

Learning: The Ruskin Way

At Ruskin all students to **learn together** and **achieve high standards**. Students follow our **Core Values** to become a **Ruskin Learning Ready Student**.

RESPECT: A Ruskin Learning Ready student is **respectful** towards peers, teachers, support staff and visitors. Within our diverse school community, they demonstrate **kindness** and **tolerance**. They show **self-respect** by striving to be the best they can be and by being **organised** and **prepared** to learn.

HIGH ASPIRATIONS: A Ruskin Learning Ready student is **ambitious** both inside and outside of the classroom. They **love to learn** and appreciate all of the **opportunities** offered to them. Because of their high aspirations, they **strive** to be the **best** that they can be.

CONFIDENCE: A Ruskin Learning Ready student is **confident** in their **abilities** and **strengths**. They are **not afraid** to make mistakes and will **ask questions**. They take an **active role** in their learning and demonstrate **independence**.

WE ARE A COMMUNITY: A Ruskin Learning Ready student **works well** with others and is a **team player**. They **care** for others and are proud to be part of the **Ruskin community**.

A Ruskin Learning Ready Student

PREPARED:

- Has a good night's sleep
- Eats well and stays hydrated
- Arrives at school and lessons on time
- Wears their uniform correctly
- Enters the room calmly and is ready to learn

ORGANISED:

- Brings the correct equipment
- Manages their time appropriately
- Completes all work, including homework, to the deadline set and to the best of their ability

RESPECTFUL

- Is respectful, kind and tolerant of all people in our diverse school community
- Is a team player
- Listens to others without judgement
- Demonstrates self-respect and takes pride in their work and progress



CONFIDENT:

- Has confidence in their own abilities and strengths
- Is not afraid to ask for help and support
- Can communicate and read with confidence
- Is inquisitive and takes an active role in their learning

AMBITIOUS:

- Has high aspirations for themselves and their future
- Strives to be the best they can be
- Relishes the opportunities offered to them

REFLECTIVE:

- Listens to and responds to their teachers' feedback
- Is able to identify their next steps and areas for improvement
- Strives to improve

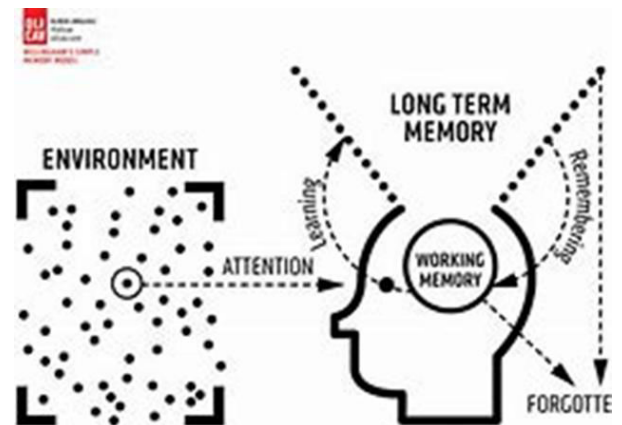
Independent Learning at Ruskin

Independent Learning is all about helping you to build on the knowledge that you learn in class so that you **know more, remember more, and can do more**. This means you will experience lasting changes in your **long-term memory**, and develop a deep understanding of what you cover in class.

When you have truly learnt something, you can:

- Remember it later
- Understand how it connects to other things you know
- Explain it in detail
- Apply it to different situations

Quiz It, Map It, Link It is a structured programme of **independent learning** and **revision activities** that will help you to do all of the above. By using your **Core Knowledge Questions Booklet** in multiple different ways, you will go from simply memorising the facts, to really understanding them, and being able to use the knowledge much more **confidently** and **effectively**.



Our Core Values:



We want you to feel **confident** with the **new knowledge** that you acquire and you should feel **assured** about how best to learn this **new knowledge**. Your **Core Knowledge Questions Booklet** and **Quiz It, Map It, Link It** will help with this.



We want you to be the **best that you can be** and to **“think big”** for yourselves. By using your **Core Knowledge Questions Booklet** and **Quiz It, Map It, Link It**, you will demonstrate a **positive attitude to learning**, and also push yourself to reach your **goals**.

We want you to **independently** ability to



have **self-respect** and understand the important of working. Completing **Quiz It, Map It, Link It** activities highlights your recognise your **strengths** and also **areas for development**.

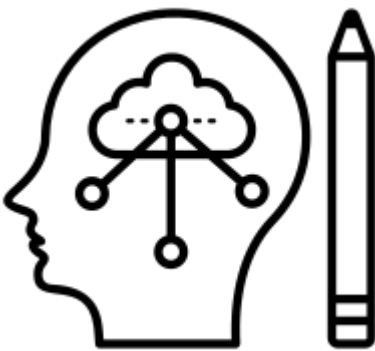


Learning Together. Achieving High Standards.

Our Evidence-Informed Independent Learning and Revision Strategies



Quiz It – what can you remember about your Core Knowledge Questions? What more do you learn and remember?



Map It – use mind maps to create revision resources. These can then be used to learn the core knowledge.



Link It – what other subjects/topics that you have studied does this knowledge link to? Why and how does it link?



Independent Learning: How to Quiz It



Quiz It – what can you remember about your Core Knowledge Questions? What more do you learn and remember?

How you use this strategy depends on whether you are **rehearsing** (the information is new to you) or **retrieving** (trying to recall knowledge you have already learnt) The majority of your Quiz It work should be **Retrieval Practice** as this will help you to **remember more**.

Step 1: **LOOK**

- Pick a subject/topic and read over the Core Knowledge Questions (you may not pick all of them from one subject/topic depending on what you have learnt already).
- You may need to re-read.
- Copy out the questions on a blank template.

Step 2: **COVER**

- Turn over your Core Knowledge Questions or cover up them up.

Step 3: **WRITE**

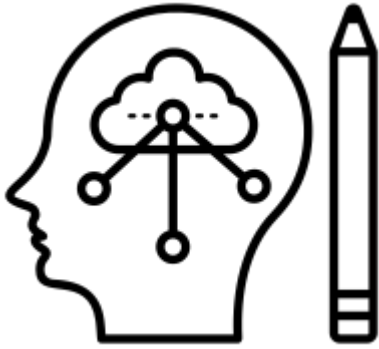
- On your blank template, write in the answers.
- Use black or blue pen.

Step 4: **CHECK**

- Uncover the answers.
- Using green pen, check your answer.
- Tick every correct item and correct any mistakes – this is the most important part of the process.

Step 5: **REPEAT**

- Complete the process again for any questions that you got wrong.
- Add more questions to your blank template and complete the process again.



Independent Learning: How to Map It

Map It – use mind maps to create revision resources. These can then be used to learn the core knowledge.

Step 1: Identify the knowledge

- Pick a topic that you wish to revise. This will go in the centre of your mind map.
- Have your Core Knowledge Questions ready.

Step 2: Identify the Core Knowledge Questions

- These questions will become the main branches of your mind map.
- Write out the questions carefully and leave space around them.

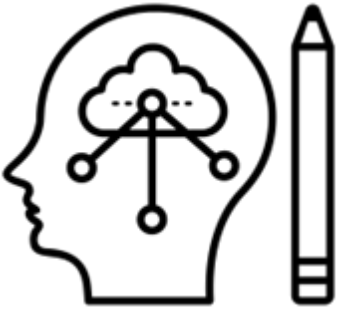
Step 3: Branch Off

- Branch off your Core Knowledge Questions with the answers.
- Copy the answers carefully.

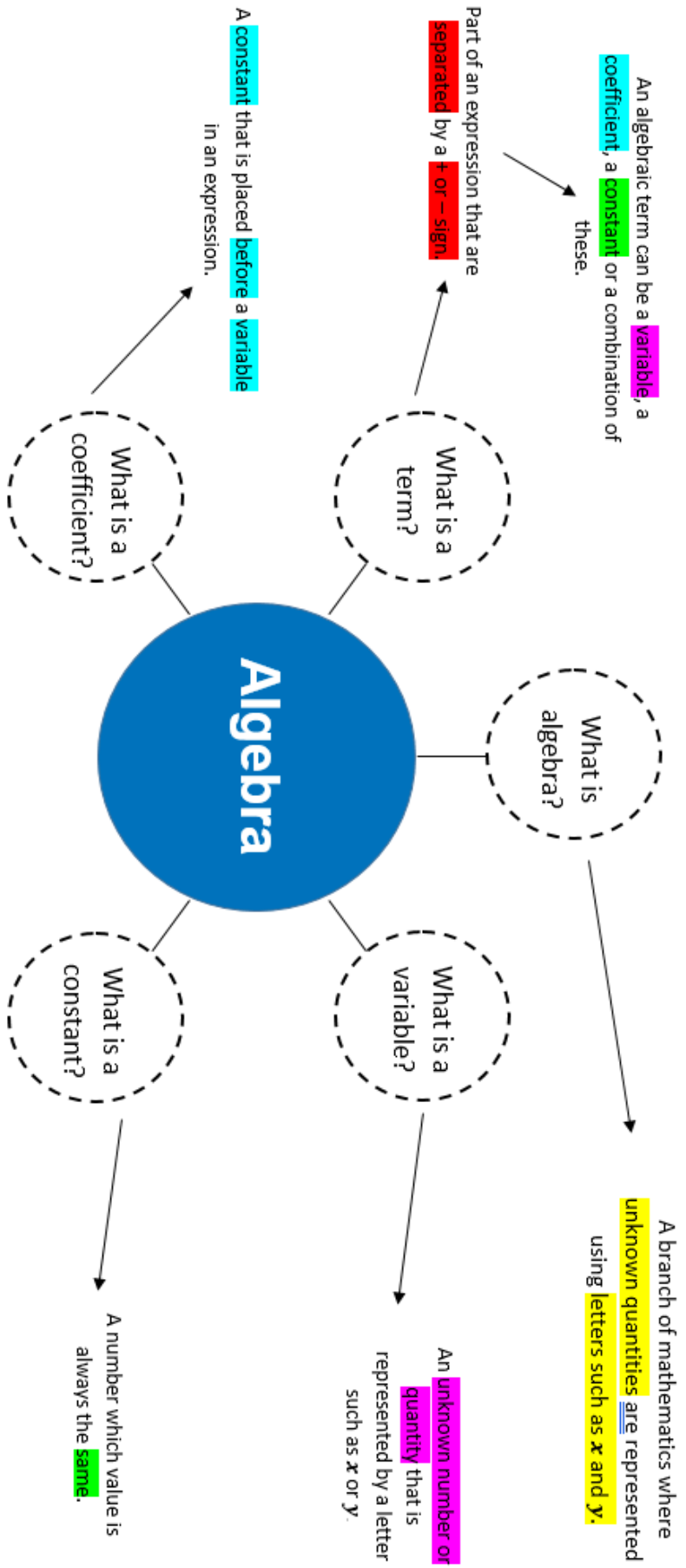
Step 4: Use Images and Colour

- Use images and colour to help answers stick in your mind.
- Highlight the key words that you need to remember.

Give yourself plenty of space to write the Core Knowledge Questions and the answers. You need to be able to visualise the information when you are trying to recall it.



MAP IT EXAMPLE



Independent Learning: How to Link It



What other subjects/topics that you have studied does this knowledge link to? Why and how does it link?

- Choose 2 Core Knowledge Questions from a specific topic.
- Write three sentences to show how these link to other topics that you have studied. Don't forget that these topics could be from different subjects and/or from learning that you did in a previous year.
- Use the Link It proforma to answer the two questions (using all of your knowledge) and also how they link together.

You could:

Compare and Contrast:

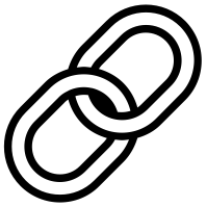
- X is similar to/different from Y because...
- X is more/less...than Y because...
- In a similar way to X, Y is...
- In a different way to X, Y is...

Cause and Effect:

- X happens because of Y...
- X and Y work together because...
- X happens because...

Support/Refute:

- X supports the ideas of Y because...
- X refutes the ideas of Y because...



LINK IT EXAMPLE



What is Photosynthesis?

Photosynthesis is the chemical reaction that makes glucose (the plant's food) using light energy. The reaction occurs between carbon dioxide gas from the air absorbed by the leaves and water which is absorbed through the roots. Glucose is made in the leaves and oxygen is released back into the air as a byproduct.



The link between them is that water is a necessary for **both** the process of photosynthesis and transpiration is the constant stream of water moving through the plant from roots to leaves.



What is Transpiration?

Transpiration is the loss of water from the plant as it moves into the roots, up the stem to the leaves for photosynthesis. Some water is lost through the leaves, by the stomata or pores by evaporation.



LINK IT EXAMPLE



Who is Scrooge?

Scrooge is a misanthropic miser whose obsession with money has corroded the important relationships in his life. At the start of the text, he is "solitary as an oyster". However, through his journey with the spirits he metamorphizes into a benevolent character. Through Scrooge, Dickens highlights our ability to change our worldview and shines a light on the importance of sharing



The link between Mr. Birling and Scrooge is that they **both** represent negative aspects of humanity—selfishness, greed, and a lack of empathy—but **they differ** in their responses to these characteristics. Scrooge ultimately experiences redemption and personal growth, **while** Mr. Birling's character serves as a critique of those who prioritise their own interests over social responsibility.



Who is Mr Birling?

Mr. Birling is a capitalist who holds conservative views. Despite his wealth, Mr. Birling is depicted as an insensitive and callous character. He is dismissive of the concerns of the working class. Mr. Birling's character is a representation of the narrow-mindedness and lack of social responsibility that Priestley criticises in the play. Through his character, Priestley explores themes of social inequality, responsibility, and the interconnectedness of individuals in society.

Year 7 Core Knowledge Questions

ART

1	What are the 7 visual elements of art?	Line, Tone, Shape, Form, Space, Texture, Colour
2	What is line?	It is a path of a moving point and can vary in thickness. 'Line is a dot that has gone for a walk.'
3	What is tone?	Tone is the lightness or darkness of a colour.
4	What is shape?	A shape is flat, and created by a closed line. It can be an outline or filled in. It can be geometric or irregular.
5	What is Form?	Form is a 3D shape. It can be expressed in 3D or using tone to create the illusion of 3D. (length, width and depth)
6	What is Space?	Space is the area around or between objects. Space includes the background, foreground, and middle ground. A space can be negative or positive.
7	What is texture?	Texture is the surface quality of an object. In art it can refer to the illusion of texture by the types of marks added.
8	What is colour theory?	Colour theory is the art and science of using colour. <ul style="list-style-type: none"> • Primary colours • Secondary colours • Harmonious colours • Complementary colours • Monochromatic colours.
9	What is watercolour?	Watercolour is a kind of paint which is mixed with water, either from a tube or a hard slab.
10	What is the wet on dry technique?	The term wet on dry means exactly what it says. With this technique you apply wet paint onto a dry surface .
11	What is the graded wash technique?	A graded wash changes gradually in tone from darker to lighter.
12	What is a flat wash technique?	A flat wash is when paint is applied to have uniform colour and tone with no visible brush marks
13	What is the resist technique?	Wherever you apply the pastel/wax it will resist the watercolour paint you put over the top.
14	What is the dry brush technique?	Dry brushing literally means painting with a dry brush so that colour only partially covers the paper
15	What is scumbling ?	Scumbling is a brush technique for adding texture to your artwork. You use your brush with a dabbing and scribbling action to create patchy specks of colour.
16	What is a variegated wash?	A variegated wash is an area of colour which changes in colour and value across its surface. (from one colour to another). Gradually the

		shape changes colour from one to the other.
17	What is similar about Jasper Johns' and Jim Dine's work?	American, Pop Artists, motifs/theme, colourful, textured,
18	What is the Abstract art movement about?	Art that doesn't tell a story. It usually combines shapes and colour.
19	What do we mean about Application of Paint?	Avoiding splodges/spills of paint, paint evenly applied to paper.
20	What are the three primary colours?	Red, Blue, Yellow
21	What are the secondary colours?	Green, purple, orange
22	What are colours opposite each other on the colour wheel called?	Complimentary - because the contrast each other.

COMPUTING

1	What is a virus?	A piece of code that is capable of copying itself. It usually corrupts the system or disrupts data
2	What should be included in a strong password?	At least 8 characters Mixture of upper and lower case Special characters Numbers and letters Should not be a word in the dictionary
3	What is a digital footprint?	The information stored about a person based on their online activity
4	Can a digital footprint be positive?	Yes, it should be positive
5	What should you do if you are cyberbullied?	DO NOT respond Keep evidence Block and report it Tell a trusted adult
6	What is cyberbullying?	Cyberbullying is the use of technology to harass, threaten, embarrass, or target another person. Online threats and mean, aggressive, or rude texts, tweets, posts, or messages all count. So does posting personal information, pictures, or videos designed to hurt or embarrass someone else.
7	What is online grooming?	Online grooming is when somebody uses the internet to build a relationship with a young person, with the intention of tricking them.
8	What is a network?	A system that connects two or more computing devices for transmitting and sharing information
9	What does a network interface card do?	It connects a device to a network
10	What does a switch do?	Sends information directly to a device rather than through a network
11	What does a router do?	It connects two or more networked devices to access the internet at the same time. It also manages traffic between the devices

12	What are the main types of network topology?	Star Bus Ring Mesh
13	What does LAN stand for?	Local Area Network
14	Which does WAN stand for?	Wide Area Network
15	Is the internet a WAN or LAN?	WAN

DANCE

1	What is the role of a Costume Designer?	To design costumes for a performance, based on a set brief
2	What aspects of costume do we analyse in Dance performance?	Colour Texture Flow and structure Material Length Use of masks Style of shoes being worn
3	What is the role of a Lighting Designer?	To design the lighting for a performance, working to a set brief.
4	What aspects of lighting do we analyse in Dance performance?	Colour Placement Shape Direction Intensity
5	What is a spotlight?	A circle of light the dancers perform in
6	What is a gobo?	A pattern of lighting which can be projected onto the stage i.e. leaves
7	What are lighting gels?	The colours that go into the lights
8	What is a cyclorama?	A large curtain or wall, usually concave, positioned at the back of the set
9	Who choreographed 'Still Life' at the Penguin Café?	David Bintley
10	Name a character from 'Still Life' at the Penguin Café	The Texas Kangaroo Rat Humbolts Hog-nosed skunk flea Southern Cape Zebra Brazilian Woolley Monkey Great Ork Penguin
11	Who choreographed 'Still Life' at the Penguin Café?	David Bintley
12	What company danced 'Still Life' at	The Royal Ballet

	the Penguin Café?	
13	What styles of dance are seen in 'Still Life' at the Penguin Café	Ballet Contemporary Ho-down/Country Morris dancing Capoeira
14	What is the theme of 'Still Life' at the Penguin Café?	Extinction of animals
15	Why might an animal become extinct?	Destroying of habitats Climate change Food chain or lack of food Natural disasters Poaching or human interference
16	What style of dance is performed by 'The Texas Kangaroo Rat'?	Contemporary/Hoe-down
17	What dance actions and dynamics does the Texas Kangaroo Rat perform?	Actions: jumps, slide, shakes, hops, kicks, rat gestures Dynamics: energetic, fast
18	Describe the costume of the Texas Kangaroo Rat	Dirty, short sleeve, white t-shirt Blue dungarees Ballet shoes Full face mask
19	Explain the Texas Kangaroo Rats costume	To symbolise he is a child, poor, a worker and comes from the desert.
20	How do they make the Texas Kangaroo Rat look small on stage?	The create a zoomed in backdrop of a cactus, to make him look small.
21	What style of dance is the 'Humbolt's Hog-nosed Skunk flea?	Morris Dance
22	Name a feature of Morris Dancing	Partner work Bells and sticks Set formations and pathways to dance in Upbeat, rhythmic tempo
23	Draw a pathway used in Morris dance	Diagonal Weaving Crossing
24	Describe the costume of the Southern Cape Zebra	White and black striped unitard Hair for a mane running down the back Tassels in the dancer's hands represents a tail
25	Describe the female dancers' costumes in The Southern Cape Zebra	A skull head-dress Black and white skirt Black tights Black heeled shoes A black feather boa
26	What do the female dancers represent in The Southern Cape Zebra	The fashion industry Animals being killed for skins and furs etc
27	What is a Musical?	It is a form of entertainment that includes dance, drama and music (singing)
28	Who wrote the story of Matilda?	Roald Dahl

29	Name a song from Matilda the Musical	Naughty When I grow up Revolting Children
30	How do we work as an ensemble?	Listen to each other Look at each other for timing Use team work Respect each other's ideas and contributions

DRAMA

1	What is a ceremony?	A formal religious or public occasion, especially one celebrating a particular event, achievement, or anniversary.
2	What is symbolism?	Something that represents something beyond its literal meaning.
3	What is context?	Setting the circumstances of the event or idea.
4	What is a chorus?	Someone who performs vocally in a group instead of by themselves.
5	What is choral speaking?	People speaking in unison (at the same time).
6	What is mime?	Working in silence, or with few sounds or words, to show activities, e.g. painting a wall.
7	What is an ensemble?	A group of people who perform together.
8	What is canon?	Where each performer speaks the same line but at different times to create a specific dramatic effect.
9	What is unison?	When performers are performing the same movements or speaking the same words at the same time.
10	How do you ensure good vocal timing in an ensemble?	Timing Precision Team work Listen to each other Use set cues Rehearse/Practice
11	How do you ensure good physical timing in an ensemble?	You could use a metronome. You could record each other. Good communication and listening skills.
12	What is a transition?	Links between the dance/actions or scenes.
13	What is a soundscape?	A sequence of sounds shaped to enhance action and mood in a drama. It is often used in films to create mood and atmosphere.
14	What is 'thought-tracking'?	Thought tracking (or thought tapping) is a drama strategy that allows a character to express their inner thoughts out loud.
15	What is a stimulus?	A starting point for example, a poem, music or a picture.
16	What is naturalism in Drama?	A style of drama that developed in the late 19th century as an attempt to represent real life on stage faithfully and without artifice.
17	What is non-naturalism in Drama?	Acting which would not be represented in the real world.
18	What is Physical Theatre?	Style of theatre that puts emphasis on movement rather than dialogue. It's often abstract in style, using movement in a stylised and

		representational way.
19	What is genre?	A category in which can be divided into tragedy, comedy, romance, and melodrama.
20	Who played the female roles in Greek Theatre?	Male actors (females were not allowed to act)
21	What era was Greek Theatre popular?	550bc- 220bc
22	Explain why performers would wear a mask in Greek Theatre?	To protect their expressions. It meant the actors could play multiple roles in the show. One mask would depict tragedy and the other would represent comedy.
23	Tell me something about the Greek Theatre (layout)	The masks allowed one actor to play different roles in the play. The masks would represent comedy or tragedy. They invented the genres comedy and tragedy.
24	Name a historical story we have explored	Adam and Eve Noah and the Flood Pandora's box
25	List an ancient Greek Mythology or Character	Protagonist Hercules Pandora Aphrodite Zues
26	What are the 7 deadly sins	Anger Desire Pride Jealousy Wealth Sloth/Laziness

DT

1	What is a problem? What is a user?	This is the problem that the context is based around. It is the problem that you are trying to solve with your designs. The user is the person or group that are going to use your product.
2	What is a competitor product? What is evolution of design?	This is an existing product that is similar to that which you intend to design. This is when a product develops or evolves over time. Usually due to technological or material advancements.
3	What is a specification? What is analysis?	A list of what your product will be. Looking and asking questions about a product.



4	What is corrugation?	Corrugation is a method of construction that has a top, bottom and waves in the middle to give strength.
5	What is sketching? What is annotation?	Visual thinking. The addition of notes to explain.
6	What is crating? What is presentation enhancement?	A preliminary simple outline to your sketch. Adding to a sketch with fine liners, pens, pencils, colour etc.
7	What is modelling? What is a prototype?	Construction of a simple model of your idea to test. A model of your idea.
8	Why do we prototype?	A prototype is a model of your design. It is used to test and develop the product.
9	What is joining?	A method used to join 2 pieces of material together.
10	What is an evaluation?	An evaluation is when you reflect upon your work. Looking at how it could be improved and gathering feedback from others
11	What is development?	Development is when you improve and change your work

ENGLISH – 19th Century Crime Fiction

1	What are the conventions of Crime fiction?	A murder of an innocent victim, an isolated setting, a number of suspects with motives, red herrings (misleading information), a murder weapon, a denouement (ending where all is resolved/explained).
2	What is fiction?	Texts that are not based on fact. They describe <i>imaginary</i> events.
3	What are the examples of fiction texts?	Mystery, thriller, science fiction, romance, horror etc. They can range from a newspaper article to a review of a new computer game
4	What is non-fiction?	Text that are factual. They are usually informative.
5	What are the examples of non-fiction texts?	Diaries, newspapers, biographies, autobiographies, travel writing.
6	What is formal language?	Formal language is professional and sophisticated language. This is often use with people we do not know or when communicating with someone in power.



7	What is informal language?	Informal language is casual language that may involve slang. This is often used with people we are close to.
8	What are the features of a letter?	<ul style="list-style-type: none"> • Addresses (Yours on right side, theirs on left) • Date (right hand side) • Dear _____, • Yours sincerely (when you know them) • Yours faithfully (when you do not know them)
9	What does protagonist mean?	The leading (main) character in a story.
10	What does antagonist mean?	A character who opposes the story's main character: their enemy or rival.
11	What does connotation mean?	A connotation is an idea or feeling which a word creates for a person in addition to its literal or primary meaning.
12	What is a concrete noun?	A concrete noun is something that can be perceived with the five senses e.g. table.
13	What is an abstract noun?	An abstract noun is something non-physical that you cannot perceive with your senses e.g. strength.
14	What is a preposition?	Words that tell you where or when something is in relation to something else (under, on, inside).
15	What are writer's intentions?	What the writer is trying to achieve. What is the purpose/intent for writing?
16	What is subject terminology?	Word that connect to the subject. This can be words class (adjective), techniques (simile) etc.
17	What is a theme?	A running idea throughout a text e.g. a theme of love, a theme of nature.
18	What is sensory language?	Describing using your 5 senses: sight, touch, sound, smell, taste.
19	What is show, don't tell?	Refers to describing something through detail rather than stating explicitly. For example, instead of saying your character is scared, show this through describing how their lip was trembling etc.
20	What is tension?	Tension in a literary context is the sense something ominous is right around the corner.
21	What literacy/SPaG checks do I need to complete before handing in my work?	<p>When you check your work, you should ensure you have...</p> <ol style="list-style-type: none"> 1. Used capital letters correctly 2. Used the correct punctuation at the end of each sentence (e.g. full stop, question mark, exclamation mark) 3. Used paragraphs where necessary 4. Presented your work neatly and appropriately 5. Used the key words from the lesson 6. Used challenging vocabulary where necessary



1	What does persuasion mean?	The act of changing someone's mind
2	What is the artistic proof ethos?	How a writer creates or shows their credibility, usually by referring to their status.
3	What is the artistic proof pathos?	How a writer shows/appeals to your emotion, usually through emotive language or topics.
4	What is the artistic proof logos?	How a writer appeals to your logic, usually through the use of statistics or facts.
5	What the features of DAFOREST?	<ul style="list-style-type: none"> • Direct address • Alliteration/anecdotes • Facts • Opinion • Rhetorical questions/repetition • Emotive language • Statistics • Triadic structure
6	What are the features of a letter?	<ul style="list-style-type: none"> • Addresses (Yours on right side, theirs on left) • Date (right hand side) • Dear _____, • Yours sincerely (when you know them) • Yours faithfully (when you do not know them)
7	What does PAF stand for?	<p>The acronym <u>PAF</u> allows you to work out the purpose, audience and form of a task or a piece of writing.</p> <ul style="list-style-type: none"> • Purpose - refers to the reason for the writing, e.g. to persuade the reader, to entertain them, to share information, to warn, to advise, to explain. • Audience - refers to the reader(s) or viewers, e.g. could be an individual, in the case of a text message, or a broader group of people in the case of a magazine article or blog. • Form - refers to how and where the writing will appear, e.g. an email, a blog, a recipe, a leaflet, an article, a speech.
8	What are the features of a letter?	<ul style="list-style-type: none"> • Addresses (Yours on right side, theirs on left) • Date (right hand side) • Dear _____, • Yours sincerely (when you know them) • Yours faithfully (when you do not know them)
9	What are modal verbs?	Words that describe the mode/matter of a verb. E.g. can, may, should, will, might, would, must etc.

10	What is a conjunction?	A word used to connect other words, phrases, clauses and sentences. E.g. and, also, in addition, furthermore, however etc.
11	What are the features of an article?	<ul style="list-style-type: none"> • A catchy, memorable headline • Subheadings to signpost the readers
12	What are the features of a speech?	<ul style="list-style-type: none"> • Acknowledge the audience • Engaging opening
13	What is anaphora?	The repetition of a phrase or words at the start of a sentence.
14	What are facial expressions?	Communication thoughts and feelings through the movement of your face.
15	What is body language?	Non-verbal signals that are used to communicate feelings.
16	What is tone in writing and in speech?	Tone in writing refers to the attitude with which you write. Tone in speech refers to how you sound when you say words out loud.
17	What is the hook?	A hook is the opening that aims to grab the reader's attention.
18	What is the climax?	The exciting part of a text.
19	What is the resolution?	The conclusion (final part) of a text.
20	What is an imperative?	A sentence that gives a command.
21	What literacy/SPaG checks do I need to complete before handing in my work?	When you check your work, you should ensure you have... <ol style="list-style-type: none"> 1. Used capital letters correctly 2. Used the correct punctuation at the end of each sentence (e.g. full stop, question mark, exclamation mark) 3. Used paragraphs where necessary 4. Presented your work neatly and appropriately 5. Used the key words from the lesson 6. Used challenging vocabulary where necessary

FOOD

1	What is energy need?	How much energy a specific person needs
2	What is Nutrient need?	The nutrients needed by a specific person
3	How do religion and culture effect diet?	Different religions have different food laws.



4	How does food cost effect food choice?	Income and lifestyle choice play a large role in food choice.
5	How does food availability affect food choice?	In parts of the world some ingredients and food types are less available and some are in abundance.
6	How do environmental considerations effect food choice?	Climate Terrain Weather
7	What is sensory evaluation?	Sensory evaluation is a scientific discipline that analyses and measures human responses to the composition of food and drink, e.g. appearance, touch, odour, texture, temperature and taste.
8	What are the senses used for sensory evaluation?	Sight - smell - taste - hearing - touch
9	What are the 5 tastes	Bitter - Salt - Sour - Sweet - Umami
10	What is food packaging?	The packaging that food comes in.
11	What are the main reasons for packaging food?	The aims of packaging include: prevent physical damage, e.g. from knocking, shaking or crushing; prevent contamination from micro-organisms, pollution or vermin; protect against dehydration or dampness; protect the product's nutritional and sensory characteristics; keep the product in peak condition; help to increase a product's shelf life.
13	What is labelling?	Packaging is also designed to be visually stimulating and provide information about the product to help the customer.
14	What is packaging design?	Increased rates of production during the last few decades have made it necessary to use different methods and materials to pack and protect food products. The design of this is essential for success.
15	What is food poisoning?	Food poisoning is illness from consuming food containg certain bacteria
16	What is a bacterial pathogen?	Micro-organisms that make you ill



17	What are the main sources of food poisoning?	Preparation of food too far in advance Storage at ambient temperature Inadequate cooling Inadequate reheating Undercooking Inadequate thawing Cross contamination Consuming raw food Infected food handlers Poor hygiene
18	What is food spoilage?	Changes in food, either through enzyme deterioration of food or micro-organism growth, will eventually lead to the food becoming inedible or unsafe if eaten
19	What is a high-risk food?	Some foods are high-risk, as they provide the ideal conditions needed for micro-organisms to grow. These include: meat, meat products and poultry; milk and dairy products; eggs – uncooked and lightly cooked; shellfish and seafood; prepared salads and vegetables; cooked rice and pasta
20	Who is most at risk from food poisoning?	Elderly people, babies and anyone who is ill or pregnant.
21	What are the symptoms of food poisoning?	Vomiting Diarrhoea Exhaustion Headache Fever Abdominal pain Tiredness
22	What is food poisoning prevention?	Always follow use by dates Store food correctly Separate raw and cooked food Wash fruits and vegetables Thoroughly cook food Keep yourself and your workspace clean Don't cough or sneeze over food Wash and dry hands regularly
23	What is energy balance?	The balance of energy intake and expenditure
24	What happens when you consume more energy than you use?	Positive energy balance - You gain weight
25	What happens when you use more energy than you consume?	Negative energy balance - You lose weight



26	How can energy balance be maintained?	Regulating energy intake through the diet Adjusting physical activity levels A combination of both of the above.
27	What is physical activity?	Activity at work/school eg, using the stairs Household chores Looking after others Leisure time activities eg. gardening Transport (walking or cycling to school. Sport
28	How much physical activity should you have a day?	Children - 60 mins adults - 150mins a week
29	What is sensory evaluation?	A scientific discipline that analyses and measures human responses to the composition of food and drink, eg. appearance, touch, odour, texture, temperature and taste.
30	Why use a sensory evaluation?	Compare similarities/differences in a range of products/dishes. Evaluate a range of existing dishes/food products; analyse food samples for improvements gauge responses to a dish/product, e.g. acceptable v unacceptable explore specific characteristics of an ingredient or dish/food product; Check whether a final dish/food product meets its original specification; provide objective and subjective feedback data to enable informed decisions to be made
31	What are the 5 senses when tasting food and drink?	sight, smell, taste, hearing and touch
32	What are taste receptors?	Gustatory hairs and pores that transmit nerve impulses to the brain
33	Why is sensory evaluation important?	Sensory evaluation is used at several stages during product development and production to: evaluate a range of existing food products; analyse a test kitchen sample for improvements; gauge consumer response to a product; check that a final product meets its original specification; detect differences between products from different runs or batches; monitor quality control by checking regular samples against specification.
34	What is the absorption technique?	Where liquid is absorbed by an ingredient. eg, rice
35	What is proving?	Where the yeast in a dough lives and creates gas to allow dough to rise.



FRENCH - CORE KNOWLEDGE QUESTIONS FOR FRENCH SHOULD BE USED ALONGSIDE YOUR VOCABULARY BOOKLET.

1	What are the 3 words for 'the' in French?	le / la / les
2	What are the 3 words for 'a' in French?	un, une, des
3	When would you use 'l' in front of a non?	When it starts with a vowel
4	How do you say 'I have' in French?	J'ai
5	How do you say 'I am' in French?	Je suis
6	Where do we put the negative in French?	Around the verb Je n'ai pas de
7	How can you express your opinions in French?	J'aime (I like), j'adore (I love), je préfère (I prefer), je déteste (I hate)
8	How do you say because in French?	Parce que / car
9	What does the present tense mean?	What is happening now
10	What are ER verbs?	Verbs that end in ER
11	How many parts do you need to create the present tense of a regular ER verb & what are they?	3 parts: the person, the stem (infinitive minus ER), the correct ending
12	What are the regular ER verb present tense endings	e, es, e, e, ons, ez, ent, ent



GEOGRAPHY

1	What is an ecosystem?	An ecosystem is a community of plants and animals and the environment in which they live in.
2	What is a food chain?	A food chain shows what eats what in a particular habitat
3	What is a food web?	When all the food chains in an ecosystem join together to create a food web.
4	How many layers are there in a tropical rainforest?	There are four layers in a tropical rainforest- these are- emergent layer, canopy, under canopy and forest floor.
5	What is adaptation?	Adaptation is the process where plants and animals adapt to better suit their environment, so its chance of survival is improved.
6	What is deforestation?	Deforestation is the process of clearing an area of forest for another use, for example a palm oil plantation
7	What is the difference between cause and effect?	A cause is the reason why something happens, for example, the cause of deforestation is cattle ranching. An effect is the change that happens as the result of an action, for example, loss of habitat is an effect of deforestation.
8	What is sustainable management?	Sustainable management is allowing development to progress which meets the needs of the present without effecting the needs of future generations
9	What four countries make up the United Kingdom?	England, Scotland, Wales and Northern Ireland.
10	What are the four main job sectors in the UK?	Primary, Secondary, Tertiary and Quaternary.
11	What is a National Park?	A National Park is a large area of land that is protected by law, to benefit the whole nation.

HISTORY

1	The Wars of the Roses was a conflict between which two branches of the Plantagenet family?	The Houses of York and Lancaster
2	Why did the Lancastrians and Yorkists think they had a claim to the throne of England?	The members of the House of Lancaster were Descendants of John of Gaunt, who was the Duke of Lancaster and third surviving son of Edward III. The members of the House of York descended from Edmund of Langley, Duke of York, who was the fourth son of Edward III.
3	Who fought in the Battle of Bosworth?	Henry Tudor and Richard III



4	How did Henry Tudor unite the two sides of the family?	He married Elizabeth of York
5	Describe the Tudor Rose	Henry's emblem was a rose that contained both red and white.
6	Which family supported Henry Tudor in the Battle of Bosworth?	The Stanley's
7	When did Henry VIII become King of England?	1509
8	Why did Henry VIII create the Church of England?	The Pope had refused to grant him a divorce to his first wife so that he could marry Anne Boleyn who he hoped could give him a son.
9	Who were Henry VIII's six wives?	Catherine of Aragon Anne Boleyn Jane Seymour Anne of Cleves Catherine Howard Catherine Parr
10	Which of Henry VIII's children was the most devout Protestant?	Edward VI
11	Which of Tudor monarch restored the English Church to Catholicism?	Mary I
12	Why was Mary I called 'Bloody Mary'?	She burnt Protestants alive to try and save their souls from sin.
13	Who was Elizabeth I's mother?	Anne Boleyn
14	Where did Elizabeth spend her early life?	Away from court being educated by her governess
15	Which religion did Elizabeth follow?	Protestantism
16	What were the advantages of Elizabeth getting married?	<ul style="list-style-type: none"> • If she married a royal from a wealthier nation, she could improve England's finances • If she did marry, Parliament would be more supportive • She could have a legitimate heir to secure her reign • Could increase English territories through marriage • English public were in favour of an English king
17	What were the disadvantages of Elizabeth getting married?	<ul style="list-style-type: none"> • Religion- if he is a Catholic it could cause problems • Could create national rivalries- could create wars • Her husband might have more power and control than her • English public hated the idea of a foreign king • Marrying an Englishman could create rivalries in Elizabeth's court • No good options of who



18	Who were Elizabeth's potential suitors?	<ul style="list-style-type: none"> • Philip II of Spain • Robert Devereux, Earl of Essex • Robert Dudley, Earl of Leicester
19	How was Elizabeth I and Mary, Queen of Scots related?	Cousins
20	When did Mary, Queen of Scots arrive in England?	May 1568
21	Why did Mary, Queen of Scots pose a threat to Elizabeth?	<ul style="list-style-type: none"> • Many people believed Elizabeth to be illegitimate and so felt she had no right to be on the throne. (Her father, Henry VIII, had divorced his first wife. Catholics didn't recognise divorce and so viewed his second marriage to Elizabeth's mother as illegal.) • Elizabeth had converted England's official religion to Protestantism, leaving many Catholics disgruntled. Mary was a Catholic and many viewed her as their figurehead and a rightful replacement to the throne.
22	How did Elizabeth deal with Mary in the short term?	She kept locked away and guarded
23	Why did Elizabeth decide to have Mary executed?	Mary had agreed to the Babington Plot
24	Why was there rivalry between England and Spain	<ul style="list-style-type: none"> • Religious differences – Spain wanted England to be a Catholic country again. • Elizabeth rejected Philip's marriage proposal • English sailors were stealing from Spanish ships
25	When was the Spanish Armada first sighted in the English Channel?	29 th July 1588
26	Who led the English forces against the Spanish Armada?	Lord Howard Effingham with the help of Sir Francis Drake
27	Describe the events of the Spanish Armada	<ul style="list-style-type: none"> • The Armada leaves Lisbon on 28 May 1588. It's delayed by storms and repairs, and finally sets sail for England on 21 July. • The Armada is sighted by the English from Lizard Point in Cornwall. Warning beacons are lit along the English coastline. • The Armada continues through the English Channel now chased by English ships, but suffers little damage. • The Armada anchors near Calais where more troops are meant to join, led by the Duke of Parma, but the English send burning fire ships into the fleet. The Spanish ships panic and are scattered out of formation. • The Spanish ships are blown towards dangerous sandbanks and the English attack again in the Battle of Gravelines. This time they battle at close range and significant damage is inflicted to the Spanish fleet. • The Armada is forced north around the east coast of Britain and the English fleet turn back after food and ammunition supplies run low. • The Armada sets sail for home but are forced around Scotland and Ireland. Many ships are wrecked in storms and thousands of

		<p>sailors drown.</p> <ul style="list-style-type: none"> • The surviving Spanish ships arrive back in Spain, but almost half of their fleet is lost. • Victory for England.
29	Why did Spain lose in the Spanish Armada?	<ul style="list-style-type: none"> • The Spanish leader Duke of Medina Sidonia was inexperienced in naval battle. • The English were able to break the Spanish fleet's crescent formation which left them vulnerable to attack • The Spanish ships were slower and less well equipped for the bad weather of the English Channel • The design of the Spanish cannon meant that they could only fire over short distances and were slow to reload • The Protestant Wind
30	When did Elizabeth's rule end?	1603

MATHS

1	What is estimation?	Estimation is a method used in maths to find a rough calculation of the value.
2	What is a scale diagram?	Scale Diagrams (or drawings) are often used to represent a smaller or larger object, shape or image
3	What is a ratio?	A ratio is a comparison of two parts that make a whole. It is displayed with a number, a colon and a number. Eg. 1:2
4	What's the difference between a fraction and a ratio?	A ratio compares 2 parts where a fraction compares 1 part to the whole.
5	What is scale factor?	A scale factor is a number you use to enlarge a shape and each side is multiplied by that number.
6	What does simplify mean?	In mathematics, simply or simplification is reducing the expression/fraction/problem in a simpler form. It makes the problem easy with calculations and solving.
7	What is a transformation?	A transformation is a general term for four specific ways to manipulate the shape, or position of a point, a line, or geometric figure.
8	What is symmetry?	Something is symmetrical if it is split exactly in half and both sides are identical.
9	What is rotational symmetry?	A shape has Rotational Symmetry when it still looks the same after some rotation
10	What is rotation?	Rotation turns a shape around a fixed point called the centre of rotation.
11	What is enlargement?	An enlargement is a type of transformation where we change the size of the original shape to make it bigger or smaller by multiplying it by a scale factor

12	What is a translation?	A translation moves a shape up, down or from side to side but it does not change its appearance in any other way.
13	What is a vector?	A vector describes a movement from one point to another
14	What are similar shapes?	Similar shapes are enlargements of each other using a scale factor

MUSIC

1	What is an Orchestra?	A group of instrumentalists who play together.
2	What are the 4 families of instruments in the Orchestra?	String, Woodwind, Percussion and Brass
3	What is the person who keeps the orchestra in time called?	Conductor
4	What are the 4 main instruments in the String family?	<ul style="list-style-type: none"> • Violin • Viola • Cello • Double bass
5	What are the 4 main instruments in the Woodwind family?	<ul style="list-style-type: none"> • Flute • Oboe • Clarinet • Bassoon
6	What are the 4 main instruments in the Brass family?	<ul style="list-style-type: none"> • Trumpet • French Horn • Trombone • Tuba
7	How many strings would you expect to find on a string instrument?	4
8	What is the highest pitch string instrument called?	Violin
9	What is the lowest pitch string instrument called?	Double Bass
10	What is the smallest string instrument?	The Violin
11	How do you play the cello?	Sitting down and with a bow
12	How do you play a clarinet?	Blow on the single reed
13	How many strings does a harp have?	47 strings
14	What is the highest pitch woodwind	Flute

	instrument called?	
15	What is the lowest pitch woodwind instrument called?	Bassoon
16	How do you play a flute?	Blowing across the hole
17	Which woodwind instrument does not have any reeds?	Flute
18	Which 2 woodwind instruments have a double reed?	The bassoon and the oboe
19	What is the highest pitch Brass instrument called?	The trumpet
20	What is the lowest pitch Brass instrument called?	The tuba
21	Which brass instrument has 6m of tubing?	The French horn
22	Which way is playing a higher pitch on a keyboard?	To the right
23	Which way is playing a lower pitch on the keyboard?	To the left
24	How do you play an F# on the keyboard?	Play the black key to the right of the F
25	What family is the clarinet?	Woodwind
26	What family is the cello?	Strings
27	What family is the trumpet?	Brass
28	What family is the triangle?	Percussion

PE

1	Why is it important that we complete a thorough warm up?	To ensure that we have prepared our bodies to take part in physical activity, which is increasing the exertion output level. This also helps reduce the risk of injury.
2	What sport uses flexibility? Provide an example of when it is used.	Gymnastics. Flexibility is used in gymnastics when gymnasts perform skills and tricks such as the splits, acro skills, and bridges.
3	Athletics How long is a standard athletics track?	400 metres
4	Athletics Describe a downwards sweep change over in relay.	The runner who is waiting for their partner, stands in the ready position, with their dominant hand reaching behind them palm facing upwards, head facing forward. The runner with the baton in their hand swipes the baton down into the runner's hand.



5	Athletics When running what physical elements should you consider to have a successful race?	My head should be facing the way that I am running, my arms should be cutting through the air to build momentum. I should be picking up my knees and taking large strides as I run. I should be breathing as I am running.
6	Athletics Identify three teaching points when throwing a shot putt.	Any of the below teaching points: <ul style="list-style-type: none"> • dirty fingers • clean palms • leg muscles for power • low body position • 45-degree release
7	Rounders What are the two bases you can score points at?	2 nd base and 4 th base.
8	Rounders Describe the stance of the batter ready to strike the ball	Their body should be side on to the bowler, with their dominant hand to the back of their body. The bat should be in the dominant hand of the batter bat pointing upwards, feet shoulder width apart. The batter should be watching the ball and the bowler to be able to react to the bowled ball.
9	Rounders How important is good communication for the fielding team and why?	The fielding team needs to be communicating to each other to apply decision making on where they need to stand. This could be based on the player that is batting or the space which in which the ball is most often being batted to.
10	Rounders How many players are in a Rounders team?	9 players – 1 bowler, 1 backstop, 4 fielders on bases and 3 deep fielders.
11	Tennis Describe the serving action.	The non dominant foot in front, dominant foot behind. The racket must be in the player's dominant hand. The non-dominant hand tosses the ball in the air, above head height. The dominant hand draws a C shape starting at the bottom, round to the top. When the racket is at the height of the C, it pushes the ball forward and down over the net to bounce on the opponent's side of the net.
12	Tennis Where can the ball be played when playing doubles?	The ball can be played within the second tramlines of a tennis court.
13	Tennis How do you record the scores in Tennis?	0, 15, 30, 40, game.
14	Tennis How many times is a ball allowed to bounce?	Once

RELIGIOUS STUDIES



1	Who is Muhammad?	The final prophet of Islam.
2	Where was Muhammad born?	In a town called Mecca/Makkah.
3	What happened to Muhammad in a cave?	In a cave Muhammad heard the words of Allah from Angel Jibril.
4	Why did Muhammad want to get away from the people of Mecca?	Muhammad needed peace and quiet away from people who were unkind and selfish.
5	Name three things that Muhammad taught the people of Mecca after receiving the words of God.	Any of the three; Charity, Monotheism, Compassion, Justice, Social equality, Humility, Self-discipline and Education.
6	Who is Allah?	The name given to the one God in Islam.
7	What are the 5 attributes of Allah?	Transcendent, Immanent, Omnipotent, Merciful, Benevolent.
8	Define the following words; transcendent, immanent, omnipotent, merciful and benevolent.	Transcendent = Above and beyond anything. Immanent = Always there. Omnipotent = All powerful. Merciful = Showing forgiving kindness. Benevolent = All loving.
9	Why don't Muslims draw images of the prophets or Allah?	They want to focus on the words of God/ It's disrespectful to draw somebody when you don't know what they look like.
10	What is Shahadah?	The first pillar of Islam meaning 'faith'.
11	What is Salah?	The second pillar of Islam meaning 'prayer'
12	When might a Muslim hear the Shahadah?	At birth, in the mosque and during prayer.
13	How many times a day do Muslims pray?	5 times a day.
14	What is Zakah?	The third pillar of Islam meaning 'charity'.
15	What is Sawm?	The fourth pillar of Islam meaning 'fasting'
16	How long do Muslims fast for?	For the holy month of Ramadan, from dawn until dusk.
17	How much (in percentages) do Muslims give to charity each year?	Muslims give 2.5% of their wealth to charity each year.

18	What is meant by Sadaqah? Give an example.	Sadaqah is voluntary extra charity given; this could include anything from donating clothes, helping a person with anything or even smiling and being kind
19	What is Hajj?	Hajj is the fifth pillar of Islam and means 'pilgrimage'.
20	What is a pilgrimage?	A religious journey to a special place.
21	Where do Muslims visit on Hajj? Explain why.	Muslims visit Mecca because this was where Muhammad was born.
22	Why are the 5 Pillars so important?	The Five Pillars are important as they are the five core teachings a person must follow to be a Muslim.

SCIENCE

1	Name the 3 layers of the Earth	Core, mantle, crust.
2	How do continents move?	Continental drift.
3	What is the difference between lava and magma?	Magma is molten rock from the mantle and lava is molten rock that escapes onto the Earth's surface.
4	Name and briefly describe two types of igneous rocks.	Extrusive – form when magma flows onto the Earth's surface. Intrusive – form from Magma below the Earth's surface in the crust.
5	Describe some features of a typical igneous rock.	They have no layers, may be light-or dark-coloured, usually have crystals and rarely react with acids.
6	Describe the relationship between rate of cooling and crystal size.	If the rate of cooling is too fast the igneous rock will have small crystals.
7	What is weathering?	The breaking down of rocks, soil and minerals by physical and chemical processes.
8	What is erosion?	The movement (transportation) of rock or soil by water, ice or wind.
9	Name 2 types of sedimentary rock.	Sandstone, limestone.
10	What is a fossil?	A fossil is the remains of a dead organism.
11	Describe what freeze-thaw weathering is.	When water seeps into cracks in the rocks and then freezes. As it freezes it expands, eventually breaking the rock apart.
12	How do metamorphic rocks form?	When existing rocks are subjected to large amounts of heat and/or pressure and change into metamorphic rocks.

13	Give three examples of metamorphic rocks.	Marble from limestone Slate from clay Schists from sandstone or shale.
14	Explain how metamorphic rocks differ from sedimentary rocks.	Metamorphic rocks are much harder than sedimentary rocks and shinier.
15	How are rocks changed from one type to another?	Weathering, erosion and large earth movements.
16	Describe the processes erosion, deposition and heat & pressure.	Erosion occurs when rock particles are worn away and moved elsewhere. Deposition is where small rock particles are deposited on a riverbed/seabed as sediments when the water (current) slows down. They are buried by new sediments forming on top of them. Heat and pressure is when sedimentary and other types of rock metamorphose with heat and pressure to form new metamorphic rock. Heat can also melt rocks under the crust to form magma; magma cools to form igneous rocks below and above the Earth's surface.
17	Explain how anticlines and synclines form.	Anticlines: strata are pushed up in a dome shape; synclines: strata are forced down in a bowl shape.
18	What is uplift?	When mountains and hills form when buried rocks are moved to the surface.
19	Why does nuclear fusion make a star shine so brightly?	It releases huge amounts of energy.
20	How does a star form?	A star forms when a huge cloud of matter is pulled together by its own gravity.
21	What is the milky way made from?	Our solar system and our closest stars.
22	What defines the length of a day and the length of a year?	Day – Earth's rotation Year – time taken for the Earth to orbit the Sun.
23	Why are daytimes longer than the night times during the summer?	In the summer, the Earth is tilted towards the Sun.
24	What causes day and night?	The earth spins around its axis every 24 hours. When the side of the earth that is facing the towards the sun – it is day. The side facing away is night.
25	What is a 'light year'?	The distance travelled by light in one year (ly)
26	Which star does the earth orbit?	The sun
27	How many phases of the moon are there? Can you name them?	8 Last quarter, Waning gibbous, full moon, waxing gibbous, first quarter, waxing crescent, new moon, waning crescent.
28	How are sounds made?	Sounds are only possible when a vibration occurs.

29	What type of wave is used to transfer energy in a sound wave?	Longitudinal wave
30	How do sound waves reach our ears?	The vibrations from objects are passed onto air particles. These will bump into each other and eventually the energy of the vibrations is transferred into your ear.
31	How does a sound wave with a low amplitude sound?	Quiet
32	State the units of frequency.	Hertz
33	How does a wave with a high frequency differ from a wave with a low frequency?	Higher frequency waves have a shorter wavelength than a low frequency wave.
34	What do all waves transfer?	Energy
35	What is meant by the term wavelength?	Distance along a wave from one point to the next corresponding point where the wave motion begins to repeat itself.
36	What is meant by the term amplitude?	Maximum distance moved in a vibration, measured from the middle position.
37	Which two pieces of equipment can be used to see a sound wave?	Oscilloscope and microphone.
38	Name the part of the eardrum that detects vibrations in sound waves?	Ossicle bones
39	Give the value of the human audible range	Frequencies up to 20000Hz.
40	Name 2 factors that can impair hearing and how to resolve them	Ear canal can become blocked with wax – Have the ear canal cleaned out. Very loud sounds can rupture the ear drum – Ear drum may heal itself over a long period of time.
41	Describe what a vacuum is.	A space with no particles.
42	Does sound travel fastest in solids, liquids or gases?	Solids
43	Explain using the particle model why sound travels the fastest in a certain medium.	The particles in a solid are packed very close together and the forces are ore elastic. The vibrating particles collide with neighbouring particles and bounce back very quickly.
44	Describe an echo	A sound wave that is reflected back to our ears.
45	What do we mean by the absorption of sound?	When sound waves transfer energy to the air pockets in soft surface materials so less is sound is reflected and more absorbed.



46	Compare a jagged surface to a curved surface with how they reflect sound.	A jagged surface- the reflected waves do not bounce back to the source and are instead reflected randomly, mostly away from the source. A Curved surface – the reflected waves will reflect until all the energy focuses on a particular point. The sound at this point will be the loudest.
47	What materials are useful for soundproofing?	Soft materials
48	Define the words: Transparent Opaque Translucent	Transparent – light can pass through freely Opaque – Light cannot pass through Translucent – Only allow some light to pass through.
49	Give three examples of transparent materials.	water; glass; clear polythene.
50	Explain the difference between solar and lunar eclipses.	A solar eclipse happens when a moon is between the earth and the sun. A lunar eclipse happens when the earth blocks light from the sun; landing on the moon.
51	How does light travel?	As a wave in straight lines until it reaches a boundary.
52	Describe the shapes of a convex and concave lens.	A convex lens bulges outwards in the middle whereas a concave lens is thicker around the edge and curves inwards in the middle.
53	Explain why a convex lens is called a converging lens.	If we shine parallel light rays into a convex lens, they will meet each other at a focus and cross over. This is converging.
54	Explain why a concave lens is called a diverging lens.	If we shine parallel rays into a concave lens they will travel away from each other. This is diverging.
55	Name the parts of the eye that refract light.	Lens
56	Explain why the image formed on the retina is upside down?	The image is inverted because rays coming from different parts of the image have crossed over in the eye.
57	How is the lens in the eye different to the type of lens that would be used in spectacles?	Spectacle lenses are rigid whereas the lens in the eye is flexible.
58	What is the difference between being short sighted and long sighted?	For short sighted the lens in the eye makes rays meet before they reach the retina and for long sighted the lens in the eye does not make the rays close in sharply enough at the retina.
59	Describe the spectrum obtained when white light passes through a triangular prism	It is a continuous spectrum of colours that changes smoothly from red to violet.
60	Explain the relationship between wavelength and frequency of a wave.	The shorter the wavelength, the higher the frequency.
61	What is the definition of a food chain?	Part of a food web, starting with a producer and ending with a top predator.

62	Why are plants named producers?	Plants make their own food using sunlight energy for the reaction.
63	What are decomposers?	Organisms that breakdown dead plant and animal material, the nutrients are released and recycled in the soil or water.
64	Define a toxin?	A substance that damages a living organism.
65	Name the two chemicals used to kill insect pests that damage crops?	Insecticides and pesticides.
66	What does bioaccumulation mean?	Increase in the concentration of a chemical as it passes from one organism to another up the food chain.
67	Why are bees important in pollinating crops?	Bees transfer pollen and aid food security.
68	Name two environmental problems that can affect bee activity?	Disease/adverse weather conditions.
69	Define monoculture?	Single crops are grown in vast fields.
70	What is an ecosystem made up of?	The living and non living things in an area.
71	What three factors do animals compete for?	Food, mates and territory
72	How do prey populations affect predator populations?	As prey numbers increase, predator numbers increase, as prey numbers decrease, predator numbers decrease.
73	What is the purpose of the flower?	To produce pollen in the anther and transfer it to the stigma of a different flower.
74	Name three ways that pollination is achieved?	By wind/insects/birds or bats.
75	State two ways that plants encourage insects to visit them?	Brightly coloured flowers and sweet smells.
76	What are the male and female sex cells called?	The pollen grain and the ovule.
77	Where does the nucleus of the pollen cell travel down?	The pollen tube.
78	How are a seed and a fruit formed?	The seed is a fertilised ovule and the ovary develops into a fruit.
79	Name three ways that plants disperse their seeds?	Wind/water/exploding pods/inside animals/hooks onto fur

80	What is germination?	When a seed begins to grow into a plant.
81	Why do seeds need to be dispersed far away from the parent plant?	They have more light, nutrients and water
82	What is a fruit?	The ovary of a plant after fertilisation.
83	What is the main advantage of fruits dispersing seeds?	Fruits contain lots of energy, which is transferred to the animals which eat the fruit.
84	What are reliable results?	Results which produce similar results under consistent conditions.

