Learning: The Ruskin Way

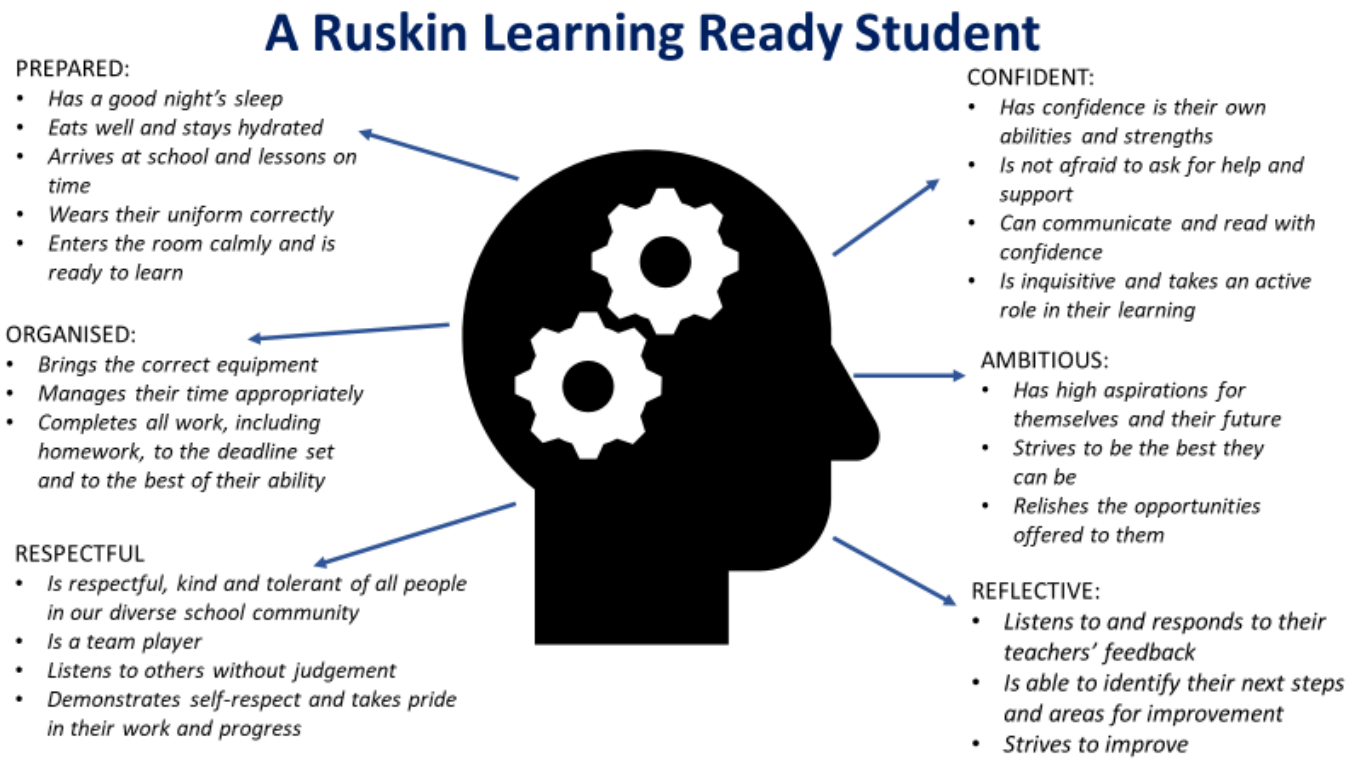
At Ruskin all students to **learn together** and **achieve high standards**. Students follow our **Core Values** to become a **Ruskin Learning Ready Student**.

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**.

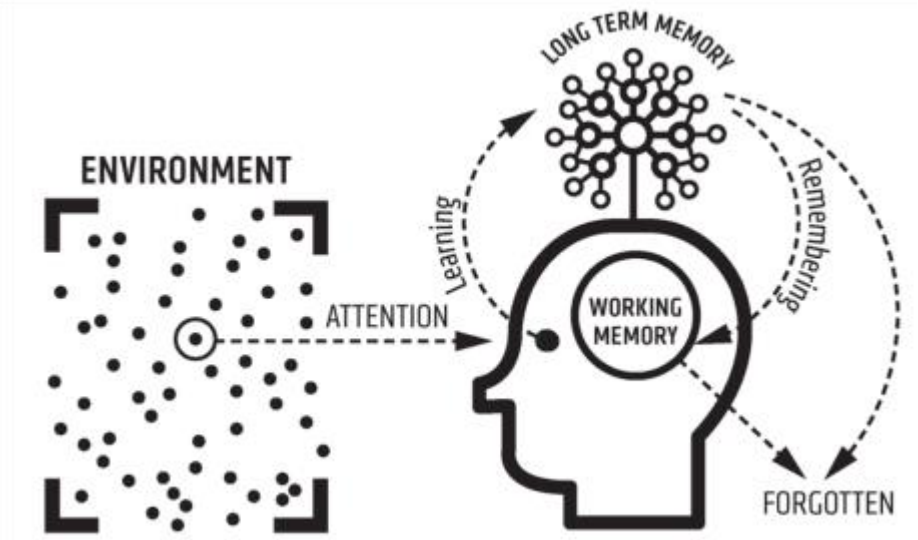


Independent Learning at Ruskin

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



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

Look, Cover, Write, Check– 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 Look, Cover, Write, Check 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.

Year 10 Core Knowledge Questions

ART

1	What is a natural form? *(Theme)*	A natural form is something organic and not manmade.
2	Can you give some examples of natural forms? *(theme)*	Shells, trees, flowers, fruit, vegetables, crabs, sand dunes, flames, sunset, poppy head, plants, fish, twigs.
3	What is a tonal study? *(AO3)*	A study that uses a range of shading with light and dark areas to show form.
4	What is form? *(general)*	Form is a 3D shape. It can be expressed in 3D or using tone to create the illusion of 3D. (length, width and depth)
5	What is a continuous line drawing? *(AO3)*	A line drawing produced without ever lifting the pen or pencil off the paper.
6	What is an observational drawing? *(AO3)*	Drawing from looking at something (not from imagination.
7	What is primary observation? *(AO3)*	Drawing directly from looking at objects in front of you.
8	What is secondary observation? *(AO3)*	Drawing from looking at images of objects.
9	what are the 7 visual elements of art? *(general)*	Line, tone, shape, space, form, texture, colour
10	How could you use the 7 visual elements of art in your work? *(general)*	Line- through exploring lines as a contour (outline), sketching. Lines can be used to give the impression of different textures and tones, as well as simply showing where the edge of an object meets space. Tone – exploring the light and dark areas of work. Shape – creating and exploring organic and geometric shapes within work. Using shapes to create patterns in a regular or irregular way. Space – considering the composition of work to show depth of perspective, or thinking about both the positive and negative space. Form – creating the illusion of 3D or creating in 3D. Texture – using mark making, collage or paint application to create an illusion or actual texture to the surface. Colour – consider contrasts, show emotion, look at colour harmonies, set a tone or mode.
11	What presentation skills are needed? *(general)*	• Considered space and layout. • Neat and well written information. • Cutting skills demonstrated

		• Creative font or titles • Considered and appropriate embellishments and backgrounds.
12	What does refinement mean? *(AO2)*	Refinement is the improvement of the idea. It does not involve radical changes, but it is about making small changes which improve the idea in some way.
13	What is composition and why is it important? *(General)*	The placement or arrangement of the formal elements of art. It is important because it impacts on what viewer sees.
14	What is mark making? *(AO3)*	Mark making describes the different lines, dots, marks, patterns and textures we create in an artwork. It can be loose and gestural, or controlled and neat.
15	What are x4 mark making techniques? *(AO3)*	Stippling, hatching, cross hatching, scrumbling, blending, continuous line,
16	What are the three main components of A01 that help develop your ideas? *(AO1)*	Mind maps, mood/visual image board, artist research.

BTEC SPORT - Learning Aim A

1	Name the three types of sport and physical activity?	Sports – competitive activities that involve physical exertion, have rules and regulations and a National Governing Body Team sports Individual sports
2	List 3 benefits of taking part in sport?	Improve fitness, meet new people, develop leadership skills, learn team work skills, resilience and self confidence from competition.
3	Explain what outdoor activities are?	Activities carried out outdoors or in recreation areas that are adventurous.
4	List 3 benefits of taking part in outdoor activities?	Positive risk taking activities, improved self confidence and self esteem, meet new people, learn new skills, time away from life stresses and electronic devices.
5	Explain what physical fitness activities are?	Activities to increase fitness.
6	List 3 benefits of taking part in physical activities?	Meet new people, set fitness goals, improve confidence, improve body composition, improve physical health.
7	Name the three provisions/sectors of physical activity?	Public sector Private sector Voluntary sectors
8	Briefly explain each provision/sector and their characteristics?	Public sector to include local authorities and school provision Private sector – provided by organisations who aim to make a profit Voluntary sectors – activities provided by volunteers who have a common interest in the sport /activity. Characteristics; funding source, aims, quality of provision, accessibility.

9	Choose one of the provisions and explain the advantages and disadvantages of sport to the participant?	Types and range of sport and physical activities provided Types and range of equipment available o cost of participation Access to different types of sport and physical activities Additional products or services to include creche facility, refreshment facilities, hire of equipment, access to sport sector professionals, e.g. sports therapist, personal.
10	Name 2 ways participants can be grouped?	Age, gender, disability and race.
11	State the different age groups of participants and put them in age order?	Primary school aged children (aged 5–11 years) Adolescents (aged 12–17 years) Adults (aged 18–49 years) Older adults (aged 50 years and up).
12	State 2 categories of disabled participants?	Visual, hearing and physical disabilities
13	Name 2 long term health conditions?	Asthma, type 2 diabetes, high blood pressure, coronary heart disease (CHD).
14	Explain the physical activity needs of participants?	Government recommended guidelines for types, frequency and intensity of physical activity for different types of participant. Physical health needs – improve fitness, body composition, sleep, immunity to help prevent illness, symptoms of long-term health conditions. Social health needs – meet new people, make friends, have fun, develop leadership and team working skills, decrease loneliness. Mental health needs – decrease stress levels, improve work life balance, decrease risk of depression, improve mood, increase self-confidence and self-esteem.
15	Name the 5 barriers to participation?	Cost, access, time, personal and cultural.
16	Explain 1 of the barriers to participation?	Cost of participation: – clothing – equipment – transport Access to sport or physical activity: – location of sport or physical activity – limited accessible transportation – resources – types of sport or physical activity available Time – lack of time due to other commitments: – family – school – work Personal barriers: – body image – lack of self-confidence – parental or guardian influence – limited previous participation – low fitness levels – extended time off from previous participation – concerns that taking part in sport or physical activity may make existing health conditions worse Cultural barriers: – single sex sport or physical activity sessions – social norms of participating in unconventional clothing and availability of appropriate clothing to participate – lack of role models from own cultural background
17	Explain 1 method to address the barriers to participation?	Cost: discounted pricing, hiring of equipment, free car parking. Access:

		public transport discounts, cycle hire to access, the facility, free parking, taster days, staff training to support all types of participant and their needs, increased range of provision of sports and physical activities, ramps, assistive technology. Time: creche facilities, extended opening hours Personal barriers: private changing rooms, allowing participants to wear clothing they feel most comfortable in, use of variety of images of people with different body shapes, parent and child activity sessions to create familial culture of sport, campaigns to increase participation. Cultural barriers: women only physical activity sessions staffed by females, diversity of staff working at sport or physical activity facility, staff training in cultural awareness.

BTEC SPORTS - Learning Aim B

1	Give 2 examples of sports clothing?	Sports kit, waterproof clothing, training clothing, e.g. bibs.
2	Give 2 examples of sports footwear?	Trainers, studded boots, sport specific footwear.
3	In terms of Sport specific equipment, give an example for each of the following: • Participant equipment • Travel related equipment • Scoring equipment • Fitness training equipment	Participation equipment, e.g. balls, rackets; Travel related equipment, e.g. kayak; Scoring equipment, e.g. goalposts; Fitness training equipment, e.g. dumbbells.
4	Give 2 examples of protection equipment?	Mouth protection, head protection, eye protection, body protection, floatation devices
5	Give 2 examples of safety equipment?	First aid equipment – ice packs, bandages, defibrillator.
6	Give 1 example of equipment for people with disabilities or assistive technology?	Wheelchair, e.g. adapted wheelchair for wheelchair tennis
7	Give 2 examples of indoor facilities?	Sports halls, gyms;
8	Give 2 examples of outdoor facilities?	Outdoor pitches, climbing wall, artificial snow domes.
9	Give 2 examples of officiating equipment?	Whistle, microphone, earpiece.

10	Give 2 examples of performance analysis equipment?	Smart watches, heart rate monitors, applications.
11	Select 1 piece of sports clothing and explain how it would improve sports performance or experience?	State piece of equipment and explain how it improved thermoregulation, clothing designed to improve aerodynamics.
12	Select 1 footwear and explain how it improves sports performance?	Sport-specific new designs or materials; improve grip; rebound.
13	Select 1 piece of sports specific equipment and explain how it improves sports performance?	New materials for lightness and strength to include composite materials, e.g. a tennis racquet; new design of equipment to improve performance, e.g. golf driver design.
14	Select 1 piece of protectiona and safety equipment and explain how it improves sports performance?	Improved protection design; lighter weight; improved performance, e.g. shape of cycle helmets to improve aerodynamics.
15	Select 1 piece of equipment for people with disabilities or assistive technology and explain how it improves or support performance?	Prosthetics; sport-specific wheelchairs; equipment to support people with visual and hearing impairments.
16	Select 1 facility and explain how it stimulates environments to replicate competition in other locations?	Facilities that simulate environments to replicate competition in other locations; all weather surfaces; surfaces to reduce the risk of injury.
17	Select 1 piece of officiating equipment and explain how it improves sports participation?	Computer assisted systems; video assisted decision making.
18	Select 1 piece of performance analysis equipment and explain how it improves sports participation?	Action cameras, GPS, applications, sensors on sports clothing or equipment.
19	Explain why time could be a limitation of using technology?	Setting up, using equipment, compiling date, giving feedback to participant.
20	Explain why access to technology could be a limitation of using technology?	Equality and unfair advantages as not all participants have access to technology.
21	Explain why cost of technology could be a limitation of using technology?	Initial cost and follow-up maintenance of equipment.
22	Explain why accuracy of data provided by equipment could be a limitation of using technology?	Errors can take place which affects the reliability of data/information.

23	Explain why usability could be a limitation of using technology?	Specific training required.

BTEC SPORT - Learning Aim C

1	Explain the types of activities in the pulse raiser and give examples?	Activities that gradually increase in intensity to increase the heart rate.
2	Explain the response of the cardiorespiratory system to the pulse raiser?	Increased heart rate Increased breathing rate Increased depth of breathing Increased supply of oxygen to the working muscles Increased removal of carbon dioxide
3	Explain the response of the musculoskeletal system?	Increased temperature of the muscles Increased pliability of the muscles Reduced risk of muscle strain.
4	Explain the types of activities in the mobiliser?	Activities that take the joints through their range of movement starting with small movements and making these bigger as the warm-up progresses.
5	Explain the response of the cardiorespiratory system to the mobiliser?	Slight drop in heart rate as intensity of exercise lowers. Slight drop in breathing rate as intensity of exercise lowers.
6	Explain the response of the musculoskeletal system to the mobiliser?	Increased production of synovial fluid in the joints to increase lubrication of joint and increase range of movement at the joint.
7	Explain the types of activities in the preparation stretch?	Activities to stretch the main muscles that will be used in the physical activity: Location of main muscles – deltoids, biceps, triceps, erector spinae, abdominals, obliques, hip flexors, gluteus maximus, quadriceps, hamstrings, gastrocnemius Types of static and dynamic stretching for each muscle group: – simple stretches – compound stretches
8	Explain the response of the cardiorespiratory system to the preparation stretch?	Slight drop in heart rate and breathing rate for static stretches Maintained elevated heart and breathing rate for dynamic stretches
9	Explain the response of the musculoskeletal system to the preparation stretch?	Extending muscles so that they are fully stretched and less likely to tear during the sport or activity session.
10	Explain how to adapt a warm up for different categories of participants?	Vary intensity of activities Low impact and high impact options Vary timing of warm-up – longer time frame for beginners, participants with low fitness levels and those aged 50 plus

		Types of stretch used – simple stretches for beginners, compound stretch for moderate to advanced participants.
11	Explain how to adapt a warm up to make it specific to a physical activity?	Introduction of equipment in the warm-up that is specific to the physical activity Using movements and activities from the physical activity in the warm-up Stretching the main muscles required for the specific physical activity.
12	List what you will include in your session plan?	Pulse raiser Mobiliser Preparatory stretches Timings, key points and equipment
13	Explain what you will consider with the organisation and demonstration of the warm up activities?	Space – areas used Equipment Organisation of participants Timing Demonstrations Positioning.
14	Explain how you would support participants as they take part in the warm up?	Observing participants Providing instructions Providing teaching points Providing feedback to participants.

BUSINESS STUDIES

1	Why do new business ideas come about?	New technology A gap in the market Innovation Changes in customer needs Products or services become obsolete
2	What is the difference between a good and a service?	A good is something tangible (you can touch) A service is an act that is carried out (e.g. a haircut)
3	What is the difference between wants and needs?	A need to something that we have to have e.g. food and water A want is something that we do not need e.g. mobile phone
4	What is a calculated risk?	Looking at all of the possible outcomes before ting a new business/idea
5	What are some of the impacts of risk and reward?	Failure/success, financial gain/loss, independence
6	What is the purpose of business activity?	To provide goods/services To meet customer needs To add value
7	How can a business meet customer needs?	Quality Price Choice Convenience
8	What does USP stand for?	Unique Selling Point

9	How can a business add value?	USP Convenience Branding Quality
10	Why might a product become obsolete?	Changes in technology Innovation Changes in consumers needs
11	What is a market map?	Shows what products or services are available against specific criteria
12	Why might a business complete a market map?	To spot a gap in the market To identify competitors
13	What customer needs should a business consider?	Choice Convenience Price Product
14	Why might a business carry out market research?	Identify customer needs Identify a gap in the market Reduce risk Inform business decisions
15	What is primary research?	Collected by the business
16	What is secondary research?	Collected by somebody else e.g. online, the Government
17	What is qualitative data?	Gives opinions
18	What is quantitative data?	Facts and figures (quantity)
19	Give examples of primary research?	Survey Questionnaire Focus group Observation
20	Give examples of secondary research?	Internet Government reports Books/newspapers
21	State advantages for primary research	Specific to the business Up to date
22	State advantages for secondary research	Cheap Takes less time
23	State disadvantages for primary research	Takes time Can be expensive
24	State disadvantages for secondary research	May be out of date May not be specific to the business
25	What is market segmentation?	Breaking down the market based on characteristics e.g. gender, age, race

COMPUTER SCIENCE

1	Explain the FDE cycle	• Fetches the instruction from memory, translates it into machine language, runs its and then repeats
2	What does the CPU do?	• Perform the fde(fetch-decode-execute) cycle
3	What factors affect the CPU performance?	• Cache size, clock speed and number of cores
4	State the components of a CPU	• ALU(arithmetic logic unit), cache, Control Unit
5	State the registers in a CPU	• MAR(memory address register), MDR(memory data register), PC(program counter), ACC(accumulator)
6	What is the difference between RAM and ROM?	• RAM(random access memory) is volatile, ROM(read only memory) is not
7	What are the 3 types of secondary storage?	• Solid state, magnetic, optical
8	What are the units of data	• Bit, nibble, byte, kb(kilobyte), mb(megabyte), gb(gigabyte), tb(terabyte)
9	What base is denary, binary and hex?	• 10, 2, 16
10	What is used to represent text in binary?	• ASCII(American Standard Code for Information Interchange) or Unicode
11	What is used to represent text in binary?	• Pixels
12	How is sound converted to binary?	• Sampling
13	State 3 functions of the OS	• Multi-tasking, user interface, file management, user management, peripheral management
14	State 3 utility software's	• Back-ups, defragmentation, compression, encryption
15	What's the difference between open source and propriety software	• Open source is free and can be edited, Propriety cost money and can't be edited.
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DT

1	What is hardwood? What is softwood? What is softwood?	Hardwood comes from deciduous trees which lose their leaves annually. Softwood comes from conifers, which usually remain evergreen. Manufactured boards are timber sheets which are produced by gluing wood layers or wood fibres together. Manufactured boards often made use of waste wood materials. Manufactured boards have been developed mainly for industrial production as they can be made in very large sheets of consistent quality. Boards are available in many thicknesses
2	What is structural strength? What is a surface finish?	Strength is a measure of a material's resistance to permanent deformation or complete breakage under stress. Strong materials are able to resist heavy impacts, and are able to absorb and distribute large amounts of energy without breaking. This is when a finish is applied to a material such as paint or varnish.
3	What is a cross halving joint? What is a section? What is a side profile?	A joint where half thickness is removed front 2 pieces of wood where they cross. This ensures a greater area of adhesive can be supplied resulting in a stronger joint. A section is a type of drawing that is cut through an object. The side drawing of an object.
4	What is a dowel? What is a dowel joint?	A small cylindrical piece of wood. Available in a range of sizes.

		A joint that has holes drilled in each piece and dowels connecting them.
5	What is CAD? What is CAM?	Computer Aided Design. Computer Aided Manufacture.
6	Why use CAD & CAM?	It is fast and accurate.
7	What is material removal?	When material is removed. This can be with machines or hand tools.
8	What is a finger joint?	Also known as a comb joint, is a woodworking joint made by cutting a set of complementary, interlocking profiles in two pieces of wood
9	Why use a mortise and tenon joint? What are the safety rules for using a mortiser?	They are very strong. Wear an apron & Safety goggles Tie hair back Ensure there is no one in the area of the machine
10	What is the software used to create designs for the laser? What is the file type used on the laser?	2D Design/Onshape/sketchup DXF
11	What is manufacture?	When components of a product are made.
12	What is assembly?	When the components of a product are assembled.
13	What is living in a greener world?	Being kinder to the planet should be on everyone's minds, but especially designers who are producing products for users in today's world.
14	How can we live in a greener world?	• Waste food is a problem in most households, so portion control and re-using leftovers will help. • Cutting down on packaging is a great way of reducing unnecessary waste that is not really an essential part of the product we purchase. • Reducing plastics where possible will be a massive gain. Plastics can be difficult to recycle and biodegrade, so finding an alternative would be very helpful. • Recycling waste correctly is another area for improvement. • Repairing products or choosing not to upgrade when a newer version becomes available can be beneficial. • Green energy should be used where possible. • Greener travel options, car sharing, or cycling should be chosen instead of driving, where possible.

		• Economise your home – optimise your 'white goods' to operate correctly. Set your fridge and freezer to eco settings if possible, turn off lights when not needed, and try to lower the central heating thermostat – wear another layer instead.
15	Why opt for sustainable design?	Whether you are a designer or consumer, making the right choice is critical. Sustainable, eco or greener alternatives are much better for the environment. They have been designed and manufactured with minimising damage and promoting sustainability at the core
16	What is the average life of a mobile phone?	Research reveals that the average life of a mobile phone is two and a half years, and 15 to 18 months for a smart phone. Often, this short life is because the user has damaged the device, dropping or breaking the screen for example, which requires replacement. Using a protective cover is one option to improve the life of the phone. Mobile phone manufacturers often release new models frequently to replace previous versions. This is known as 'incremental' development and can help ensure consistent sales
17	What are greener power supplies?	Solar power can often improve energy consumption for users and also makes the product more flexible and less reliant on 'plugging in'. Photovoltaic (PV) cells can be used as power supplies and 'trickle chargers', converting free sunlight into electricity. Wind-up technology offers far more opportunities for designers. A wind-up torch uses the mechanical movement provided by turning the handle of the device. This can then operate without the need for batteries

ENGLISH – An Inspector Calls

1	What are the conventions of a play?	A play is structured into acts and scenes. Stage directions are notes from the playwright about the props, lighting, staging etc.
2	What key events have happened since 1912 when the play set?	• WW1 • WW2 • The Great Depression • Sinking of the Titanic • Strikes and trade unions • The Labour Party • Women's rights
3	What is the key message Priestley wants to get across through 'An Inspector Calls'?	Priestley has made 'An Inspector Calls' an allegory to teach people the importance of social responsibility. Through this play, he encourages people to seize the opportunity the end of the war has given them to build a better, more caring society.

4	What is the difference between socialism and capitalism?	Socialism is the ideology that believes wealth should be spread evenly across all areas of society. Capitalism believes that money and wealth is related to an individual with no expectation of distributing to others.
5	What is social responsibility and how is it explored throughout the play?	Social responsibility is the obligation to look after others and our society and Priestley proves its importance through the plight of Eva Smith.
6	What is the significance of the generational differences and how is this shown?	The younger generation are impressionable and are adaptable to changing ideologies. Whereas, the older characters are more stubborn and reluctant to changing their ways.
7	What are the 1912 and 1945 gender expectations?	In 1912 and 1945, there is an expectation for women to be obedient to the patriarchy. There is a lack of opportunity in terms of jobs and status within society. 1912: Women had few rights and were expected to be submissive to male figures, marry, have children and to serve their husbands. 1945: After the Suffragette movement, women gained more rights and started to have more of a voice in society.
8	What is dramatic irony and its significance in the play?	Dramatic irony is when the audience knows something the characters do not. Due to the play being set years before it was written, it encourages an alternative insight into the progression/lack of between 1912 and 1945.
9	What do I need to know about J. B. Priestley?	J. B. Priestly is a strong socialist and he uses the Inspector as his mouthpiece to show this throughout the play. He was a famous broadcaster for the BBC but his radio show was cancelled due to him being too political, which may be why he decided to write the play 'An Inspector Calls'. The playwright has first-hand experience of both time periods and has become disillusioned by the lack of progress made.
10	What is a monologue and why is the Inspector's monologue so significant?	A monologue is a long speech by an actor. 'An Inspector Calls' ends the play with the Inspector's monologue teaching the importance of socialism and the responsibility to help one another.
11	What is the significance of blame in 'An Inspector Calls' and which characters does this relate to?	The Inspector aims to teach the Birlings their role in Eva Smith's death. We see the younger character's acceptance of blame and how their actions have consequences. Whereas, the older generation are reluctant to take the blame.
12	What does the younger generation learn from the Inspector?	The younger characters in the play learn from the Inspector and understand how their behaviour can have a positive and negative impact on others. Unlike the

		older generation, they feel guilt and empathy towards Eva Smith and the working class a whole.
13	What message is Priestley trying to portray through the differences between upper and lower characters?	Through the huge class distinction, Priestley teaches the unfair circumstances surrounding the lower class. The lower class are exploited by the ignorance of the upper class.
14	What is guilt and which characters are able to embody empathy?	Guilt is a feeling of worry/unhappiness because you have done something wrong. The younger characters start to feel guilty and empathise towards the working class.
15	What is the reasoning behind why Priestley chose to make 'An Inspector Calls' a play rather than a novel?	Priestley chose to make 'An Inspector Calls' a play so that his message was more impactful and immediate. Upper-middle class people were more likely to visit the theatre and therefore his message to the upper-middle class is taught directly through the Birling family.
16	What is the stereotype of the working class and women and how is this presented through Eva Smith/Daisy Renton?	The working class are portrayed as lazy and disposable. Women are subjected to patriarchal ideas and the lower-class characters (Eva Smith/Daisy Renton/Edna) show this through the hardships they face due to the upper-middle class citizens' selfishness.
17	What message is Priestley portraying through the inability of the older generation's acceptance of blame?	Priestley wants to show how the older character's opinions and behaviours are stubbornly fixed and how they are entrenched in their ways. He shows how the first step to changing your ways is through responsibility and he suggests hope for society through the younger generation's acceptance of this.
18	What questions are raised from the ambiguous ending of 'An Inspector Calls'?	The ending has been constructed deliberately by Priestley to leave the audience questioning their reality but to also put a spotlight on them in terms of their own personal responsibility within society.
19	What do I need to include in an analytical essay?	• Subject terminology • Playwright's intentions • Contextual information • Quotations
20	What can I do to elevate my response to an exam question?	• Single word analysis • Embedding of quotations • Discourse markers • Analytical verbs/adverbs when exploring playwright's intentions: *Priestley purposely/cleverly/deliberately/warns/criticises…* • Embedding of subject terminology

ENGLISH – A Christmas Carol

1	What is a novella?	A novella is a short story.

2	What is a stave?	A stave is the five lines that music is written on. In A Christmas Carol, each chapter is a 'stave' mimicking a Christmas carol.
3	What was life like in the Victorian era?	• Huge class distinction • The workhouses • Struggle for the poor • The Industrial Revolution • The Poor Law • Patriarchal society
4	What is Malthusianism?	Thomas Malthus believed that the growth of the population would always outrun the growth in the production of food, and thus the life and living conditions for all could only be sustained with a cap on the number of children born. *This economic theory is now often known as Malthusianism.*
5	What is an allegory?	An allegory is when a text/story teaches you a lesson.
6	What are Dickens' intentions for the allegory 'A Christmas Carol?'	Dickens wants to teach through A Christmas Carol that poor people are suffering due to the selfishness of the upper class. He wanted to teach through this political diatribe that if someone as miserly and misanthropic as Scrooge can change, then anyone cope – inspiring hope for society.
7	What quotations shows the presentation of Scrooge in stave 1?	"hard and sharp as a flint", "solitary as an oyster", "cold-hearted", "squeezing, wrenching, grasping, scraping, clutching, covetous old sinner", "the cold within him froze his features", "a frosty rime was on his head", "decrease the surplus population", "What right do you have to be merry? You're poor enough", "cold, bleak, biting weather".
8	What quotations show the presentation of Scrooge in stave 5?	"laughing and crying in the same breath", "light as a feather", "happy as an angel", "merry as a schoolboy", "giddy as a drunken man", "A merry Christmas to everybody", "Scrooge regarded everyone with a delighted smile", "I am about to raise your salary", "no fog; no mist".
9	What does Marley's Ghost teach Scrooge?	Marley warns Scrooge that a similar fate (and a longer, heavier chain) awaits him if he does not change his ways. "I wear the chains I forged in life", "mankind was my business".
10	What does the Ghost of Christmas Past teach Scrooge?	By showing him memories of his past, the ghost reminds him of the goodness that used to be in him and of the people he used to love. This is where the readers start to gain sympathy for Scrooge. • Schoolboy: "a solitary child neglected by his friends", "Quite alone in the world I do believe", "your lips is trembling", "Poor boy!". *Perhaps Scrooge's isolation in adulthood as he was forced into it into his childhood.*

		• Belle: "a golden idol has displaced me", "as an unprofitable dream". *Scrooge realises what he could've had with Belle if he wasn't so obsessed with money.* • Fezziwig: "the warehouse was as snug, and warm, and dry", "beaming and lovable", "The happiness he gives is quite as great as if it cost a fortune". *Scrooge realises that he is the antithesis of Fezziwig and treats Bob Cratchit poorly.* • Fan: "Father is so much kinder than he used to be", "putting her arms around his neck and often kissing him". *Scrooge remembers he wasn't always a miser and is capable of love; he remembered his nephew Fred and thinks about his lack of relationship.*
11	What does the Ghost of Christmas Present teach Scrooge?	This ghost seeks to show Scrooge that the true meaning of the holiday is found in the joy that comes from giving to others and celebrating together. If Scrooge is to change his life, there is no better time to start than Christmas. • The Cratchits: "a small pudding" for a "large family" = "wonderful pudding" "brave in ribbons". *Shows Scrooge the Cratchits basking in their plight. He learns that happiness doesn't come from money.* • Ignorance and Want: "they are man's", "yellow, meagre, ragged, scowling, wolfish", "Are there no prisons?". *Scrooge realises that innocent people and children are suffering due the selfishness of the upper class.*
12	What does the Ghost of Christmas Yet To Come teach Scrooge?	This ghost reveals to Scrooge his future consequences of his past and present actions: his lack of sympathy for the poor; his ill-treatment of his own clerk Bob Cratchit; that his own death will also result in the death of the Cratchits' disabled young son, Tiny Tim. • Funeral scene: "the phantom slowly, gravely, silently approached", "I don't know of anyone that would go to it." "But I'll offer to go if anybody else will", "I don't mind if lunch is provided". *Scrooge realises that, due to his miserly ways, no one loves him or cares about him.*
13	What does the term 'plight' mean?	An unfortunate, difficult or precarious situation. *The poor are living in plight.*
14	What does the term 'basking' mean?	To take pleasure or derive enjoyment of something. *The Cratchits are basking in their plight.*
15	What is the significance of Ignorance and Want?	Ignorance and Want are used to show readers that the decadence of the upper classes was creating the inequality that destroyed lives. The Ghost tells Scrooge that these children are the responsibility of all mankind. Scrooge advocates for the readers to help the less fortunate with these characters.

16	What is the importance of Christmas in the novella?	The story of Scrooge takes place on Christmas Eve and Christmas Day and uses the ideas of generosity and compassion that we associate with Christmas to highlight the transformation of the main character. We see Scrooge change from a miserly man, contrasting with the spirit of Christmas, to someone who is full of joy.
17	What is a thesis statement?	A thesis statement *is* a sentence that sums up the central point of your essay.
18	What do I need to include to achieve success?	• Comments about extract and whole novella • Quotations from extract and whole novella • Subject terminology • Writer's intentions • Contextual information
19	What do I do in an extract style exam question?	1. Introduction 2. Analysis of the extract 3. Analysis of the extract 4. Analysis of the whole novella 5. Conclusion
20	How can I achieve more marks?	• Thoughtful response supported with judicious, embedded quotations • Embedded subject terminology • Single word analysis • Layering of quotations • Useful links to contextual information of the Victoria era

FOOD AND NUTRITION

1	What is the importance of knife skills in cooking?	Faster meal preparation, get the most out of your ingredients, smoother kitchen workflow, less waste, even cooking
2	What are the different types of fruit?	Berries, pits, cores, citrus, tropical, melons
3	What are the different types of vegetables?	Root, leafy green, cruciferous, marrow, edible plant stem, allium
4	What are seasonal vegetables?	Grown ripe and ready at a specific time of the year
5	What is organic farming?	Natural farming. No additional chemical s or products. Allowing crops and animals to grow freely and healthily
6	What is Intensive farming	Growing as many crops as possible in a restricted space. Using additional products to enhance growth
7	What crops do we grow in the Uk	Wheat, barley, oats, rye, rapeseed, fruit, vegetables etc
8	What animals do we rear?	Sheep, cows, pigs, ducks, fish etc stc

9	What is food spoilage?	The decay of food, it becomes unsuitable to ingest and can cause harm
10	What is enzymic browning?	A chemical reaction where some fruits turn brown. Enzymes in the fruit oxidise in the atmosphere
11	What are the different types of flour that we use in cooking?	Self-Raising, Plain, Strong, Wholemeal
12	What is Gluten and what is its purpose?	, rye, barley. It helps food maintain its shape. Acts as a glue and develops elasticity
13	What is the purpose of the NEA1 Assessment?	To help you understand how food works and chemical reactions. This will make you a better chef
14	What are the different types of raising agents that we use in cooking?	Water/steam, Bicarbonate of soda, yeast, Cream of Tartare, Baking Powder,
15	Why is it important to cook food safely?	To kill bacteria, make it palatable, to prevent illness and contamination
16	What are the key temperatures required to keep food safe at?	75 degrees, 100 degrees, 5-65 Danger zone, Minus 5, minus 18 degrees
17	What are the 4Cs?	Cooking, chilling, cross contamination, cleaning
18	What factors increase contamination ?	Moisture, protein, time, warmth
19	What ingredients are needed to make choux pastry?	Eggs, flour. water, butter
20	Name the 5 nutrients (5)	Protein, fat, carbohydrate, vitamins and minerals
21	What purpose do carbohydrate have in our diet	Macro Nutrient, Vital nutrient, Energy, bulk, fibre
22	What foods provide carbohydrate?	Potatoes, rice, pasta, bread, etc
23	What is the purpose of Protein in our diet? (3)	
24	What foods provide protein (2)	Meat, fish, eggs, cheese, milk yoghurt, beans, tofu
25	What are the essential ingredients in pasta? (2)	Egg, flour oil
26	What is the difference between white and brown flour?	Brown flour has more of the original grain in it (85%) In white flour the grain is removed during processing (75% left)
27	What is fibre and its purpose (2)	Dietary fibre is a term that is used for carbohydrates found naturally in plants. It cannot be broken down by the human digestive system
28	What ingredients do you use to make a Roux sauce (2)	Flour, butter and milk
29	What is a rage sauce (2)	A rich versatile meat sauce used as a basis for lasagne or other pasta dishes
30	What happens if you do not eat enough Protein? (2)	Lack of protein can lead to muscle loss which in turn will affect strength. Makes it harder for you

		to balance and slow your metabolism. It can also lead to anaemia
31	What happens if you have an excess protein (2)	Excess protein is usually stored as fat while surplus of amino acids is excreted. This led to weight gain over time. It can also cause issues with the digestive system, blood vessels and kidneys
32	What is the most tender part of the chicken and why (2)	The breast because it has less muscle mass
33	What nutrients are in eggs? (3)	Vitamin B2, B12, vitamin D, selenium and iodine and vitamin A. They also contain high quality protein, iron
34	How can you tell if an egg is fresh (2)?	It will sink in waters it has no air in it The best indicator of freshness is to look at the date on the box
35	Name 4 ways that you can use eggs in cooking? (4)	Bake in cakes Use in Omelettes and egg dishes Quiche Lorraine's and flans (Bind) Aerate /whisk meringues etc
36	Name the macro nutrients (3)	Protein, fats and carbohydrate
37	Name the micro nutrients (2)	Vitamins and minerals
38	What is the function of fat in the diet (2)	Protection of organs, warmth to the body, energy, Vitamins EDK
39	What happens if there is excess fat in the diet (3)	Obesity, general health issues, heart problems, Blood pressure, CHD
40	What happens if there is a deficiency of fat in the diet (3)	Thin body frame, cold, look unhealthy, pale
41	What is another name for fat. (2)	Lipids
42	Which are good fats / healthy fats (2)	Unsaturated
43	How would you ensure that someone has healthy fats in their diet? (3) Give examples of food and dietary recommendations	Not to fry foods, eat good fats, use Fry lite,
44	What is butter made from (2)	Cream that is churned around
45	Name 4 uses of butter in cooking (4)	Melting, spreading, creaming, shortening, shallow frying
46	What is the nutritional value of butter (3)	Fat, vitamins A and D, sodium
47	How do you store butter (2)	In the fridge, fully covered, lidded container
48	Describe 3 facts about oils (3)	Liquid at room temperature, lighter than solid fat, easier to digest, versatile in cooking, natural
49	Give 3 examples of vegetable oils (3)	Sunflower, rapeseed, olive,
50	Name 3 uses of oil in cooking (3)	Frying, basting, marinating
51	Give 4 facts about margarine (4)	It is an inexpensive butter, made from vegetable oils has vitamins added to it by law A and D
52	Give examples of high skills used in cooking and the NEA2 (3)	Portioning, pastries, bread making, fileting, piping

53	How many dishes do you have to cook in your 3-hour NEA2 practical exam? (1)	3
54	What is an enriched bread (2)	A dough made with butter, sugar, eggs or oil. Softer and richer than normal bread
55	What does fortify mean (2)	Strengthened and added to eg margarine, bread

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

1	What is a noun? What is special about nouns in French?	The name of a person, place, object or thing. All nouns are masculine or feminine.
2	What does gender mean in MFL?	Which groups nouns belong to.
3	What is an article?	The words the, a, some.
4	What is the definite article?	The word the
5	What are the 3 definite articles in French? What happens to the definite article if a singular noun starts with a vowel?	Le, la, les It becomes l’
6	What is the indefinite article?	A, some
7	What are the 3 indefinite articles in French?	Un, une, des
8	What is the word for and what type of word is it?	Et It is a connective
9	What is a cognate?	A word in another language that looks or sounds like its English meaning
10	What is a false friend?	A word in another language that looks or sounds English but does NOT mean the same
11	Why do letters sound different in MFL?	Their phonetic pronunciation is different
12	How do you make a sentence negative	Put ne.....pas around the verb
13	What is special about days and months in French?	They DON’T start with a capital letter.
14	What verb do you need to form the near future tense in French?	Aller

16	What does the near future tense mean?	Going to
17	What is an infinitive?	A verb that ends in ER/IR/RE The 'to' bit of the verb
18	How do you say I would like in French?	Je voudrais J'aimerais

GEOGRAPHY

1	What is the quaternary period?	The period of time that stretches from 250 million years ago to the present day.
2	Give three pieces of evidence for climate change.	Sea levels have risen (by 19cms since 1900) Ocean temperatures are their warmest for since 1850 The world's glaciers and ice sheets are decreasing in size The volume of ice lost in Greenland since 2002 is 287 billion tonnes per year and 134 billion in Antarctica per year. Ice cores Ocean sediments
3	What is the evidence for climate change being a natural phenomenon?	There is geological evidence that suggests climate change has been happening throughout the Quaternary period before humans were on the planet.
4	Give three causes of natural climate change	Solar output Orbital changes Volcanic activity
5	Select one cause and explain how it causes the climate to change.	Solar output: there can be fluctuations in the amount of radiation from the sun. If there is high amount emitted there will be an increase in Earth's temperatures. Orbital changes: the Earth has natural warming and cooling periods caused by Milankovitch cycles or variations in the tilt and/or orbit of the Earth around the Sun (Wobble, roll and stretch theory). Volcanic activity: during a volcanic eruption carbon dioxide is released into the atmosphere.
6	What is the greenhouse effect?	A natural function of the Earth's atmosphere is to keep in some of the heat that is lost from the Earth.
7	Why is the greenhouse effect important to life on Earth?	Without the greenhouse effects the Earth would be approximately 33°C colder and therefore life would not exist as we know it today.

8	What is the enhanced greenhouse effect?	Human activity has increased the layers of greenhouse gases which naturally exist. Less heat escapes from the Earth and more is trapped in by the thicker layer of the greenhouse gases, which means the earth warms up even more.
9	Identify three ways humans cause climate change.	Burning fossil fuels Agriculture Deforestation
10	Explain how deforestation causes climate change.	During the process of photosynthesis trees absorb carbon dioxide which reduces the amount in the atmosphere. By cutting down trees less carbon dioxide is absorbed. Therefore, the enhanced greenhouse gases contribute to climate change. Also, burning trees during practices such as slash and burn releases stored carbon dioxide.
11	Explain how burning fossil fuels causes climate change.	Burning fossil fuels such as coal, oil and gas releases carbon dioxide in the atmosphere. The enhanced greenhouse gases contribute to climate change.
12	Explain how agriculture causes climate change.	A large amount of methane is produced by cattle during digestion. Also, microbes produce it as they decay organic matter under the water of flooded rice paddies. As world population continues to grow this will lead to a greater demand for food leading to an increase in greenhouse gases.
13	Give 4 social effects of climate change.	Properties, particularly in low lying areas in the east of England are likely to be flooded Scottish ski resorts may have to close due to lack of snow Increased demand for water in hotter summers puts pressure on water supplies Crops such as oranges, grapes and peaches can be grown in the UK Winter heating costs will be reduced as winters will be milder Accidents on the roads in winter will be less likely to occur Heatwaves are likely to lead to more deaths Tropical storms are likely to increase in intensity Diseases such as malaria increase, an additional 280 million people may be affected Energy consumption may decrease due to a warmer climate Longer growing season for agriculture

14	Give 4 environmental effects of climate change?	Sea levels could rise, covering low lying areas, in particular east England Droughts and floods become more likely as extreme weather increases Less rainfall may affect wildlife, causing food shortages Forests in North America may be affected by more pests, disease and forest fires Glaciers will continue to retreat, leading to flooding Species in affected areas (eg Arctic) may become extinct
15	What is mitigation?	Mitigation involves dealing with the cause of the problem.
16	Identify 5 ways the causes of climate change can be reduced.	Alternative energy production / renewable energy production Solar energy Carbon capture Planting trees International agreements
17	How does planting trees reduce CO2	An increase in trees leads to an increase in the amount of carbon dioxide being absorbed from the atmosphere and stored.
18	How can international agreements reduce CO2?	International climate change agreements such as the one agreed in Paris in 2015 leads to countries producing less carbon dioxide when targets are set.
19	What is carbon capture and storage?	Carbon capture and storage involves capturing carbon dioxide emissions from burning fossil fuels and liquifying/compressing it. It is then stored underground in rock formations and in oceans.
20	What is adaptation?	Adaptation involves responding to the impacts of climate change and tries to make populations less vulnerable.
21	What is the difference between mitigation and adaptation?	Mitigation involves dealing with the cause of climate change, adaptation involves responding to the impact of climate change.
22	Identify three ways climate change can be managed through adaptation.	Changes in agriculture systems - such as developing irrigation schemes, moving production to another location and changing crops Managing water supply – reducing demand for water and increasing water supply through desalination and large scale water transfer schemes Reducing risk from rising sea levels – constructing tidal barriers and raising sea defenses

23	How can adaptations in agricultural systems help manage the impact of climate change?	Moving production to another location due to changing temperature and extreme weather Increasing irrigation in areas where precipitation is declining Changing crops to drought resistant varieties or switching the type of crop to one that better suits the changing climate.

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

1	What is a noun? What is special about nouns in German?	The name of a person, place, object or thing. All nouns are masculine,feminine or neuter. They begin with a capital letter.
2	What does gender mean in MFL?	Which groups nouns belong to.
3	What is an article?	The words the, a, some.
4	What is the definite article?	The word the
5	What are the 4 definite articles in German?	der/die/das /die (pl)
6	What is the indefinite article?	A, some
7	What are the 3 indefinite articles in German? What is the difference between nominative and accusative?	ein/eine/ein and einen/eine/ein Nominative= subject Accustaive= object
8	What is the word for and what type of word is it?	und It is a connective
9	What is a cognate?	A word in another language that looks or sounds like it's English meaning
10	What is a false friend?	A word in another language that looks or sounds English but does NOT mean the same
11	What is the accent called in German?	Umlaut e.g. ü
12	How do you make a sentence negative?	Put k infront of einen/eine/ein or nicht after the verb
13	How do you say because in German?	Weil It send the verb to the end. It has a comma infront of it OR if it starts a sentence

	What happens when you use this in a sentence?	Verb comma verb in the middle
14	What verb do you need to form the future tense in German?	werden
16	What does ich will mean?	I want
17	What is an infinitive?	The part of the verb found in a dictionary The 'to' bit of the verb

HEALTH AND SOCIAL CARE

1	Define the term 'development'.	Development is about the way children learn to use their bodies and gain skills.
2	Define the term 'growth'.	The way babies and children's bodies get larger and heavier. It is a change in physical weight or height.
3	Give two examples of how growth is measured.	Height and weight. Additionally, head circumference for infants.
4	What is a life stage?	Life stages refer to different phases of life that all individuals pass through in normal lifetime.
5	List the 6 life stages.	Infancy, childhood, adolescence, early adulthood, middle adulthood and later adulthood.
6	What is a motor skill?	Motor skills are movement and actions of the muscles and can be categorised into gross and fine motor skills.
7	Define physical development.	It includes development of each of your body systems and is affected by both inherited, genetic and lifestyle factors.
8	Define intellectual development.	The growth of the brain and development of your thought processes. This includes things like memory, problem-solving and understanding the world around us.
9	Define emotional development.	The growth and understanding of feelings. The ability to give love, care and affection and to feel secure linked to self-esteem.
10	Define social development.	Making connections with people and becoming part of society. This includes your family, friends and community you live in.
11	Explain the term 'fine motor skill'.	A fine motor skill also referred to as dexterity is the coordination of small muscles, in movements involving the synchronisation of hands and fingers with the eyes, such as writing, being able to button up a skirt or even blinking.

12	Explain the term ‘gross motor skill’.	A gross motor skill that involves movement and coordination of the arms, legs and other large body parts. They involve actions such as walking, running, throwing and swimming.
13	What is the age range for infancy?	0-2years
14	Define the term ‘attachment’.	An attachment is a strong emotional bond between an infant and their primary caregiver. A secure attachment is required for the infant's holistic needs to be met and to develop healthy attachments with others in the future. A lack of secure attachments can lead to distrust in others.
15	Explain the term ‘bonding’.	Bonding is the formation of a mutual emotional and psychological closeness between parents or primary caregiver’s ad with their new born child. Babies usually bond with their parents in the minutes, hours, or days following the birth. This can be done through a physical closeness and is often the reason healthcare professionals advise skin to skin interactions after the birth of the baby with both parents.
16	List 3 things that children need to feel emotionally stable.	Consistency, love and affection, and routines.
17	Define security.	Security is mainly a feeling of being cared for, being safe and loved are closely linked with attachment.
18	Explain the term independence.	This is about reaching for a stage when an individual cares for themselves and makes their own decisions. Becoming independent such as: feeding themselves, washing and dressing themselves. They can start to make their own decisions on what they want to eat too.
19	Define contentment.	An emotional state when infants and children feel happy in their environment and with the way they are being cared for.
20	List the four areas of intellectual development that occur in childhood.	Memory recall, language development, problem solving and abstract/creative thinking.
21	Identify the two parts of language development that occur during infancy.	Pre-linguistic stage 0 - 13months Linguistic stage 13 months +

22	Define puberty.	The physical changes that occur prepare the body for sexual reproduction.
23	Identify the two categories of sex characteristics	Primary Sex Characteristics - Any of the external physical characteristics of sexual maturity. Secondary Sex Characteristics - Any of the body structures directly concerned in reproduction, as the testes, ovaries and external genital.
24	Explain the term 'abstract thinking'.	This is the ability to think using concepts and ideas rather than through objects and doing tasks. For example: A seven-year-old child may be able to calculate how long it takes to travel to a destination by train by pushing the fingers of a clock around its face, whereas teenagers can usually do this calculation in their heads.
25	Explain the term 'logical thinking'.	Adolescents also begin to think in a more logical way to solve problems and can empathise – see things from other people's perspective and realise that the world is not centred totally on them. This period is also a time when teenagers develop their own set of morals and ideas about what is right and wrong.
26	Define self-image.	The mental picture we have of ourselves. Influenced by: personal appearance, the media, comparing ourselves to others, things other people say about us.
27	Define self-esteem.	How much you like, accept and respect yourself, how much you value yourself.
28	Define peer pressure.	A feeling that one must do the same things as other people of one's age and social group in order to be liked or respected by them.
29	Explain the term 'physically mature'	People are at their peak of physical fitness and have reached their full height. Women are at their most fertile.
30	Define lifestyle.	Lifestyle involves the choices made that affect health and development such as diet, exercise, opinions, behaviours and interests. Can also be referred to as 'way or style of living'.
31	Define menopause.	A reduction in hormones causes a women's periods to stop.
32	Explain social isolation.	The absence of social interactions, contacts and relationships with family and friends, with neighbours on an individual level, and with 'society at large' on a broader level.
33	List some of the physical developments that can occur during menopause.	Ovaries stop releasing eggs, menstruation stops, reduction in the production of oestrogen, temperature regulation – causes 'hot flushes' or 'night sweats', loss or thinning or hair, disturbed sleep and possibly osteoporosis where bones become more brittle.

34	List some of the intellectual developments that can occur during menopause.	Loss of memory, learn a new skill to stimulate and invigorate the mind.
35	List some of the emotional developments that can occur during menopause.	Mood swings, low or reduced self-esteem, loss of confidence, grief as no longer able to conceive or depression.
36	Explain how social isolation may occur during menopause.	Social isolation may occur as women go through menopause as the may lose confidence in their abilities, lack self-esteem and this may lead to them distancing themselves away from their friends or family. They may develop depression as a result of this and find it difficult to develop the coping strategies needed in order to socialise with others.
37	List 4 physical developments that may occur during later adult hood.	• Greater susceptibility to illness • Slower recovery times • Slowing down of physical responses • The skin is thinner, joints are stiffer, muscles weaker and bones often more brittle. • Less mobile • Lose height
38	Define the term 'genetic inheritance'	The genes a person inherits from their parents.
39	What is dementia?	An illness that affects the brain and memory, and makes you gradually lose the ability to think and behave normally.
40	List 4 life events that could affect someone's emotional development during later adulthood.	Isolation from peers, loss of independence, progressive deterioration of health, loss of significant other, loss of friends, being ignored despite having wisdom and experience.

HISTORY

1	When did Elizabeth I become queen?	1558
2	Who ruled England?	Parliament, Privy Council, Lord Lieutenants, JPs
3	What was patronage?	Elizabeth giving titles, power or other rewards to ensure loyalty and support.
4	Who was William Cecil?	Secretary of State twice, MP, Elizabeth's most trusted advisor.
5	What problems did Elizabeth face in her early years?	• Succession • Mary Queen of Scots • Ireland • Taxation • Religion • Foreign Policy

6	What were the advantages and disadvantages of marriage?	Advantages – heir & successor, alliances, prevent Mary Q of S becoming queen Disadvantages – lose control to foreigner, problems with authority (female ruler)
7	When was Norfolk's Rebellion?	1569 – the Duke of Norfolk and the Earls of Westmoreland and Northumberland raised a rebellion against Elizabeth. They took control of Durham Cathedral and celebrated an illegal mass. Then they began a march south with around 4600 men. Elizabeth raised an army and the rebellion was disbanded.
8	What was the Ridolfi Plot?	In 1571 an Italian banker (Ridolfi) made a plot for the Netherlands to invade England at the same time as another northern rebellion. Elizabeth would be murdered and replaced by Mary, Queen of Scots, who would marry the Duke of Norfolk. The plot was discovered and Norfolk was executed on 2nd June 1572
9	What was the Papal Bull?	This was a special message delivered by the Pope to all Catholics in 1570. In it the Pope excommunicated Elizabeth from the Catholic Church and called upon Catholics to remove her from the throne.
10	What was the Babington Plot?	A Catholic Plot lead by Anthony Babington in 1586. The plot aimed to murder Elizabeth and replace her with Mary, Queen of Scots. Coded letters revealed that Mary was part of the plot. The plot was discovered by Francis Walsingham and consequently Mary was executed.
11	When was Essex's Rebellion?	1601: Robert Deveraux Earl of Essex. Following a fall from favour, Essex raised a rebellion against Elizabeth. The rebellion failed and Essex was executed.
12	What was the Great Chain of Being?	The social structure of Elizabethan England. God is at the top, followed by his angels. Human beings are beneath, followed by animals and plants. The Elizabethans split humans into subdivisions, the monarch at the top, followed by the nobility, the gentry and then the peasants. It was almost impossible to move between the human divisions.
13	How did theatre develop?	• Move from inn yards to purpose-built theatres • Patronage • Playwrights
14	What was the 'Golden Age'?	A phrase that means a time of great achievement. The Elizabethan era saw new ideas and accomplishments in many areas: Art, Exploration,

		Theatre, Architecture, Science & Technology, Education and Literature.
13	Why was there so much poverty in Elizabethan England?	• Henry VII banned private armies • Reformation & closure of monasteries • Henry VIII debased coins > rise in inflation • Bad harvests in 1590s • Changes in farming > enclosure • Population explosion • Rack renting
14	How was poverty dealt with?	• Deserving/undeserving poor dealt with differently • Different towns had different approaches – York, Ipswich, Norwich. • Centralised approach in 1601 with the first Poor Law – taxes raised to support the poor. Fit and healthy poor were put to work. • Houses of Correction introduced.
15	When did Francis Drake circumnavigate the globe?	1577-80
16	Why did King Phillip of Spain send the Spanish Armada to attack England in 1588?	• Angry that Drake and Hawkins were stealing from the Spanish ships in the New World • Elizabeth was supporting the Protestants in the Spanish Netherlands • Elizabeth had turned down Phillip's proposal of marriage earlier in her reign • Elizabeth had executed Mary Queen of Scots
17	Why did the Spanish Armada fail?	• English tactics including Drake's fireships • Spanish mistakes and the poorly designed fleet of ships which were not built to cope with the seas around England • Poor Leadership from Spain • Bad weather

HOSPITALITY AND CATERING

1	What are the visible symptoms of food induced ill health?	Visible symptoms of food poisoning, chemical poisoning, allergic reaction and food intolerance include: • Diarrhoea: a common symptom of most types of food poisoning bacteria and can also be a symptom of lactose intolerance. • Vomiting: a common symptom of most types of food poisoning bacteria, but may could also be caused by taking in chemicals accidently added to food. • Pale or sweating/chills: a high temperature is a common symptom of E-coli and Salmonella.

		• Bloating: a symptom of lactose intolerance. • Weight loss: a symptom of gluten intolerance (coeliac disease).
2	What are the non-visible symptoms of food induced ill health?	Non-visible symptoms of food poisoning, chemical poisoning, allergic reaction and food intolerance include: • Nausea (feeling sick): the most common symptom for all types of food-induced ill-health. • Stomach-ache/cramps: abdominal pain is common symptom of lactose intolerance as well as a sign of an allergic reaction. Cramps may happen at the same time as diarrhoea. • Wind/flatulence: a common symptom of lactose intolerance. • Constipation: a symptom of Listeria food poisoning. • Painful joints: a symptom of E-coli food poisoning. • Headache: a symptom linked to Campylobacter, E-coli and Listeria. • Weakness: non-stop vomiting, and diarrhoea can leave a person feeling weak. Gluten intolerance (coeliac disease) can leave a person feeling tired because their bodies can't absorb the correct amount of nutrients
3	What are the symptoms of allergic / anaphylactic reaction?	Visible symptoms: red skin, a raised rash, vomiting, swelling of lips and eyes and difficulty breathing. • Non-visible symptoms: swelling of tongue and throat, nausea (feeling sick) and abdominal pain. • Anaphylaxis: a severe reaction to eating an allergen that can lead to death. An injection of adrenaline (for example, an EpiPen) is the treatment for an anaphylactic reaction
4	What is Cross Contamination?	Food poisoning bacteria can easily be transferred to high-risk foods. This is called cross-contamination
5	How can we control cross contamination?	washing hands before and after handling raw meat and other high-risk foods. • using colour-coded chopping boards and knives when preparing high-risk foods. • washing hands after going to the toilet, sneezing, or blowing your nose and handling rubbish
6	What is physical contamination?	Physical contamination is when something which is not designed for eating ends up in your food. Physical contaminants include hair, seeds, pips, bone, plastic packaging, plasters, broken glass, flies and other insects, tin foil and baking paper, soil, and fingernails
7	How can we control physical contamination?	Physical contamination can be controlled by: • food workers following personal hygiene rules • keeping food preparation and serving areas clean • checking deliveries for broken packaging

		• thoroughly washing fruits and vegetables before preparation • using tongs or gloves for handling food.
8	What is Delivery temperature control?	The temperature of high-risk foods must be checked before a delivery is accepted. The food should be refused if the temperatures are above the safe range. Refrigerated foods = 0-5°C Frozen foods = -22°C to -18°C
9	What is storage temperature control?	High-risk foods must be covered and stored at the correct temperature. Temperatures must be checked daily. Refrigerator = 0-5°C Freezer = -22°C to -18°C Unwashed fruit and vegetables must be stored away from other foods
10	What is preparation temperature control?	High risk-foods need to be carefully prepared to avoid cross-contamination. A food probe can be used to make sure that high-risk foods have reached a safe core (inside) temperature, which needs to be held for a minimum of two minutes. Core temperature = 70°C
11	What is service temperature control?	Food needs to be kept at the correct temperature during serving to make sure it is safe to eat. Hot food needs to stay hot and cold food needs to stay chilled. Hot holding = 63°C minimum Cold holding = 0-5°
12	What is the role of the EHO?	The role of the Environmental Health Officer (EHO) is to protect the health and safety of the public. They are appointed by local authorities throughout the UK. In the hospitality and catering industry, they are responsible for enforcing the laws linked to food safety. They inspect all businesses where food is prepared and served to members of the public, advise on safer ways of working and can act as enforcers if food safety laws are broken.
13	What happens in an EHO inspection?	The EHO can carry out an inspection of any hospitality and catering premise at any time during business hours – they do not need to make an appointment. During an inspection, the EHO will check to make sure that: • the premises are clean • equipment is safe to use • pest control measures are in place • waste is disposed properly • all food handlers have had food hygiene and safety training • all food is stored and cooked correctly • all food has best-before and use-by dates

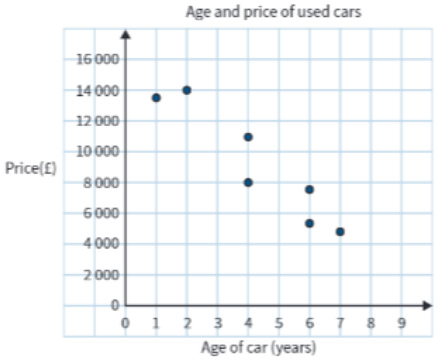
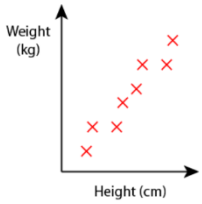
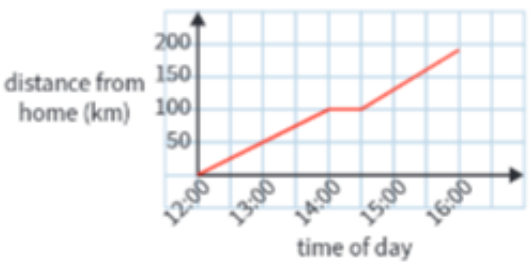
		• there is a HACCP plan to control food hazards and risks. The EHO is allowed to: • take photographs of the premises • take food samples for analysis • check all record books, including fridge and freezer temperatures, cleaning schedules and staff training • offer advice on improving food hygiene and safety in the business.
14	What is EHO and the law?	If the EHO discovers problems with the food safety and hygiene in the premise, they are allowed by law to: • remove any food that may be hazardous so it can't be sold • tell the owners to improve hygiene and safety within a set time and then come back and re-inspect • close the premises if there is a risk to health of the public • give evidence in a court of law if the owners are prosecuted for breaking food hygiene and safety laws
15	What happens if a complaint is made by a member of the public?	The EHO will immediately investigate any complaints of suspected food poisoning linked to a particular premise
16	What are Hygiene ratings?	When an inspection has been carried out, the EHO will give the business a food hygiene rating. The ratings are published on the Food Standards Agency website as well as on stickers displayed at the business. A rating of 5, or very good, represents the highest standard of food hygiene.

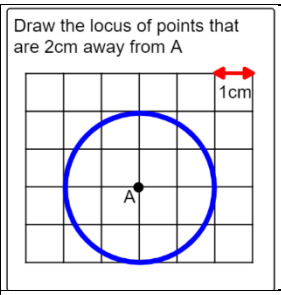
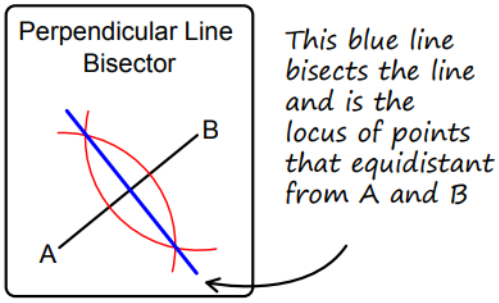
IMEDIA

1	What are the components of a mind map?	• Nodes, sub nodes and branches
2	What can be on mood board?	• Images, text, colours, patterns
3	What does a visualisation diagram show?	• An initial sketch of how a product will look
4	State different camera shots	• Long shot, close shot, medium shot, wide shot, over the shoulder, high shot, low shot.
5	What are the contents of a storyboard?	• Images/sketches of scene • Locations • Camera shot types and angles • Camera movement • Timings • Lighting • Sound • Scene numbers and direction arrows
6	What are the contents of a script?	• Set/locations • Scene/stage directions • Camera shot types • Camera movement • Sounds and sound effects • Names of actors/characters • Dialogue
7	What are the main file formats for images?	• JPG, PNG, TIFF, PDF
8	What is the main law that affects creative media?	• Copyright

MATHS

1	What is percentage change?	Percentage change is the difference between the old and new values, expressed as a percentage. $\frac{\text{difference between old and new}}{\text{original value}} \times 100$ The value of a TV decreases from £830 to £750. Work out the percentage decrease. Round your answer to 1 decimal place. Difference between old and new: 830 − 750 = 80 $\frac{\text{Difference}}{\text{original}} = \frac{80}{830} = 0.09638....$ 0.096385 × 100 = 9.6385... = 9.6% to 1 decimal place.
2	What is a multiplier?	A multiplier is a number that you are multiplying by. e.g. 5 x 3 = 15, 3 is the multiplier

3	What is a decimal multiplier?	A decimal multiplier is the decimal equivalent of a percentage, used as a multiplier when working with percentages. e.g. 45% as a decimal is 0.45. To work out 45% of an amount, we can multiply by 0.45 examples Calculate 4.5% of 18 = 0.045 × 18 =0.81 Calculate 180% of £93 = 1.8 × 93 =£167.40
4	What does per annum mean?	Per annum means every year
5	What does depreciation mean?	To depreciate means to decrease in value
6	What is a scatter graph?	 A scatter graph show how two sets of data are related. Each point on the graph (coordinate) represents 2 pieces of matching data (the price and age of the car)
7	What is correlation?	 Correlation is used to describe the type of relationship between the two sets of data. This graph shows positive correlation. As weight (kg) increases so does height (cm)
8	What is standard form?	A shorter way of writing very large or very small numbers e.g. 243 000 in standard form is 2.43×10^5 0.0031 in standard form is 3.1×10^{-3}
9	What is speed?	Speed is the rate of change of distance. It is a measure of how fast an object is travelling, calculated using $speed = \frac{distance}{time}$
10	What is a distance time graph?	 A graph used to show the distance that an object moves over time. The time is shown on the horizontal axis and distance on the vertical axis

11	What is a locus?	 A locus is a set of points that follows a rule. A pair of compasses helps to accurately draw arcs and circles. This allows us to draw points that are a fixed distance from a particular point
12	What does it mean to bisect?	To cut into two equal halves. To bisect a line, cuts it equally into two pieces of equal length.
13	What does equidistant mean?	Equidistant means an equal distance from
14	What is a perpendicular bisector?	

MEDIA

1	What is media language?	How the media, through their forms, codes and conventions communicate meaning.
2	What is representation?	The way in which people, issues and events are depicted in media products.
3	What are the nine forms of media that make up the media industry?	1. Newspapers 2. Advertising and marketing 3. Magazines 4. Radio 5. Video games 6. Film 7. Music videos 8. Social Media 9. Television
4	What does mediation mean?	How media producers represent (rather than just present) the world to audiences.
5	What is meant by reality in terms of the media?	'Real life' actual events, facts and truth – how aspects of reality and versions of reality are constructed.
6	What is a stereotype?	An exaggerated, oversimplified representation reducing a social group to a set of common characteristics e.g. grumpy older people or flat cap wearing northerners.
7	What does feminist mean?	Supporting equal rights for women (society was traditionally male-dominated but there has been a move towards more equality, especially from the 1960s onwards).
8	What does construction mean in terms of the media?	Representation are 'built' by producers, using elements of media language.

9	What does selection mean in terms of the media?	Producers choose to include certain elements in a representation (and exclude others); this communicates meanings/messages.
10	What (in terms of context) does social mean?	Reflecting society at the time/place of production e.g. in terms of issues such as gender or racial equality, or economic prosperity.
11	What (in terms of context) does historical mean?	The time/period in which a product is created, e.g. the 1950s (Quality Street), the 1970s (The Man with the Golden Gun).
12	What (in terms of context) does cultural mean?	Influences on a product, e.g. current trends or direct references.
13	How and why are particular social groups underrepresented or misrepresented in the media?	Media products often feature representations of powerful social groups (who have traditionally controlled the media). Certain groups (e.g. minority ethnic or LGBTQ+ people) may be absent or under/misrepresented (e.g. stereotyped)
14	What does denotation mean?	Actual/literal meaning e.g. a candle.
15	What does connotation mean?	Deeper meanings e.g. candle might connotate hope or light, or have religious connotations.
16	What are codes and conventions in the media?	The elements of media language that usually occur in particular forms (e.g. magazines or adverts) or genres (e.g. sitcom).
17	What is a narrative?	How stories are structured and communicated.
18	What is meant by genre?	The type of category of product (e.g. crime, sitcom).
	What does intertextuality mean?	Where a media product refers to another text to communicate meaning to the audience.
19	What does mis-en-scene mean?	To place on stage. In film and TV the term is used to refer to everything you can see on screen when watching a film/programme.
20	What is non-diegetic sound?	Any sound in a film that does not originate from the world of the film.
21	What are the four different types of codes found in the media? Give an example for each.	1. Visual codes: elements that relate to the look of a product, e.g. mise-en-scene, colour palette, layout and design 2. Technical codes: camera shots/angles, editing. 3. Audio codes: e.g. non-diegetic music, effects, dialogue. 4. Language codes: written or spoken words.

MUSIC

1	What are the elements of music	The elements of music are used to help describe music. These are pitch, duration, dynamics, tempo, timbre, texture, and structure.
2	What is pitch?	Pitch is how we identify and categorise a sound as 'high' or 'low' in terms of musical notes.
3	What is duration?	Duration is the length of time a note is sounded in a piece of music.

4	What are dynamics in music?	Dynamics refer to the volume of the music. It's about the variation in loudness between notes or phrases, which can add expressiveness to the music.
5	What is tempo?	Tempo is the speed at which a piece of music is played. It's usually measured in beats per minute (BPM)
6	What is timbre?	Timbre, also known as tone colour, refers to the quality of sound that distinguishes one voice or instrument from another. It's what makes a piano sound different from a violin, even when they play the same note.
7	What is texture in music?	Texture in music refers to the way multiple voices or instruments interact in a composition. It can be monophonic (single melody line), polyphonic (multiple melody lines), homophonic (melody with accompaniment), or heterophonic (variations of a single melody).
8	What is structure in music?	Structure in music refers to the arrangement of a song or piece of music, and it describes how different sections of the song are related to each other
9	What is rhythm?	Rhythm is a pattern of long and short sounds
10	What are note values?	Note values are how long each note lasts for
10	What is a crotchet?	A crotchet is a 1 beat note
11	What is a minim?	A minim is a 2 beat note
12	What is a quaver?	A quaver is a half beat note
13	What is a semibreve?	A semibreve is a 4 beat note
14	What is a semiquaver?	A semiquaver is a quarter beat note
15	What are dotted notes?	Notes that are half as long again as the main note
16	What is timing?	To all play together in time, as an ensemble
17	What are ensemble skills in Music?	The ability to work together in a group to create a musical performance
18	What is a chord?	A chord is a group of (typically three or more) notes sounded together, as a basis of harmony. The simplest and most common type of chord is the triad, which consists of three notes: the root, the third, and the fifth

19	What is tonality?	The key of a piece of Music
20	What is Major?	The happy, bright tonality. A major chord has the root, then a major 3rd, then a minor 3rd
21	What is minor?	The sad sounding tonality. A minor chord has the root, then a minor 3rd, then a major 3rd
22	What is atonal?	No key
23	What is modal?	Music that uses modes rather than a major or minor scale
24	What is a semitone?	The smallest interval between 2 notes
25	What is a tone?	2 semitones
24	What is chromatic?	Chromatic uses all 12 notes of the scale, every semitone
25	What is a scale?	A set of musical notes ordered by pitch
26	What is diatonic?	Music that is in a major or minor key
27	What is a scale?	A set of musical notes ordered by pitch
28	What is a melody?	Melody is the main tune, consisting of different pitches
29	What is harmony?	The sound of 2 or more notes played or sung simultaneously
30	What is unison?	All parts singing or playing at the same time
31	What are the 4 families of the orchestra?	Strings, Woodwind, Percussion and Brass
32	What is an interval in music?	The distance between 2 notes
33	What is a cadence in music?	A progression of 2 chords at the end of a phrase or a piece of music
34	Perfect Cadence	A closed, finished cadence with a strong harmonic ending – Chords V - I
35	Plagal Cadence	A closed, finished cadence with a soft harmonic ending – Chords IV - I
36	Imperfect Cadence	An unfinished cadence, that wants to continue. Chords I - V

37	Interrupted Cadence	An unfinished cadence, that sounds surprising. Chords V - VI
38	Tonic	First note of the scale
39	Supertonic	2nd note of the scale
40	Mediant	3rd note of the scale
41	Subdominant	4th note of the scale
42	Dominant	5th note of the scale
43	Submediant	6th note of the scale
44	Leading Note	7th note of the scale
45	What are the main Dynamics Terms?	Piano (p) Quiet Mezzo Piano (mp) Fairly Quiet Pianissimo (pp) Very Quiet Forte (f) Loud Mezzo Forte (mf) Fairly Loud Fortissimo (ff) Very Loud Crescendo Getting gradually louder Diminuendo Getting gradually quieter Sforzando Forced No
46	What are the main Tempo Terms?	Adagio Leisurely Lento Slow Largo Slow Andante Walking Pace Moderato Moderate Allegretto Quite fast Allegro Fast Vivace Very fast Presto Very fast Ritardando Gradually slowing down Rallentando Gradually slowing down Accelerando Gradually speeding up Rubato Free Time

PE (Core)

1	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

2	How do we do retrieval practice in PE?	At the beginning of the lessons, we recap the previous lesson and retrieve key knowledge and skills.
3	Identify three careers that you can pursue through studying P.E. and Sports.	A range of careers related to sport (eg. Teacher, coach, sports psychology, nutrition, Sports Science, Logistics etc)
4	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/court
5	What attributes make a good sports leader?	●Skills (communication, organisation of equipment & knowledge). ●Advanced skills (activity structure, target setting, use of language, evaluation). ● Qualities (appearance, enthusiasm, confidence) Additional qualities (leadership style, motivation, humour, personality).
6	How much physical activity should children and young people do to keep healthy?	aim for an average of at least 60 minutes of moderate or vigorous intensity physical activity a day across the week take part in a variety of types and intensities of physical activity across the week to develop movement skills, muscles and bones reduce the time spent sitting or lying down and break up long periods of not moving with some activity. Aim to spread activity throughout the day
7	What are the benefits of regular sport and exercise?	• Boosts energy levels • Enhances your mood • Provides stress relief and releases happy chemicals • Supports relaxation • Decreases anxiety levels • Supports the daily function and improvements in the cardiovascular, respiratory, muscular and skeletal systems.
8	What are the 3 components of a warmup?	Pulse raiser (running, skipping, etc) Mobility Stretches Sport Specific Drill
9	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.
10	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.

PERFORMING ARTS

1	What are actions?	What a dancer does.

2	What are the 8 key dance actions?	Gesture, elevation, travel, transfer of weight, stillness, use of different body part, rotation, floorwork.
3	What is space in dance?	Where the dancer moves e.g. pathways, levels, directions, size of movements, patterns, spatial design.
4	What are dynamics in dance?	How the dancer moves e.g. fast/slow, sudden/sustained, acceleration/deceleration, strong/light, direct/indirect, flowing/abrupt.
5	What is relationship in dance?	Relationship refers to the connection that a dancer has to everything else: this can be space, to time, to music and to other dancers.
6	What are technical skills?	Dynamics, relationships, space, timing, actions, rhythmic content, style.
7	What are physical skills?	Mobility, Isolation, Stamina, Strength, Flexibility, Alignment, Balance, Posture, Extension, Control, Co-ordination
8	What are mental skills and attributes?	Systematic repetition, mental rehearsal, rehearsal discipline, planning a rehearsal, response to feedback, capacity to improve
9	What mental skills do we show when we perform?	Movement Memory, Commitment, Concentration and Confidence
10	Why and how do we warm up?	1. Increase the heart rate 2. Pump oxygen to vital organs and muscles 3. Increase our internal body temperature 4. Mentally prepare for exercise We would start with cardiovascular exercise, mobilise the joints and then stretch.
11	How and why do we cool down?	1. Absorb lactic acid back into the body 2. Decrease heartrate 3. Return the body to its pre-exercised state Gentle stretches, roll down of the spine and slow movements.
12	How do we improve our performances?	• Peer/Self or Teacher Assessment • Record your self on film and watch it back • Identify areas of strength and weakness and make these a key target • Rehearsal
13	What is choreography?	The art of making dances, the gathering and organisation of movement into order and pattern.
14	What is a stimulus?	Inspiration for an idea or movement.

15	What is a motif?	A movement phrase capturing an idea that is repeated and developed throughout the dance.
16	What is communication of choreographic intent?	The aim of the dance; what the choreographer aims to communicate.
17	What is the process of choreography	Researching, improvising, generating, selecting, developing, structuring, refining and synthesising
18	What are the main structuring devices and forms?	Binary, Ternary, Rondo, Narrative, Episodic, Beginning/Middle/End, Unity, Logical sequencing and Transitions
19	How do you develop a motif?	Add a move Subtract a move Change levels Change directions Change dynamic qualities Perform it backwards (retrograde) Change a body part
20	What are choreographic devices	Motif and development Repetition Contrast Highlights Climax Manipulation of number Unison and Canon
21	What is climax?	The most important part of the dance
22	What are highlights?	Small moments of interest in the dance, usually building up to the climax.
23	What are aural settings	Song, instrument, orchestral, spoken word, silence, natural sounds, found sounds and body percussion.
24	Why do we use aural settings in dance choreography?	Create a mood and atmosphere Contrast and variety Structure Relationships to the theme/ideas
25	Name the different performance environments	Proscenium arch Thrust End stage Site sensitive In-the-round Promenade Transverse
26	How do you communicate the choreographic intent of a dance?	Consider: Mood(s) Meaning(s) Idea(s) Theme(s)

		Style/Style fusion(s)
27	What are the features of stage and set design?	Projections, furniture, structures, backdrops, screens and features such as colour, texture, shape, decorations and materials
28	What are the features of lighting?	Colour, placement, direction, angles, patterns etc
29	What are the features of properties (props)?	Size, shape, materials and how they are used etc
30	What are the features of costume?	Footwear, masks, make-up and accessories Colour, texture, material, flow, shape, line, weight, decoration and how they define character or gender, identify dancers, enhance or sculpt the body and enhance action.
31	What are the features of dance for camera	Placement, angles, proximity, special effects.
32	What is a target audience?	Being aware of the audience you are performing to
33	What should you consider for a target audience?	Age Interests Groups
34	How can we explore a stimulus?	Starting points Brainstorming Hot seating Improvisation Vocal work Movement techniques Solo work Small group work Ensemble pieces Sketches, drawings or photographs Mock ups and try-outs
35	Name different styles of dance	Ballet Contemporary Lyrical/Modern Musical theatre Lindy Hop Jazz Street Dance Bhangra
36	What is repertoire?	To create an existing piece of performance in its entirety and with accuracy

PHOTOGRAPHY

1	What is Photography?	To understand the definition of photography it is important to break down the word itself. The Greek meaning of ‘photo’ translates to

		'light' while 'graphy' translates to 'drawing.' Therefore, the word photography can quite literally translate to light drawing or drawing with light. Simply put, photography is the process of capturing light to create an image. This is executed through the use of a camera, either film or digital. The practice of capturing light to create images is used for various purposes.
2	What is Photography used for?	Creating Art Documenting events and emotions Producing commercial work or advertising
3	What is considered Fine Art Photography?	Fine art photography is any photography in which the vision of an artist behind the camera is presented rather than the objective reality of whatever subject the camera is pointed at. • Captures the vision of an artist in photographic form • Does not simply reflect reality • Classification is somewhat subjective Perhaps the most important element that distinguishes fine art photography is the purpose and intent of a photograph. A fine art photograph differs from something like a piece of photojournalism or a selfie by depicting something beyond our plain reality.
4	What is considered documentary photography?	Documentary photography is a style of photography that provides a straightforward and accurate representation of people, places, objects and events, and is often used in reportage.
5	What is Editorial Photography?	Editorial photography is a type of photography that aims to tell a story or portray a concept. Editorial photography is commonly found in magazines, newspapers, editorial features, and journalism. Unlike commercial photography, editorial photography relies much more on story than it does on a brand. The motive, therefore, is not to sell but rather express and engage.
6	What is composition?	Composition in photography is the arrangement of elements in a scene to create a pleasing and harmonious image. There are many rules and guidelines for composition, such as the rule of thirds, framing, filling the frame, depth of field, orientation, straightening lines, leading lines, diagonal lines, and cropping.
7	What are the Formal elements of Photography?	Line – You can use lines in your composition to guide the viewer through your shot, or to a specific focal point, these are known as leading lines. Value/Tone – Concentrating on tone in your composition is to use variables of contrast, and light and dark areas to bring depth to your image. Colour – Colour can set the mood of a photograph. Warm Colours like red, orange and yellow can bring about a happy emotion wheras tones of blue bring about a cold or gloomy feel. In most cases, colours act as a defining factor of the picture itself. Space – The space surrounding your main subject in the photo is the negative space, whereas your main subject is the positive space. Negative space can enhance the images visual appeal to the viewer.

		Space can also be the distance between certain objects and how close or far away something is. Shape – This is a 2D outline of a subject, whereas form is referring to a shape that takes on a more 3D appearance. Pattern – Symmetry and repetition make attractive photographic subjects; many patterns can be found in the natural and built environment. Texture – Texture is the way in which something feels, focusing on the texture in your composition can bring your image to life by giving it a tangible connection. Light – Lighting is one of the most important factors in creating a 'good' or successful photograph.
8	What is Juxtaposition?	• Juxtaposition is an act or instance of placing two opposing elements close together or side by side. This is often done in order to compare/contrast the two, to show similarities or differences.
9	What are the compositional rules which can be used in photography?	**Rule of Thirds** For the rule of thirds, the image is split into 9 equal sections, using three grid lines. You need to position the most important elements of your scene along these division lines, or at the points where the line cross over (intersect). This will add balance to your images. **Balancing Elements** You should balance the "weight" of your subject by including another object of lesser importance to fill the space. **Framing** The world is full of objects which make perfect natural frames, such as trees, archways and holes. By placing these around the edge of the composition you help to isolate the main subject from the outside world **Leading Lines** When we look at a photo, our eye is naturally drawn along lines. By thinking about how you place lines in your composition, you can affect the way we view the image, pulling us into the picture, towards the subject, or on a journey "through" the scene. **Cropping** Cut out all unnecessary details to keep the viewer's attention focused on the subject.
10	What is a DSLR Camera?	A DSLR camera is a digital camera that uses a **single-lens reflex** mechanism to capture images. This means that the light coming through the lens is reflected by a mirror into an optical viewfinder, where you can see what the camera sees.
11	What is the Exposure Triangle?	The three components of exposure are aperture, shutter speed, and ISO. These form the three corners of the exposure triangle. When you change one of these settings, you either change the amount of light entering the camera (aperture and shutter speed), or you change the

		sensitivity of the camera sensor (ISO). In other words, the overall exposure of the image will vary.
12	What is ISO?	ISO is a setting on your camera that will affect how bright or dark the images appear. *Increasing the ISO number will make the images brighter, this is helpful if shooting in low light. Increasing the ISO can increase the grain on the image which can decrease the overall quality of the image.*
13	What is Aperture?	Aperture is the opening in the lens, when you hit the shutter release button of your camera a hole opens up that allows your cameras image sensor to catch a glimpse of the scene you're wanting to capture. The aperture that you set impacts the size of that hole. The larger the hole the more light that gets in and the smaller the hole the less light.
14	What is Shutter Speed?	Shutter speed is 'the amount of time that the shutter is open'. In film photography it was the length of time that the film was exposed to the scene you are photographing and similarly in digital photography shutter speed is the length of time that your image sensor 'sees' the scene you're attempting to capture.
15	What is a mood board?	A mood board is essentially an arrangement of images that evoke certain feelings or emotions. They can be made up of anything from photos to drawings to textiles — anything that conveys the desired "vibe" or feeling. They can be physical or digital collections of materials that relate to the theme or message of the project. This allows you to convey your vision in an organized way without having to explain it in words.
16	What needs to be included when annotating a contact sheet?	• Opinions on photographs taken – successful & unsuccessful • Potential edits required • Settings used on the camera • Visible Composition rules Visible Elements of photography
17	What is A01 – Assessment Objective 1?	Contextual understanding: Develop ideas through investigations, demonstrating critical understanding of sources. Helpful definition: Critical understanding can mean understanding that is the result of making careful judgements In the same way that you develop writing abilities by studying novels, poems and other kinds of written material, the purpose of this AO requires that you study different visual sources to promote your art & design abilities These can be artefacts, images and other visual and written references. There are lots of examples that you can access on the internet and through TV programmes, but the best sources are found in museums, galleries, craft and design workshops and even specialist shops. Whenever possible, try to explore sources at first hand because this will make it easier to make authentic personal observations in developing your critical skills.

18	How can you achieve your best in A01?	• Thoughtfully using images and words together to demonstrate that you have understood, in some depth, relevant works of art and design • Investigating why and how they were produced • Analysing selected examples, using methods such as Content, Form, Process and Mood Making evident why you chose to study selected examples and how they inform your own approach
19	What is A02 -Assessment objective 2?	Creative making: Refine work by exploring ideas, selecting and experimenting with appropriate media, materials techniques and processes. Helpful definition: Refine can mean to perfect, clarify or improve
20	How can you achieve your best in A02?	• Explore a sufficient, but not excessive, breadth of media and techniques to make informed choices from these. • Balance this with depth of study in some, enabling you to develop high levels of skilful control to show your best abilities. Make clear the process of reviewing and refining the development of your work, showing rigour and imagination.
21	What is A03 – Assessment Objective 3?	Reflective recording: Record ideas, observations and insights relevant to intentions as work progresses. You need to show that you can: • Gather, select, organise and communicate visual and other information • Record your ideas, observations and insights using suitable forms of drawing, photography and writing, making sure they are linked to your intentions. • Reflect on your recording as it progresses as part of reflective learning, pausing to think about your work and reviewing what you have learned in producing it. Use reflection in your research and enquiry to delve for deeper meaning and purpose in what you are doing.

PSYCHOLOGY – Memory

1	What is meant by the term encoding? Give an example.	Transforming information into a form in which your brain can store it. Acoustic, visual or semantic.
2	What is meant by the term storage? Give an example.	Maintain in memory. Procedural, Episodic or Semantic.
3	What is meant by the term retrieval? Give an example.	Recovering information from memory. Recognition, cued recall or free recall.
4	What is the name of the type of encoding that relates to meaning?	Semantic
5	Which Psychologist suggested the different types of long term memory?	Tulving.

6	What does the SCOUT acronym for assessing theories stand for?	Supporting study, contradicting study, opposing theory, usefulness, testability.
7	What is the multi-store model of memory?	How much information can be stored and how long it can be stored for.
8	What does Capacity and Duration mean in regards to memory?	How much information can be stored and how long it can be stored for.
9	Why is rehearsal important for retrieval?	By continuing to rehearse and repeat, information will go into your long-term memory. You will then be able to recall this information and retrieve it from your long-term memory in the days, weeks and months following.
10	What is a criticism of the multi-store model of memory?	The model is too simplistic as it suggests that we only have one store for short term and long term memory but we have multiple.
11	What is one finding of Murdock's Serial Position Study?	High recall of most recent words (recency effect), mid recall of first heard words (primacy effect) and low recall of middle words.
12	What does the GRAVE acronym for assessing studies stand for?	Generalisability, reliability, application, validity and ethics.
13	What was the aim of Bartlett's War of the Ghosts study?	To investigate how memories are reconstructed when people are asked to repeatedly remember something for a period of time.
14	What is one limitation of Bartlett's study?	There were no controls in the study so it is likely affected by extraneous variables. Story was unusual which might make specific details harder to remember.
15	What is the difference between proactive and retroactive interference?	Proactive – previously learnt information interfering with new information you are trying to store. Retroactive – newly learnt information interfering with previously learnt information that you are trying to recall.
16	Which Psychologists did a study into context-dependent Memory in 1975?	Godden and Baddeley
17	What is context-dependent memory?	Where part of the context (environment) is also encoded. There is a better recall when retrieval happens in the same context as encoding.
18	Who conducted a study into false memory, and what did they find?	Loftus and Pickering found that false memories changed the accuracy of memories. People either remember things that didn't happen, or remember them differently from the way that they were.

PSYCHOLOGY – Development

1	What is meant by 'autonomic function'?	Functions in the body that we do not consciously control, such as heartbeat, digestion and emotions such as fear.
2	Identify the four key parts of the brain.	Brain stem Cerebellum Thalamus Cortex

3	Which psychologist created the four-stage theory of cognitive development?	Jean Piaget
4	Distinguish between the processes of assimilation and accommodation.	Accommodation is where we acquire new information that changes our understanding of a topic so new schemas are formed. Assimilation however adds to our current understanding of a topic to create a more advanced understanding.
5	Define 'Conservation'.	The ability to realise that quantity remains the same even when the appearance of a an object or group of objects changes.
6	Who conducted the 'Naughty Teddy Study' which investigated conservation?	McGarrigle and Donaldson (1974)
7	What did Hughes' policeman doll study investigate?	Egocentrism/Egocentricity
8	Name the four stages of cognitive development.	-Sensorimotor stage (ages 0-2 years) -Pre-operational stage (2-7 years) -Concreate operational stage (7-11 years) -Formal operational stage (11+ years)
9	How can we apply Piaget's theory to education?	Readiness Individual learning Application to stages Learning by discovery and the teacher's role
10	Identify the two mindsets from Carol Dweck's Theory of learning (2007)	Growth Mindset Fixed Mindset
11	How can praise effect self-efficacy on motivation?	When facing difficulties, students who have a high sense of self-efficacy for learning are willing to make a greater effort and persist longer than those who doubt their capabilities. Therefore, high self-efficacy leader to greater task persistence and resilience.
12	What does WIllingham's Learning Theory oppose?	Learning Styles – because it is not evidence based.
13	What four areas does Willingham's Learning Theory investigate?	Praise Memory and forgetting Self-regulation Neuroscience
14	Identify the acronym to evaluate a theory	**SCOUT** Supporting study, contradictory study, Opposing theory, Usefulness, Testability
15	Identify the acronym to evaluate a study	**GRAVE** Generalisability, Reliability, Application, Validity, Ethics

RELIGIOUS STUDIES

1	Name the two main denominations of Christianity.	Catholics and protestants

2	What was the big schism?	The name given to the moment the denominations of Christianity began.
3	What is a denomination?	A group within a religion.
4	Define omnipotent.	All powerful
5	Define benevolent.	All loving
6	Define just.	Bringing about what's right or fair.
7	Define omnipresent	Always there
8	Define omniscient.	All knowing
9	What does the Nicene Creed teach?	The nature of the Trinity.
10	Explain what is meant by 'the problem of evil'	the problem of evil is an argument that God cannot be all loving and all powerful whilst evil exists.
11	Is the problem of evil an atheist or theist argument?	atheist
12	What three parts make up the holy trinity?	The Father, The Son and The Holy Spirit.
13	Which part of the Trinity? "Jesus is God in human form, sent to spread the word of God and understand humanity."	The Son
14	Which part of the Trinity? "Believed to be the creator of the Earth and all living things, omnipotent, omniscient, omnibenevolent, omnipresent"	The Father
15	Which part of the Trinity? "This influences people's thoughts, guides people through life, it is the unseen power of God that is at work"	The Holy Spirit
16	What happens in Genesis 1?	God creates the world in 7 days
17	What happens in Genesis 2?	The story of Adam and Eve

18	What is this quote referring to 'the Spirit of God hovered over the waters'?	The Holy Spirit
19	What is a parable?	A story with a moral from the Bible.
20	What is a moral?	A teaching about what is right and wrong.
21	What is the Big Bang Theory?	The scientific account of Creation
22	What does a literalist Christian believe?	In the account of creation, as it occurred in the Bible.
23	What does a liberalist Christian believe?	That Genesis can be used as a guide and not taken literally, which means there is room for belief in religion and science.
24	How can somebody believe in both the account of creation in Genesis 1 and The Big Bang Theory?	Both Genesis 1 and The Big Bang Theory show the universe being created in a similar order meaning there isn't a contradiction. Modern scholars say that there could have been mistranslations in the Bible, and that instead of '7 days' the creation story may have been '7 periods of time'.

SCIENCE – Biology 1

1	Define a prokaryote and eukaryote?	A prokaryote is a single celled organism, eg bacteria. A eukaryote are more complex cells, eg animal and plant cells.
2	Name three things that a plant cell usually has, that an animal cell doesn't?	Cell wall, vacuole and chloroplasts.
3	Which part of the animal cell controls its activity?	Nucleus.
4	Why is a drop of iodine solution added to the specimen?	Iodine is a stain to highlight objects in a cell.
5	What do you use to focus the image?	Fine adjustment knob.
6	How do you see the slide with a greater magnification?	Use a higher-powered lens.
7	How do you calculate magnification?	Magnification = image $\div$ size by real size.
8	How many micrometres are there in one millimetre?	1000.
9	How do you estimate the size and area of cell structures?	Magnify the image to x100, focus, count the number of cells along 1mm. Calculate the length of a single cell in micrometres.
10	What is meant by differentiation and specialisation?	The process by which a cell becomes specialised for its job.

		A specialised cell is one that performs a specific function.
11	What is the function of a nerve cell and a muscle cell?	Nerve cells carry electrical signals from one part of the body to another. Muscle cells contract to move parts of the body.
12	How are nerve cells and muscles adapted for their functions?	Nerve cells are long and have branched connections. Muscle cells contain lots of mitochondria to transfer energy.
13	What are stem cells?	Undifferentiated cells, they have not yet changed to become specialised for a specific job.
14	What are the uses of stem cells?	They can be made to differentiate into different cell types to treat medical diseases and treat diseases.
15	Give two advantages and two disadvantages of stem cell research?	Stem cells can be used to replace faulty genes, eg in nerve cells and will not be rejected by the patient's body. There could be a risk of stem cells carrying viral infections and the ethical idea of using cells from a potential life.
16	What are chromosomes made from?	Long lengths of DNA which carries genes.
17	What are genes?	Short section of DNA found on a chromosome.
18	What is the role of genes?	Contain instructions to make proteins.
19	What is the cell cycle?	Body cells divide to produce new cells.
20	Describe the process of mitosis?	Cell copies its DNA, chromosomes line up at the centre, chromosomes are pulled apart, the nucleus divides and the cytoplasm and membrane divide.
21	What three things do you need to know to calculate the length of stages in the cell cycle?	The number of cells in a particular stage, the total number of cells and the total number for the cell cycle.
22 BIOL	How do prokaryotic cells reproduce by binary fission?	The cell makes copies of its genetic material, before splitting into two daughter cells.
23 BIOL	What two factors affect the rate of binary fission?	Temperature and the availability of nutrients.
24 H BIOL	A bacterial cell has a mean division time of 24 minutes. How many cells will it have produced after 6 hours?	6 hours x 60 = 360 minutes. 360 ÷ 24 = 15 divisions. 215 = 32 768 = 33 000 cells. (SF) 33 000 = 3.3 x 104 cells.
25	Which two culture mediums can be used to grow bacteria on in the lab?	Nutrient broth solution and solid agar jelly.
26	What four steps are necessary to prepare an uncontaminated culture and explain why?	Petri dishes and the culture medium must be sterilised by heating to kill unwanted microorganisms. An inoculating loop must be sterilised with heat. Tape the lid to stop microorganisms entering from the air. Store the petri dish upside down to prevent condensation falling onto the agar surface

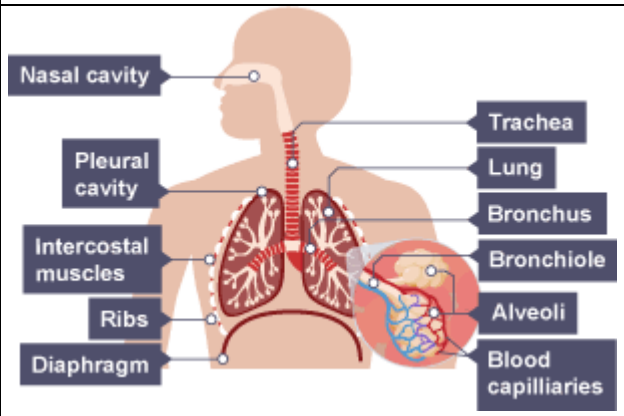
27	Describe the method to investigate the effect of antibiotics or antiseptics on the growth of bacteria?	Place paper discs soaked in different concentrations of antibiotics on an agar plate with bacteria. Use a control- a disc not soaked in antibiotic. Leave the plates for 48hrs at 250C. Compare the diameters of the inhibition zones.
28	What is diffusion?	The spreading out of particles from an area of high concentration to an area of lower concentration.
29	State two parts of the body where diffusion occurs and why?	Gases diffuse between the lungs and the blood. Glucose and amino acids diffuse between the blood and the cells.
30	How does a higher concentration gradient, higher temperature and larger surface area affect the rate of diffusion?	They all increase the rate of diffusion.
31	What is osmosis?	The movement of water molecules across a semi permeable membrane from a region of higher water concentration to a region of lower water concentration.
32	Where and when does osmosis happen?	Plant cells and animal cells gain and lose water to maintain optimal conditions.
33	Give one advantage and one disadvantage of osmosis?	Cells that gain water get a bit bigger, but can burst. Cells that lose water get smaller. Water is needed for the chemical reactions in the cell.
34	What two things are needed to investigate osmosis in potato cells?	Potato cylinders and different concentrations of sugar solutions.
35	What are the independent, dependant and control variables in this experiment?	Independent – concentration of sugar solutions. Dependant – mass/length of potato Control – volume of sugar solution
36	How could you make the investigation valid?	Repeatable – gain similar data. Reproducible – another person gains similar data and answers the original question.
37	What two variables would you plot on an osmosis graph?	Change in length of potato/percentage change in mass against the concentration of sugar solution.
38	What conclusion would you expect to make?	As the concentration of sugar solution increases, the length of potato/percentage change in mass decreases.
39	How could you improve the osmosis method?	Use a larger range of sugar solutions, calculate percentage mass difference, use different types of plant cells.
40	Define active transport?	The movement of particles against a concentration gradient using energy transferred during respiration.
41	Where does it happen in plants and animals?	Plants absorb mineral ions from the soil and glucose and amino acids are absorbed into the blood from the small intestine.
42	What are three differences between diffusion and active transport?	Diffusion and osmosis do not require energy. In diffusion and osmosis, particles move from high to low concentration. Diffusion – gas particles, osmosis – water particles and active transport – mineral ions.

43	How do you calculate surface area to volume ratio?	Area = Length x width. Volume = length x width x height.
44	Compare the surface area to volume ratio of 64:32?	Simplify the ratio to 2:1
45	Give two feature of the alveoli that helps them maximise gas exchange in the lungs?	Large surface area/ moist lining for dissolving gases/thin walls/good blood supply.
46	What two gases are exchanged in the lungs?	Oxygen and carbon dioxide.
47	Which gas enters the leaf and leaves the leaf by diffusion?	Carbon dioxide enters the leaf and oxygen leaves the leaf due to photosynthesis.
48	Name an adaptation in the leaf and gills of fish for gas exchange?	Flattened shape of the leaf/many stomata on the lower surface. Gills- many gill filaments increasing the surface area.

SCIENCE – Biology 2

1	Name the different types of tissue in a leaf?	Epidermal, palisade mesophyll, spongy mesophyll, Xylem, phloem, meristem.
2	Give the function of each of the tissues in a leaf.	Epidermal tissue is covered with a waxy cuticle, which helps reduce water loss by evaporation. Palisade tissue has lots of chloroplasts for photosynthesis. Xylem transports water and the phloem transports food substances. The spongy mesophyll tissue has air spaces to increase the rate of diffusion of gases.
3	Where in a plant is a meristem tissue found?	Tips of the shoots and roots.
4	Name the cells that control the stomata.	Guard cells.
5	Explain how these cells close the stomata	When the plant is short of water, the guard cells lose water and become flaccid, making the stomata close.
6	How can we use a light microscope to investigate the distribution of stomata?	Put a thin layer of nail varnish on the underside of the leaf. Use sticky tape to remove it. Put this onto the microscope slide and start with the least powerful objective lens.
7	Are there more stomata on the top or bottom of the leaf?	Bottom
8	Describe transpiration	Transpiration is the loss of water from a plant.
9	What four factors affect the rate of transpiration?	Light intensity, temperature, air flow and humidity.
10	What piece of equipment is used to measure transpiration rate?	A potometer.
11	Define a tissue and organ.	A tissue is a group of similar cells that work together to carry out a particular function. An organ is a group of different tissues that work together to perform a certain function.

12	What term describes a group of organs which work together to perform a particular function?	An organ system.
13	Give an example of a tissue and organ.	Muscular tissue and the stomach.
14	What is the digestive system?	The organ system that breaks down food in humans and other mammals.
15	What organs are part of the digestive system?	Salivary glands, liver, stomach, pancreas, small intestine, large intestine.
16	Give three digestive enzymes and their roles in digestion.	carbohydrase (amylase) break down starch into simple sugars, proteases break down proteins into amino acids and lipases break down lipids into glycerol & fatty acids.
17	Where is bile produced and what is its job?	Bile is produced in the liver and stored in the gall bladder. Bile is alkaline it neutralises the acid from the stomach and makes the conditions alkaline. Bile also emulsifies fats.
18	Define an enzyme.	An enzyme is a biological catalyst.
19	How do enzymes work? (include the active site)	Every enzyme has an active site with a unique shape that fits onto the substance involved in a reaction.
20	How does temperature affect enzyme activity?	Enzyme activity increases with an increase in temperature. The optimum enzyme activity is 37^{o}C. If it gets too hot, some of the bonds holding the enzyme together break and it changes the shape of the enzymes active site, so the substrate won't fit anymore. The enzyme is said to be denatured.
21	How does PH affect enzymes activity?	If the PH is too high or low, the PH interferes with the bonds holding the enzyme together. This changes the shape of the active site and denatures the enzyme.
22	Describe the test for starch.	Iodine changes from orange to blue/black if starch is present.
23	What is amylase and its role in the digestive system?	Amylase breaks down starch into simple sugars.
24	Describe a brief overview for investigating the effect of PH on amylase.	Amylase catalyses the breakdown of starch to maltose. It's easy to detect starch using iodine solution – if starch is present, the iodine will change from browny-orange to blue-black. This is how you can investigate how PH affect amylase activity.
25	How do we calculate the rate of a reaction?	Rate =1000/time
26	Describe how to prepare a food sample.	Grind food sample using pestle and mortar. Put in a beaker and add some distilled water. Stir and dissolve. Filter the solution to get rid of the solid bits.
27	Name the reagent used to test for a presence of reducing sugars.	Benedict's solution.
28	Describe the colour change that would occur in the iodine test if starch was present in the food sample.	Orange to blue/black.

29	What colour would biuret solution be if it was added to a food sample that didn't contain protein?	It would stay blue.
30	Label the diagram with the following words: Lung, trachea, bronchiole, bronchus, alveoli.	
31	Describe the job of the alveoli.	Gas exchange
32	What is the function of the circulatory system?	To get food and oxygen to every cell in the body.
33	The human circulatory system is made up of two separate circuits. What is the function of each circuit?	One circuit pumps deoxygenated blood from the heart to the lungs, and then oxygenated blood from the lungs back to the heart. The other circuit pumps oxygenated blood from the heart to the rest of the body, and then deoxygenated blood from the rest of the body back to the heart.
34	Name the four chambers of the heart.	The right atrium, right ventricle, left atrium and left ventricle.
35	Name the blood vessels which: a. Carry the blood into the heart b. Carry blood out of the heart	a. Vena cava and pulmonary vein b. Pulmonary artery and aorta
36	Explain how blood flows through the heart.	Blood flows through the pulmonary vein and the vena cava into the atria. The atria contract, pushing blood into the ventricles. The ventricles then contract, forcing the blood into the pulmonary artery and aorta, and out of the heart.
37	Name the three types of blood vessel	Vein, artery and capillary.
38	What types of blood vessel has walls that are only one cell thick?	A capillary
39	Describe briefly how substances in the blood pass into body cells.	Capillaries carry blood very close to the body cells. The substances needed by the body cells diffuse out of the blood, through the walls of capillaries, and into the body cells.
40	Give two differences between the structure of a vein and the structure of an artery.	A vein has thinner walls than an artery. A vein has a bigger lumen than an artery.
41	Name the four components of blood.	Red blood cells, white blood cells, platelets and plasma.
42	Describe the functions of each component of blood.	Red blood cells carry oxygen. White blood cells help to defend against disease. Platelets help the blood to clot. Plasma is the liquid part of the blood.

43	Give the definition of health.	Health is a state of physical and mental wellbeing.
44	What is the difference between communicable and non-communicable disease?	Communicable diseases can spread from person to person or between animals and people. Non-communicable diseases cannot be spread.
45	Give three factors other than disease that could affect health?	Whether or not you have a good balanced diet, the amount of stress that you're under and your life situation.
46	What is cardiovascular disease?	Disease of the heart or blood vessels.
47	What causes cardiovascular disease?	This occurs when arteries that supply blood to the heart tissue are blocked by deposits of fatty material, starving the heart of the oxygen it needs.
48	What are stents and statins?	Stents are a wire mesh that is fitted to narrowed arteries to keep them open to reduce the risk of a heart attack. Statins are a drug used to reduce the amount of cholesterol in the bloodstream, which slows down the rate of fatty deposits forming inside the arteries.
49	Give advantages and disadvantages of stents and statins.	Stents A – Lowering the risk of a heart attack, effective for a long time and recovery from surgery is relatively fast. Stents D – Complications can occur during surgery; blood clots can also occur near the stents. Statins A – Reduce the amount of bad cholesterol which would reduce the risk of strokes, CHD and heart attacks. Statins D – Long term drug taken regularly, side effects such as headaches. It also takes time for them to work.
50	Define cancer.	Uncontrolled cell growth and division.
51	Describe the difference between a benign and malignant tumour.	Benign tumour grows until there is no more room. Malignant tumour grows and spreads to healthy tissues. These are more dangerous.
52	Give the risk factors for cancer.	Smoking, obesity, UV exposure, viral infections, genetics.

SCIENCE – Chemistry 1

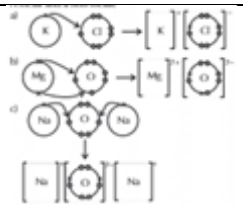
1	What does the nucleus of an atom contain?	Protons and neutrons
2	What is the charge of … a. A proton? b. A neutron? c. An electron?	a. +1 b. 0 c. -1

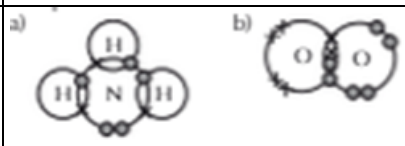
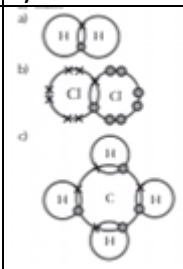
3	What is the relative mass of a proton	1
4	Atoms are uncharged particles. Explain Why?	They have the same number of protons as electrons and protons and electrons have opposite charges of the same size, so cancel each other out.
5	What is an element?	An element is a substance containing only one type of atom.
6	A)What does the atomic number tell you about an atom? B) What does the mass number tell you about an atom?	A. The number of protons in the atom. B. The total number of neutrons and protons in the atom.
7	How would you find the number of neutrons in an atom from the mass number and the atomic number?	By subtracting the atomic number from the mass number.
8	Is the following statement true or false? All atoms of an element have the same number of protons.	True
9	What is an isotope?	Isotopes are different forms of the same element, which have the same number of protons but a different number of neutrons.
10	What is relative atomic mass?	An average mass of an element, taking into account the different masses of the isotopes, along with their relative abundances.
11	The relative atomic mass of copper is 63.5 . Explain why this value is not a whole number?	Copper has more than one isotope and the relative atomic mass is an average that takes into account the different masses of these isotopes.
12	What are compounds?	Compounds are substances formed from two or more elements, the atoms of which are bonded together in fixed proportions, throughout the compound.
13	Do metals form positive ions or negative ions when they form a compound?	Positive ions
14	What type of bonding holds the atoms in a molecule together?	Covalent bonding
15	The formula of carbon monoxide is CO. What elements are in a molecule of carbon monoxide?	Carbon and Oxygen
16	Copper sulfate and iron react to form iron sulfate and copper A) What substances are the products in this reaction?	A) Iron sulfate and copper B) Copper sulfate and iron C) Copper sulfate + Iron □ Iron sulfate +copper

	B) What substances are the reactants in this reaction C) Write a word equation for the reaction of copper sulfate and iron.	
17	Balance the following equation Cl_2 + KBr → Br_2 +KCl	Cl_2 + **2**KBr → Br_2 + **2**KCl
18	What is a mixture?	A mixture is a substance which consists of two or more elements or compounds which aren't joined together by chemical bonds.
19	Describe the properties of a mixture compared to the properties of its components.	The properties of a mixture are a mixture of the properties of its components
20	List 3 physical methods that can be used to separate mixtures.	Any three from: e.g. chromatography, filtration, crystallisation, simple distillation and fractional distillation.
21	Chromatography can be used to separate what?	Separate mixtures of liquids.
22	In chromatography why is the line drawn near the bottom of the paper done in pencil?	Pencil is insoluble and won't dissolve in the solvent
23	What is the pattern of spots produced by paper chromatography known as?	A chromatogram
24	Give one technique that can be used to separate an insoluble solid from a liquid?	Filtration
25	List the equipment you could use to carry out evaporation?	An evaporating dish, a tripod, a Bunsen burner and a gauze mat.
26	What is the final stage in crystallisation?	Drying the crystals.
27	What is simple distillation?	It is used to separate out a liquid from a mixture.
28	What is fractional distillation?	It can be used for separating a mixture of different liquids and is especially useful when the boiling points of the liquids are close together
29	A student tries to separate a mixture of ethanol, boiling point 78 degrees Celsius, and propanol, boiling point 97 degrees Celsius, using simple distillation. A) Suggest a reason why she was not successful B) Suggest another method of separation that would be successful	A) The boiling points of ethanol and propanol are too close together for simple distillation to separate them successfully. B) Fractional distillation

30	Who described atoms as solid spheres in the early 19th century?	John Dalton
31	Whose experiments provided evidence of the neutron?	James Chadwick
32	Who described a new model of the atom based on alpha particle experiments?	Ernest Rutherford
33	What is another name for an electron shell?	An energy level.
34	What is the maximum number of electrons that can go in the first electron shell?	2 electrons.
35	What is the maximum number of electrons that can go in the second electron shell?	8 electrons.

SCIENCE – Chemistry 2

1	What are Ions?	Charged particles formed when electrons are lost or gained by an atom or molecule.
2	What type of Ions do metals form?	Metals form positive ions.
3	What type of Ions are non-metals form?	Non-metals form negative ions.
4	What charge do Ions of Group 2 elements have?	+2
5	What is ionic bonding?	Ionic bonding is the strong electrostatic attractions that holds oppositely charged ions together in an ionic lattice.
6	What types of elements do ionic bonds form between?	A metal and a non-metal.
7	Draw dot and cross diagrams to show the electron transfer when the following compounds are formed: a. Potassium chloride b. Magnesium oxide c. Sodium Oxide	
8	What type of structure do ionic compounds have?	Giant Ionic Lattice
9	Give one advantage and one disadvantage of using each of the following representations to show	a. Advantage: to see the electron transfer Disadvantage: don't show the lattice structure, sizes of the ions, how the ions are arranged.

	Ionic bonding: a. Dot and cross diagram b. 3D models c. Ball and stick models	b. Advantage: show regular pattern and size of ions Disadvantage: only outer layer of lattice is shown c. Advantage: shows how all the ions are arranged Disadvantage: looks like there are gaps between ions / ions not shown to scale
10	Describe the properties of ionic compounds including melting point, solubility and conductivity.	High melting points, soluble in water, conduct electricity when molten or dissolved but not when solid
11	How do you work out the empirical formula of an ionic compound from a 3D diagram?	1. Identify ions in compound 2. Find charges using periodic table (group number) 3. Find how many ions are needed to balance positive and negative charges 4. Write formula using these numbers, metal first
12	What types of atoms from covalent bonds?	Non-metal atoms
13	What is a double covalent bond?	Two pairs of electrons shared between two atoms
14	How are covalent bonds shown in displayed formulas?	Using single straight lines
15	Draw dot and cross diagrams to represent the following: a. Ammonia b. Oxygen	
16	Give one advantage and one disadvantage of the following representations of covalent molecules: a. Dot and cross diagrams b. 3D models	a. Advantage: show which atom the electrons in each bond come from Disadvantage: don't show shape or relative size of the atoms b. Advantage: show the shape of the molecule Disadvantage: don't show where electrons have come from
17	What is a simple molecule?	A molecule made up of only a few atoms held together by covalent bonds.
18	Draw dot and cross diagrams to represent the following molecules: a. Hydrogen b. Chlorine c. Methane	
19	Draw the displayed formula of a nitrogen gas molecule.	

20	Explain why simple molecular substances have low melting points.	There are only weak intermolecular forces between molecules, so it doesn't take much energy to overcome those forces, so the melting points are low.
21	Do simple molecules conduct electricity – give a reason for this?	No – there are no charged particles.
22	What is a polymer?	A substance consisting of lots of long molecules made of repeating sections. The atoms are joined by covalent bonds.
23	Put the following in order of melting point, starting with lowest melting point: a. Giant covalent substance b. Simple molecular substance c. Polymer Explain the reason for this order.	B, C, A Simple covalent substances have weak intermolecular forces, Polymers are longer in size so more force is needed to overcome intermolecular forces but in giant covalent substances the covalent bonds are strong and need lots of energy to be broken.
24	What is the structure of graphite?	Layers in graphite are held together by weak intermolecular forces and electrons not involved in covalent bonding are delocalised.
25	Which allotrope of carbon doesn't conduct electricity?	Diamond as it has no free electrons or ions.
26	What is graphene?	A sheet of carbon atoms joined together in hexagons – like a single layer of graphite.
27	What are fullerenes?	Hollow molecules made of carbon atoms arranged in rings.
28	What is the molecular formula of buckminsterfullerene?	C60
29	Give two properties of nanotubes.	Good conductors, very strong, large surface area, good lubricants
30	Describe three uses of fullerenes.	In medicine to deliver drugs, industrial catalysts, in electronics, in strengthening materials
31	Describe the structure of a metal.	Giant structure with atoms held in a regular arrangement and delocalised electrons
32	What type of forces hold the particles in a metal together?	Electrostatic forces
33	Explain why metals can be easily bent.	Layers of atoms are able to easily slide over each other.
34	Explain why metals are good conductors of heat.	Electrons are free to move to carry thermal energy through the structure.
35	Why are alloys harder than pure metals?	Different elements have different sized atoms, when mixed together with pure metal, the new element atoms distort the layers of metal atoms, making it more difficult to slide over each other.

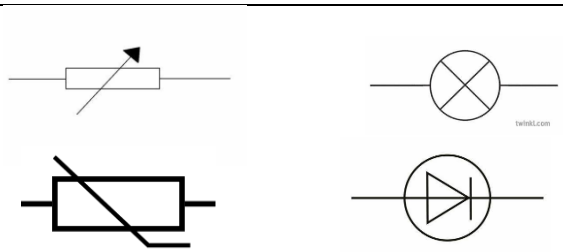
SCIENCE – Physics 1

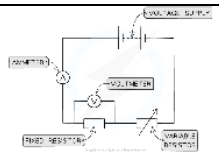
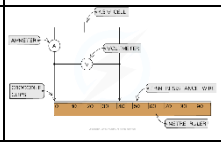
1	What is a system?	An object or group of objects
2	State the name of the 8 energy stores.	Thermal, Chemical, Gravitational Potential, Elastic Potential, Kinetic, Magnetic, Electrostatic, Nuclear
3	State the 4 pathways that energy can be transferred using.	Mechanical, Heating, Radiation and Electrically
4	What is meant by the conservation of energy?	Energy cannot be created or destroyed, it can only be stored, dissipated or transferred usefully.
5	Describe the energy transfers when: a. A car accelerates b. A ball is dropped c. A wind-up toy car moves across the floor.	a. Chemical (fuel) □ Kinetic (motor) + Thermal (surroundings) b. Gravitational Potential □ Kinetic + Thermal (surroundings)
6	State the equation needed to calculate Kinetic energy.	EK =0.5×m×v2
7	State the equation needed to calculate the gravitational potential energy	Ep =m×g×h$Ep = m \times g \times h$
8	State the equation to calculate the elastic potential energy.	Ee =0.5×k×e2
9	Give the definition of thermal energy.	The sum of the kinetic energy of all particles/molecules within a substance.
10	Give the definition of temperature.	The average kinetic energy of the particles/molecules within a substance.
11	What is meant by the specific heat capacity of a substance?	The energy required to raise the temperature of 1kg of a substance by $1^{O}C$.
12	State the formula that links work done, force and distance.	Work done = Force x Distance
13	Describe the link between work done and energy transferred.	Work done is equal to the energy transferred.
14	State the formula that links power, time and energy transferred.	Power = $\frac{\text{Energy Transferred}}{\text{time}}$

17*	What is meant by the term power?	Power is known as the rate of energy transfer. Or the energy transferred per second.
18*	What is dissipated energy?	Energy that is lost to the surroundings to its thermal energy store.
19*	What is a closed system?	A collection of objects from which energy or mass cannot be added or taken away.
20*	Name one example of an unwanted energy transfer.	When a tyre moves against the surface of the road, there is a transfer from the kinetic energy store to the thermal energy store of the surroundings via heating.
21*	Suggest a way to reduce friction between two surfaces.	Use a lubricant.
22*	What is required for energy transfers by heating?	A difference in temperature between two regions.
23*	Which energy store is filled when heating takes place?	Thermal energy store.
24*	Name three different ways that thermal energy can be transferred.	Conduction Convection Radiation
25*	How is thermal energy transferred through solids?	Conduction
26*	What name is given to a material that is able to quickly transfer energy through it.	Conductor
27	What name is given to a material that does not allow energy to transfer quickly through it.	Insulator
28	Suggest three ways of decreasing the rate of cooling in our homes.	Draught excluders, Cavity wall insulation, Shiny reflective surfaces behind radiators, double glazed windows, loft insulation.
29	What is the maximum theoretical value for efficiency?	100%

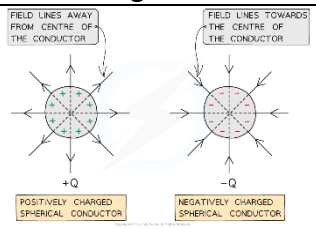
30	State three ways we can increase the efficiency of a system.	Use a lubricant, streamline the object, tighten loose parts.
31	Name 4 different types of non-renewable energy resource.	Nuclear, Coal, oil, natural gas
32*	Describe the difference between a renewable resource and a non-renewable resource.	Renewable – the resource can be replaced at the same rate that it is being used up. Non-renewable – the resource cannot be replaced at the same rate that it is being used up.
33*	State three uses of energy resources.	Heating, Transport and generating electricity.
34*	Why are fossil fuels a preferred resource for electricity generation?	They are a reliable energy resource.
35	Describe an environmental impact of burning fossil fuels.	Emits Carbon-Dioxide and contributes to the greenhouse effect.
36	Give the name of the only non-renewable energy resource that does not need to be burned.	Nuclear
37*	Name three examples of a renewable energy resource.	Biofuel, Wind, Solar, Hydroelectric, Tidal, wave, geothermal
38*	What does the use of renewable energy resources help to reduce on a global scale?	Greenhouse effect
39*	Suggest one disadvantage of using renewable energy resources.	They can sometimes be unreliable, they are expensive to install and maintain.

SCIENCE – Physics 2

1	Draw a diagram for a Diode, thermistor, variable resistor and bulb?	
2	What is the use for a variable resistor?	To change the resistance of a circuit.
3	What is a diode used for?	Used to convert AC to dc, allow electricity to flow in one direction.

4	What is meant by a series circuit?	A circuit with only one loop.
5	How do you calculate the resistance in a series circuit?	Add all the resistors together R1+R2=Rt
6	State the rule for current in a series circuit.	Current is the same at every point in the circuit.
7	State the rule for voltage in a series circuit.	Voltage is split between each component.
8	State an example of where a series circuit might be used?	Torch
9	What is meant by a Parallel circuit?	A circuit with 2 or more loops.
10	State an example of where a Parallel circuit might be used?	Commercially (buildings, factories, homes)
11	State the rule for voltage in a Parallel circuit.	Each loop gets the same amount of voltage. Of a battery provides 10 volts each loop gets 10.
12	State the rule for current in a series circuit.	Current is split between each loop.
13	How do you calculate the resistance in a Parallel circuit?	1/Rt = 1/R1 +1/R2
14	State the equation which links current, Time and charge.	Q=It
15	State what is meant by potential difference.	Measurement of potential energy between two points inn a circuit.
16	State what is meant by current.	The flow of charge
17	State how the equipment should be set up to test I-V characteristics.	
18	State the equation linking resistance, potential difference and current.	V=IR
19	What is the link between resistance and temperature in a filament lamp.	The higher the temperature the higher the resistance.
20	Explain how current flows in a diode?	Only lets current flow through it one way.
21	What is meant by an ohmic conductor?	The current flowing through it is directly proportional to the voltage supplied.
22	Explain what is meant by resistance.	Resists the flow of current.
23	State how the equipment should be set up to test the resistance of a wire.	

24	What happens to the resistance as the length of a wire increases?	As the length of wire increases so does the resistance.
25	State the relationship between LDRs and light intensity.	LDRs depend on light intensity. The higher the light intensity the lower the resistance.
26	Explain some application of a thermistor?	Used in thermostats
27	State the relationship between Thermistors and Temperature?	Thermistors depend on temperature. The higher the temperature the lower the resistance.
28	What is the difference between direct and alternating current.	**Alternating current** changes direction constantly between positive and negative. **Direct current** flows in the same direction.
29	What equipment do you use to measure frequency?	Oscilloscope
30	What is the purpose of a fuse?	A fuse is a safety mechanism that has a thin piece of metal which will melt in the event of a surge in current.
31	What are the three wires in a plug?	Brow = live Blue= Neutral Green and yellow = Earth
32	What is the voltage and frequency of uk mains?	Voltage = 230 Frequency= 50Hz
33	State the equation that links energy transferred and time.	P= E/t
34	State the equation that links current squared and resistance.	Power = (current) 2 × resistance
35	State the equation that links current, resistance and potential difference.	V= IR
36	State the equation that links energy transferred and time.	Energy transferred = power x time
37	State the difference between a step-up and step-down transformer.	**Step Up:** Increase the voltage from the factory ready to transfer across pylons. **Step down:** Decrease the potential difference from the pylons to 230 volts to go into homes.
38	What is the purpose of the national grid?	Distributes electricity across the country
39	State the difference between a conductor and insulator.	Conductor: allows the flow of energy through it. Insulator: stops the flow of energy through it.
40**(trip)**	Explain how a spark is generated through a static charge?	A static electric spark occurs when an object with a surplus of negative electrons comes close to another object with less negative charge
41 **(trip)**	What is meant by a static charge?	Static electricity, form of electricity resulting from the imbalance between positive and negative

		charges within a material that occurs when electrons
42 **(trip)**	How is the strength of an electric field changed?	The strength of an electric field depends on the distance from the object creating the field, the field is strongest close to the charged object
43 **(trip)**	Draw the electric field lines for a isolated charged sphere.	

SPANISH – CORE KNOWLEDGE QUESTIONS FOR SPANISH SHOULD BE USED ALONGSIDE YOUR VOCABULARY BOOKLET.

1	What is a noun? What is special about nouns in Spanish?	The name of a person, place, object or thing. All nouns are masculine or feminine.
2	What does gender mean in MFL?	Which groups nouns belong to.
3	What is an article?	The words the, a, some.
4	What is the definite article?	The word the
5	What are the 4 definite articles in Spanish?	El, la, los, las
6	What is the indefinite article?	A, some
7	What are the 2 indefinite articles in Spanish ?	Un, una
8	What is the word for and what type of word is it?	y It is a connective
9	What is a cognate?	A word in another language that looks or sounds like it's English meaning
10	What is a false friend?	A word in another language that looks or sounds English but does NOT mean the same
11	Why do letters sound different in MFL	Their phonetic pronunciation is different
12	How do you make a sentence negative	Put 'no' in front of the verb
13	How do you say because in Spanish?	Porque
14	What is an infinitive?	The part of the verb found in a dictionary The 'to' bit of the verb