



**BRISTOL
METROPOLITAN
ACADEMY**

W/C 19 th February	Week B
W/C 26 th February	Week A
W/C 4 th March	Week B
W/C 11 th March	Week A
W/C 18 th March	Week B
W/C 25 th March	Week A

Please note: Maths homework will be on an online platform for this term. It will be set and checked weekly separately from the timetable.

Knowledge Organisers

2023-24

Year 9 – Term 4

Complete your homework on the night stated e.g. if it is a Monday Week A you will complete ICT/DT

	Week A	Week B
Monday	ICT/DT	MFL
Tuesday	English	English
Wednesday	Science	Science
Thursday	History	Geography
Friday	RS	Music/Art

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This Knowledge Organiser is to help you see the key information for each subject for this term. You can use this to help you both with homework and with revision, supporting your learning at home. In the table below you will find the instructions for each subject to be completed on the correct day.

Subject	Tasks
Maths	Homework question tasks/sets will be set weekly on an online platform. You will have one week to complete this online, before it is checked for competition and the next set is published.
Science	For term 1 this will be directed by your classroom teacher. It could involve an online platform too.
English	Using the separate question booklet, divide your homework book page in half length ways, write the questions out on the left hand side. First, attempt to answer the questions from memory/your own knowledge. Then use your knowledge organiser booklets to check your answers and fill in the missing ones.
MFL	Find the correct date in the KO and the question booklet. With the list of 10 key words for that week, complete the look – say - cover – write – check method in your homework book. Complete this process for each word/phrase 4 times each.
Geog/Hist/RS /DT	Same process as outlined for English above. DT have 5 questions and not 10.
ICT	For term 1, continue to use the KO to do revision/key words etc in your homework books.
Music/Art	For music and art, you will have two practical tasks to complete each term for each subject. These will be found in the question booklets and will be checked by you classroom teacher.

At the back of this booklet, you will find: Sentence starters, a history chronology, DT sentence starters, a periodic table, maps of the world, subject websites, a RAG sheet and a timetable.

How to present your homework:

Subject written on the left-hand side of the page and underlined.
For example: Food

Topic written on the centre of the page and underlined.
For example: Sugars

One single straight line between both pieces of homework.

Subject: Food Tuesday 25th June 2019

Topic: Sugars

Keyword	Definition
Monosaccharides	
Disaccharides	
Intensive sugars	
Polysaccharides	

Subject: English Topic: Macbeth

- Who are the four most important characters in Macbeth?
Macbeth, Lady Macbeth, Banquo and Macduff.
- What are three character traits of Banquo?
Gullible, superstitious and ambitious.
- How would you describe Lady Macbeth?
She is manipulative, cold-blooded and cruel.
- How is Lady Macbeth two-faced?
She is warm and welcoming to Duncan, and then manipulates her husband to kill him.
- What is the name of Banquo's son?
Fleance

Date written fully on the right-hand side of the page and underlined. This should be the day you complete the homework.

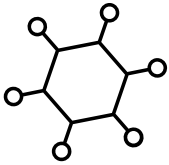
Home Learning Strategies to help you revise

Brain Dump



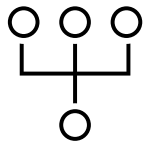
Write down everything you know about a certain topic on a page. Use your KO to add extra notes in a different colour.

Mind Map



Condense a topic showing the important links and connectors between key parts. Use your KO to add in extra notes.

Diagram



Draw a clear diagram for a subject including labels and key features. Make sure you use correct vocabulary and spellings.

Vocabulary



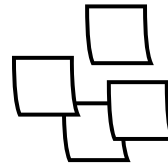
Learn the key words associated with a topic and commit the word and spelling to memory. Test yourself or ask someone else to test you.

Retrieval Quiz



Write key questions about a topic as well as the answers. Use the content of the KO to help you. Check to see if you can remember the answers without looking.

Compare



Complete a comparison table showing two different sides of a topic. Can you use it to create an argument for one viewpoint?

SYMBOLISM

A symbol in art is an image that indicates, signifies, or is understood as representing an idea.

Symbols allow people to go beyond what is known or seen.



HAND OF HAMSA FACTS

- The Hand of Hamsa Hand is a near-universal symbol across the world today, adopted by many major religions.
- It is a symbol of protection and often used to ward off the evil eye of envy.
- Known as the Hand of Mary in Christianity, it is also present in the ancient religions of Hinduism, Buddhism.
- In Jewish culture it is called the Hand of Miriam, named for Moses and Aaron's sister.
- In the Middle East and North Africa, they are referred to as khamsas ('five') or 'Hands of Fatima,' referring to the Prophet's daughter.
- The belief in the protective power of hand amulets dates back millennia.
- The Hand of Hamsa is popular in jewellery design as a symbol of protection and is worn across the world.

YOUR DESIGN HERE



L.O: To create a relief hand design in clay.



Self-identity is a collection of beliefs about yourself. Self-concept embodies the answer to the question "Who am I?"

Painting Fine Lines



Painting solid colour (on track)



Painting Gradients of tone (deepening)



What symbols could you use in your design to represent aspects of your identity?

CERAMICS



Decimal	Hex	Char	Decimal	Hex	Char	Decimal	Hex	Char
0	0		52	34	8	84	54	V
1	1		53	35	9	85	55	W
2	2		54	36	A	86	56	X
3	3		55	37	B	87	57	Y
4	4		56	38	C	88	58	Z
5	5		57	39	D	89	59	[
6	6		58	3A	E	90	5A	\
7	7		59	3B	F	91	5B]
8	8		60	3C		92	5C	^
9	9		61	3D		93	5D	_
10	A		62	3E		94	5E	`
11	B		63	3F		95	5F	a
12	C		64	40		96	60	b
13	D		65	41		97	61	c
14	E		66	42		98	62	d
15	F		67	43		99	63	e

01010101

[illegible]
$$1 + 1 + 1 = 1 \text{ Carry } 1$$

				1	1	1		
	0	0	0	0	1	1	1	0
+	1	0	1	0	0	0	1	0
	1	0	1	1	0	0	0	0

			1	1	1	1		
	1	1	0	1	0	0	1	1
+	0	0	0	0	1	1	1	0
	1	1	1	0	0	0	0	1

1			1	1	1			
	1	1	0	0	1	1	0	0
+	1	0	0	1	1	1	0	1
1	0	1	1	0	1	0	0	1

When and extra bit is created to represent a number

The more bits of Binary you use, the higher the file size.

+8	↓	Bit		
+1000	↓	Byte	↑	x8
+1000	↓	Kilobyte	↑	x1000
+1000	↓	Megabyte	↑	x1000
+1000	↓	Gigabyte	↑	x1000
	↓	Terabyte	↑	x1000

2Mb to Bits									
2	x	1	0	0	0	=			
2	0	0	0						
2	0	0	0	x	1	0	0	0	
2	0	0	0	0	0	0			
2	0	0	0	0	0	0	x	8	
1	0	0	0	0	0	0	0		

2Mb = 10000000 Bits

Created to extend binary values for other languages using 16 bit numbers. This allows for 65,536 characters to be encoded.

	A	S	C	I	I														
	C	=	67	=	0	1	0	0	0	0	1	1	=	8	bits		8	x	4
	A	=	65	=	0	1	0	0	0	0	0	1	=	8	bits		=	32	bits
	T	=	84	=	0	1	0	1	0	1	0	0	=	8	bits		32	/	8
	!	=	33	=	0	0	1	0	0	0	0	1	=	8	bits		=	4	bytes
	U	N	I	C	O	D	E												
	ソ	=	0	0	0	0	1	0	0	1	1	1	1	1	1	0	1	0	(2554)
	稽	=	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	1	(4167)

File size (bits) = Resolution x Bit Depth

The figure consists of two 6x6 grids. The top grid is a 6x6 grid world environment. It features a brown obstacle in the center (row 3, column 4). The cells are colored: yellow (top row, columns 2-5; row 2, column 1; row 3, column 6; row 4, column 1; row 5, column 6; row 6, column 6), green (row 2, column 2; row 3, column 2; row 4, column 2; row 5, column 2; row 6, column 2), blue (row 2, column 3; row 3, column 3; row 4, column 3; row 5, column 3; row 6, column 3), red (row 2, column 4; row 3, column 4; row 4, column 4; row 5, column 4; row 6, column 4), and white (row 2, column 5; row 3, column 5; row 4, column 5; row 5, column 5; row 6, column 5). The bottom grid is a 6x6 grid with black and white cells. It features a black obstacle in the center (row 3, column 4). The cells are colored: black (top row, columns 2-5; row 2, column 1; row 3, column 6; row 4, column 1; row 5, column 6; row 6, column 6), white (row 2, column 2; row 3, column 2; row 4, column 2; row 5, column 2; row 6, column 2), blue (row 2, column 3; row 3, column 3; row 4, column 3; row 5, column 3; row 6, column 3), red (row 2, column 4; row 3, column 4; row 4, column 4; row 5, column 4; row 6, column 4), and white (row 2, column 5; row 3, column 5; row 4, column 5; row 5, column 5; row 6, column 5).

Year 9 Drama Knowledge Organiser. Make sure when you rehearse and perform your devised piece, you include the following skills and techniques:

Physical Skills

Body language
Interaction
Posture
Gait
Gesture
Spatial awareness
Proxemics
Control
Mannerisms
Facial expressions
Eye focus / contact
Energy
Stage presence
Characterisation

Blocking: the precise movement and positioning of actors on a stage

Vocal Skills

Volume
Diction
Emphasis
Accent
Intonation
Inflection
Emotional tone
Pitch
Pace
Pause

You can include:

Levels, mime, slow motion, direct address, flash back, flash forward, improvisation, silence, pause

Teamwork

It is important to work together as a team and commit clearly to that group:

- turn up on time
- be positive
- accept ideas
- respect other opinions

At the very beginning of the devising, things will not be perfect. Remember the bigger picture and be positive, knowing that details can be fine-tuned later on. Groups that are always evolving and experimenting with their ideas can experience more success with their work.

The final stages of the process

Run through the piece for an audience that understand its importance.

- get rid of things that don't work
- run the piece with any technical aspects (projection and sound)
- test sound levels and **sightlines**

Then ask for honest feedback and act on it.

- Does it make sense if it needs to?
- Have the initial aims and objectives been met?
- Is the desired message being received clearly?
- Is the pace appropriate?
- Is it running smoothly?
- Has everyone learned what happens, when and where?

Be prepared to make mistakes and be resilient enough to carry on, but most importantly, enjoy performing.

Year 9 D&T – Term 1 – Pewter Project



Select one symbol from the selection above.

Create a logo for a product/company of your choice using your chosen symbol.

You can achieve this by modifying your chosen symbol by applying a range of composition techniques to develop its shape, form, and visual appeal. Be as creative as possible.

Logo design principles

1. Simple - needs to be easily identifiable at a glance.
2. Memorable - should be easily recalled after just one look.
3. Original - Create a unique design that cannot be confused with another.
4. Timeless - should be modern yet timeless and should avoid trends.
5. Versatile - can be used in a variety of sizes and colours.
6. Appropriate - should be appropriate for the intended audience.

Keywords

Malleable – able to be hammered or pressed into shape without breaking

Innovative- new and original

Analysis - detailed examination of the something

Annotation- analysis added to a text or diagram

Alloy - a metal made by combining two or more metallic elements

What is Pewter?

Pewter is a malleable metal alloy consisting of tin, antimony, copper, bismuth, and sometimes silver. Modern pewter consists of are 94% tin.

Pewter has a low melting point (around 170–230 °C) making it ideal for melting on a chip forge and brazing hearth and casting.

2D Design Basic Tools

- SELECT** – Use this tool to select different to highlight objects.
- LINE** – This tool creates straight lines. Click to start the line, extend out and click to finish.
- CIRCLE** – This tool creates circle shapes. Click to start the circle, extend to the size needed and click to finish.
- PATH** – This tool creates curved lines through continual clicks.
- RECTANGLE** – This tool can be used to create both rectangular and square shapes.
- TEXT** – Use this tool to insert text onto your designs. The font, size and direction of the text can be changed.
- DELETE PART** – Use this tool to delete separate lines and objects.
- DELETE ANY** – Use this tool to delete whole lines and objects.



Isometric Drawing Shows Objects at 30°

- 1) Isometric drawing can be used to show a 3D picture of an object.
- 2) It doesn't show perspective (things don't get smaller in the distance), but it's easy to get dimensions right.
- 3) There are three main rules when drawing in isometric:

- Vertical edges are drawn as vertical lines.
- Horizontal edges are drawn at 30°.
- Parallel edges always have the same length.

This diagram shows how to draw a cube in isometric. The cube is drawn using the three main rules.



Crating Can Be Used to Draw 3D Shapes

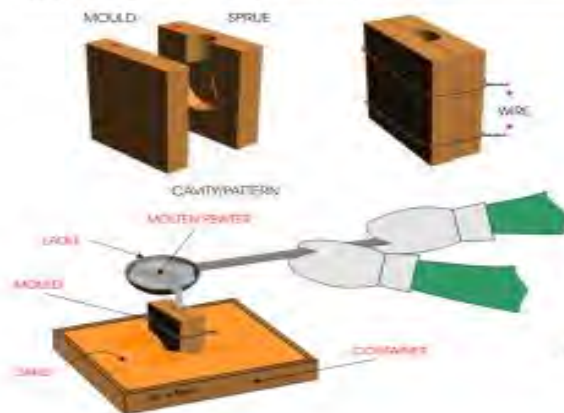
Crating is where you start by drawing a box — the 'crate' — and gradually add bits on and take bits off till you get the right shape. For example, you can remove sections from a cuboid to make any other 3D shape.

- 1) When you're sketching a 3D object, it's easier if you imagine it as a basic shape.
- 2) First draw the basic geometric shape family.
- 3) Stick to a particular drawing technique — isometric drawing, for example.
- 4) The object can then be drawn within the box.
- 5) Details of the object can be added by drawing more geometric shapes on top.



CAD/CAM

CAD stands for Computer Aided Design. It involves designing products on a computer, rather than using a pencil and paper. CAD packages include 2D drawing software (e.g. Adobe® Illustrator®, CorelDRAW®, TechSoft 2D Design® and ArtCAM®) and 3D modelling software (e.g. SolidWorks®). CAD helps designers model and change their designs quickly. It's easy to experiment with alternative colours and forms and you can often spot problems before making anything. In 3D programs, you can view the product from all angles. CAM stands for Computer Aided Manufacture. It's the process of manufacturing products with the help of computers. CAD software works out the coordinates of each point on the drawing. These are called x,y,z coordinates — x is the left/right position, y is forwards/backwards and z is up/down. The point where x, y and z meet is (0,0,0) — the datum. CAM machines are computer numerically controlled (CNC) — they can follow the x,y,z coordinates and move the tools to cut out or build up your design. For example, some milling machines are CAM machines. They remove material from a larger piece of material to shape and create a product.



Jewellers Clamp



Wire Wool



Needle Files



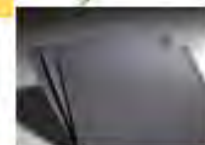
Metalworking Vice



Polishing Machine



Silicon Carbide Paper



Safety Gear

VISOR
A SUITABLE VISOR

LEATHER APRON
APRON PROTECTS FROM UPPER BODY TO THE LEGS

LEATHER GLOVES
GLOVES EXTEND NEARLY TO THE ELBOW



Evaluation

Designers evaluate their finished products or prototypes in order to test whether they work well and if the design can be corrected or improved. Whatever you have designed it is important to evaluate your work constantly during the project. Evaluation can take a variety of forms:

- General discussion with other pupils, staff and others.
- Questionnaires / surveys carried out at any time during the project.
- Your personal views, what you think of existing designs.
- Most important of all - what do you think of your designs, prototypes and finished products?
- Can you think of any other ways of evaluating your work?

Unit 2: Science Fiction

H.G. Wells (1866-1946)



'The Shakespeare of Science Fiction.'
Time Machine was his 1st Novel
He was a scientific journalist/sociologist/
developed interest in political reform later. He
wanted the world to become 1 state.
Draper. Teacher. Lecturer.

The War of The Worlds

can be seen as a **criticism of the British Empire**,
particularly with regards to the Tasmanians who
were wiped out by European colonialists.

Sci-Fi

Science fiction speculates about alternative ways
of life made possible by technological change,
and hence has sometimes been called
"speculative fiction."

What factors led to the formation of the sci-fi genre?

Mary Shelley – the mother of science fiction – wrote
arguably one of the first Sci Fi novels, 'Frankenstein', in
1818. One of the narrators, Dr Frankenstein, is a
scientist who brings a monster to life by using
electricity, recently invented.



The **rise of the sci-fi genre** evolved in the C19th due to
new technological innovations caused by the **Industrial
Revolution** and an **increased awareness of science** –
most notably electricity, inoculation and blood
transfusions.

Sci-Fi elements

- Time travel.
- Teleportation.
- Mind control, telepathy, and telekinesis.
- Aliens, extraterrestrial lifeforms, and mutants.
- Space travel and exploration.
- Interplanetary warfare.
- Parallel universes.
- Fictional worlds.



Keywords

Keywords:

Prescient - having or showing knowledge of
events before they take place.

Scrutinise - examine or inspect closely and
thoroughly.

Complacent - showing smug
or uncritical satisfaction with oneself or one's
achievements.

Terrestrial - on or relating to the earth.

Inferior - lower in rank, status, or quality.

Superior - higher in rank, status, or quality.

Imperialism - when one country exercises
power over another through various methods
of control.

Missionary - a person sent on a religious
mission, especially one sent to promote
Christianity in a foreign country.

Perish - die, especially in a violent or sudden
way.

Disillusionment - a feeling
of disappointment resulting from the
discovery that something is not as good as
one believed it to be.

Apocalyptic - describing the complete
destruction of the world.

Optimistic - thinks the best possible thing will
happen and hopes for it even if it's not likely.

SPAG

A semi-colon (;) is used to separate two
main clauses (sentences). It replaces
conjunctions such as and AND but.

Example:

The teacher joked; the pupil laughed.

Tier 3 vocabulary

Connotation: a feeling, idea or image a
word evokes.

Foreshadowing: clues provided by the
writer to pre-empt an event.

Juxtaposition: contrast which occurs in
close proximity (within a small space)

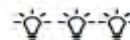


Motif: a repeated symbol

Pathetic fallacy: the use of weather
to indicate mood/a means for
foreshadowing.



Tension/suspense: a feeling of anxiety a
character or reader experiences in
anticipation of an event.



Rhetoric: the art of effective
or persuasive speaking or writing,
especially the exploitation of figures of
speech and
other compositional techniques.



Narrator: a person
who narrates something, especially a
character who recounts the events of a
novel or narrative poem.

Unreliable Narrator: any narrator who
misleads readers, either deliberately or
unwittingly.

Allusion: an expression designed to call
something to mind without mentioning it
explicitly; an indirect or passing
reference.



Science Fiction: fiction based
on imagined future scientific or
technological advances and major social
or environmental changes,
frequently portraying space or time travel
and life on other planets.

Tier 2 vocabulary

Extra-terrestrial: (noun) life from outside of
earth

Futuristic: (adjective) of or having to do with
the future, futurism, or futurology

Imperialism: when one country exercises
power over another through various methods
of control.

Exploitation: the action or fact of treating
someone unfairly in order to benefit from their
work.

Exodus: a mass departure of people.

Evolution: the process by which new species or
populations of living things develop from
preexisting forms through successive
generations.

Oppression: a situation in which people are
governed in an unfair and cruel way and
prevented from having opportunities and
freedom.

Authority: a person or organization having
political or administrative power and control.

Ethical: relating to moral principles or the
branch of knowledge dealing with these.

Colonialism: a practice or policy of control by
one people or power over other people or
areas, often by establishing colonies and
generally with the aim of economic dominance.

Savage: fierce, ferocious, or cruel; untamed.

Civilised: having a high state of culture and
social development.

What do we need **proteins** for?

Functions

- Build enzymes and hormones
- Build cell membranes
- Repair and maintain tissues
- Defend the body (antibodies)
- Secondary source of energy

What happens if we have too much or too little?

Excess


- Kidney and liver diseases
- Weight gain

Deficiency


- Kwashiorkor
- Slowing growth rate
- Swelling

Protein alternatives


Vegetarians and vegans don't consume meat so instead they use protein alternative products which are manufactured in order to provide protein in a diet and protein rich foods.




Quorn




Soy chunks




Tofu



Textured vegetable protein (TVP)



Tempeh



Beans, lentils, chickpeas

What do we need **carbohydrates** for?

Functions

- Primary source of energy
- Store energy for later
- Build DNA
- Prevent the body from using proteins as an energy source

What happens if we have too much or too little?

Excess

- Tooth decay
- Type 2 diabetes
- Weight gain and obesity
- Hyperglycaemia

Deficiency

- Weight loss
- Lack of energy, tiredness
- Severe weakness
- Hypoglycaemia

What do we need **fats** for?

Functions

- Source of energy
- Insulation
- Dissolve vitamins
- Build hormones
- Build cell membranes

What happens if we have too much or too little?

Excess


- Obesity
- Hypertension
- Coronary heart disease
- Fatty liver disease
- Type 2 diabetes

Deficiency

- Weight loss
- Vitamin deficiency
- Heart disease
- Feeling cold


There are two different types of fats

Visible fats




Fats you can see, such as on meat are often saturated.

Invisible fats




Unsaturated fats you cannot see, such as in nuts and avocados. They are often good for the brain.

Saturated



Unsaturated



Micronutrients

Vitamins and minerals are essential nutrients that your body needs in small amounts to work properly.

Fat-soluble vitamins

Fat-soluble vitamins (vitamin A, D, E and K) are mainly found in: animal fats, vegetable oils, dairy foods, liver and oily fish. While your body needs these vitamins to work properly, you don't need to eat foods containing them every day.

Water-soluble vitamins

Water-soluble vitamins (vitamin C, the B vitamins and folic acid) are mainly found in: fruit and vegetables, grains, milk and dairy foods. These vitamins aren't stored in the body, so you need to have them more frequently. If you have more than you need, your body gets rid of the extra vitamins when you urinate.

Minerals

Minerals include calcium and iron amongst many others and are found in: Meat, cereals, nuts, fish, milk and dairy foods, fruit and vegetables. Minerals are necessary for 3 main reasons: Building strong bones and teeth, Controlling body fluids inside and outside cells, Turning the food you eat into energy.

Planning Meals for a Specific Dietary Requirement

Coeliac – cannot eat products containing gluten.

Lactose intolerance – the body can't digest the sugar lactose in dairy products.

Vegetarian: No meat in the diet.

Lacto-ovo-vegetarian- eat dairy and eggs

Lacto-vegetarian- eat dairy

Ovo-vegetarians- eat eggs

Pescatarians – eat fish

Vegan: No products from animals in the diet e.g. meat, milk or honey. often avoid using other products of animal origin, such as leather clothing, fur, feathers, etc. All foods are plant based.

	Islam (Muslims)	Judaism (Jews)	Hinduism (Hindus)
Eat	<i>Halal</i> food only	<i>Kosher</i> food only Only fish which have both fins and scales can be eaten	- Milk - Mainly vegetarian
Don't eat (or drink)	- Pork - Alcohol - Fish and shellfish without scales	- Shellfish - Pork - Meat with dairy	- Beef - Alcohol
Holidays or fasting periods	Ramadan - month-long fasting period during which Muslims can eat only at night.	- Passover celebrates liberation of Jews from slavery in ancient Egypt - Rosh Hashanah - Yom Kippur - Hanukkah	Diwali - festival of lights
Other information	<i>Halal</i> means permitted, allowed. To be <i>halal</i> , meat has to be produced in a special way, e.g. animals must be slaughtered in a ceremonious way where all the blood is drained from them.	<i>Kosher</i> means clean. <i>Matza</i> is a special unleavened bread eaten during Passover. The dietary laws of Judaism are known as <i>kashrut</i> .	Cows are sacred animals and, therefore, their meat cannot be eaten. During Diwali, sweets are given as gifts.

Year 9 Knowledge Organiser

Macronutrients: nutrients needed by the body in large amounts. They include proteins, fats and carbohydrates.

Micronutrients: nutrients needed by the body in small amounts. They include vitamins, minerals and trace elements.

Dietary Reference Value (DRV): the amount of a nutrient a person needs.

Keywords relating to Fats and Oils

Lipids: a general term given to fats.

Satiety: feeling full after eating.

Saturated fats: fats with two hydrogen atoms for each carbon atom. They are mainly solid at room temperature and are usually animal fats.

Unsaturated fats: fats which are usually liquid or soft at room temperature.

Monounsaturated fats: contain a pair of carbon atoms with only one hydrogen atom attached. Soft at room temperature, but will harden when put in the fridge. Considered to be healthier than other fats.

Polyunsaturated fats: have two or more pairs of carbon atoms which are capable of taking up more hydrogen atoms. Soft and oily at room temperature and do not harden in the fridge.

Trans-fatty acids: manmade molecules created when manufacturers add hydrogen to vegetable oils (hydrogenation).

Hydrogenation: the process of turning oils into solid fats.

Visible fats: fats that can be seen, such as the fat on meat and butter or oils used for frying or salad dressings.

Invisible fats: fats found in the products that we eat, such as biscuits, ice cream and ready meals.

Essential fatty acids: small units of fat needed to keep our bodies functioning properly.

Cholesterol: a fatty substance that is essential for cell membranes. Too much cholesterol in the body can increase the risk of cardiovascular disease. (A disease related to the heart or blood vessels, e.g. coronary heart disease.)

Keywords relating to Protein

Growth: e.g. from childhood to adulthood, and for the growth of nails, hair and muscle mass.

Repair: e.g. repairing our muscles, tissues and organs after illness or injury.

Maintenance: e.g. to make enzymes for digestion and antibodies to stop us getting ill.

High Biological Value (HBV) Protein: foods that contain all the essential amino acids.

Low Biological Value (LBV) Protein: foods that contain some of the essential amino acids.

Amino acids: small units that join together to make large molecules of proteins.

Essential amino acids: the nine amino acids that cannot be made by our bodies, so we must eat the proteins that contain them.

Complementary proteins: LBV proteins that are eaten in one meal together to provide the essential amino acids.

DRV of an average male: should consume 55g of protein each day.

DRV of an average female: should consume an average of 45g of protein each day.

Alternative proteins: proteins suitable for vegetarians and vegans. E.g. beans, lentils and nuts.

Soya: soya beans are one of the few plant-based HBV protein sources.

Mycoprotein: traditionally made from mushroom-like fungi's and egg white (although now there are vegan alternatives that use potato starch instead).

Textured Vegetable Protein (TVP): made from grinding soya beans. The soya flour is used to make dough which when baked has a meat-like texture and can be made into sausages, burgers and ready meals.

Tofu: made by curdling soya milk.

DRV: An average male should consume 55g of protein and an average female should consume 45g of protein each day.

Growing children need a greater amount of protein relative to their size and body mass.

Physically active people need more protein for muscle growth and repair.

Pregnant women need about 6g more protein than normal to help the baby grow. During breast feeding they require even more.

Keywords relating to Carbohydrates

Complex carbohydrates: such as starch and polysaccharides, take a lot longer to digest than simple sugars, so they gradually increase blood sugar levels and provide a slow, steady release of energy.

Simple sugars/carbohydrates: such as sugar can be divided into monosaccharides and disaccharides. The body rapidly digests simple carbohydrates, making blood sugar levels rise quickly and providing a short burst of energy.

Monosaccharides: simple sugars made of small molecules that are easily digested. Includes glucose, fructose and galactose.

Disaccharides: double molecules of glucose joined together which take longer to digest. Includes sucrose, lactose and maltose.

Intrinsic sugars: sugars contained within plant cells.

Extrinsic sugars: sugars added to dishes and drinks.

Polysaccharides: complex carbohydrates made of long chains of sugar molecules that take a long time to digest. Includes starch fibre (NSP), pectin, dextrose and glycogen.

Empty Calories: added sugars are often referred to as 'empty calories' because they have no nutritional benefits other than energy.

Pectin: makes jams and jellies set. It cannot be digested by the body.

Dextrin: formed when toasting bread or baking cakes, biscuits and pastry. Our bodies can digest this and break it down into glucose for energy.

Glycogen: formed in the liver from digestion and is used as an energy source.

Fibre/non-starch polysaccharides (NSP): the non-digestible part of plant cell walls.

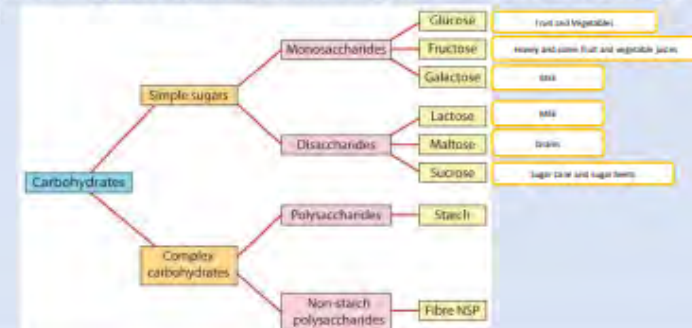
Soluble fibre: slows down the digestive process and can help lower blood cholesterol levels.

Insoluble fibre: absorbs water and helps prevent constipation.

Wholegrain: A 'wholegrain' is made up of three elements:

- a fibre-rich outer layer – the **bran**
- a nutrient-packed inner part – the **germ**
- a central starchy part – the **endosperm**.

During the milling process, the bran and the germ are often removed to give a 'whiter' cereal.



9.11 My School Life – Vocabulary List



Quelle est ta matière préférée?	What is your favourite subject?
L'anglais	English
L'espagnol	Spanish
Le français / les langues	French / languages
Le théâtre	Drama
Le dessin	Art
Le sport (L'EPS)	P.E.
L'informatique	I.C.T. (Computer Studies)
La musique	Music
La technologie	D.T.
La géographie	Geography
L'histoire	History
La religion	R.S. (Religious Studies)
L'éducation civique	P.S.H.E (Health and Wellbeing)
Les mathématiques	Maths
Les sciences	Science

Quelles sont les règles?	What are the rules?
On doit / On ne doit pas	You must / You must not
On peut / On ne peut pas	You can / You can not
Il faut	You must
Il est interdit de/d'	It is forbidden to
Écouter en classe	(to) listen in class
Utiliser son portable en classe	(to) use your phone in class
Porter des bijoux	(to) wear jewellery
Porter du maquillage	(to) wear make-up
Porter des baskets	(to) wear trainers
Manquer les cours	(to) miss lessons
Être à l'heure	(to) be on time
Mâcher du chewing-gum	(to) chew chewing-gum
Faire ses devoirs	(to) do homework

Qu'est-ce que tu en penses?	What do you think of it?
C'est/Ce n'est pas	It is/It is not
Intéressant (e)	Interesting
Pratique	Practical
Utile/inutile	Useful/not useful
Facile/Difficile	Easy/difficult
Ennuyeux (se) /barbant (e)	Boring
Passionnant (e)	Exciting
Créatif (ve)	Creative
Important (e)	Important
Trop	Too
Très	Very
Assez	Quite
Un peu	A bit (a little)
du tout	At all

Qu'est-ce que tu voudrais faire dans le futur?	What would you like to do in the future?
Je vais	I am going
Je voudrais/J'aimerais	I would like
Réussir mes examens	To pass my exams
Recevoir des bonnes notes	To get good results
Faire un apprentissage	To do an apprenticeship
Chercher du travail	To search for a job
Faire du bénévolat	To do voluntary work
Voyager autour du monde	To travel the world
Avoir des enfants	To have children
me marier	To marry
Apprendre à conduire	To learn to drive
Devenir	To become
Médecin/Vétérinaire	A doctor/a vet
Professeur/Avocat(e)	A teacher/a lawyer
Mécanicien(ne)/Plombier(ière)	A mechanic/a plumber
Pompier (ière)	A firefighter
Coiffeur(euse)	A hairdresser

Comment est ton uniforme scolaire?	What is your school uniform like?
Je porte	I wear
Il faut porter	You must wear
Une veste/ un blazer	A blazer/jacket
Un pull	A jumper
Une chemise	A shirt
Un t-shirt	A t-shirt
Une cravate	A tie
Une jupe	A skirt
Des chaussettes	Socks
Un pantalon	Trousers
Des chaussures	Shoes
Un collant	Tights
Un hijab	Hijab
Moche	Ugly
Beau/belle	Beautiful
(In)confortable	(un)comfortable
Cher	Expensive
Pas cher/bon marché	Not expensive/cheap
À la mode	Fashionable
Démodé(e)	Old-fashioned

La journée scolaire	The school day
Je quitte la maison	I leave the house
Je vais au collège	I go to school
Les cours commencent à	Lessons start at
Les cours terminent à	Lessons end at
Ça dure	It lasts
La récréation	Breaktime
L'heure du déjeuner	Lunchtime
Le matin	The morning
L'après-midi	The afternoon
Le soir	The evening
Un élève	A pupil

Can you make a decision?

Decision making is a key skill in geography - and in life! This theme is all about developing your ability to process information, apply your own understanding and justify your opinions.

Key Geographical Words

Stakeholders	Individuals or groups of people interested or invested in something
Sustainability	When something can continue into the future with little or no change / impact
Social	Relating to people and/or society
Economic	Relating to money and/or the economy of a place
Environmental	Relating to the natural surroundings of a place or the world's natural environment
GIS	Geographical Information Systems – layers of numerical data over spatial maps
Flooding	When a river overflows its banks, or the sea level rises and causes water to go where it would not normally be
Renewable Energy	Energy/ and power from sources that will not run out e.g. solar, wind, hydroelectric

Understanding the Issue



This is why geographers spend a lot of time **information gathering** and **conducting investigations**

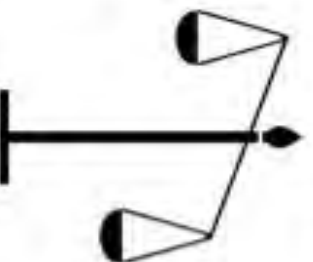
In order to make good decisions you have to be **well-informed**

The more information you have, the better you will understand the issue. This is important as it helps you **find a solution**

When presented with information it is helpful to:

- **Skim read** it and assess what you have in front of you
- **Choose** sections to read thoroughly
- **Organise** the information based on what it tells you

Assessing the options



When presented with options or solutions, it is important to **weigh up the evidence** that supports or goes against each option.

This can easily be done using a table layout. →

	+	-	Score /10
1			
2			
3			

Sometimes applying a score helps to make the final decision

Writing a response



The written response needs to include:

- Your decision (first sentence/paragraph)
- Supporting evidence
- Reasons for dismissing alternative options

Write in well-structured paragraphs

Point – make a statement

Evidence – use data / evidence to support your point

Explain – demonstrate your geographical understanding of the issue

Link – back to other points and your choice



9.11 My school Knowledge Organiser

School – Subjects, uniform and time
Future plans & jobs

<u>infinitives</u>	machen	können	RE verb
ich(I)	mache	kann	lerne
du (you)	machst	kannst	lernst
er/sie/man (he/she/one)	macht	kann	lernt
Wir (we)	machen	können	lernen
ihr (you all)	macht	könnt	lernt
Sie (you) /sie (they)	machen	können	lernen

The future tense in German

You can talk about the future by using the present tense + a future time phrase or use the future tense which is:-

Use part of the verb werden and the infinitive to say what you are going to do/will do

*Heute abend spiele ich Tennis. This evening I am going to play tennis.
Morgen wird Paul Kuchen essen. Tomorrow Paul will eat cake.*

You can also use the following phrases with an infinitive to refer to the future.
*Ich will= I want
Ich möchte = I would like*

Adjectives describe nouns e.g., a **black** blazer.

In German, adjectives go before the words they are describing e.g., eine blaue Krawatte (a blue tie) and they must agree with the noun they are describing.

Adjectives must agree with the noun (or pronoun) they describe in gender and in number.

This means that if the noun an adjective describes masculine, the adjective must be masculine e.g., einen schwarzen Blazer (a black blazer).

If the noun is plural, the adjective will be plural as well e.g., schwarze Socken (black socks).

Comparatives – to express more or less than

Add 'er' to the adjective, but in words of more than 1 syllable an umlaut is sometimes added too. You must also add **als = than**

klein = kleiner(smaller) lang = länger

wichtig = wichtiger (more important)

Mathe ist interessanter als Deutsch

mehr = more/weniger = fewer/besser = better



9.11 My school – vocab. list



Was ist dein Lieblingsfach?

Englisch
Spanisch
Französisch
Theater
Kunst
Sport
Informatik
Musik
Technologie
Erdkunde
Geschichte
Religion
Mathe/Mathematik
Naturwissenschaften
Deutsch

Wie findest du?

Es ist
interessant
praktisch
nützlich
nutzlos
einfach
schwierig
langweilig
spannend
kreativ
wichtig
zu
sehr
ziemlich

Favourite Subject.

English
Spanish
French
Drama
Art
PE
Computer Science
Music
Technology
Geography
History
RE
Maths
Science
German

What do think about?

It is
Interesting
Practical
Useful
Useless
Easy
Difficult
Boring
Exciting
Creative
Important
Too
Very
Quite

Beschreib deine Schuluniform

Ich trage

eine Jacke/einen Blazer
einen Pullover
ein Hemd
ein T-Shirt
eine Krawatte/einen Schlips
einen Rock
Socken
eine Hose
Schuhe
Strumpfhose

hässlich
schön
(un)bequem
teuer
billig
modisch
altmodisch

Describe your school uniform

I wear..

Blazer
Jumper
Shirt
T-shirt
Tie
Skirt
Socks
Trousers
Shoes
Tights



Ugly
Pretty
(un) comfortable
Expensive
Cheap
Fashionable
Unfashionable

Der Schultag

Ich verlasse die Schule
Ich gehe zur Schule
Die Stunden beginnen
Die Schule ist...zu Ende
Es dauert
Die Pause
Die Mittagspause
Morgens
Nachmittags

The school day

I leave home
I go to school
Lessons start...
School ends...
It lasts...
Break
Lunch break
In the morning
In the afternoon

Was sind die Schulregeln?

Man darf(nicht)
Man kann (nicht)
Man muss
Es ist verboten
Im Unterricht zuhören
Ein Handy im Klassenzimmer haben
Schmuck tragen
Make-up tragen
Sportschuhe tragen
Unterricht verpassen
pünktlich sein
Kaugummi kauen
Hausaufgaben machen

What are the rules?

You are allowed
You can('t)
You must
It is forbidden
To listen in class
To have a phone in class
To wear jewellery
To wear make up
To wear trainers
To miss lessons
To be on time
To chew gum
To do homework

Was möchtest du in der Zukunft machen?

Ich möchte.....
Prüfungen bestehen
gute Noten haben
eine Lehre machen
einen Job suchen
freiwillig arbeiten
reisen
Kinder haben
heiraten
fahren lernen
Arzt(-in)
Lehrer (in)
Rechtsanwalt (in)
Mechaniker (in)
Klempner
Feuerwehrmann/frau
Tierarzt(in)
Friseur/Friseuse

What do you want to do in the future?

I would like.....
To pass my exams
To get good grades
To do an apprenticeship
To look for a job
To work as a volunteer
To travel
To have children
To get married
To learn how to drive
Doctor
Teacher
Lawyer
Mechanic
Plumber
Firefighter
Vet
Hairdresser

Context

Between 1933 and 1939, after Adolf Hitler and the Nazi's came to power in 1933, Jewish people in Germany faced terrible **discrimination** and **prejudice** and some were killed. **During WW2 (1939-45)** the mass killing of approximately **six million Jewish people** across Europe occurred.

Key Events

1	30th January 1933 – Hitler became Chancellor of Germany.
2	22nd March 1933 – The first concentration camp opened in Germany – Dachau.
3	1st April 1933 – The Nazi's organised a boycott of Jewish businesses.
4	16th September 1935 – The Nuremburg Laws were passed.
5	5th October 1938 – Jewish people have to hand in their passports and they are stamped with the letter J.
6	9th and 10th November 1938 – Kristallnacht – A night of violence when Jewish shops and synagogues were attacked.
7	15th November 1938 – All Jewish children are expelled from schools.
8	December 1938 – The first Kindertransport arrived in Britain.
9	1st September 1939 – Germany invaded Poland. WW2 began.
10	22nd June 1941 – Germany invaded the USSR.
11	8th December 1941 – The first death camp, Chelmno, begins operation.
12	20th January 1942 - The Wannsee Conference - meeting where leading Nazi's decided to deport all European Jews to death camps.
13	April-May 1943 – The Warsaw ghetto uprising.
14	7th May 1945 – Germany surrendered to Britain and France.
15	9th May 1945 – Germany surrendered to the USSR.



History – Year 9
Knowledge
Organiser
Term 4
How and why was the Holocaust possible?

Topic

16	Holocaust	The planned attempt by the Nazi regime and its collaborators in Nazi-occupied Europe to annihilate the "entire" Jewish people, following the Nazi invasion of Russia in 1941.
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Historical Skills

Use of sources	<p>Content: What does the source tell us?</p> <p>Nature: What type of source is it?</p> <p>Origin: Who made the source? When? Where?</p> <p>Purpose: Why was the source created?</p>
Interpretations	To understand different opinions from Historians and consider the reasons for their opinions.

Key Terms

17	Antisemitism	Prejudice, discrimination or persecution against Jews.
19	Concentration Camp	Prison camp to which the Nazis sent Jews, their opponents and other people they considered undesirable.
20	Death Camp	Killing centres established by the Nazis in Central Europe during WW2.
21	Einsatzgruppen	The killing squads who followed the army into Poland and Russia following the invasions of these countries.
22	Genocide	The deliberate and systematic attempt to exterminate a whole race of people.
23	Ghetto	An area of a city into which the local Jewish population was forcibly packed and forced to stay in increasingly appalling conditions.

Spaces of Nazi persecution and murder

Substitution

Evaluate (find the value of) the expressions, given that:

$$a = 2, \quad b = 3, \quad c = -5$$

$$1. \quad 4b = 4 \times 2 = 8$$

$$2. \quad 7b - 3c = (7 \times 3) - (3 \times -5) = 21 - -15 = 21 + 15 = 36$$

$$3. \quad 5b^2 + 1 = 5 \times (3)^2 + 1 = 5 \times 9 + 1 = 45 + 1 = 46$$

$$4. \quad 2c^3 = 2 \times (-5)^3 = 2 \times -125 = -250$$

$$5. \quad \frac{3ac}{2b} = \frac{3 \times 2 \times -5}{2 \times 3} = \frac{-30}{6} = -5$$

Note – Always use the correct order of operations

For fractions work out the numerator and denominator separately first

Inequalities show the range of numbers that satisfy a rule.

$x < 2$ means x is less than 2

$x \leq 2$ means x is less than or equal to 2

$x > 2$ means x is greater than 2

$x \geq 2$ means x is greater than or equal to 2

The list of integers for $-2 < x \leq 1$ is -1, 0, 1.

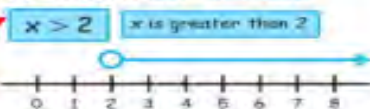
Check the symbols carefully, if they have the line underneath they include the end value.

Greater than $>$ Greater than or equal to \geq

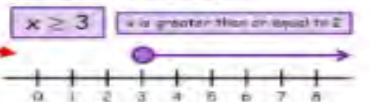
Less than $<$ Less than or equal to \leq

Not equal to \neq

An open circle means that the value is **not** included:



A filled in circle means that the value is included:



If x is between two values, use two circles:



x is greater than 1, but less than or equal to 6.

Solving one step equations/inequalities

To solve any equation or inequality we need to do the inverse of the operation that we see.

$$\begin{array}{lcl} t + 4 = 10 & \leftarrow \text{The inverse of add is subtract and vice versa.} & c - 3 > 6 \\ -4 & & +3 \\ t = 6 & & c > 9 \end{array}$$

$$\begin{array}{lcl} 6y < 30 & \leftarrow \text{The inverse of multiply is divide and vice versa.} & \frac{m}{7} = 4 \\ \div 6 & & \times 7 \\ y < 5 & & m = 28 \end{array}$$

Solving two step equations/inequalities

To solve a two step equation or inequality we need to complete 2 inverse calculations in a specific order.

$$\begin{array}{lcl} 6y + 2 = 32 & \leftarrow \text{Subtract first because the 2 is separate from the y.} & \\ -2 & & \\ 6y = 30 & \leftarrow \text{Divide because it is the inverse of multiplying.} & \\ \div 6 & & \\ y = 5 & & \end{array}$$

$$\begin{array}{lcl} \frac{w-5}{3} \geq 4 & \leftarrow \text{Multiply first because the entire expression is divided by 3.} & \\ \times 3 & & \\ w - 5 \geq 12 & \leftarrow \text{Add because it is the inverse of subtracting.} & \\ +5 & & \\ w \geq 17 & & \end{array}$$

Solving equations with brackets

We must expand the bracket first and then solve by doing the inverse of the operations. We use the same method for inequalities.

$$\begin{array}{lcl} 3(2x + 5) = 39 & \leftarrow \text{Expand brackets first.} & \\ 6x + 15 = 39 & \leftarrow \text{The inverse of +15 is -15.} & \\ -15 & & \\ 6x = 24 & \leftarrow \text{The inverse of } \times 6 \text{ is } \div 6. & \\ \div 6 & & \\ x = 4 & & \end{array}$$

Solving with unknowns on both sides

To solve an equation or inequality with unknowns on both sides we need to collect all of the same terms together, still by looking at the inverse.

$$5x - 20 \leq 3x + 4$$

$$\begin{array}{r} -3x \quad -3x \\ 2x - 20 \leq 4 \end{array}$$

$$\begin{array}{r} +20 \quad +20 \\ 2x \leq 24 \end{array}$$

$$\begin{array}{r} \div 2 \quad \div 2 \\ x \leq 12 \end{array}$$

$$x \leq 12$$

We subtract $3x$ from both sides because it is the smaller term of x .

Then solve like a normal two step equation.

$$2x - 10 = 5x + 2$$

$$\begin{array}{r} -2x \quad -2x \\ -10 = 3x + 2 \end{array}$$

$$\begin{array}{r} -2 \quad -2 \\ -12 = 3x \end{array}$$

$$\begin{array}{r} \div 3 \quad \div 3 \\ -4 = x \end{array}$$

$$-4 = x$$

$$-4 = x$$

We subtract $2x$ from both sides because it is the smaller term of x .

Then solve like a normal two step equation.

Top tip: Always subtract/add the smaller number of terms to avoid getting a negative term at the end.

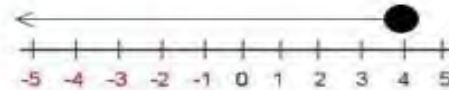
Solve this inequality and represent your answer on a number line:

$$5x - 6 \leq 14$$

$$\begin{array}{r} +6 \quad +6 \\ 5x \leq 20 \end{array}$$

$$\begin{array}{r} \div 5 \quad \div 5 \\ x \leq 4 \end{array}$$

$$x \leq 4$$



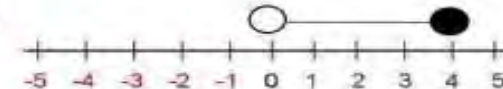
Solve this inequality and represent your answer on a number line:

$$4 < 3x + 1 \leq 13$$

$$\begin{array}{r} -1 \quad -1 \\ 3 < 3x \leq 12 \end{array}$$

$$\begin{array}{r} \div 3 \quad \div 3 \\ 1 < x \leq 4 \end{array}$$

$$1 < x \leq 4$$



Simultaneous equations are when **more than one equation** are given, which involve **more than one variable**. The variables have the **same value** in each equation.

Solve by subtraction

$$\begin{array}{r} 10x \\ 3x + 2y = 18 \\ - (x + 2y = 10) \\ \hline 2x = 8 \end{array}$$

$$\begin{array}{r} 10x \\ 2x = 8 \\ \div 2 \quad \div 2 \\ x = 4 \end{array}$$

$$\begin{array}{r} 8 \\ x = 4 \\ \div 2 \quad \div 2 \\ y = 3 \end{array}$$

$$x = 4$$

$$y = 3$$

$$3x + 2y = 18$$

$$x + 2y = 10$$

$$2x = 8$$

$$\begin{array}{r} \div 2 \quad \div 2 \\ x = 4 \end{array}$$

$$x + 2y = 10$$

$$(4) + 2y = 10$$

$$\begin{array}{r} -4 \quad -4 \\ 2y = 6 \end{array}$$

$$\begin{array}{r} \div 2 \quad \div 2 \\ y = 3 \end{array}$$

$$y = 3$$

Solve by addition

$$3x + 2y = 16$$

$$+ 6x - 2y = 2$$

$$9x = 18$$

$$\begin{array}{r} \div 9 \quad \div 9 \\ x = 2 \end{array}$$

$$3x + 2y = 16$$

$$3(2) + 2(y) = 16$$

$$6 + 2y = 16$$

$$\begin{array}{r} -6 \quad -6 \\ 2y = 10 \end{array}$$

$$2y = 10$$

$$y = 5$$

Solve by adjusting one

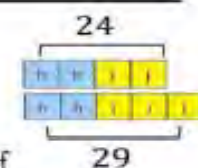
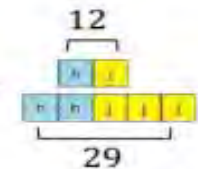
$$h + j = 12 \quad \text{No equivalent values}$$

$$2h + 2j = 29$$

$$2h + 2j = 24$$

$$2h + 2j = 29$$

By proportionally adjusting one of the equations – now solve the simultaneous equations choosing an addition or subtraction method





Film and Game Music

Year 9 – Topic 1

Keywords

Leitmotif – A short piece of music that represents a character

Underscore – Quiet music that plays underneath dialogue

Dialogue – The characters voices

Foley – All non-music sounds

Composer – The person who writes the music

Film score – The music that accompanies a film

Mickey-Mousing – Use sound and rhythm to imitate the action on screen

Genres

Horror Sci-fi Comedy
Romance Action Adventure
Thriller Kids Fantasy
Comic-book Film Noir

Garageband Shortcuts

Cmd + Space = Search

Cmd + T = Cut

Cmd + C = Copy

Cmd + Z = Undo

Cmd + V = Paste

+ (On screen) = Add new instrument

Double Click (on a part) = Edit Music

PE Knowledge Organiser

FITNESS TESTING

Component of fitness	Fitness test
Flexibility	Sit and reach
Strength	Grip Dynamometer
Aerobic endurance	Multi-stage fitness test Forestry step test
Speed	35-metre sprint
Speed and agility	Illinois agility run
Power	Vertical jump test
Muscular endurance	1-minute press-up test 1-minute sit-up test
Body composition	Body mass index (BMI) Bioelectrical impedance analysis (BIA) Skinfold testing – Jackson-Pollock nomogram method

POWER

Vertical jump

Equipment: Wall, tape measure, chalk

Usually measured in: cm



MUSCULAR STRENGTH

Grip dynamometer

Equipment: Grip dynamometer

Usually measured in: KgW



FLEXIBILITY

Sit and reach

Equipment: Sit and reach box

Usually measured in: cm

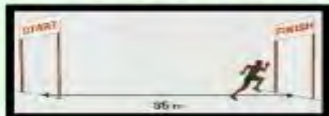


SPEED

35-metre sprint

Equipment: tape measure and stopwatch

Usually measured in: seconds (s)



AEROBIC ENDURANCE

Multistage fitness test

Equipment: Bleep test CD, tape measure, cones

Usually measured in: ml/kg/min

Forestry step test

Equipment: Step (Males = 40cm high / Females = 33cm high), metronome, stopwatch.

Usually measured in: ml/kg/min

SPEED AND AGILITY

Illinois agility test

Equipment: cones, tape measure, stopwatch

Usually measured in: seconds (s)

BODY COMPOSITION

Body Mass Index (BMI)

Equipment: Scales and tape measure

Usually measured in: kg/m²

Bioelectrical Impedance Analysis (BIA)

Equipment: BIA analyser and a mat

Usually measured in: % body fat

Skinfold test

Equipment: Skinfold callipers

Usually measured in: % body fat



MUSCULAR ENDURANCE

One-minute sit-up test

Equipment: A mat and a stopwatch

Usually measured in: sit-ups per minute

One-minute press-up test

Equipment: A mat and a stopwatch

Usually measured in: press-ups per minute





War: When people disagree Knowledge Organiser

NEED TO KNOW WORDS	
Justice	A situation where people are treated fairly or correctly
Pacifism	The belief that no violence or war can ever be justified
Civilians	People who are not members of the armed forces or other military group
Jihad	To struggle to follow Allah, in some situations this may require the use of violence to prevent further suffering. (lesser Jihad)
War	Armed conflict between two countries or different groups
Just War	A war which is considered morally justified as it follows Thomas Aquinas' 7 rules of Just War.
Justified	When an action is considered good because of the reasons for it or outcome it might produce.

What are the causes of conflict?	Who or what are the casualties of conflict?	The main casualties of war include:																		
<p>The causes of any war are complex. Wars are rarely about just one thing. They can be declared when a state or states act to:</p> <ul style="list-style-type: none"> • attack or invade another state, to gain territory or resources • resist such an attack or invasion by an aggressor • protect another state from attack by an aggressor • impose domination or political change on another state, or to resist such domination • challenge a threat to 'essential national interests' by another state • counter perceived threats from a different ideology, religion or ethnic group • defend the national honour when under threat <p>War can also occur internally within a state between organised groups. This is known as civil war.</p>	<p>Estimated number of military and civilian fatalities in major UK conflicts since World War Two</p> <table border="1"> <thead> <tr> <th>Conflict</th> <th>Military fatalities</th> <th>Civilian fatalities</th> </tr> </thead> <tbody> <tr> <td>North Ireland</td> <td>1,124</td> <td>1,342</td> </tr> <tr> <td>Trojan Island</td> <td>254</td> <td>3</td> </tr> <tr> <td>Guantanamo</td> <td>24</td> <td>3,600+</td> </tr> <tr> <td>Al-Qaeda</td> <td>438</td> <td>29,000</td> </tr> <tr> <td>Baghdad</td> <td>179</td> <td>110,000 - 121,000</td> </tr> </tbody> </table>	Conflict	Military fatalities	Civilian fatalities	North Ireland	1,124	1,342	Trojan Island	254	3	Guantanamo	24	3,600+	Al-Qaeda	438	29,000	Baghdad	179	110,000 - 121,000	<ul style="list-style-type: none"> • servicemen and women who lose their lives or are injured • civilians who lose their lives or are injured • civilians who have their families, homes and way of life damaged or destroyed • damage to the country's infrastructure, eg roads and bridges destroyed • refugees who have to flee their country of birth to find safety
Conflict	Military fatalities	Civilian fatalities																		
North Ireland	1,124	1,342																		
Trojan Island	254	3																		
Guantanamo	24	3,600+																		
Al-Qaeda	438	29,000																		
Baghdad	179	110,000 - 121,000																		

Live by the sword, die by the sword Matthew 26	What does Christianity teach about war and peace?	Love your enemies and pray for those who persecute you. Matthew 5:44
And let him who has no sword sell his mantle and buy one. Luke 22:36	nation shall not lift up sword against nation, neither shall they learn war any more. Isaiah 2:4	Defend the rights of the poor and orphans; be fair to the needy and helpless. Rescue them from the power of evil men. Psalm 82

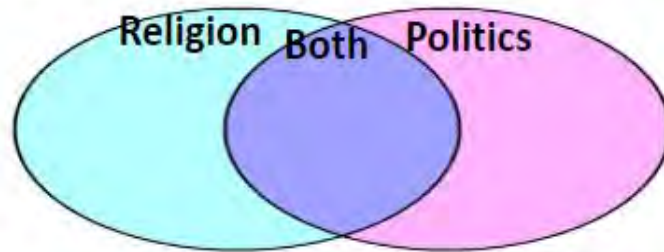
What are the two types of Jihad?		
Greater	Lesser	
The struggle against oneself	Non-violent The word of justice in front of the oppressive ruler	Violent To defend, not attack
Spiritual	Verbal	Physical (military)
Against yourself	Against the oppressive ruler	Against those who fight you



What happens when people disagree?

Key Word		Definition
Persecution		Cruel or unfair treatment, especially because of race or religious or political beliefs.
Schism		A tear or split, in religion it is when the religion splits into opposing groups.
Denomination or sect		A branch or group within a religion. For example, Sunni and Shia in Islam, or Catholic and Protestant in Christianity.
Islamophobia		The fear of, hatred of, or prejudice against the religion of Islam or Muslims in general.
Homophobia		Dislike of or prejudice against gay people.
Holocaust		Also known as the Shoah, between 1941 and 1945, this was the genocide of European Jews during World War II.

What's the difference between religion and politics?

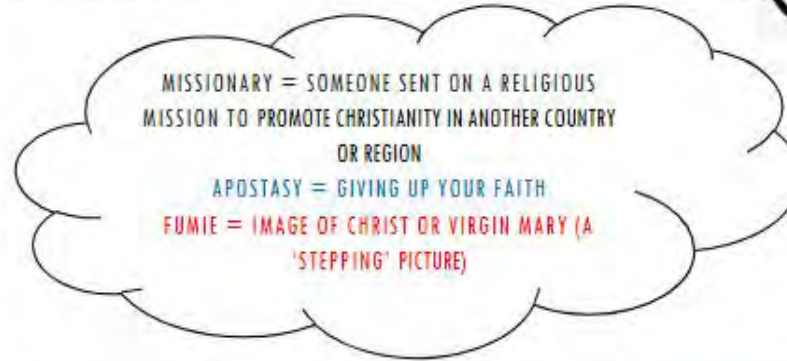
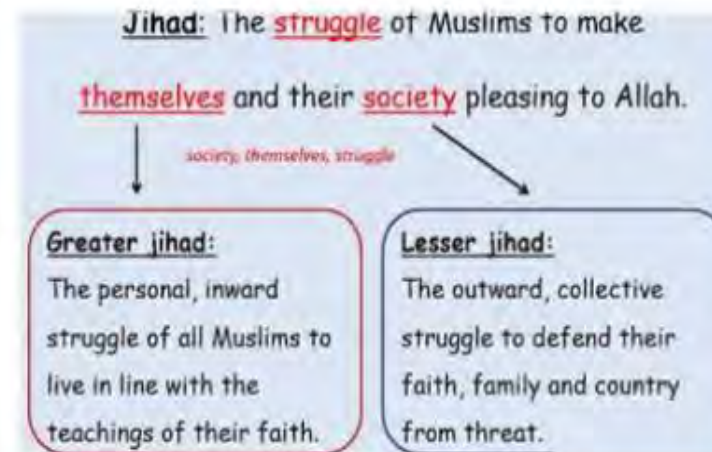


Religion = a system of faith and worship

Politics = the influence of governments or other groups that hold power.

Place these words on a venn diagram.

Voting	Prayer	Crime and punishment
Beliefs	Worship	Government
God	leaders	Laws



Whoever kills an innocent life it is as if he has killed all of humanity..

(Surat Al-Ma'idah 5:32)



The Golden Rule

"Do unto others as you would have them do unto you"

Matthew 7:12

Shed not recklessly the blood of another with thy sword, lest the sword on high falls upon thy neck.

"WHAT IS HURTFUL TO YOURSELF DO NOT DO TO YOUR FELLOW MAN."
– TALMUD, SHABBAT 31A (JUDAISM)

HOW ARE PEOPLE PERSECUTED?

WOMEN OF ENGLAND PERSECUTION

'The witch Hunts'

Who? Women in the British Isles

When? The witch hunts lasted from 1645, just after the Battle of Naseby, to 1647.

Where? East Anglia in England

By Whom? By the Christian authorities & a man called Matthew Hopkins 'The Witch-Finder General'

What happened?

People, especially women, who were different in any way, through age, or physical disability, or mental disability, were picked out by those who wanted to believe there was some specific reason why things had gone wrong in the community.

They were accused of being witches & were put on trial. If found guilty, they would be executed.

NATIVE AMERICAN PERSECUTION

Who? Native American tribes

When? 1831-1838

Where? Southern United States

By Whom? American government

What happened?

This period of American history is known as 'The Trail of Tears'.



The United States government forced Native Americans to move from their homelands in the Southern United States to Indian Territory in Oklahoma. Peoples from the Cherokee, Muscogee, Chickasaw, Choctaw, and Seminole tribes were marched at gunpoint across hundreds of miles to reservations.

AZTECS PERSECUTION

Who? The Aztec Empire

When? February 1519 – August 13, 1521

Where? Aztec Empire (Modern day Mexico)

By Whom? Spanish Conquistadores

What happened?

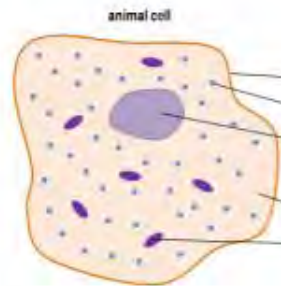
Between 1519 and 1521 the Spanish, under the leadership of conquistador Hernan Cortés, conquered the Aztec Empire.

Cortés arrived with around 500 men, 16 horses, and some cannon. They captured the Aztec king, Montezuma II, & killed him. Fighting began & a second Aztec king was killed. The Spanish conquistadores took the capital city Tenochtitlan (now Mexico City).

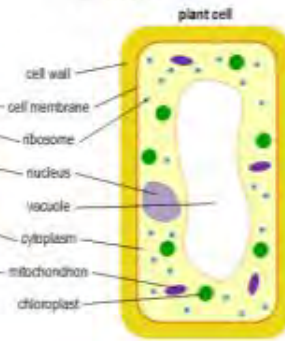


Cell Structure

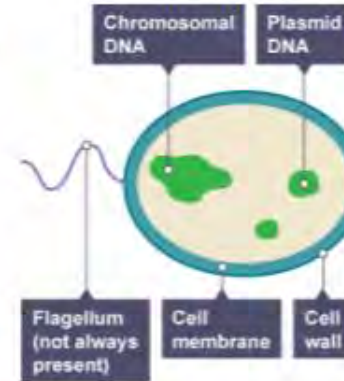
- Animal cell



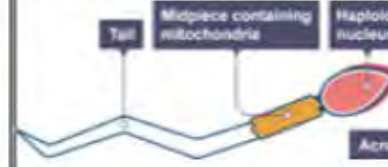
- Plant cell



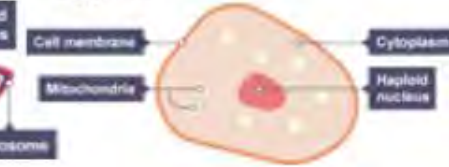
- Bacterial cell

**Specialised cells**

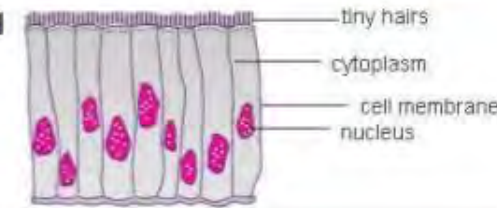
- Sperm cell



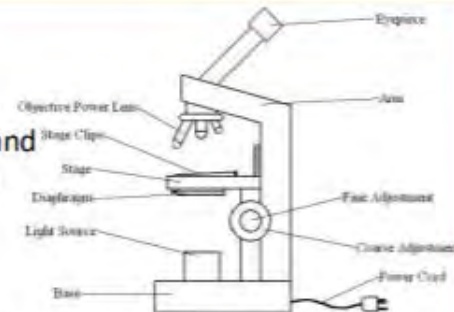
- Egg cell



- Ciliated cell

**Making Microscope Slides**

1. Take a thin slice of specimen
(to let light through)
2. Put a drop of water on a slide and use tweezers to add the specimen
(water holds it in place)
3. Add a drop of stain
(makes it easier to see)
4. Use a mounted needed to lower a cover slip and press down firmly
(so there are no bubbles)
5. Put the slide on the stage and secure using the clips
6. Choose the lowest powered objective lens
7. Use the coarse focusing knob to move the stage up and down while looking through the eyepiece
(to focus the image)
8. Adjust the focus using the fine adjustment knob
9. Put a clear ruler on the state to measure the diameter of your field of view
(this will allow you to estimate the size of the specimen)
10. Repeat focusing with higher-powered objective lens if needed

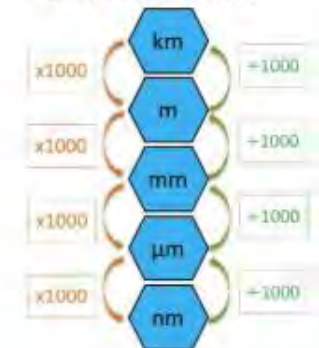
**Magnification**

- Equation

$$\text{Magnification} = \text{image size} \div \text{actual size}$$



- Unit conversion

**Light vs. Electron Microscopes**

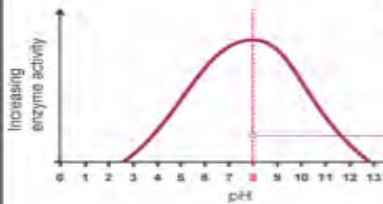
Light microscope	Electron microscope
Inexpensive to purchase and operate	Expensive to purchase and operate
Simple and easy specimen preparation	Complex and lengthy specimen preparation
Magnifies up to 2000x	Magnifies over 500 000x
Specimens may be living or dead	Specimens are dead, and must be fixed in a plastic material

EDEXCEL 9-1 Combined Science | Biology Topic 1 – Key Concepts | Required Knowledge

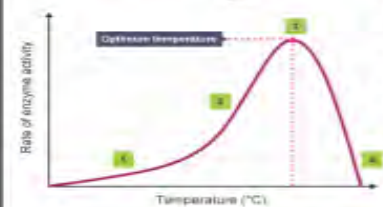
CPG F & H tier: pages 15-17.

Enzyme Structure

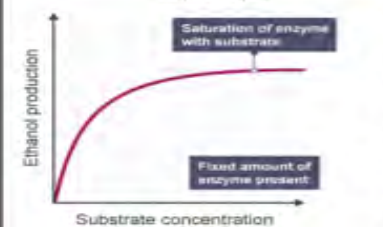
Enzymes speed up chemical reactions where things are split apart or joined together. Enzymes only work with one substrate, they have a high specificity due to the shape of the active site. The substrate's shape has to match the active site's shape exactly. This is called the 'lock and key' model.

**Factors affecting enzymes**

As the enzyme experiences conditions away from the optimum the shape of the active site begins to change meaning the substrate can't fit as well and less reactions will occur.



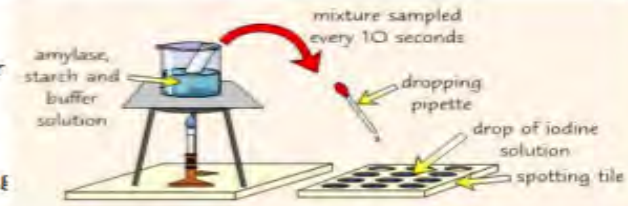
As the enzyme experiences warmer conditions it (and the substrate) will move more quickly, there will be more collisions and more reactions. After the optimum the heat causes the shape of the active site to change in the same way as pH.



As more substrate is added the more collisions there will be with available enzymes and more reactions, up until a certain (saturation point), where all of the enzymes are already working at their maximum rate.

Investigating Enzymes

The enzyme amylase catalyses the break down of the starch into maltose (sugar). The enzyme is added to buffer solutions of different pHs. The time it takes for the enzyme to work is calculated by continuously sampling the mixture and adding it to iodine. Only when all of the starch has been broken down will the iodine stop changing colour. Calculation needed: Rate = $1 \div \text{time taken}$.

**Specific digestive enzymes**CarbohydraseProteaseLipase

All of these digestive processes can happen in reverse = synthesis.

Investigating Osmosis

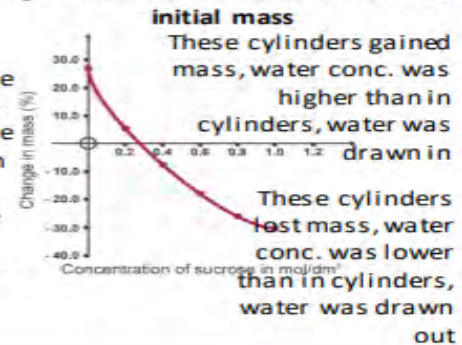
1. Prepare sucrose solutions of 5 concentrations
2. Measure the mass of potato cylinders
3. Put one cylinder into a test tube of each solution
4. Leave for 40 mins
5. Pat dry and reweigh

Results

Calculate percentage change in mass.

Percentage change = $\frac{\text{final mass} - \text{initial mass}}{\text{initial mass}} \times 100$

The point where the line crosses the x-axis means the concentration inside and outside of the potato cylinder were the same.

**Transport**Diffusion

Movement of particles from high concentration to low concentration
e.g. carbon dioxide into plant leaves

Osmosis

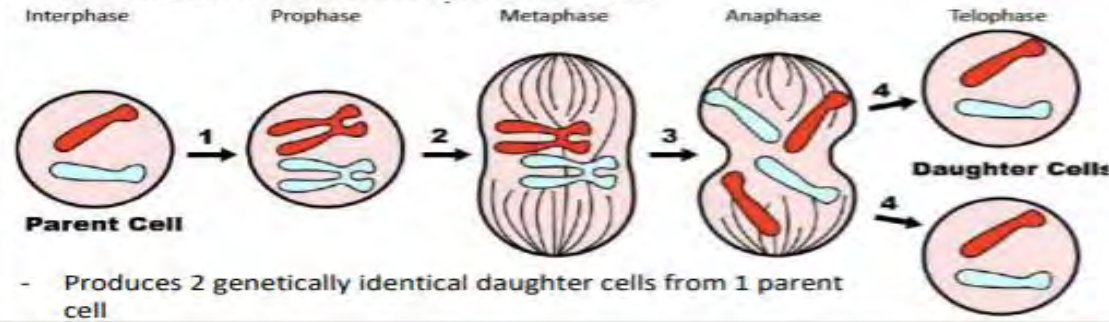
Movement of water particles across a partially permeable membrane from high water concentration to low water concentration e.g. water into plant roots

Active Transport

Movement of particles across a membrane from high concentration to lower concentration, using energy transferred during respiration e.g. nitrates into plant roots

Mitosis (p20)

- Type of cell division used for growth and repair



Interphase – cell makes extra sub-cellular parts. DNA replication occurs, chromosome copies stay attached.

Prophase – nucleus breaks down and spindle fibres appear. Chromosomes become visible

Metaphase – chromosomes use spindle fibres to line up along the middle of the cell.

Anaphase – chromosome copies are separated and move apart to each end of the cell using spindle fibres.

Telophase – a new nuclear membrane forms around each set of chromosomes.

Cytokinesis – new cell membrane forms to separate the 2 daughter cells.

IPMATC

- Produces 2 genetically identical daughter cells from 1 parent cell

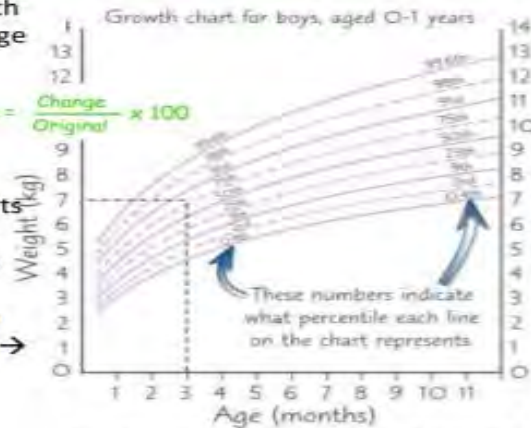
Growth (p21)

Differentiation = formation of specialised cells

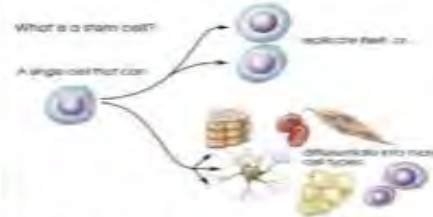
- Measure growth using percentage change

$$\text{Percentage change} = \frac{\text{Change}}{\text{Original}} \times 100$$

- Or using percentile charts which divide a measurements from a large group into 100 equal sections →



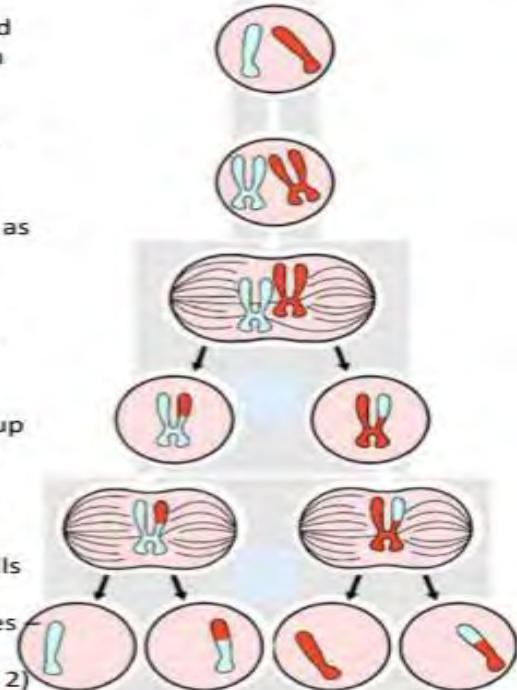
Eg. a three-month-old who weighs 7 kg is just above 75th percentile — roughly 75% of three-month-olds are lighter and 25% are heavier.

Stem Cells (p22)

- Embryonic stem cells found in embryos can differentiate into any specialised cell
- Adult stem cells are limited in the type of cell they can differentiate into
- Lots of potential uses
- Ethical issues
- Plant stem cells called meristem cells are found in shoots and roots and can differentiate into any cell type

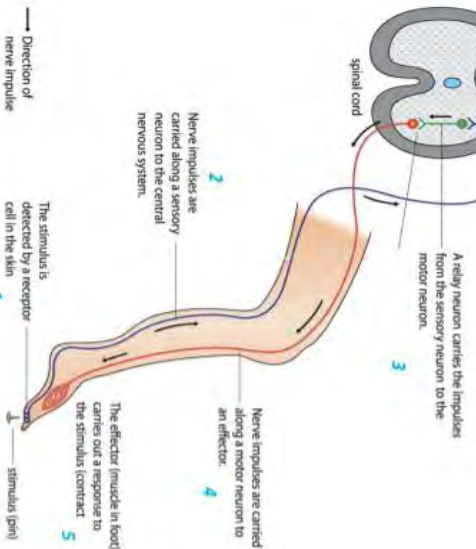
Meiosis (p26)

- Type of cell division used to form gametes (sperm and egg cells)
- Produces 4 genetically different daughter cells from 1 parent cell
- The chromosomes are copied in the same way as mitosis
- Pairs of copied chromosomes line up along the middle of the cell
- The pairs separate
- The chromosomes line up along the middle of the cell again
- The copies within each pair then separate
- This leaves 4 haploid cells (half of the original number of chromosomes in this diagram 1 chromosome instead of 2)



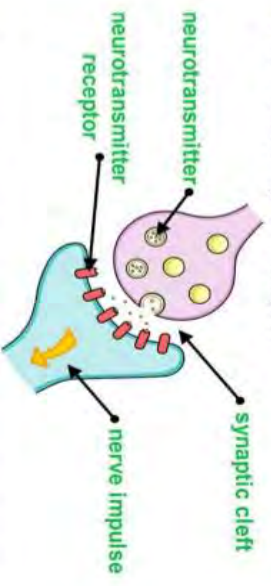
Reflexes (p24)

- An automatic response to a stimulus



Synapses (p24)

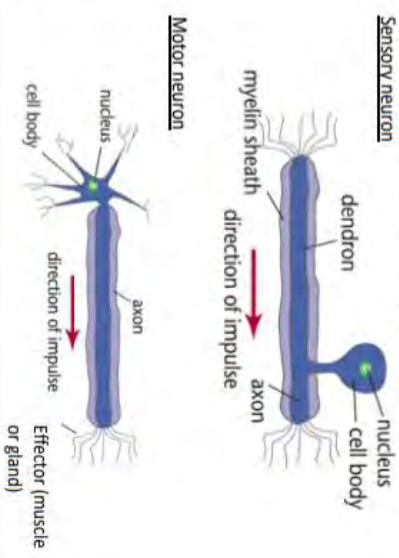
- A **synapse** is a junction between two neurones across which electrical signals must pass.



- Neurotransmitter molecules diffuse from vesicles towards the neurotransmitter receptors, moving from an area of high concentration to low concentration.

Nervous System (p23)

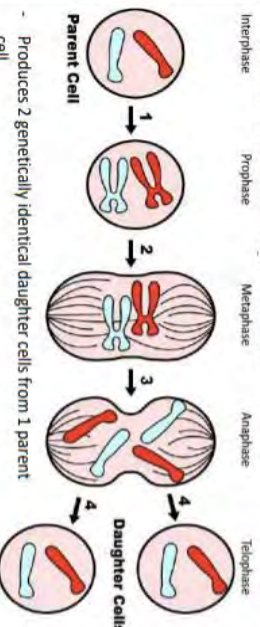
- Central nervous system = brain and spinal cord
- Peripheral nervous system = all other neurones (nerve cells) around the body, including sensory motor and relay neurones
- **Sensory neuron**



Don't forget to try the revision questions for topics 1 & 2 on page 25!

Mitosis (p24)

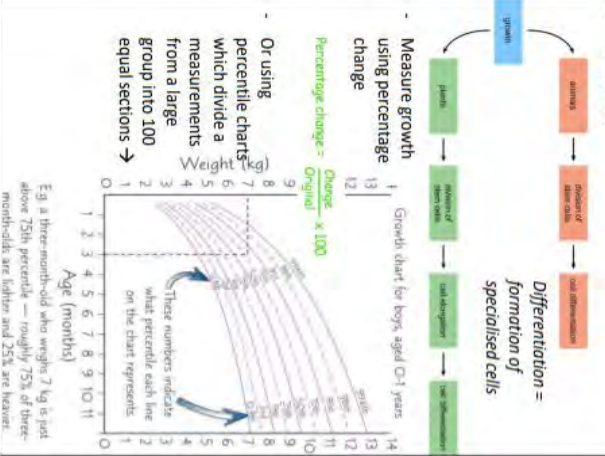
- Type of cell division used for growth and repair



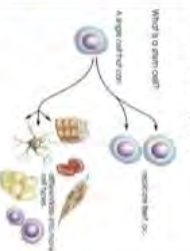
- **Interphase** – cell makes extra sub-cellular parts. DNA replication occurs, chromosome copies stay attached.
- **Prophase** – nucleus breaks down and spindle fibres appear. Chromosomes become visible
- **Metaphase** – chromosomes use spindle fibres to line up along the middle of the cell.
- **Anaphase** – chromosome copies are separated and move apart to each end of the cell using spindle fibres.
- **Telophase** – a new nuclear membrane forms around each set of chromosomes.
- **Cytokinesis** – new cell membrane forms to separate the 2 daughter cells.

IPMAT

Growth (p25)

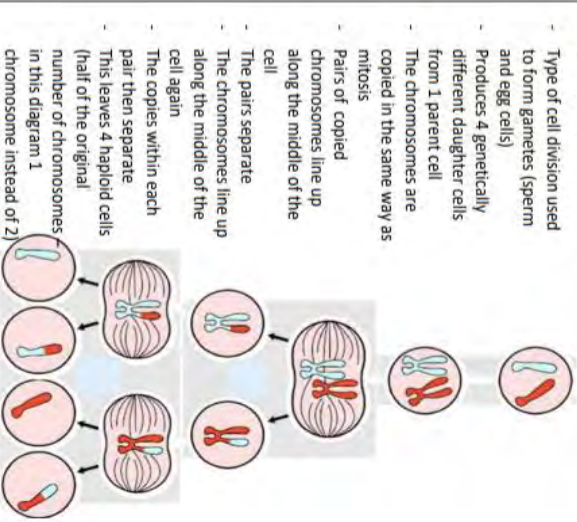


Stem Cells (p26)



- Embryonic stem cells found in embryos can differentiate into any specialised cell
- Adult stem cells are limited in the type of cell they can differentiate into
- Lots of potential uses
- Ethical issues
- Plant stem cells called meristem cells are found in shoots and roots and can differentiate into any cell type

Meiosis (p32)

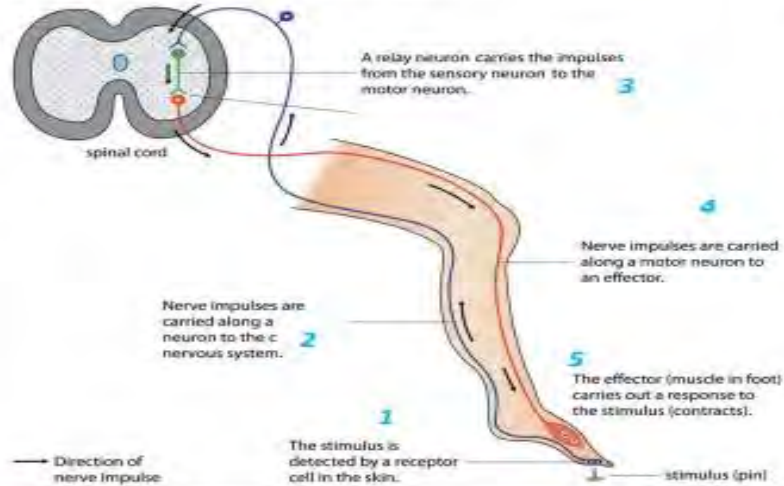


EDEXCEL 9-1 Biology | Topic 2 – Cells and Control | Required Knowledge

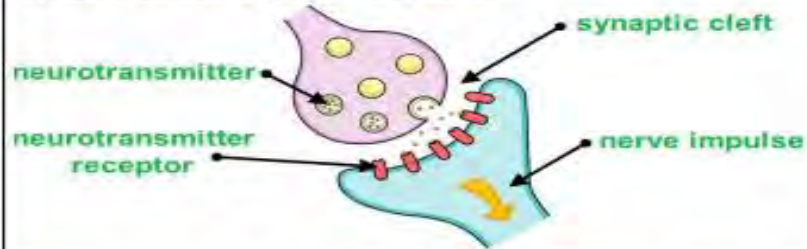
CPG Biology: pages 27-30.

Reflexes (p29)

- An automatic response to a stimulus

**Synapses (p29)**

A **synapse** is a junction between two neurones across which electrical signals must pass.

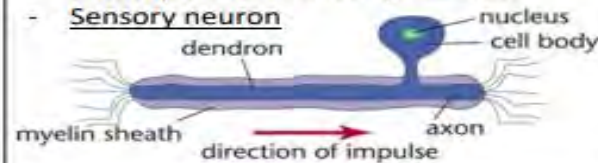
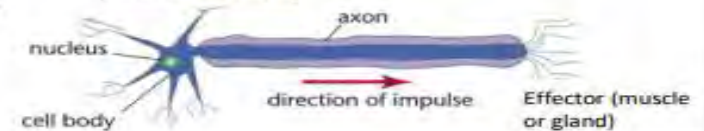
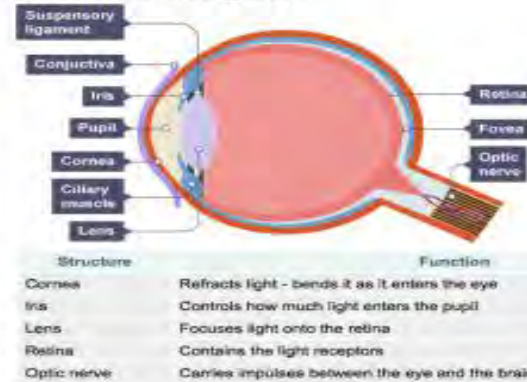


Neurotransmitter molecules diffuse from vesicles towards the neurotransmitter receptors, moving from an area of high concentration to low concentration.

Don't forget to try the revision questions for topics 1 & 2 on page 31!

Nervous System (p27)

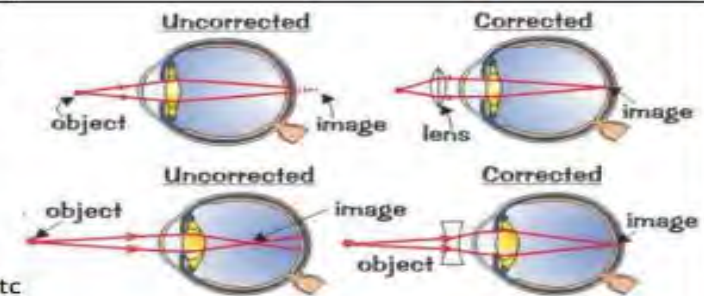
- Central nervous system = brain and spinal cord
- Peripheral nervous system = all other neurones (nerve cells) around the body, including sensory motor and relay neurones
- **Sensory neuron**

**Motor neuron****Eye Structure (p30)****Brain (p29)**

- **Cerebral hemispheres**: largest part, centre of intelligence, memory, speech and consciousness. Left = right
- **Cerebellum**: controls muscle function, speech, thought, emotions, reading writing and learning
- **Medulla oblongata**: centre for controlling respiration, circulation and digestion
- Studied using **CAT** or **PET** scans.

**Eye Problems (p30)**

- **Long sighted**: image forms behind retina. Corrected using convex lens to bring rays together and move image forwards
- **Short sighted**: image forms in front of retina. Corrected using concave lens to spread out rays and move image back
- **Colour blindness**: genetic condition with fault cones cells in the retina leading to difficulty differentiating colours. Not able to be corrected.
- **Cataracts**: a clouding of the lens. Corrected by replacing the lens.





9.11 My school Knowledge Organiser

School – Subjects, uniform and time
Future plans & jobs

The present tense	AR verb	ER verb	IR verb
yo (I)	-o	-o	-o
tu (you)	-as	-es	-es
él/ella (he/she)	-a	-e	-e
nosotros/as (we)	-amos	-emos	-imos
vosotros/as (you all)	-áis	-éis	-ís
ellos/ellas (they)	-an	-en	-en

The future tense in Spanish

You can talk about the future by using the **near future** tense.

Use part of the verb IR + a + the infinitive to say what you are **going** to do.

Este tarde **voy a jugar** al tenis. *This evening I am going to play tennis.*

Mañana Paul **va a hacer** un pastel. *Tomorrow Paul is going to make a cake.*

You can also use the following phrases with an infinitive to refer to the future.

Quiero = I want

Me gustaría = I would like

Quisiera = I would like

Espero = I hope

Adjectives describe nouns e.g. a **black** blazer.

In Spanish, adjectives normally go after the words they are describing e.g. una camisa azul (a blue shirt) and they have to agree with the noun they are describing.

Adjectives must agree with the noun (or pronoun) they describe in gender and in number.

This means that if the noun an adjective describes is feminine, the adjective must be feminine e.g. una chaqueta negra (a black blazer).

If that same noun is also plural, the adjective will be feminine AND plural as well e.g. las medias negras (black tights).

Comparatives – to express more or less than

... **es más...adjective...que** - is more...adjective...than

... **es menos ...adjectiveque** - is less...adjective... than

... **es tan...adjective....como** – is as...adjective...as

For example:

*El inglés es **más** interesante **que** la geografía. (English is more interesting than Geography)*

*La historia es **menos** activa **que** la educación física. (History is less active than PE)*

*El francés es **tan** difícil **como** las matemáticas. (French is as difficult as maths).*



9.11 My school -Spanish Vocab List


<u>¿Cuál es tu asignatura favorita?</u>	<u>What is your favourite subject?</u>
1. El inglés	English
2. El español	Spanish
3. El francés	French
4. El teatro	Drama
5. El dibujo	Art
6. El deporte	PE
7. La informática	Computer Science
8. La música	Music
9. La tecnología	Technology
10. La geografía	Geography
11. La historia	History
12. La religion	RE
13. La educación personal y social	PSHE
14. Las matemáticas	Maths
15. Las ciencias	Science
16. Las humanidades	Humanities
<u>¿Cuál es tu opinión?</u>	<u>What is your opinion?</u>
17. Es	It is
18. Interesante	Interesting
19. Práctico	Practical
20. Útil	Useful
21. Inútil	Useless
22. Fácil	Easy
23. Difícil	Difficult
24. Aburrido	Boring
25. Emocionante	Exciting
26. Creativo	Creative
27. Importante	Important

<u>¿Qué llevas?</u>	<u>What do you wear?</u>
28. Llevo...	I wear
29. Una chaqueta	Blazer
30. Un jersey	Jumper
31. Una camisa	Shirt
32. Una camiseta	T-shirt
33. Una corbata	Tie
34. Una falda	Skirt
35. Unos calcetines	Socks
36. Unos pantalones	Trousers
37. Unos zapatos	Shoes
38. Unas medias	Tights
<u>¿Cómo es tu uniforme escolar?</u>	<u>What is your school uniform like?</u>
39. Es...	It is ...
40. Feo	Ugly
41. Bonito	Pretty
42. (In)cómodo	(un) comfortable
43. Caro	Expensive
44. Barato	Cheap
45. De moda	Fashionable
46. Pasado de moda	Unfashionable

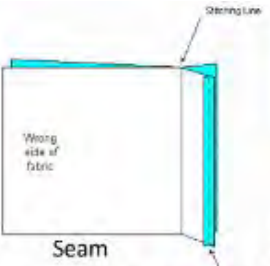
<u>La jornada escolar</u>	<u>The school day</u>
47. Salgo de casa	I leave home
48. Voy al insti	I go to school
49. Las clases empiezan...	Classes start...
50. Las clases terminan...	Classes end ...
51. Dura...	It lasts ...
52. El recreo	Break
53. La hora de comer	Lunch
54. Por la mañana	In the morning
55. Por la tarde	In the afternoon

<u>¿Cuáles son las reglas?</u>	<u>What are the rules?</u>
56. (no) se debe	You must(n't)
57. (no) se puede	You can('t)
58. Hay que	You have to
59. Está prohibido	It is forbidden
60. Escuchar en clase	To listen in class
61. Usar el móvil en clase	To use your phone in class
62. Llevar joyas	To wear jewellery
63. Llevar maquillaje	To wear make up
64. Llevar zapatillas de deporte	To wear trainers
65. Dañar las instalaciones	To damage the facilities
66. Respetar el turno de palabra	To wait your turn to speak
67. Comer chicle	To chew gum
68. Hacer los deberes	To do homework
<u>¿Qué quieres hacer en el futuro?</u>	<u>What do you want to do in the future?</u>
69. Quiero / Me gustaría ...	I want / I would like ...
70. Aprobar mis exámenes	To pass my exams
71. Sacar buenas notas	To get good grades
72. Hacer un aprendizaje	To do an apprenticeship
73. Buscar trabajo	To look for a job
74. Trabajar como voluntario	To work as a volunteer
75. Viajar por el mundo	To travel the world
76. Tener hijos	To have children
77. Casarme	To get married
78. Aprender a conducir	To learn how to drive
79. ¿Qué vas a ser en el futuro?	What are you going to be in the future?
80. Voy a ser ...	I am going to be ...
81. Médico/a	Doctor
82. Profesor(a)	Teacher
83. Abogado/a	Lawyer
84. Mecánico	Mechanic
85. Fontanero	Plumber
86. Bombero	Firefighter
87. Veterinario	Vet
88. Peluquero	Hairdresser


Year 9 Textiles Knowledge Organiser



Hem




Seam

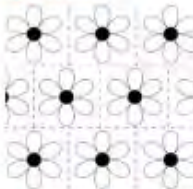


One image is called a 'motif'

The motif has been repeated to make two different patterns



plain repeat pattern



brick repeat pattern/
offset repeat pattern

What is the difference between a hem and a seam?

A hem is a neat non fraying edge made by folding fabric over and stitching it down. A seam is a line along which pieces of cloth are joined by sewing.

Equipment	Use
Bobbin 	A bobbin is a cylinder, to which cotton thread is wrapped around. It is found in the bottom part of a sewing machine.
Overlocker machine 	An overlocker does not replace a sewing machine. Its primary function is to clean finish a raw edge, giving the project a professional appearance
Quick unpick 	It is used to quickly remove stitches and seams.
Tailor's chalk 	Used to mark on to fabric. It is easily washed off.
Measuring Tape 	It is a flexible ruler that can be used for body measurements, tailoring and dressmaking. It is flexible to measure fabric and curves of the body.

About Designers

Orla Kiely

Orla Kiely is known for her print designs inspired by her early childhood – the colours of the countryside and her home.

Kiely's design work lends itself to CAD for its repetitive style. Her original work was hand painted using gouache paint. 'Stem' is her most iconic print which consists of simple graphic strength – clean, measured and bold.

Kiely believes her work is never finished and can be re-worked several times until she is satisfied with the end result.



Laura Ashley

Print has been at the forefront of the Laura Ashley brand since it was first established when Laura Ashley started printing her own designs for head scarves.

She went on to design dresses for social wear at the end of the 1960s. Her popular long Victorian-inspired dresses became known as the 'Laura Ashley look'.

The business expanded into coordinated ranges of furnishing fabrics using natural materials such as cotton and recycled paper for wallpaper.



Textiles Hierarchy of Key words

'Academic' keywords. Tier 3 Valuable keywords used in most lessons every lesson.	analyse embellishment Woven/ bonded/ knitted Free machine embroidery Plain seam sustainable function develop
	Complementary colours contrast fastening compare iron context effect embroidery equipment appliqué improve
	colour pattern theme thread design machine line Fabric shape Texture tone sew

Use these in your writing and speaking

Use connectives to link each paragraph!	Explain an idea: <ul style="list-style-type: none"> Although Except Unless However Therefore 	Sequencing: <ul style="list-style-type: none"> Firstly Secondly Next Finally Since
Adding to: <ul style="list-style-type: none"> Furthermore Also As well as Moreover 	Cause and effect: <ul style="list-style-type: none"> Thus So Therefore Consequently 	Contrasting: <ul style="list-style-type: none"> Whereas Instead of Alternatively Otherwise Then again
To empathise: <ul style="list-style-type: none"> Above all Ultimately Especially Significantly 	To compare: <ul style="list-style-type: none"> Likewise Equally In the same way Similarly 	Give examples: <ul style="list-style-type: none"> Such as For example In the case of As revealed by For instance

DESCRIBE



I believe that...
I think that...
The main idea is...

EXPLAIN



This means that...
Therefore...
This maybe because...

JUSTIFY



This is positive because...
This is negative because...
It is useful/not useful because...

ANALYSE



One strength is...
One weakness is...
One argument is...

EVALUATE



One advantage is...
One disadvantage is...
The best option is...

COMPARE AND CONTRAST



One similarity is...
One difference is...
On the other hand...

Sentence starter phrases

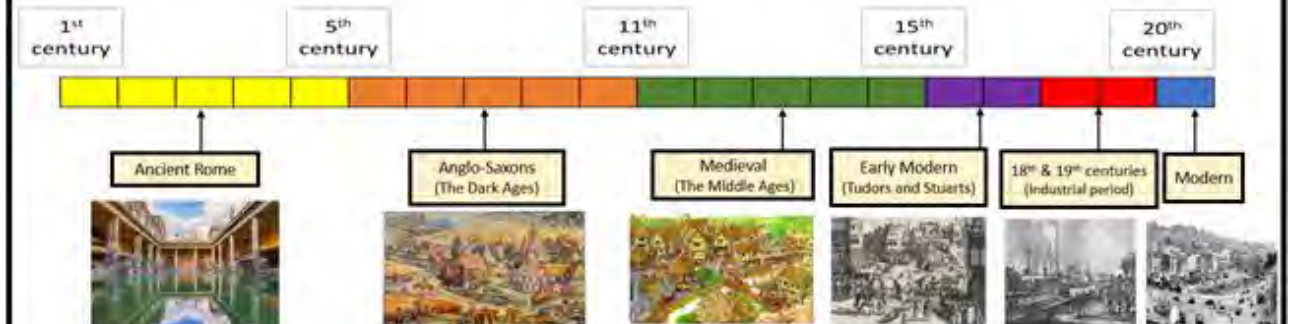
Most people would agree...
Only a fool would think...
We all know...
A sensible idea would be...
The fact is that...
Surely you would agree that...
Without a doubt...
I am certain that...
Some people might argue...
However...
Also...

History Chronology Skills

- Historians rely on **chronology** (time order) to understand and divide up large periods of History.
- The timeline below shows the language used to describe the different periods of **British History**.
- Each block represents one **century** (100 years).

Century Formula = Add one '1' to the number of hundreds.

E.G: AD 150 = 1 + 1 = 2nd Century AD
E.G: AD 1650 = 16 + 1 = 17th Century AD
E.G: 500 BC = 5 + 1 = 6th Century BC
E.G: 3000 BC = 30 + 1 = 31st Century BC
When your date is 2 digits or less, it MUST be the first century AD/BC.
E.g. AD 34 = 1st Century AD. 3BC = 1st Century BC.





Design and Technology Keywords

Food and Nutrition	Design and Technology	Textiles
Caramelisation	Carbon footprint	Plain seam
Aeration Amino acids	Planned Obsolescence	analyse sustainable
Plasticity Shortening	Iterative Design Tolerance	embellishment
Denaturation	Technology Push Anthropometrics	Woven/ bonded/ knitted
Coagulation Gelatinisation	Consumer Social Footprint	Free machine function
Emulsification Pasteurisation	Ergonomics Forming Processes	embroidery develop
Unsaturated Protein	Aesthetics Target Market	Complementary colours
Radiation Saturated	Properties Deciduous	contrast environment
Carbohydrates	Automation Coniferous	fastening
Conduction Deficiency	Functionality	compare embroidery
Digest Convection	Primary Source Sustainability	iron equipment
Cross-contamination	Continuous Improvement	context appliqué
Micro-organisms		effect improve
Flavour Claw grip	Cost Customer	colour design shape
Texture Aroma	Materials Annotation	machine
Nutrients	Safety Product	pattern line Texture
Energy Bridge hold	Design Environment	theme tone
Appearance Mix	User Prototype	thread Fabric sew
Smell		



Sentence Starters - DT

I have designed...because
My project was about...
I found... during my research
My design is suitable for...
I have learnt how to...
The most enjoyable part of my project was....
The area I found the most challenging was...
Equipment I have used include...
I would improve my work by...
I am pleased with my finished product because...

Sentence Starters- Food and Nutrition

In order to work hygienically/safely I made sure I
I worked safely when in the kitchen by...
If I could improve any skill, I would improve...because...
Overall, I am happy/unhappy with my progress/dish because....
The texture of my dish is... this is because...

Sentence starters- Textiles

I have designed....
The context of my design is...
My research is useful because...
By researching, I am able to.....
By researching I have found out....
I researched into....
My design is suitable for.....
My design is based upon...
I have planned to..
The order I will work in is...
The most enjoyable part of m project was...
The area I found most challenging was...
I am most pleased with...
I am pleased with my finished project because...
Equipment I used was...

The periodic table of the elements

1	2											3	4	5	6	7	0	
<div>Key</div> <div>relative atomic mass atomic symbol name atomic (proton) number</div>																	<div>1 H hydrogen 1</div>	<div>4 He helium 2</div>
<div>7 Li lithium 3</div>	<div>9 Be beryllium 4</div>											<div>11 B boron 5</div>	<div>12 C carbon 6</div>	<div>14 N nitrogen 7</div>	<div>16 O oxygen 8</div>	<div>19 F fluorine 9</div>	<div>20 Ne neon 10</div>	
<div>23 Na sodium 11</div>	<div>24 Mg magnesium 12</div>											<div>27 Al aluminium 13</div>	<div>28 Si silicon 14</div>	<div>31 P phosphorus 15</div>	<div>32 S sulfur 16</div>	<div>35.5 Cl chlorine 17</div>	<div>40 Ar argon 18</div>	
<div>39 K potassium 19</div>	<div>40 Ca calcium 20</div>	<div>45 Sc scandium 21</div>	<div>48 Ti titanium 22</div>	<div>51 V vanadium 23</div>	<div>52 Cr chromium 24</div>	<div>55 Mn manganese 25</div>	<div>56 Fe iron 26</div>	<div>59 Co cobalt 27</div>	<div>59 Ni nickel 28</div>	<div>63.5 Cu copper 29</div>	<div>65 Zn zinc 30</div>	<div>70 Ga gallium 31</div>	<div>73 Ge germanium 32</div>	<div>75 As arsenic 33</div>	<div>79 Se selenium 34</div>	<div>80 Br bromine 35</div>	<div>84 Kr krypton 36</div>	
<div>85 Rb rubidium 37</div>	<div>88 Sr strontium 38</div>	<div>89 Y yttrium 39</div>	<div>91 Zr zirconium 40</div>	<div>93 Nb niobium 41</div>	<div>96 Mo molybdenum 42</div>	<div>[98] Tc technetium 43</div>	<div>101 Ru ruthenium 44</div>	<div>103 Rh rhodium 45</div>	<div>106 Pd palladium 46</div>	<div>108 Ag silver 47</div>	<div>112 Cd cadmium 48</div>	<div>115 In indium 49</div>	<div>119 Sn tin 50</div>	<div>122 Sb antimony 51</div>	<div>128 Te tellurium 52</div>	<div>127 I iodine 53</div>	<div>131 Xe xenon 54</div>	
<div>133 Cs caesium 55</div>	<div>137 Ba barium 56</div>	<div>139 La* lanthanum 57</div>	<div>178 Hf hafnium 72</div>	<div>181 Ta tantalum 73</div>	<div>184 W tungsten 74</div>	<div>186 Re rhenium 75</div>	<div>190 Os osmium 76</div>	<div>192 Ir iridium 77</div>	<div>195 Pt platinum 78</div>	<div>197 Au gold 79</div>	<div>201 Hg mercury 80</div>	<div>204 Tl thallium 81</div>	<div>207 Pb lead 82</div>	<div>209 Bi bismuth 83</div>	<div>[209] Po polonium 84</div>	<div>[210] At astatine 85</div>	<div>[222] Rn radon 86</div>	

* The elements with atomic numbers from 58 to 71 are omitted from this part of the periodic table.

The relative atomic masses of copper and chlorine have not been rounded to the nearest whole number.







Subject websites

These websites will help you with homework, reading around the subject and revision

English

<https://www.sparknotes.com/> - *Macbeth, A Christmas Carol, An Inspector Calls*

<https://app.senecalearning.com/> - *Macbeth, A Christmas Carol, An Inspector Calls, Power and Conflict Poetry*

<https://www.bbc.com/bitesize> - *Macbeth, A Christmas Carol, An Inspector Calls*

Maths

<https://corbettmaths.com/>

<https://vle.mathswatch.co.uk/vle/>

<https://www.mathspad.co.uk/>

Science:

<https://www.bbc.com/bitesize>

<https://www.senecalearning.com/>

<https://www.memrise.com/>

Geography

Time for Geography - videos (mainly focused on physical processes)

Bitesize

Cool Geography

History

Seneca Learning

BBC bitesize - use Edexcel resources for GCSE.

Art Websites

<https://www.tate.org.uk/>

<https://www.bbc.co.uk/bitesize/subjects/z6f3cdm>

<https://www.incredibleart.org/>

Computer Science and IT.

www.mrahmedcomputing.co.uk

Drama

<https://youtu.be/VeTpob9LBM8>

<https://youtu.be/wlSEU13mRBE>

<https://www.bbc.co.uk/bitesize/guides/zsf8wmn/revision/1>

DT:

<http://www.mr-dt.com/>

<http://technologystudent.com/>

<https://www.senecalearning.com/>

PE

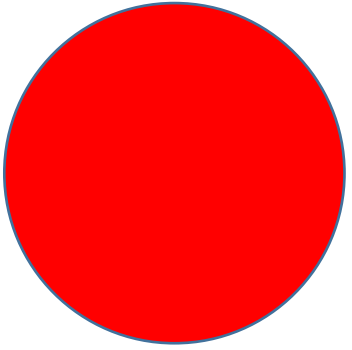
<https://www.bbc.com/bitesize/examspecs/ztrcg82>

<https://sites.google.com/view/ocrgcseperevision/home>

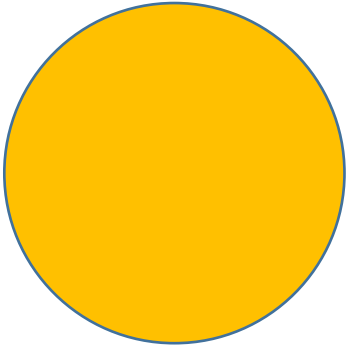
RS

KS3 <https://www.bbc.co.uk/bitesize/subjects/zh3rkqt>

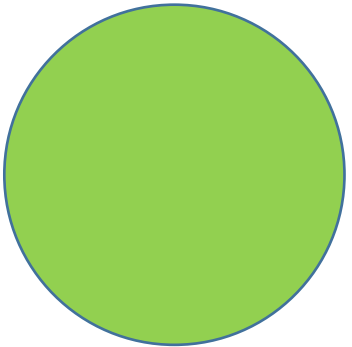
How would you describe your learning in this lesson?



I don't understand the learning in this lesson and would like some help



I am not confident with the learning in this lesson so might need some extra help.



I am confident with the learning in this lesson and can work independently

Timetable

	Monday	Tuesday	Wednesday	Thursday	Friday
Tutor time					
Lesson 1					
Lesson 2					
Break					
Lesson 3					
Lesson 4					
Lunch					
Lesson 5					
Lesson 6					