

Core Questions
Year 8
Summer Term
2022/23



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English

1. What is tone?	The writer's attitude towards the subject.
2. What is a stanza?	A group of lines separated from others in a poem. The word for 'paragraph' in poems.
3. What is enjambment?	The running over of a sentence from one line to the next without a piece of punctuation at the end of the line.
4. What is caesura?	A stop or a pause in a line of poetry – usually caused by punctuation such as a full stop.
5. What is an end-stopped line?	A line of poetry ending in a piece of punctuation which results in a pause.
6. What is rhyme?	The repetition of syllable sounds – usually at the ends of lines, but sometimes in the middle of a line (called internal rhyme).
7. What is a simile?	A direct comparison made using the words 'like' or 'as.'
8. What is a metaphor?	A comparison – made directly or indirectly – without using 'like' or 'as.' Metaphors have 'tenors' (what is being described) and 'vehicles' (an imaginative idea that the tenor is being compared to).
9. What is personification?	Giving human characteristics to something which is not human.
10. What is form?	Form is the physical structure of the poem: the length of the lines, their rhythms, and their system of rhymes and repetition.
11. What is onomatopoeia?	Words which attempt to imitate sounds.
12. What is alliteration?	A repetition of consonant sounds.
13. What is an oxymoron?	A figure of speech in which two contradictory things are placed together in a way which makes peculiar sense. For example, 'friendly fire.'
14. What is hyperbole?	Exaggeration.
15. What is 'rhythm'?	The 'beat' of a poem, created by the poet thinking carefully about the amount of syllables (beats) in each line of poetry.
16. What is a semantic field?	A set of words relating to the same topic. 'Foul' and 'Shot' would appear in the semantic field of sports.
17. What is assonance?	A repetition of vowel sounds.
18. What is blank verse?	A poem that does not have a rhyme scheme but does have a consistent meter (rhythm).
19. What is free verse?	Non-rhyming, non-rhythmical poetry.
20. What is a volta?	A turning point in the line of thought or argument in poem; a shift in the poem's tone.

Maths

	Question	Answer
1	What is algebra?	Algebra is a branch of mathematics where unknown quantities are represented using letters such as x and y .
2	What is a variable?	A variable is an unknown number or quantity that is represented by a letter such as x or y
3	What is a constant?	A constant is a number which value is always the same.
4	What is a coefficient?	A coefficient is a constant that is placed before a variable in an expression.
5	What is a term?	A term is part of an expression that are separated by a + or – sign. An algebraic term can be a variable, a coefficient, a constant or a combination of these.
6	What is an expression?	An algebraic expression consists of a set of terms which are connected by the operations add, subtract, multiply, and divide.
7	What does it mean to simplify an algebraic expression?	Expressions can be simplified by collecting like terms.
8	What is substitution?	In algebra, substitution is the process of replacing a variable with a number in order to calculate the value of an expression.
9	What do we mean by expanding brackets?	Expanding brackets is the process of simplifying an expression by removing the brackets.
10	What is an equation?	An algebraic equation is a mathematical statement where two expressions are equal. The equals sign (=) is used to show that two expressions are equal.
11	What do we mean by solving an equation?	An equation is solved by finding the value of the unknown variable(s). Any value that satisfies the equation is called a solution.
12	What is an inequality?	An inequality compares two values, showing if one is less than, greater than, or not equal to another value.
13	What is a linear sequence?	A number pattern which increases by the same amount each time.
14	What is a non-linear sequence?	Non – linear sequences do not increase from term to term by a constant amount. Examples of this include quadratic sequences, geometric sequence, Fibonacci sequence.
15	What is the addition law of indices?	When multiplying two or more terms which are presented in index form, we add the powers if they have the same base. $a^m \times a^n = a^{m+n}$
16	What is the subtraction law of indices?	When dividing two or more terms which are presented in index form, we subtract the powers if they have the same base. $a^m \div a^n = a^{m-n}$

History

	Core Question	Answer
1	What is militarism?	The building of military weapons and naval and armed forces.
2	What is an Alliance?	An Agreement between countries often to support in a war
3	What is imperialism?	Taking control of lands and territories. The policy to build an Empire
4	What is Nationalism?	An extreme form of patriotism – believing that your country is superior and the desire to rule oneself.
5	When was the Archduke Franz Ferdinand assassinated?	28 th June 1914
6	What is propaganda?	Persuasive media
7	When was conscription introduced?	January 1916
8	What is a conscientious objector?	People who had a strong moral, political and religious reason for not fighting.
9	How far did the front line stretch?	From the English channel to Switzerland.
10	What was no man's land?	Area between the two front lines.
11	What were the PALS battalions?	Friends would join and fight together.
12	What was the biggest killer in the war?	artillery
13	When did the first World war end?	11am 11 th November 1918
14	What Treaty did Germany sign to end the First World War	Treaty of Versailles

Spanish

Singular			
<p>Me encanta <i>I love</i></p> <p>Me gusta mucho <i>I like a lot</i></p> <p>Me gusta <i>I like</i></p> <p>Me gusta un poco <i>I like a bit</i></p> <p>No me gusta (nada) <i>I don't like (at all)</i></p> <p>Odio <i>I hate</i></p> <p>Prefiero <i>I prefer</i></p> <p>A mi hermano le gusta <i>My brother likes</i></p>	<p>el agua water</p> <p>el arroz rice</p> <p>el café coffee</p> <p>la carne meat</p> <p>el chocolate</p> <p>la ensalada verde green salad</p> <p>la fruta fruit</p> <p>la leche milk</p> <p>la miel honey</p> <p>el pan bread</p> <p>el pescado fish</p> <p>el pollo asado roast chicken</p> <p>el queso cheese</p> <p>el zumo de fruta fruit juice</p>	<p>porque es <i>because it is</i></p>	<p>asqueroso/a disgusting</p> <p>delicioso/a delicious</p> <p>dulce sweet</p> <p>duro/a tough</p> <p>grasiento/a oily/greasy</p> <p>malsano/a unhealthy</p> <p>picante spicy</p> <p>refrescante refreshing</p> <p>rico/a delicious</p> <p>sabroso/a tasty</p> <p>salado/a salty</p> <p>sano/a healthy</p> <p>saludable healthy</p>
Plural			
<p>Me encantan <i>I love</i></p> <p>Me gustan mucho <i>I like a lot</i></p> <p>Me gustan <i>I like</i></p> <p>Me gustan un poco <i>I like a bit</i></p> <p>No me gustan (nada) <i>I don't like (at all)</i></p> <p>Odio <i>I hate</i></p> <p>Prefiero <i>I prefer</i></p>	<p>los chocolates chocolates</p> <p>las fresas strawberries</p> <p>las gambas prawns</p> <p>las hamburguesas hamburgers</p> <p>los huevos eggs</p> <p>las manzanas apples</p> <p>las naranjas oranges</p> <p>los plátanos bananas</p> <p>los tomates tomatoes</p> <p>las verduras vegetables</p>	<p>porque son <i>because they are</i></p>	<p>asquerosos/as disgusting</p> <p>deliciosos/as delicious</p> <p>dulce sweet</p> <p>duros/as tough</p> <p>grasientos/as oily/greasy</p> <p>malsanos/as unhealthy</p> <p>picantes spicy</p> <p>refrescantes refreshing</p> <p>ricos/as delicious</p> <p>sabrosos/as tasty</p> <p>salados/as salty</p> <p>sanos/as healthy</p> <p>saludables healthy</p>

1	In my time free, I love to cook and make cakes.	En mi tiempo libre me encanta cocinar y hacer pasteles.
2	My food favourite is paella of seafood. How tasty!	Mi comida favorita es paella de mariscos. ¡Qué sabrosa!
3	<u>Often</u> , I cook for all my family.	<u>A menudo</u> cocino para toda mi familia.
4	My brother likes the fish with potatoes fried (chips).	A mi hermano le gusta el pescado con patatas fritas.
5	Tomorrow I'm going to cook <i>meat of</i> cow (beef) with vegetables for my parents	Mañana voy a cocinar <i>carne de vaca</i> con verduras para mis padres
6	and we are going to eat after the eight. (8 o'clock)	y vamos a comer después de las ocho.

Religious Studies

	Core Question	Answer
1	What is meant by social justice?	Ensuring that society treats people fairly whether they are poor or wealthy and protects peoples' human rights.
2	What are human rights?	The basic rights and freedoms to which all human beings should be entitled.
3	What is meant by equality?	The state of being equal, especially in status, rights and opportunities.
4	What is prejudice?	Unfairly judging someone before the facts are known; holding biased opinions about an individual or group.
5	What is discrimination?	Actions or behaviour that result from prejudice.
6	What does heterosexual mean?	To be sexually attracted to members of the opposite sex.
7	What does homosexual mean?	To be sexually attracted to members of the same sex.
8	What does freedom of religion mean?	The right to believe or practise whatever religion one chooses.
9	What does freedom of religious expression mean?	The right to worship, preach and practise one's faith in whatever way one chooses.
10	What is meant by disability?	A physical or mental impairment which has an adverse effect on a person's ability to carry out normal day-to-day activities.
11	What is positive discrimination?	Treating people more favourably because they have been discriminated against in the past or have disabilities.
12	Who was Gandhi?	An Indian lawyer and political ethicist who employed nonviolent resistance.
13	How ruled India before 1947?	Britain (part of the British Empire)
14	What is racism?	Showing prejudice against someone because of their ethnic group or nationality.
15	What is stereotyping?	Having an over-simplified mental image of people and applying it to everyone in the group.
16	What is scapegoating?	Blaming certain groups for problems in society.
17	What is religious prejudice?	Prejudice based on religion or beliefs.
18	Who are the UN?	The United Nations is an intergovernmental organization whose purpose is to maintain international peace and security, develop friendly relations among nations, achieve international cooperation, and be a centre for harmonizing the actions of nations.
19	What is a refugee?	A person who has been forced to leave their country in order to escape war, persecution, or natural disaster.

20	How can people in need be helped?	<ul style="list-style-type: none">➤ Providing resources after a natural disaster➤ Purchasing fair trade products➤ Giving money to a charity which aims to build and sustain schools in war torn countries➤ Sending doctors and nurses to countries stricken with an outbreak of a disease/virus➤ Providing shelter to those whose homes have been destroyed by natural disasters➤ Setting up refugee camps when people are forced to flee their country
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1	Inkscape	An open source and cross-platform application for editing vector graphics.
2	Vector graphic	A simple digital image created using paths.
3	Path	A line or a shape used to create vector graphics.
4	Bitmap image	A detailed image created with pixels.
5	Pixel	A tiny square of colour.
6	Stroke	The border of a shape.
7	Logo	A symbol that is used to represent an organisation or a product.
8	Scalable	When an object or image is able to be made bigger or smaller.
9	Illustration	Can be a decoration or pictorial representation of something, for example a cartoon cat.
10	Z-order	The order of overlapping objects used to create a vector graphic.
11	Union	An operation used to combine two or more paths to create a single path.
12	Intersection	An operation used to create a single path from the overlapping portion of two paths.
13	Equidistant	Being the same distance away as another.

PE

Yr8 PE Core Question:		
1	Why do we warm up?	To gradually prepare the body for exercise and to avoid injury
2	What are the 3 components of a warm-up?	Pulse raiser (running, skipping, ect) Dynamic Stretches Sport Specific Drill
3	What happens to the body when we warm up?	Muscles require higher amounts of oxygen, heart rate and oxygen intake thus increases to transport oxygenated blood to the working muscles via the blood vessels. This increase blood flow prepares the body for exercise.
4	What is the difference between a static and dynamic stretches?	Static means to stretch and not move. Dynamic means movement stretches
5	Give an example of a sport's specific warm-up.	Dribbling with a ball, passing, controlling shots. This is all done at a low to medium level of intensity.
6	Discuss how students should keep safe when taking part in PE?	Proper and full warm-up Remove jewellery Listen to all instructions Follow the rules of the game/activity.
7	Explain the techniques for catching? How should this be completed?	Thumbs touching and fingers pointed to the sky. Show partner a W to show you are ready.
8	How do we kick a ball in football, discuss the various techniques.	Place standing foot alongside the ball Use side foot of kicking foot for connection Follow through to direction of pass Vary the power dependent on distance.
9	What are the 4 ways we assess within PE?	Thinking Me Social Me Physical Me Healthy Me
10	How do we give effective feedback to others in PE lessons?	Watch your partner Look out for the key teaching points Tell them what they are doing well Tell them what they need to improve. Use full sentences and make reference to the teaching points.
11	Discuss 3 rules you must follow when you play badminton. Consider the start of the game and how to win points.	Serve below the shoulders Shuttle must not be thrown in the air before hitting this to start the game You cannot hit the shuttle twice The shuttle must go over the net The shuttle must land in the court area
12	What is 'Cardiovascular Endurance' and give a sports example.	This is the ability of the cardio (heart and blood) respiratory (lungs) to work efficiently over time, without getting tired. Endurance means to continue for a long period of time.
13	What sports requires good amount of flexibility?	Dance Gymnastics

		Ice hockey Goalkeeper MMA/Judo
14	Give 2 sports that require a lot of power.	Rugby Sprint events (swim/run/cycle) Weightlifting Judo/Boxing/MMA
15	When you are acting as a leader/official in your PE lesson, what characteristics should you show?	Talk clearly Project your voice Follow the rules of the game Make sure you keep the score Stand is a clear and visible area of the pitch
16	Name the 6 areas that make up physical fitness?	BASSFM (Acronym) Balance, Aerobic Endurance, Strength, Speed, Flexibility and Muscular Endurance.
17	Name 3 sports that require good speed?	Sprint running/cycling/swimming Wingers in football and rugby Centre in netball Hockey players
18	Name 3 pieces of equipment in the fitness suite that will help to improve your fitness levels.	Treadmill, Cross-trainer, bike, rower.
19	From any sport/activity of your choice, what skills (name 3) do you believe you have done well and think you are a strength.	Student reflective response.
20	For your current activity, what level/grade do you believe that you are and why? Bronze/Silver/Gold/Platinum	Self-reflection response. Explain your thoughts and reasons.

Art

1	What is a tropical climate?	A tropical climate is a non-arid climate in which all twelve months have mean temperatures warmer than 18 °C. Tropical climates are normally found from the equator to 25 north and south latitude.
2	Name three tropical leaves.	Bird of paradise leaf, fan palm, banana leaf, areca palm, sansevieria, aralia leaf, fern frond
3	What type of artist is Mlle Hipolyte and what is main medium she uses?	Mlle Hipolyte is a French paper designer and illustrator who creates colourful sculpture out of paper.
4	What is origami?	The different paper folding techniques are grouped under the art of Origami. The word, Origami is formed of oru (folding) and kami (paper). Origami is a Japanese art in which the main aim is to create geometric folds of paper to represent a certain object.
5	Name three paper manipulation techniques.	Folding, quilling, wrinkling, weaving, twisting, curling, scoring
6	What is paper craft?	Paper Crafting involves a wide and varied mixture of several different hand on skills that people use to create one, two or three-dimensional objects in paper and card stock
7	What is form?	Something which has 3 dimensions e.g. a cube, sphere or sculpture.
8	What are harmonious colours?	Colours that are similar and close together on the colour wheel
9	What is the definition of texture?	The way something looks or feels e.g. smooth, rough, bumpy.
10	What is the difference between foreground and background?	The foreground is that part of the image that is closest to the viewer. The background is the part of the image that is further away from the viewer.

Geography

CQ	Question	Answer
1	What do we call the actions taken to reduce the impact of an event such as a volcanic eruption?	Responses
2	Give one response to the eruption of Mount Nyiragongo.	One of the following: <ul style="list-style-type: none"> • Evacuating Goma • Building aid camps • Goma Volcano Observatory Relocating residents from Goma
3	One response to the eruption of Mount Nyiragongo was to evacuate the nearby city of Goma. What does evacuate mean?	To leave the place of danger to travel to a safer place.
4	Why is evacuation a successful response to a volcanic eruption?	People are away from the danger
5	Why was the building of aid camps an unsuccessful response to the eruption of Mount Nyiragongo?	Delay in processing people so they were stuck in makeshift camps with limited water and food
6	Why was the Goma Volcano Observatory an unsuccessful response to the eruption of Mount Nyiragongo?	Lack of funding meant that the public wasn't informed about the signs of eruption
7	Why has Ethiopia partially met MDG 1 "eradicate extreme poverty and hunger"?	Those in poverty has decreased by 20% but still 28% of people who don't have enough food
8	Why has Ethiopia partially met MDG 2 "achieve universal primary education"?	98% of children enrolled in primary school but only 49% complete it
9	Why has Ethiopia partially met MDG 3 "promote gender equality and empower women"?	Increase in the amount of women in government and girls in primary school but women still working in more traditional roles
10	Why has Ethiopia partially met MDG 4 "reduce child mortality"?	Amount of deaths of under 5 year olds reduced by 50% and 68% now vaccinated but malaria and diarrhoea still kill a lot of children
11	Why has Ethiopia partially met MDG 5 "improve maternal health"?	Pregnant women get 4 medical visits but only 16% of births attended by medical personnel
12	Why has Ethiopia partially met MDG 6 "combat HIV/Aids, malaria and other diseases"?	100% of people can access malaria nets and 89% live near a doctor but only 1 doctor per 1000 people
13	Why has Ethiopia partially met MDG 7 "ensure environmental sustainability"?	Deforestation and desertification reducing number of species but Ethiopia are planting trees to stop this
14	Why has Ethiopia met MDG 8 "global partnership for development"?	Part of many trade partnerships such as ACFTA
15	What has happened to the Rwenzori Mountains?	Lost over half of its glaciers since 1906
16	Why have the Rwenzori Glaciers melted?	Rising global temperatures and wild fires
17	Give a social impact of the melting of the Rwenzori Glaciers.	One of the following: <ul style="list-style-type: none"> • Houses and schools destroyed

		<ul style="list-style-type: none"> • Town of Kalembe flattened • Destruction of crops Destruction of sites of religious rituals
18	Give an economic impact of the melting of the Rwenzori Glaciers.	One of the following: <ul style="list-style-type: none"> • Less hydroelectricity means Uganda will have to buy expensive fossil fuels Less tourism will mean loss of jobs
19	Give an environmental impact of the melting of the Rwenzori Glaciers.	One of following: <ul style="list-style-type: none"> • Vegetation being washed away • Landscape eroded by floodwater Less hydroelectricity means fossil fuel use will increase enhanced greenhouse effect
20	Chad is ethnically diverse. What does this mean?	There are a high amount of ethnic groups
21	Giving one impact being ethnically diverse has had on Chad.	One of the following: <ul style="list-style-type: none"> • Many religions • Different types of music • Different types of traditional dances • Different types of cuisine Over 120 languages spoken
22	What is a cyclone?	A tropical storm that happens in the Indian Ocean
23	Where did Cyclone Idai start?	As a thunderstorm in Malawi
24	Which countries were hit hardest by rain during Cyclone Idai?	Mozambique and Zimbabwe
25	Give one impact of Cyclone Idai.	One of the following: <ul style="list-style-type: none"> • Flood water polluted clean water • Cholera spread through flood water • 1300 people died • 1 million acres of crops destroyed • Hard to reach survivors • Cost \$2 billion • Triggered landslides • Destroyed power lines Storm surge hit city of Beira
26	One impact of Cyclone Idai was a storm surge hitting the city of Beira in Mozambique. What is a storm surge?	When low pressure raises the level of the ocean causing it to rise over land
27	90,000 people live in Makoko in Lagos, which is a squatter settlement. What is a squatter settlement?	Collection of makeshift homes on illegally sourced land unsuitable for building
28	Give one reason why Lagos should demolish Makoko.	One of the following: <ul style="list-style-type: none"> • Water front location is ideal to build offices and housing • People who live in Makoko are there illegally Grown too close to bridge and power cables
29	Give one reason why Lagos should improve Makoko.	One of the following: <ul style="list-style-type: none"> • Reduce flooding of buildings Educate students
30	Give a feature of the tropical grassland biome.	One of the following:

		<ul style="list-style-type: none"> • Warm year round • 25-35°C • Two seasons • Wet and dry season • Grasses with isolated trees <p>Rich in wildlife</p>
31	What is tourism?	The industry involved in travelling for recreation
32	Give one reason why tourism is posing a risk to the Serengeti.	<p>One of the following:</p> <ul style="list-style-type: none"> • Safari jeeps damage plants • Safari jeeps disturb habitats • Herding by Masai tribe disrupted by safaris <p>Land taken off the Masai tribe</p>
33	What is ecotourism?	Tourism that ensures the environment is protected and local communities are benefiting
34	Give one reason why Klein's Camp is protecting the environment in the Serengeti.	<p>One of the following:</p> <ul style="list-style-type: none"> • Walking safaris don't disturb plants and animals <p>Safaris led by locals who know how to protect environment</p>
35	Give one reason why Klein's Camp is benefitting local communities in the Serengeti.	<p>One of the following:</p> <ul style="list-style-type: none"> • Used money from sale of land for build school and village office • Used money from sale of land to pay for education of students of the village • Locals employed by camp <p>Crafts and jewellery made by Masai women sold</p>
36	Who believed that population would exceed the amount of food resources?	Malthus
37	Malthus believed we would reach a "point of crisis". What is this?	The point where population would be higher than the number of resources.
38	Who believed that humans would not run of resources such as food due to technological advances?	<ul style="list-style-type: none"> • Boserup
39	Boserup wrote, "Necessity is the mother of invention". What does this mean?	<ul style="list-style-type: none"> • If you need it, someone will invent it.
40	Give one piece of evidence from Africa that supports Malthus' theory.	<p>One of the following:</p> <ul style="list-style-type: none"> • 14 million across Horn of Africa on verge of starvation • Unrest in Egypt and Tunisia over price of food • 26000 people starved to death in Somalia in 2011
41	Give one piece of evidence from Africa that supports Boserup's theory.	<p>One of the following:</p> <ul style="list-style-type: none"> • Northern Ghana uses machinery in farming

		<ul style="list-style-type: none"> • 4 African countries grow GM crops <p>Egypt is the top importer of food</p>
42	Give one reason why the Aswan Dam was needed on the River Nile.	<p>One of the following:</p> <ul style="list-style-type: none"> • Flooding during wet years <p>Not enough water for crops in a dry year</p>
43	What is a dam?	A wall built across a river
44	What is a reservoir?	Artificial lake created behind a dam on a river
45	What is the name of the reservoir behind the Aswan Dam in Egypt?	Lake Nasser
46	Give one reason why the Aswan Dam can be seen as successful.	<p>One of the following:</p> <ul style="list-style-type: none"> • Protected areas of Egypt from flooding • More water available for irrigation <p>Farming has increased around River Nile</p>
47	Give one reason why the Aswan Dam can be seen as unsuccessful.	<p>One of the following:</p> <ul style="list-style-type: none"> • Large area of land flooded • 10000 people made homeless • Blocks the transport of nutrients to farmers fields <p>Archaeological sites had to be moved</p>
48	The United Nations is an international organisation. What is an international organisation?	A group of countries with a purpose e.g. peace or trade
49	The United Nations sends peacekeepers to areas of conflict. What is a peacekeeper?	<ul style="list-style-type: none"> • A person who works for the UN and is sent into a conflict to keep peace and protect civilians
50	During 1994, a genocide of Tutsi people took place. What is a genocide?	<ul style="list-style-type: none"> • The deliberate killing of a certain group of people
51	Give one reason why the United Nations were unsuccessful in their role in the Rwanda Civil War.	<p>One of the following:</p> <ul style="list-style-type: none"> • Withdrew their peacekeepers • Monitored the situation instead of intervening
52	Many people living in LIDCs work in the informal sector. What does this mean?	<ul style="list-style-type: none"> • Jobs that are not taxed or monitored by any form of government.
53	Give an advantage of working in the informal sector in Zambia.	<p>One of the following:</p> <ul style="list-style-type: none"> • Unskilled people given opportunity to make money • Don't have to attend interviews • Flexible with no set hours <p>All money earned is kept</p>
54	Give a disadvantage of working in the informal sector in Zambia.	<p>One of the following:</p> <ul style="list-style-type: none"> • No age restrictions • Child labour increases • Children working are vulnerable to hazards • No compensation • Rainy season makes outside jobs limited to certain times of year
55	What is Geographic Information Systems (GIS)?	<ul style="list-style-type: none"> • The use of technology to add layers of data onto a base map

56	How do you work out the number of degrees of the pie chart each percentage will be?	Multiply by 3.6
57	How do you calculate the percentage increase between two numbers?	$(\text{increase} \div \text{original number}) \times 100$

Science

	Question	Answer
1	Describe a transverse wave	Oscillations occur at right angles to direction of energy travel
2	Describe a longitudinal wave	Oscillations occur parallel to direction of energy travel
3	Give two examples of transverse waves	Light, ripple on a pond
4	Give two examples of longitudinal waves	Sound, a plucked slinky
5	How would you show that in a sound wave, the wave travels but not the air?	Observe a helium balloon in the path of the wave: it will oscillate about a fixed position
6	Define "amplitude"	The distance from the point of zero disturbance to the point of maximum disturbance
7	How would you measure the speed of sound waves?	Fire a starting pistol at distance, record the time between seeing the pistol flash and hearing the bang, $\text{speed} = \text{distance} / \text{time}$
8	How would you measure the speed of water waves?	Using a ripple tank and lamp, follow a single crest with a pencil and record the time from one end to the other. $\text{Speed} = \text{distance} / \text{time}$
9	What is the "electromagnetic spectrum"?	A set of electromagnetic waves with a range of frequencies, all travelling at the same speed in a vacuum
10	State the names of the waves in the EM spectrum in order from longest to shortest wavelength	Radio, microwave, infra-red, visible, ultra-violet, X-rays, gamma rays
11	Which group of electromagnetic waves has the longest wavelength?	Radio
12	Which group of electromagnetic waves has the highest frequency?	Gamma
13	Define "frequency"	Number of wave cycles in 1 second
14	Define "wavelength"	Distance from a point on a wave to the equivalent point on the next wave
15	Give the formula for wave velocity, frequency and wavelength	$V = f\lambda$ Velocity = frequency x wavelength
16	What happens in reflection?	A wave bounces off the surface of a material
17	What is "colour"?	A property of visible light determined by its frequency
18	What happens in refraction?	A wave changes direction as it travels through a material because it changes speed

19	What happens in absorption?	The wave's energy is transferred to an atom and the wave is stopped
20	What happens in transmission?	Waves pass through a material
21	Why do we see a green object as green?	It reflects green light and absorbs all other wavelength
22	How does a blue filter work?	It transmits blue light and absorbs all other wavelengths