



Knowledge Organiser

Year 9

Advent 2



Name	
Form	



How to use your Knowledge Organiser -

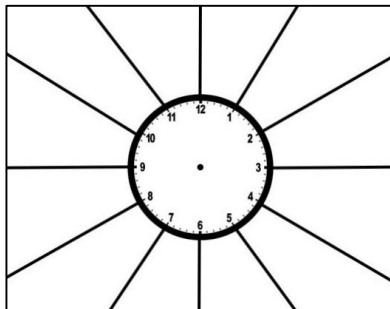
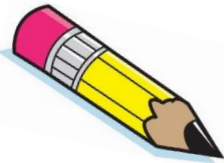


How to use your knowledge organiser... Look, cover, write, check

- Read a line, or a few lines, from a section of your Knowledge Organiser
- Try to memorise what you have read
- Cover the section with your hand
- Try to write what you have memorized
- Remove your hand
- Check to see if what you have written is accurate
- Correct anything you got wrong

How to complete... Diagrams

- Using your Knowledge Organiser for a particular topic in a subject, draw and label diagrams to help you remember content
- This could include copying drawings or diagrams that are on your Knowledge Organiser for example
- This could include creating a diagram to represent an idea or some key knowledge



How to complete... Revision Clocks

- Revision clocks can be used alongside notes to provide summaries
- Allow 5 minutes to write as much as you can about a unit / topic from memory
- You can create headings based on key word / vocabulary lists; this helps retrieval practice

How to complete... A-Z

- Write A, B, C, D etc. through to Z one per line in the margin of your lined paper
- Using your knowledge organiser for a particular topic in a subject and your knowledge of that topic, try to write a key word and a definition for that word beginning with A, B, C, D and so on, through to Z



How to complete... Make a test

- Using your Knowledge Organiser, write some questions to test your knowledge
- Number the questions
- Once you have got to 10 questions, answer the questions on another piece of lined paper
- You can use the following question stems to help you create questions: Who? What? Why? How? When?



Strategy	Tick off the number of times you have used the strategy -
Look, cover, write, check	
A – Z	
Turn it into a diagram	
Make a test	
Complete a revision clock	



Year 9 – Art Textiles – Advent 2

A Formal Processes		
1	Dyeing	Changing the colour of a fabric. You can experiment with tie-dyeing, where the fabric is twisted and bound using string. White areas are left where the fabric was bound.
2	Batik	Hot wax is applied to fabric, which is then dyed. The wax resists the dye, preventing it from reaching those areas.
3	Appliqué	Sewing a small piece of fabric onto a bigger piece of fabric. You could experiment with cutting out the same shape in different fabrics and arranging these into patterns. You could also experiment with using different coloured threads.
4	Embroidery	Using thread to stitch onto a piece of fabric to create a shape or design. You can do this by hand or by using a sewing machine
5	Repeat pattern	The repetition of lines, shapes, tones, colours, textures and forms.
6	Free- hand embroidery	A type of sewing that allows you to draw with your sewing machine through drawing different shapes and profiles.
7	Seam Allowance	The area between the fabric edge and the stitching line on two (or more) pieces of material being sewn together.
8	Paper pattern	paper or cardboard templates from which the parts of a garment are traced onto fabric before cutting out and assembling




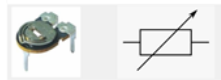



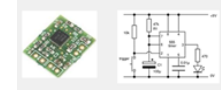
B Materials		
1	Cotton	a type of natural cloth created out of the cotton plant fibres. Coming in a wide range of weaves, it is the most versatile and popular
2	Natural fabric	Natural fibres come from plants or animals. They are easily renewable and biodegradable e.g. cotton, wool, silk
3	Synthetic fabric	Synthetic fibres are made mainly from non-renewable coal and oil refined into polymers and do not degrade easily e.g. polyester, nylon, elastane

C Designers		
1	Holly Levell	A Textile Artist specialising in the everyday through soft sculptures, softening the lines of a usually solid idea. The idea of shopping but from stitched textiles completely softening the solid idea and producing a soft and nostalgic object, and that's when <i>Supermarket Stitch</i> .



Practice your stitching by stitching one of the key terms onto a piece of fabric.

Year 9 – Design and Technology – Advent 2

A		Electronic Components	
1	Battery		Stores energy in a chemical form. It is made up of cells, each 1.5v. All batteries are multiples of 1.5v.
2	Latch Switch & Push Switch		Latch switch turns on or off all power to circuit. Push switch allows power to be on only when switch is pushed.
3	Resistor		Slow down the flow of current in a circuit. They protect more sensitive components.
4	Variable Resistor		A resistor that can be manually increased or decreased.
5	Capacitor		Stores power for short amounts of time.
6	Light Emitting Diode (LED)		Allows current to flow in one direction and lights up without generating heat.
7	Integrated Circuit (I.C or Chip)		Made up of many circuits located in a very small area.
8	Printed Circuit Board		A pre-made circuit with copper tracks and locations for the components to be soldered in.

B		Scales of Production	
1	Bespoke	A single item design for either a specific task or made specifically for a client.	
2	Batch	Small to medium number of products. These could be made in different colours, style, ingredients etc.	
3	Mass	The same as batch but made in much larger numbers. Manufacturing using a production line.	
4	Continuous	No variety or changes in the design. The same thing made in very high numbers, day after day.	

C		Techniques	
1	Line Bending	Line bending is a process used to bend thermoplastics in a straight line. A thermoplastic sheet over a strip heater until it becomes soft and then bending it to any desired angle.	
2	Vacuum Forming	Vacuum forming is a where a sheet of thermoplastic is heated to a high temperature, stretched onto a mould, and forced against the mould by a vacuum.	
3	Injection Moulding	The plastic is melted in the injection moulding machine and then injected into the mould, where it cools and solidifies into the final part.	
4	Blow Moulding	The blow mouldings process is the same as Injection process but also has a tube-like piece of plastic with a hole in one end through which compressed air can pass.	
5	Rotational Moulding	Plastic pellets are put in a mould and spun and heat added. Plastic softens and forms a shape on the internal faces of the mould.	
6	Compression Moulding	A Thermosetting plastic material is placed directly into a heated metal mould then is softened by the heat and therefore forced to conform to the shape.	



Year 9 – English – Advent 2

A Oliver Twist - Characters		
1	Oliver	He is a 'pale, thin' orphan who is treated badly by almost everyone he meets. He tries his best to be a good person and experiences 'horror and alarm' whenever he sees crimes being committed.
2	Mr. Bumble	The man who runs the workhouse and gives Oliver his name. He is 'a fat man' who enjoys power and doesn't care about the people beneath him.
3	Noah Claypole	A 'malicious and ill-conditioned' boy who bullies Oliver at the undertakers. He eventually runs away to London and joins the same gang as Oliver.
4	Fagin	An old man who runs the gang of pickpockets. He seems kind but his 'villainous-looking and repulsive face' reflects his selfish nature as he gets young boys to do his dirty work for him.
5	Jack Dawkins (The Artful Dodger)	A young boy who introduces Oliver to Fagin's gang who has 'all the airs and manners of a man'. He's confident and cunning.
6	Bill Sikes	A 'rough man' who has been a criminal for many years. He beats his dog viciously and brutally kills his girlfriend, Nancy.
7	Nancy	Bill's girlfriend who risks her life to help Oliver escape from the gang. She loves Bill even though he treats her abusively and she feels guilty about the life of crime she has led.
8	Mr. Brownlow	A wealthy older gentleman who takes Oliver in and looks after him. He believes in Oliver's goodness even when it looks like Oliver has stolen from him and eventually finds out the truth about Oliver's parents.

B Key Words		
1	morality	a code of right and wrong. People who try to be good can be called moral and people who do bad things can be called immoral.
2	vulnerable	in a situation in which you could be easily harmed.
3	brutal	very violent or cruel.
4	corrupt	a word used to describe a person who uses their power in a dishonest or illegal way in order to make life better for themselves.
5	villain	a 'baddie' who harms other people or breaks the law to get what they want.
6	malicious	meant to hurt or upset someone.
7	victim	someone who has been harmed, often by other people
8	naïve	If someone is naïve if they don't have experience of how complicated life can be and therefore trust people too much.
9	society	the people who live in a certain area. This could be a country, town or small group.
10	workhouse	a place where people who couldn't support themselves were sent to live and work.

C Key Terminology		
1	Senses	sight, sound, smell, taste, touch
2	Adjective	a word to describe a noun
3	Metaphor	when you say something is something else
4	Onomatopoeia	a word to describe a noise
5	Simile	comparing two things using 'like' or 'as'
6	Alliteration	when two or more words next to each other start with the same letter (on purpose!)
7	Personification	giving something that is not a person human qualities
8	Adverb	describing how a verb (action) is done
9	Imperative	a commanding verb
10	Second person	using "you"
11	Alliteration	e.g. "The towering teacher terrified the pupils"
12	Facts	something that is true
13	Opinion	someone's point of view
14	Rhetorical question	a question that doesn't need answering
15	Repetition	The same word or phrase more than once
16	Emotive language	words used to make the reader feel a certain way
17	Statistics	using numbers
18	Triple	using three words with a similar meaning



Complete a relationship web explaining the links between the different characters.



Year 9 – Food and Nutrition – Advent 2

A	Key Terms	
1	Contaminate	Making a food unsafe to eat by allowing it to come into contact with microorganisms that will grow and multiply in it.
2	Pathogenic	Something that is capable of causing illness.
3	Food poisoning	An illness caused by micro-organisms contaminating food.
4	High-risk foods	Foods that contain a lot of moisture and nutrients, especially protein (e.g. milk, cream, eggs, meat, fish) and easily support the growth of pathogenic microorganisms, particularly bacteria. Also called perishable foods.
5	Enzyme	The name given to natural substances in living things that speed up chemical reactions.
6	Catalyst	A substance that speeds up the rate of a chemical reaction.
	Raising Agent	An ingredient or process that introduces a gas into a mixture so that it rises when cooked.
	Food intolerance	A long-term condition where after several hours or days, certain foods cause a person to feel unwell and have a range of symptoms, but it is usually not life threatening and does not involve the immune system.
	Food allergy	This happens to some people when their immune system has a very sensitive reaction to specific foods, which causes severe and potentially threatening symptoms that happen very quickly after the food is eaten.
	Plasticity	The ability of a fat to soften over a range of temperatures and be shaped and spread with light pressure.
	Shortening	The ability of fats to shorten length of gluten molecules in pastry.
	Aeration	The ability of some fats to trap lots of air bubbles when beaten together with sugar.
	Emulsification	Either keeping drops of oil or fat suspended in a liquid and preventing them from separating out; or keeping drops of water suspended in an oil or fat and preventing them from separating out.

D	Pathogens		
	Pathogen	Food Affected	Symptoms
1	E- coli	Raw meat (found in guts) untreated milk and water	Vomiting, blood in diarrhoea, kidney damage or failure.
2	Listeria	Soft cheeses, pate, unpasteurised milk, under cooked meat.	Mild flu, meningitis and pneumonia.
3	Campylobacter	Meat, shellfish, untreated water, washing raw poultry	Diarrhoea, headache, fever, abdominal pain.
4	Salmonella	Raw meat, eggs, seafood, dairy products	Diarrhoea, vomiting and fever.
5	Norovirus	Shellfish, raw vegetables, salads.	Nausea, vomiting, diarrhoea, abdominal pain, fever.
6	Bacillus cereus	Cooked rice, pasta, and cereal foods.	Nausea, vomiting, diarrhoea.



Complete a poster warning about possible hazards in the kitchen.



Year 9 – French – Advent 2

A		Unité 1
1	I can describe where I live.	J'habite dans une petite maison.
2	I can say where I would like to live.	Je voudrais habiter au bord de la mer.
3	I can use je voudrais.	Je voudrais habiter dans une ferme.
4	I can pronounce the sounds – ieu and ieil.	Vieux, vielle

B		Unité 2
1	I can describe my home.	Chez moi, il y a sept pieces. Il y a le salon, la cuisine, ...
2	I can explain where things are.	Le tee-shirt sur la chaise.
3	I can name items of furniture.	Le lit, l'armoire, le canapé
4	I can use prepositions.	Dans le frigo, sous la chaise, derrière le bureau, devant la fenêtre.

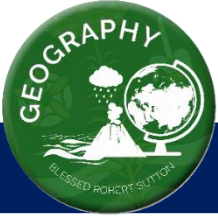
C		Unité 3
1	I can say what I have for breakfast.	D'habitude, je prends des cereals et du thé.
2	I can describe mealtimes in my family.	Chex moi, on mange à sept heures et demie.
3	I can say what we eat in the evenings.	D'abord, on mange du poulet. Comme dessert, on prend du yaourt.
4	I can use du, de la, des, de l'.	Du pain, de la confiture, des pâtes, de l'eau.

D		Unité 4
1	I can discuss what food to buy.	Il faut acheter un paquet de farine.
2	I can use il faut + infinitive.	Il faut aller au supermarché. Il faut apporter des CD.
3	I can use de after quantities and containers.	250 grammes de fraises. Une tablette de chocolat.

E		Unité 5
1	I can talk about a forthcoming event.	La semaine prochaine, je vais aller au carnaval aves mes amis. On va regarder le defile et je vais prendre des photos.
2	I can use the near future tense.	À Hallowe'en, je vais porter un costume de vampire. On va manger de la pizza et après, on va danser. On va s'amuser.



Create a conversation using as many of the phrases from the Knowledge Organiser.



Year 9 – Geography – Advent 2

A	Key Words	
1	Agriculture	Human management of the environment to produce food. The numerous forms of agriculture fall into three groups: ommercial agriculture, subsistence agriculture and peasant agriculture.
2	Biodiversity	The existence of a wide variety of plant and animal species in their natural environment.
4	Catchment	In physical geography, an alternative term to river basin. 2. In human geography, an area around a town or city – hence 'labour catchment' means the ar
5	CBD (Central Business District)	This is the central zone of a town or city, and is characterized by high accessibility, high land values and limited space. The visible result of these factors is a concentration of high-rise buildings at the city centre. The CBD is dominated by retail and business functions, both of which require maximum accessibility.
6	Common land	Land which is not in the ownership of an individual or institution, but which is historically available to any member of the local community
7	Commuter Zone	An area on or near to the outskirts of an urban area. Commuters are among the most affluent and mobile members of the urban community and can afford the greatest physical separation of home and work.
8	Conservation	The preservation and management of the natural environment. In its strictest form, conservation may mean total protection of endangered species and habitats, as in nature reserves. In some cases, conservation of the manmade environment, e.g. ancient buildings, is undertaken.
9	Conurbation	A continuous built-up urban area formed by the merging of several formerly separate towns or cities. Twentieth-century urban sprawl has led to the merging of towns
10	Depopulation	A long-term decrease in the population of any given area, frequently caused by economic migration to other areas
12	Employment Structure	The distribution of the workforce between the primary, secondary, tertiary and quaternary sectors. Primary employment is in agriculture, mining, forestry and fi shing; secondary in manufacturing; tertiary in the retail, service and administration category; quaternary in information and expertise.
13	ethnic group	A group of people with a common identity such as culture, religion or skin colour
14	infrastructure	The basic structure of an organization or system. The infrastructure of a city includes, for example, its roads and railways, schools, factories, power and water supplies.
15	rural depopulation	The loss of population from the countryside as people move away from rural areas towards cities and conurbations.
16	rural–urban migration	The movement of people from rural to urban areas.
17	urban decay	The process of deterioration in the infrastructure of parts of the city. It is the result of terracing tides Tidal ranges. tombolo Chesil Beach, England. a forest giant in the tropical rainforest long-term shifts in patterns of economic activity, residential location and infrastructure
18	urban sprawl	The growth in extent of an urban area in response to improvements in transport and rising incomes, both of which allow a greater physical separation of home and work.



Design your own sustainable living space considering the issues you have studied in this topic.



Year 9 – History – Advent 2

A	Key Knowledge	
1	What treaty of 1919 formally ended the First World War?	Treaty of Versailles
2	What name is given to the democratic period of German history after the First World War?	Weimar Germany
3	What was the full name of the Nazi party?	National Socialist German Workers' Party (NSDAP)
4	What was Hitler's first attempt to seize power?	The Beer Hall Putsch
5	What book did Hitler write while in prison for this coup?	Mein Kampf
6	What economic collapse caused crisis in Germany, beginning in 1929?	The Great Depression
7	What was the highest vote the Nazis ever received in a free election?	37%
8	Who appointed Hitler as Chancellor, in coalition with traditional German conservative parties, in 1933?	President Hindenburg
9	What mysterious event did Hitler use to justify giving extreme powers to the police?	The Reichstag Fire
10	What name was given to Germany under the Nazis?	The Third Reich
11	What was the name for the "people's community" of ethnic Germans that the Nazis claimed to lead?	Volksgemeinschaft
12	What was the imaginary "ideal race" that Hitler believed the Germans represented?	The Aryan race
13	What laws restricted citizenship to ethnic Germans, and forbade marriage and sexual relations between Germans and Jews?	The Nuremberg Laws
14	What elite Nazi organisation spearheaded the persecution of Jews?	The SS (Schutzstaffel)
15	What name is given to Hitler's massacre of the Nazi paramilitary force (the SA) in 1934?	The Night of the Long Knives
16	In what industrial region of Germany did Hitler station troops in 1936?	The Rhineland
17	What was the British policy of allowing Hitler to take what he wanted in order to avoid war?	Appeasement
18	When did Hitler invade Poland, beginning the Second World War?	1 September 1939



Complete a flow chart illustrating how Hitler consolidated power.



Year 9 – Maths – Advent 2

A	3D Shapes	
1	2D	Two dimensions to the shape e.g. length and width
2	3D	three dimensions to the shape e.g. length, width and height
3	Vertex	a point where two or more line segments meet
4	Edge	a line on the boundary joining two vertex
5	Face	a flat surface on a solid object
6	Cross-section	a view inside a solid shape made by cutting through it
7	Plan	A drawing of something when drawn from above (sometimes birds eye view)
8	Perspective	a way to give illustration of a 3D shape when drawn on a flat surface.

B	Constructions and Congruency	
1	Protractor	Piece of equipment used to measure and draw angles
2	Locus	set of points with a common property
3	Equidistant	the same distance
4	Discorectangle	(a stadium) –a rectangle with semi circles at either end
5	Perpendicular	lines that meet at 90°
6	Arc	Part of a curve
7	Bisector	a line that divides something into two equal parts
8	Congruent	the same shape and size



	A ₁	B ₃	C ₃	D ₂	
E ₁	F ₄	G ₂	H ₄	I ₁	J ₈
K ₅	L ₁	M ₃	N ₁	O ₁	P ₃
Q ₁₀	R ₁	S ₁	T ₁	U ₁	V ₄
	W ₄	X ₈	Y ₄	Z ₁₀	

Calculate which key term would score the most in Scrabble.



Year 9 – PE – Advent 2

A	Key Words	
1	Balance	Stability through an even distribution of weight.
2	Competence	To do something successfully or efficiently.
3	Concentration	Exclusive attention for a period of time.
4	Confidence	A belief in your ability to complete a physical skill or task given.
5	Control	To exercise restraint or direction over; dominate; command.
6	Coordination	Smoothly and successfully performing more than one motor task at the same time e.g. ball, hand and eye coordination.
7	Core stability	The major muscles of the core are those in your stomach and back. 'Core stability' is the ability to support the spine and keep the body stable and balanced. It is essential for 'quality' performance and also for completing manual tasks safely and effectively in everyday life.
8	Cue recognition	Recognising and responding to relevant information whilst filtering out unwanted information.
9	Decision making	Observations inform judgements that lead to the selection of a course of action among alternatives; every decision-making process produces a final choice, even if the choice involves no action.
10	Dodging	To make a sudden movement in a new direction.
11	Eye-foot coordination	eyes and feet working together to perform a task
12	Eye-hand coordination	eyes and hands working together to perform a task
13	Feinting	A movement that is made in order to deceive an opponent.
14	Fine Motor Skills	small physical actions e.g. manipulating the hands or the fingers.
15	Flexibility	The range of movement through which a joint or sequence of joints can move.
16	Fluency	Movement that is smooth, graceful and effortless.
17	Focus	To direct one's attentions or efforts.
18	Force	Strength or energy used in a physical movement. Impulsive responses To act without considering the consequences.

19	Gross Motor Skills	Large physical actions.
20	Kinaesthetic Awareness	A sensation by which bodily position, weight, muscle tension and movement are perceived by an individual.
21	Leadership	Guiding a team/group or individual
22	Manipulate object	Handling/controlling a piece of equipment or apparatus.
23	Moderate physical activity	physical activity (exercise) that generally requires sustained rhythmical movements. A person should feel some exertion but should be able to carry on a conversation comfortably during the activity.
24	Performance	An expression of something, including the everyday performance executed in class, or where appropriate, elite performance. To execute a movement or movement sequence.
25	Prioritising	Dealing with the components of a task according to their importance.
26	Propel an object	Pushing an object away from the body e.g. throw a ball, kick a ball, strike a badminton shuttle with a racquet.
27	Resilience	A capacity to deal constructively with change or challenge, allowing a person to maintain or re-establish their social and emotional well-being in the face of difficult elements. It involves thoughts, feelings and actions.
28	Strength	The ability of a muscle or muscle group to overcome a resistance.
29	Vigorous physical activity	physical activity (exercise) that is intense enough to result in a significant increase in heart and respiration rate.



**Reflect on your last PE lesson.
Write down how you used any
of the skills listed.**



Year 9 – RE – Advent 2

A	Key Words	
1	Morality	The ability to decide what is right and wrong behaviour
2	Ethics	moral principles that govern a person's behaviour or the conducting of an activity
3	Conscience	an inner feeling of right and wrong
4	Natural Moral Law	the use of reason to establish moral laws
5	Situation ethics	using agape as a guiding principle
6	Abortion	the deliberate ending of a pregnancy before 24 weeks
7	Euthanasia	bringing about a painless, premature death
8	Capital punishment-	ending somebody's life for the crimes they have committed
9	Sanctity of life-	every life is sacred and holy because it is given by God
	Mitzvot	613 Jewish laws
10	Pikuach Nefash	the principle that nearly any religious law can be broken in order to preserve human life

B	Abortion
1	<p>Catholics do not agree with abortion based on: -The sanctity of life/ Only God has the power to give and take life/ The commandment 'Thou shall not kill' / 'Before I formed you in the womb I knew you.' (Jeremiah)/ Life begins at conception</p> <p>Liberal protestants may accept abortion based on: -It is sometimes the most loving thing to do/ It can be the lesser of two evils/ Life does not begin at conception</p> <p>Jewish teachings on abortion: -Abortion is not accepted/ sanctity of life/ 'Thou shall not kill' -The only exception is if the mother's life is at risk; this is because the mother's life is superior to the life of the foetus</p>

C	Capital Punishment
1	<p>-Catholic views: Jesus taught forgiveness and reformation/ 'Thou shall not kill'/ Pope JP II said that 'You cannot teach that killing is wrong by killing.'</p> <p>-Jewish views: Torah says it can be used for certain offences/ protection for all in society is important for Jews so it can be justified -Some Jews are against- The Torah or Tenkah could need updating as it is old and should not allow killing</p>

D	Euthanasia
1	<p>It is against the law in the UK</p> <p>-Catholic views: The sanctity of life/ Only God has the power to give and take life/ 'Thou shall not kill' / they allow the switching off of life support if the person is already brain dead</p> <p>-Jewish views: it is acceptable to switch of life support but it is wrong to do anything that will bring about death</p> <p>-Humanist views: Some would support euthanasia based on the quality of life argument</p>

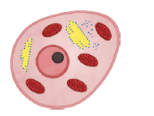
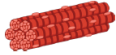



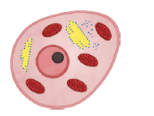
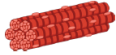



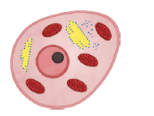
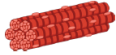





Complete research on different countries laws on abortion, capital punishment and euthanasia.



Year 9 – Science – Advent 2

A		Cell Biology and Organisation																						
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Write a review for a Cell Game.

<https://biomanbio.com/HTML5GamesandLabs/Cellgames/Cells.html>