (net) force	15	**energy transferred**	charge moved x potential difference
4	**weight**	force associated with the pull of gravity on a mass	16	**charge**	current x time
5	**momentum**	mass x velocity (direction is important)	17	**potential difference**	current x resistance
6	**change in gravitational potential energy**	mass x gravitational field strength x change in vertical height	18	**power**	energy transferred divided by time taken
7	**kinetic energy**	movement energy	19	**electrical power**	current x potential difference
8	**efficiency**	useful energy divided by total energy	20	**electrical power**	current squared x resistance
9	**wave speed**	speed of a wave	21	**density**	mass divided by volume
10	**frequency**	number of waves passing a point in one second	22	**force exerted on a spring**	spring constant x extension
11	**wave speed**	distance travel by wave divided by the time taken	23	**pressure**	force normal to a surface divided by the area of the surface
12	**work done**	force x distance moved in the direction of the force	24	**pressure due to a column of liquid**	height of column x density of liquid x gravitational field strength

Base units – these units and their associated quantities are dimensionally independent

	UNIT	UNIT SYMBOL		UNIT	UNIT SYMBOL
1	**metre**	m	4	**ampere**	A
2	**kilogram**	kg	5	**kelvin**	K
3	**b**	S	6	**mole**	mol

Physics							
Some **derived units** (from base units) with special names							
	name	**unit**	**abbreviation**		**name**	**unit**	**abbreviation**
1	**frequency**	hertz	hz	6	**electric charge**	coulomb	C
2	**force**	newton	n	7	**electric potential difference**	volt	V
3	**energy**	joule	j	8	**electric resistance**	ohm	Ω
4	**power**	watt	w	9	**magnetic flux density**	tesla	T
5	**pressure**	pascal	Pa				
11	**E = F x d**	work done = force x distance moved in the direction of the force		23	**P = h x ρ x g**	pressure due to a column of liquid = height of column x density of liquid x gravitational field strength	

Physics					
Formulae (to learn)					
1	**d = v x t**	distance travelled = average speed x time	13	moment of a force = force x distance normal to the direction of the force	
2	**a = (v-u)/t**	acceleration = change in velocity ÷ time taken	14	**E = Q x V**	energy transferred = charge moved x potential difference
3	**F = ma**	resultant force = mass x acceleration	15	**Q = I x t**	charge = current x time
4	**W = mg**	weight = mass x gravitational field strength	16	**V = I x R**	potential difference = current x resistance
5	**p = mv**	momentum= mass x velocity	17	**P = E/t**	power = energy transferred ÷ time taken
6	**ΔGPE = m x g x Δh**	change in gravitational potential energy = mass x gravitational field strength x change in vertical height	18	**P = I x V**	electrical power = current x potential difference
7	**KE = ½ m x v2**	kinetic energy = ½ x mass x (speed)^2	19	**P = I^2 x R**	electrical power = current squared x resistance
8	efficiency = <u>(useful energy transferred by the device)</u> (total energy supplied to the device)		20	**ρ = m/V**	density = mass ÷ volume
9	**v = f x λ**	wave speed = frequency x wavelength	21	**F = k x X**	force exerted on a spring = spring constant x extension
10	**V = x/t**	wave speed = distance ÷ time	22	**P = F/A**	pressure = force normal to a surface ÷area of surface
11	**E = F x d**	work done = force x distance moved in the direction of the force	23	**P = h x ρ x g**	pressure due to a column of liquid = height of column x density of liquid x gravitational field strength

Chemistry					
1	**states of matter**	one of three forms a substance can have: solid, liquid or gas	37	**chromatography**	a technique for separating the contents of a mixture e.g. different food colouring agents
2	**atom**	the smallest neutral part of an element that can take part in chemical reactions.	38	**mobile phase**	in paper chromatography, this is when the solvent moves along the paper carrying the dissolved samples with it
3	**molecules**	a particle consisting of 2 or more atoms joined together	39	**stationary phase**	the surface through which the solvent and dissolved substances move through in chromatography
4	**particle model**	another name for the kinetic theory	40	**r_f value**	the ratio of distance travelled by a solute on a chromatogram to the distance travelled by a solute under the same conditions
5	**physical change**	a change into which no new substances are formed, such as a change in state	41	**distillation**	the process of removing a liquid from a mixture by evaporating it and then condensing it (so it can be collected)
6	**chemical change**	a change that produces a new substance	42	**still**	a piece of apparatus used to carry out distillation or fractional distillation
7	**attractive forces**	forces involving oppositely polarity or charge. objects move together is the force is sufficient	43	**fractional distillation**	a method for separating a mixture of liquids with different boiling points into individual components (fractions)
8	**melting point**	the temperature at which a substance changes from the solid state to the liquid state when heated, or from the liquid state to the solid state when cooled	44	**desalination**	a process that produces fresh drinking water by separating the water from the salts in salty water
9	**boiling point**	the temperature when a substance changes from a liquid to a gas	45	**simple distillation**	the process of separating a liquid from the mixture by evaporating the fluid then condensing it so it can be collected

Chemistry					
10	**sublimation**	when solid changes directly to a gas without becoming a liquid first	46	**precipitates**	an insoluble solution that is formed after two soluble substances react together in a solution
11	**evaporation**	when a liquid turns into a gas	47	**aquifers**	an underground layer of rock containing groundwater which can be extracted used a well or a pump
12	**condensing**	when a gas turns into a liquid	48	**sedimentation**	the process in which rock grains and insoluble substances sink to the bottom of a liquid
13	**deposition**	when a gas changes directly to a solid	49	**chlorination**	the process of adding chlorine to a substance, often water
14	**freezing**	when a liquid turns into a solid	50	**subatomic particles**	a particle that is smaller than an atom, such as a proton, neutron or electron
15	**pure substance**	a substance with a fixed composition that does not have anything else mixed with it	51	**protons**	a particle found in the nucleus of an atom, having a positive charge and the same mass as a neutron
16	**element**	a simple substance made up of only one type of atom	52	**neutrons**	a particle found in the nucleus of an atom having zero charge and mass of 1 (relative to proton)
17	**compound**	a substance that can be split into simpler substances because it contains the atoms of two or more elements joined together	53	**electrons**	a tiny particle with a negative charge and very little mass
18	**mixture**	a substance containing two or more different substances that are not joined together	54	**relative mass**	the mass of something compared to something else, which is often given the value of 1
19	**physical property**	a description of how a material behaves and responds to forces and energy. for example, hardness is a physical property	55	**relative charge**	charge compared to something else. as the charge on an electron is -1 the charge on a proton is +1. these are not absolute charges, just equal and opposite, by comparison
20	**chemical property**	how a substance reacts with other substances e.g. oxygen and hydrogen form water	56	**atomic nucleus**	centre of the atom, dense and positively charged

Chemistry					
21	**insoluble**	a substance that cannot be dissolved in certain liquids	57	**electron shells**	areas around the nucleus that can be occupied by electrons and are usually drawn as circles. also called an electron energy level or an 'orbit'
22	**filtration**	using a filter to separate insoluble substances from a liquid	58	**mass number**	the number of protons and neutrons in the nucleus of an atom (symbol a). it is also known as the nucleon number
23	**solution**	formed when a substance dissolves in a liquid	59	**atomic number**	the number of protons in the nucleus of an atom (symbol z). it is also known as the proton number
24	**solutes**	a substance that dissolves in solvent make a solution	60	**isotopes**	atoms of an element with the same number of protons (atomic number) but different mass numbers due to different numbers of neutrons
25	**solvent**	a liquid in which a substance dissolves in to make a solution	61	**nuclear fission**	when the nucleus of a large atom such as uranium, splits into two smaller nuclei
26	**crystallisation**	separating a solute from a solution by evaporating the solvent	62	**relative atomic mass**	the mean mass of an atom relative to the mass of an atom of carbon-12, which is assigned a mass of 12. the ram of an element is the mean relative mass of the isotopes in the element
27	**Periodic table**	The chart in which the elements are arranged in order of increasing atomic number.	63	**predictions**	What you think will happen in an experiment (usually giving an explanation of why you think this is)
28	**Chemical properties**	How a substance reacts with other substances e.g. oxygen and hydrogen form water	64	**inert**	Does not react.
29	**saturated**	A molecule that contains only single bonds between the carbon atoms in the chain	65	**period**	The horizontal row in the periodic table
30	**Filtrate**	A solution that has passed through a filter	66	**group**	A vertical column of elements in the periodic table. Elements in the same group usually have the similar properties

Chemistry					
31	**residue**	material remaining in the filter after a mixture has passed through it	67	**electronic configuration**	the arrangement of electrons in shells around the nucleus of an atom
32	**risk assessment**	identification of the hazards of doing an experiment and ways of reducing the risk of harm from those hazards	68	**ions**	an atom or a group of atoms with an electrical charge due to the gain or loss of electrons
33	**hazard**	something that could cause harm	69	**cations**	a positively charged ion formed by losing electrons
34	**electrostatic force**	the force of attraction between two oppositely charged particles and the force of repulsion between particles with the same charge	70	**anions**	a negatively charged ion formed by gaining electrons
35	**ionic bond**	a strong electrostatic force of attraction between oppositely charged ions	71	**aqueous solution**	a mixture that is formed when a substance is dissolved in water
36	**ionic compounds**	a substance made up of ions of different elements	72	**anode**	positive electrode

Geography: Crime		
1	**built environment**	all the built things around us; buildings, streets, bridges
2	**burglary**	breaking into a building to steal
3	**cctv**	closed circuit television, used in shops and on streets to fight crime
4	**common assault**	hitting or threatening to hit someone
5	**crime**	an action that breaks the law
6	**criminal**	someone who commits a serious crime or lives a life of crime
7	**defensible space**	a space the people can watch over and protect from criminals
8	**designing out crime**	you design new housing estates and other buildings to make them as crime proof as possible
9	**domestic violence**	violence in the home
10	**environmental crime**	an action such as illegal dumping of harmful waste into rivers
11	**forgery**	faking a document or a signature
12	**fraud**	making false claims, usually in order to make money
13	**mugging**	attacking a person in the street in order to steal something
14	**neighbourhood watch**	a scheme where neighbours keep an eye on each other's homes to help prevent crime
15	**secure accommodation**	a type of prison for young offenders
16	**target hardening**	installing things to make it harder for criminals to get at their targets (for instance steel shutters on a shop)
17	**terrorism**	violent acts (such as bombings) carried out for political reasons
18	**traffic offences**	offences to do with driving and parking vehicles
19	**vandalism**	damaging things on purpose, for example graffiting a playground
20	**victim**	a person against whom a crime is committed

Geography: Antartica		
1	**adaption**	any alteration in the structure or function of an organism or any of its parts that results from natural selection and by which the organism becomes better fitted to survive and multiply in its environment
2	**desert**	a desert is a barren area of landscape where little precipitation occurs and consequently living conditions are hostile for plant and animal life
3	**expedition**	a journey undertaken by a group of people with a particular purpose, especially that of exploration.
4	**ice shelf**	an ice shelf is a thick floating platform of ice that forms where a glacier or ice sheet flows down to a coastline and onto the ocean surface
5	**impact**	to have a strong effect on someone or something
6	**krill**	krill are small crustaceans of the order euphausiacea, and are found in all the world's oceans. the name "krill" comes from the norwegian word krill, meaning "small fry of fish"
7	**latitude**	a geographic coordinate that specifies the north–south position of a point on the earth's surface
8	**longitude**	a geographic coordinate that specifies the east-west position of a point on the earth's surface
9	**penguin**	a group of aquatic, flightless birds. they live almost exclusively in the southern hemisphere
10	**polar bear**	a carnivorous bear whose native range lies largely within the arctic circle, encompassing the arctic ocean, its surrounding seas and surrounding land masses
11	**regulation**	a rule or directive made and maintained by people in authority
12	**site of special scientific interest (SSSI)**	a conservation designation denoting a protected area
13	**South Magnetic Pole**	the point to which the south on your magnet points. it moves around as the magnetic fields around earth shift
14	**South Pole**	this is geographic south pole. the southern point on which the world spins
15	**tourism**	travel for education, business or pleasure

Geography: Population, Rocks and Stones.		
1	**appropriate technology**	Technology that is best suited to the needs, skills, knowledge and wealth of people in the region in which they live. It usually combines simple ideas with cheap, easy to access materials for use in poorer countries. These technologies are normally environmentally friendly.
2	**birth rate**	the number of births in a year per 1,000 of total population
3	**chemical weathering**	the decomposition (or rotting) of rocks caused by a chemical change
4	**corrie (also called cirque)**	arm-chair shaped hollow in mountainside caused by glacial erosion and freeze-thaw weathering
5	**death rate**	the number of deaths in a year per 1,000 of total population
6	**erratics**	rocks that have been transported and deposited some distance from their source region.
7	**impermeable**	a material (e.g. a rock) that does not allow water to infiltrate or pass through it
8	**infant mortality**	the average number of deaths of infants under 1 year of age, per 1,000 live births, per year
9	**erosion**	the wearing away and removal of material by a moving force
10	**mega cities**	an urban area with a total population in excess of 10 million people
11	**life expectancy**	the number of years a person is expected to live
12	**population density**	the average number of people per square kilometer
13	**morain**	frost shattered rock debris and material eroded from the valley floor

Geography: Population, Rocks and Stones.		
14	**natural decrease**	population decline due to the birth rate being lower than the death rate
15	**natural increase**	the birth rate minus the death rate of a population
16	**permeable**	allowing water to flow through
17	**igneous rocks**	formed from magma that has cooled down
18	**ageing population**	an increasing number of older people in a country's population structure
19	**population distribution**	a measure of how crowded a place is
20	**sparsely populated**	an area that has few people living in it
21	**population pyramid**	a special bar chart that shows ages of the population, divided into males and females
22	**sedimentary**	formed by layers of sediment at the bottom of the sea which turns into rock as it is compressed
23	**metamorphic**	formed from igneous and sedimentary rock that have been put under intense pressure and heat under ground
24	**geological**	the study of the earth's physical structures such as rocks, mountains, metals and precious stones
25	**fossil**	the remains or impression of a prehistoric plant or animal embedded in rock and preserved in petrified form
26	**landscape**	A landscape is the visible features of an area of land, its landforms and how they integrate with natural or man -made features

Geography: Newly Emergent Economy (Brazil) and Coasts		
1	**abrasion**	the wearing away of cliffs by sediment flung by breaking waves
2	**arch**	a wave-eroded passage through a small headland. this begins as a cave formed in the headland, which is gradually widened and deepened until it cuts through
3	**attrition**	erosion caused when rocks and boulders, transported by waves, bump into each other and break up into smaller pieces
4	**bar**	where a spit grows across a bay, eventually blocking the bay and creating a lagoon behind it. bars may also form offshore as a long ridge of sand in the seas and oceans
5	**bays**	an area of less resistant rock that has eroded away between headlands of more resistant rock. bays normally form sheltered harbours or beaches
6	**beach**	the zone of deposited material that extends from the low water line to the limit of storm waves. the beach or shore can be divided into the foreshore and backshore
7	**beach nourishment**	the artificial addition of beach material to a beach, usually by dumping large amounts of sand or shingle
8	**BRICs**	four of the world's fastest growing economies; brazil, russia, india and china
9	**cave**	a large hole in a cliff caused by waves forcing their way into cracks in the cliff face
10	**cliff**	a steep, high rock face formed by weathering and erosion along the coastline
11	**deposition**	occurs when material being transported by the sea is dropped due to the sea losing energy
13	**development**	the progress of a country in terms of economic growth, use of technology, and human welfare
14	**dune regeneration**	action taken to build up dunes and increase vegetation to strengthen the dunes and prevent excessive coastal retreat
15	**economic migrant**	someone who migrates with the main purpose of finding work or escaping poverty
16	**erosion**	the wearing away and removal of material by a moving force such as a breaking wave

Geography: Newly Emergent Economy (Brazil) and Coasts		
17	**foreign direct investment**	sums of money a transnational corporation spends on building or buying up operations in another country
18	**formal economy**	employment that is legal - people get a regular wage and pay taxes in this wage
19	**hard engineering**	the use of concrete and large artificial structures to defend land against the natural erosion processes
20	**hydraulic power**	the process by which breaking waves compress pockets of air in cracks in a cliff. the pressure may cause the crack to widen, breaking off rock
21	**inequalities**	differences between poverty, wealth, wellbeing and access to things like jobs, housing and education
22	**informal economy**	this is work done for which people are paid but it is unofficial so workers have no rights and no taxes are paid
23	**infrastructure**	the basic equipment and structures needed for a country or region to function properly i.e. roads, water, sewers
24	**longshore drift**	the zigzag movement of sediment along the shore caused by waves travelling up the beach at an oblique angle and down the beach at a right angle. the results is the gradual movement of material along the beach
25	**Newly Emergent Economy (NEE)**	counties that have begun to experience high rates of economic development, usually with rapid industrialisation
26	**pioneer species**	simple, tough plants that can survive in places where most others cannot due to a lack of soil or extreme climate
27	**rock armour**	large boulders dumped on the beach as part of coastal defences
28	**sea wall**	a concrete which protects the coastline from the erosional power of waves by reflecting the wave energy back to sea
29	**squatter development**	an area of poor-quality housing, lacking in amenities such as water supply, sewerage and electricity. it often occurs spontaneously and illegally in cities in low-income countries
30	**stack**	an isolate pillar of rock left when the top of an arch has collapsed. over time further erosions reduces this to a stump
31	**urbanisation**	the process by which an increasing percentage of the country's population comes to live in towns and cities. rapid urbanisation is a feature of many LICs and NEEs
32	**waves**	ripples in the sea caused by the transfer of energy from the wind blowing over the surface of the sea

Spellings: Record your corrected spellings from all subjects. LCWK to make sure you have learned them.					

Spellings: Record your corrected spellings from all subjects. LCWK to make sure you have learned them.					