

Summer 1 - Year 8 Name:

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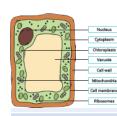
Idea

Plant Cell

Make some flash cards or PowerPoint slides. Make top trumps.



Make a poster.



Draw spider diagrams, or for the adventurous mind maps.

Write a song or a rap.

Write a story or comic

strip.

Write a quiz.

Design a game.

Plan a lesson



Explanation

Write down key words, auotation, auestions or equations on one side of a card. On the other side, write the definition or answer. Use them to test yourself.

Turn your notes into posters with lots of colour and illustrations. Summarising the key information in a different way is an effective way of learning and your brain will remember the colours more easily. Do the title last!

Write the topic/keyword in the centre of your page. Add everything you know in subtopics. Then explore each subtopic in turn adding more ideas. Colour/pictures help you recall.

Are there songs that stick your head. Change the lyrics to the information you want to learn. If you record and listen back it will be a more fun way of revising.

If you teach something to someone else the chance of recalling it is really high. This has been found to be the most effective way of learning something for the long term.

Take the keywords or facts that you need to learn and turn them into a story or a cartoon. The sillier the story the more likely you are to remember it.

Playing is how we learn as young children and it is a very powerful way of learning throughout life. If we enjoy the game it helps us remember.

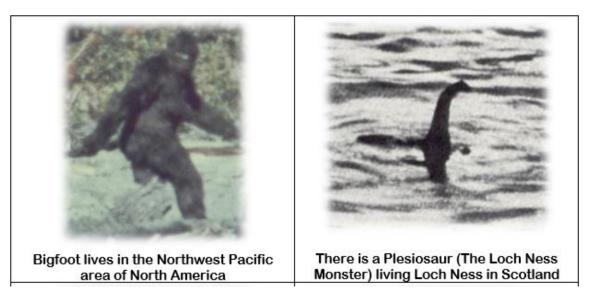
Just reading through your books or a knowledge organiser is not always an effective way to revise. Instead, you should do something with the information. Choose an example of the revision methods on the pages or see if you can come up with another method.

Subject	Page Number	Subject	Page Number			
Multidisciplinary Lesson	3	Geography	28			
Art	4	German	30			
Food	7	History	33			
DT	17	English	35			
PE	18	Maths	39			
Science	20	RE	45			
Computer Science	27	Music	47			
A range of bonus ideas to prevent boredom 51						

or codemy Multi-disciplinary learning. Key Stage 3.

What is a conspiracy theory?

Some people believe in things that other people do not. Here are a couple of examples for which there is little evidence.



However, some people then believe that other people are covering it all up. This can lead to some surprising places.

Activity 1: If there was Bigfoot or a Plesiosaur as shown above then how difficult would it be to keep it a secret? Look up how big Lock Ness is and how many people visit it every year.

Activity 2: Think about these questions / discuss them in a video chat with friends: What happens to you when you believe that the entire sections of society are keeping secrets? How could all scientists or the entire government keep a secret? How difficult would it be for 1000s of people to keep a secret? Why do film makers like conspiracy theories for their movies? Activity 3: Listen to this radio programme. It is available on BBC Sounds. <u>https://www.bbc.co.uk/sounds/play/m000dfqn</u>

How many conspiracy theories are mentioned? Which ones have you heard about?

Activity 4: Mr Ford once, for a joke spread the rumour that the canteen at his college was serving Weetabix that were so cheap, the box they came in had more nutritional value as at least it contained roughage in the cardboard box. he got into a lot of trouble and had to write an apology to be displayed at the college canteen till. Write a letter for Mr Ford, to try to explain that he now understands how serious disinformation can be, highlighting what might have gone wrong.

Activity 5: Craft a conspiracy theory about Mr Ford. Email him with it. How would you get people to believe it? How far could you stretch it? How could you stop it once people started believing it – even if it was you who made it up?

For those of you with access to Disney watch Lion Guard "Beware of the Zimwi" episode. How can belief cause panic?

Activity 6: Find out how anti-vaccination conspiracy theory has killed people.

https://www.iflscience.com/health-and-medicine/one-map-sumsdamage-caused-anti-vaccination-movement/

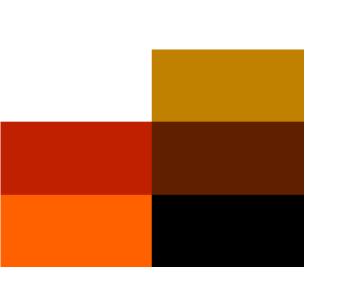
Activity 7: Challenge activity. Research one of the more popular myths and present a clear and referenced case to debunk it.

https://www.osce.org/odihr/441101?download=true





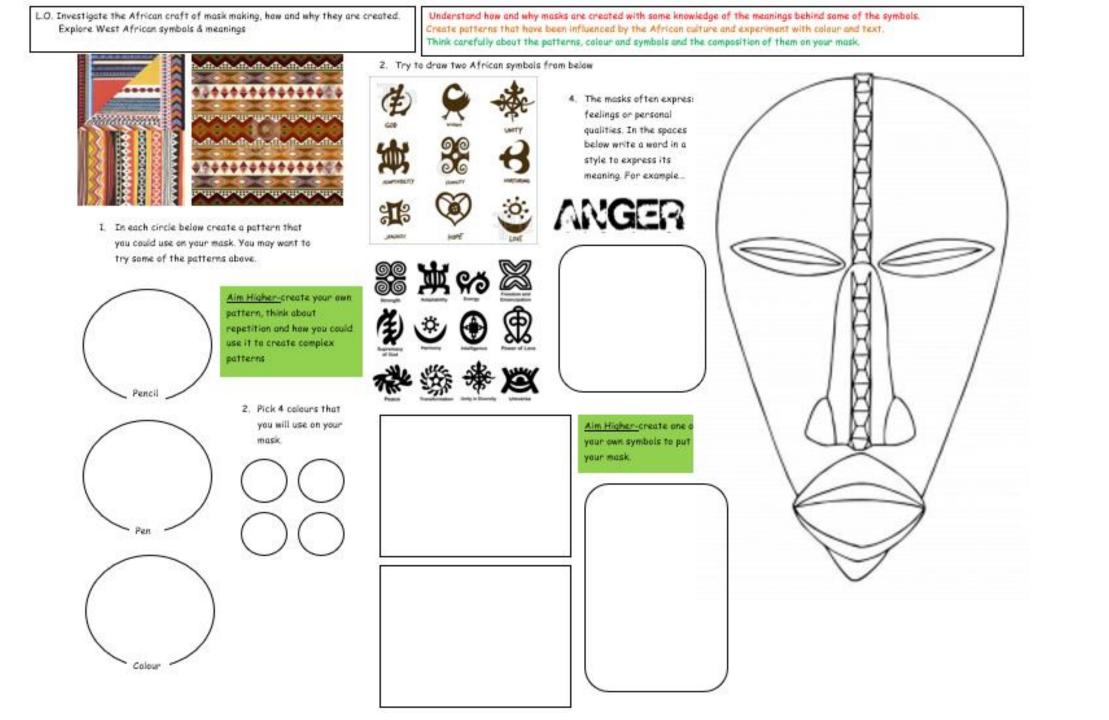
African mask inspiration

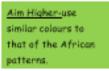












Write 2 stars and a wish about your African mask





<u>Health and Safety</u>

<u>Micro-organisms</u>

Micro-organisms are tiny forms of life. They can only be seen under a microscope and are sometimes called microbes.

They spoil food and make it unsafe to eat because they contaminate it with their waste products, their physical presence and the toxins they produce. What micro-organisms can spoil food and make it unsafe to

eat?

There are three groups of micro-organisms that you need to know about that spoil food and cause food poisoning. These are..

- Bacteria
- Moulds
- Yeasts

Micro organisms need 5 conditions to grow and multiply:

- 1. A warm temperature
- 2. Plenty of moisture (water)
- 3. Plenty of food
- 4. The right PH level (not too acidic or alkaline
- 5. Enough time (bacteria split every 10-20 minutes)

<u>High risk foods</u>

- High risk food have ideal conditions for bacteria
- High risk foods are ready to eat foods that could grow harmful bacteria
- They are moist and high in protein which is food for bacteria.
- High risk foods have a short shelf life you can't keep them for long or the bacteria might multiply to dangerous levels.

Examples of high risk foods:

Cooked meat, fish and poultry, dairy products (eggs, cheese etc.), gravies, stocks and sauces, shellfish, cooked rice.

Example exam questions:

What five conditions to bacteria need to grow and multiply? (5 marks) What is a high risk food? (5 marks)

Storing food safely

Cooking (75°C)	The danger zone (5°C-63°C)		
 Cooking food above 75°C kills bacteria Re-heat food properly, only once. Reheat food so 75°C for at least 3 minutes Check the food is 75°C with a temperature probe 	 Bacteria can grow and multiply quickly between 5°C to 63°C. This is called the danger zone The optimum temperature for bacterial growth is 37°C 		
Chilling (0°C - 5°C)	Freezing (-18°C)		
 Keeping food between 0°C and 5°C slows down the growth of bacteria This extends the shelf life of food Chilling food doesn't change the properties much - food looks and tastes the same 	 Freezing food below -18°C stops bacteria growing - they become dormant Freezing generally extends shelf life and the nutrients aren't lost It doesn't kill the bacteria though. They become active again once the food defrosts. 		
 Preparing self for cooking Tie hair back to prevent hair and dandru Take off coats and blazers Wear an apron to prevent bacteria transclothes to our food Wash hands with hot soapy water to kill Preparing the room for cooking Sanitise all work surfaces Check equipment is clean and dry Tuck all stools in as they can be a trip h 	sferring from our bacteria azard • Coughing • Sneezing • Tying shoe laces • Going to the toilet • Touching hair or face		
 Put all high risk foods in the fridge to s 			





Nutrients

Macro nutrients - needed in large guantities in the diet. The three macro nutrients are: PROTEIN, CARHOHYDRATES, FAT Micro nutrients - needed in small quantities in the diet. The two micro nutrients are: VITAMINS, MINERALS

Protein

Proteins are made up of amino acids, often referred to as the 'building blocks' of the body. Non-essential amino acids can be made by the body, how ever, essential amino acids cant be made by the body and we must get from the food we eat.

High biological Value (HBV) proteins contain all the essential amino acids we need and generally come from animal sources. Low biological value (LBV) proteins are missing one of more essential amino acids and generally come from plant sources.

Food sources

HBV - beef, pork, lamb, poultry (chicken, turkey, duck), fish, cheese, butter milk

LBV - beans, chickpeas, lentils, peas, nuts, seeds, found in smaller amounts in some vegetables such as spinach and broccoli.

Function

Needed for growth from childhood to adulthood and the growth of nails, hair and muscle mass, repair of muscles, tissues and organs after illness or injury and to make enzymes for digestion and antibodies to stop us getting ill.

Example exam guestions:

What are the two types of fat? (2 marks) Explain the difference between a HBV and LBV protein (6 marks)

Carbohydrates

There are two types of carbohydrates, complex and simple. They are also known as starchy (complex) and sugary (simple).

Food sources

Starchy - bread, rice, pasta, potatoes, bagels, oats, flour, cereal and some vegetables.

Simple - fruit, some vegetables, chocolate, sweets, biscuits, cakes

Function

Starchy/complex carbohydrates are digested slowly and provide long term energy.

Sugary/simple carbohydrates are digested slowly and provide short term energy

Dietary related health problems

Too much sugar can cause:

- Weight gain (which can lead to obesity) 1.
- 2. Tooth decay
- Diabetes (your body cannot produce enough/any insulin to regulate your blood sugar levels) 3.

Too much salt can cause:

1. High blood pressure (this can increase your risk of heart disease and a stroke).

Too much saturated fat can cause:

- 1. Weight gain (which can lead to obesity)
- 2. High cholesterol (this narrows arteries making it harder for the blood to travel around, putting you at risk of heart disease). 8

Fat

There are two types of fat, saturated and non saturated.

Saturated fats are classed as 'unhealthy fats', they are solid at room temperature and are generally animal based

Unsaturated fats are classed as 'healthier fats' and are liquid or soft at room temperature and come from plant based sources.

Food sources

Animal -beef, chicken skin, processed meat (sausages, salami, pepperoni), bacon, butter, cheese, full fat milk

Plant - vegetable oils (sunflower, olive, rapeseed), avocado, nuts, seeds

Function

Keeps us warm (provides insulation), secondary source of energy, protects vital organs and bones.



The Eatwell guide



The Eatwell guide

The Eatwell guide is a government guide designed to show you the proportions of different foods groups you should eat over a day or more.

Tips on making healthy choices from the eatwell guide:

<u>Fruit and vegetables</u>: eat 5 portions of fruit and vegetables a day, this should make up 1/3 of your plate a day, fresh, frozen, canned, dried and fruit juice/smoothies all count, don't exceed 150ml of fruit juice/smoothie a day as it can cause tooth decay, try snacking on fruit over high sugar and fat foods,

<u>Potatoes, bread, rice, pasta and other starchy carbohydrates</u>: choose non-sugary cereals, leave the skin on potatoes, choose wholemeal options of foods such as bread, rice and pasta.

<u>Oils and spreads</u>: choose unsaturated fats such as vegetable oils and margarine over butter, use in small amounts. <u>Dairy and alternatives</u>: choose lower fat options such as skimmed milk and low fat and salt cheese, choose low sugar yogurts and add fruit as a natural sweetener.

<u>Beans, pulses, fish, eggs, meat and other proteins</u>: eat more beans and pulses as they are high in fibre and fill you up for longer, cut the visible fat off meat, choose lower fat meat options, eat 2 portions of fish a week. Water: drink 2-3 litres of water a day, choose lower sugar option drinks.

8 Guidelines for Healthy Eating

1. Base your meals on starchy carbohydrates	 This should make up 1/3 of your diet Chose high fibre, whole grain options e.g. pasta, rice Try to include one starchy food with each meal 	5. Eat less salt - no more than 6g a day for adults	 Eating too much salt can raise blood pressure, this puts you at high risk of heart disease or a stroke Most of the salt you eat is already in food, check the labels to help you choose low salt options
2. Eat lots of fruit and vegetables	 Try adding a banana to cereal or swap crisps for fruit Always serve main meals with two vegetables Beans and pulses can count as 1 of your 5 portions 	6. Get active and be a healthy weight	 Regular exercise can reduce your risk of getting serious health conditions Aim for 150 minutes of exercise a week
3. Eat more fish - including one portion of oily fish	 Fish is a source of protein and vitamins and minerals It contains omega 3 (good for eyes, skin, brain heart) Oily fish includes: salmon, herring, mackerel, sardines 	7. Don't get thirsty	 6-8 cups a day, 2-3 litres Avoid sugary and fizzy drinks as they're bad for teeth Remember fruit juice and smoothies is also high in sugar
4. Cut down on saturated fat and sugar	 All types of fat are high in energy and should be eaten in small amounts Excess sugar can cause weight gain and tooth decay 	8. Don't skip breakfast	 Kick starts you for the day choose healthy low fat, sugar and salt and high_gfibre Choose low sugar cereals and granola



Seasonal Produce and Air Miles

Seasonal produce

Seasonality of **food** refers to the times of year when the harvest or the flavour of a given type **food** is at its peak. This is usually the time when the item is the cheapest and the freshest on the market.

The **food's** peak harvest time usually coincides with when its flavour is at its best.

Advantages of local, seasonal foods

- Often cheaper as it is not imported and there is a larger quantity of the food available
- Fresher as it has taken less time to travel and less storage time.
- High in nutrients fruit and vegetables lose nutrients over time after being picked. With less travel and storage time, they lose less nutrients.
- Tastes better as it is fresher and higher in nutrients.

Disadvantages of local, seasonal foods

- There is a smaller range of foods available
- Not importing foods means not supporting farmers in developing countries.

<u>Exc</u>	<u>Examples of UK grown produce</u>							
Autumn	Winter	Spring	Summer					
Apples Mushrooms Beetroot Pears Potatoes Pumpkin Garlic	Cauliflower Sprouts Suedes Sweet potato Broccoli Oranges	Strawberry Carrot Lettuce Leeks Asparagus Peas Spring	Cucumber Aubergine Tomato Raspberry Courgette Onion Corn on the					
	Cabbage	onion	cob					

Food miles

- If we're not eating fresh, seasonal food grown in the UK, the food has travelled from abroad to reach us.
- Food miles are clocked up by the fresh fruit and vegetables arriving by plane from across the globe.
- Then the fruit gets loaded in to lorries and driven across various parts of the country to supermarkets
- Then once on a shelf the products are then bought by people who then drive it back home.

Food miles are the measure of the distance a food travels from field to plate. This travel adds substantially to the Carbon Dioxide emissions that are contributing to climate change. The amount of food being flown into the UK doubled in the 1990s and is predicted to rise further each year. Consumers are also directly responsible for increased food miles. We now travel further for our shopping and use the car more often to do it.

Advantages of importing foods

- A wide range of foods are available in our shops all year round e.g. strawberries at Christmas.
- Less energy is used growing certain crops in poorer countries as there is no need for heating glasshouses etc. (less damage to the environment)

Disadvantages of importing foods

- Its harder to monitor food production standard and conditions for workers in countries far away.
- Taxes on imported foods means farmers in developing countries don't always receive a fair price for their foods.
- Food that has travelled a long distance is less fresh by the time it reaches the shelves
- People do not buy local produce as much so local UK farmers don't make as much money
- Increased road traffic as more food is being transported around the holiday
- There is increased used of fuel for the road transport plus the carbon dioxide emissions related
- The amount of food flown into the UK increases each year which means the UK is not self-sufficient
- Pressure to expand food production has led to the destruction of environments in some poorer countries
- Over 60% of household waste is a result of food packaging
- Fresh spinach looses over 90% of its vitamin C in the first 24 hours of harvest

Examples of imported foods

Pineapple, mango, tomatoes, celery, potatoes, bananas, nuts, sugar, chicken, lamb, beef, fish, oil, cocoa beans, grapes, tea, coffee, rice, soya bean, herbs, spices, olives, capers, avocado, cauliflower, proccoli

Marble Cake

<u>Ingredients</u>

100g caster sugar 100g soft margarine 2 eggs 100g self raising flour 1 x 15ml spoon coco powder

<u>Equipment</u>

Mixing bowl Measuring bowl Measuring scales Wooden spoon Jug Fork

<u>Skills</u>

Creaming Weighing Baking



1. Cream the butter and sugar together until light and fluffy.



4. Fold in the flour.



2. Crack the eggs in a jug and beat with a fork.



5. Place half the mixture into the tin, leaving space for the chocolate mixture.



3. Add the egg to the mixture a little bit at a time until all the egg is mixed in.



Mix chocolate powder into the remaining cake mixture. Fill the gaps in the cake tin with the chocolate mix and swirl lightly together.



Chicken nuggets

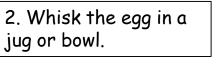
<u>Ingredients</u> 1 chicken breast 1 egg, whisked Handful of breadcrumbs Handful of plain flour Salt and pepper oil

<u>Equipment</u> Chopping board Knife Jug Whisk Frying pan

<u>Skills</u> Frying Coating cutting



1. Cut the chicken into bite size chunks.



3. Have your breadcrumbs and flour ready, either on the board or in bowls.



4. Dip the egg in the flour, egg and then the breadcrumbs. Coat all the chicken chunks.



5. Fry the chicken in some oil until the chicken is cooked through and golden.



<u>Lemon Drizzle Cake</u>

Ingredients

110g butter
110g sugar
110g self raising flour
2 eggs
Zest of ¹/₂ lemon

Drizzle:

Juice of 1 lemon

50g sugar

Equipment

Chopping board, knife, jug, grater, bowl, wooden spoon, cake tin, sieve, scales

<u>Method</u>

- 1. Beat butter and sugar until pale and creamy.
- 2. Whisk the eggs in a jug.
- 3. Add the egg little by little.
- 4. Sift in the flour and lemon zest. mix until combined.
- 5. Add the mixture to the cake tin.
- 6. Make the drizzle; mix sugar and the lemon juice.
- 7. When cake is baked, let cool.
- 8. Prick the cake with a fork.
- 9. Drizzle the sugary lemon on top.



Jambalaya

Ingredients ¹/₂ pepper ¹/₂ onion 1 garlic clove ¹/₂ can chopped toms 125g rice 250ml boiling water 1 vegetable stock cube 1 chicken breast Salt Pepper paprika



1. Chop the onion, pepper and garlic. Cut the chicken into cubes



2. Heat the oil, add the chicken, onion and garlic. Cook until the onions are soft and the chicken is white.



3. Add the paprika and mix so its all coated.



<u>Equipment</u> Pan Spoon

Spoon Knife Chopping board Jug Kettle

<u>Skills</u> Seasoning Frying Chopping



4. Cut the pepper into chunks.





5. Add the peppers and rice and stir.

6. Mix the stock cube with 250ml until it is dissolved.



7. Add all the stock and cook for around 10 minutes.



8. Add half the can of tomatoes and stir until the water has soaked into the rice.





9. Once the rice is cooked and the liquid has gone stir through the sweetcorn and cook for a couple of minute.



<u>Food packaging</u> Food is packaged to protect the product during transport and whilst sitting on shelves.

Why is food labelling important? Symbols on packaging show important information to customers.

Example exam questions: Seasonal produce and air miles

What are the advantage of buying locally produced, seasonal produce? (6 marks)

Explain the disadvantages of buying imported foods. (10 marks)

Explain the term 'air miles' (3 marks) Explain the term 'seasonal produce' (3 marks)

How might a restaurant use the fact they only use

Food packaging

Compare the two dishes and explain which dish is a healthier choice. Use the traffic light system to help you with your answer (6 marks). Why is it important to include a vegetarian symbol on food packaging of vegetarian products? (2 marks)

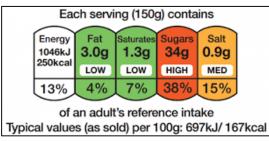
Food	Pac	kag	ing

FAIRTRADE	FSC		British Fon Quality	\mathbf{V}
Giving farmers a fair price for their products.	Forest Stewardship Council - helping effectively manage forests.	Suitable for home freezing.	Eggs have been produced to the highest standards of food safety.	Vegetarian approved - free from animal products.
	ASURED SOL		HALAL	RSPCA ASSURED
This product can be recycled.	A British organisation that promotes and regulates food quality.	Tidy man - do not litter.	Food which abides by the Islamic law. The Islamic way of slaughtering is cutting the throat and draining the blood.	An ethical food label - helping farm animals have a good life.

<u>Reference intake</u>

You'll see reference intakes referred to on food labels. They show you the maximum amount of calories and nutrients you should eat in a day. Most packaging has a colour coded label on the front to help you make healthy choices.

Reference in take amounts: Kcal (calories) - 2000 Total Fat -70g Saturated fat - 20g Sugar - 90g Salt - less that 6g



Red means HIGH in that nutrient Amber means MEDIUM in that nutrient Green means LOW in that nutrient

Reference intakes are not meant to be targets. They just give you a rough idea of how much energy you should be eating each day, and how much fat, sugar, salt and so on.

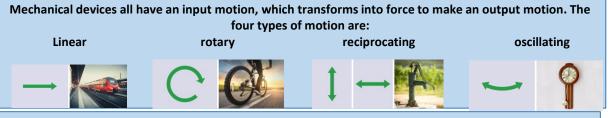
The percentages represent how much of your reference intake is in the product, e.g. the product has 3.0g of FAT in it, that is 4% of 70g of fat.

Cost acodemy Knowledge Organiser: Year 8 Summer term Design and make an automaton

Automata

An automaton generally refers to a moving, mechanical device, usually constructed to look like a human or animal figure. Automatons are built to give the illusion of acting as if by their own power, despite comprising only of mechanical systems. Sometimes referred to as Mechanical Toys or Kinetic Art, they are marvellous small machines that utilize most of the mechanical processes which can be found in almost every modern machine employing cams, gears, ratchets and cranks.

Mechanisms



Designers and makers are often influenced by past or current designers and art movements. They can start with a design context which leads to a design brief. The context is explored and a design brief is written. The designer needs to carry out research to help them to design and make a successful product.

The Iterative Design Process

This is the process of prototyping, testing and refining your product, acting on feedback from your primary users and stakeholders.



Questions to think about when designing and making? Who is going to use it? When and where will it be used?

What material(s) could I use to make it? How can I make it so that it is as environmentally friendly as possible? What impact will it have on the users life? Can it be recycled easily? How long will it last?









Pine and MDF Wood comes in 3 categories: soft wood, hard wood and manufactured wood. They have different properties and are used for many things.



Making boards and sheets from vood or wood products Veneers Sawdust Wood fibres Wood strips Wood flakes

Measuring, marking out and cutting wood and plastic

Pine

Spruce

Cedar

Fir

Softwoods

one-bearing tree

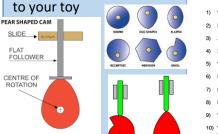


- Use a ruler to measure accurately, use a set square to mark accurate angles, a ruler to draw a straight line and use a tenon saw, coping saw or fret saw to cut wood. Use a junior hacksaw to cut acrylic.
- MEASURE TWICE CUT ONCE! Why do we say this in D&T?
- Use wood PVA glue to join wood. Use epoxy resin to join wood to plastic.



Ball Inches State

You will be using cams and gears to add the movement



Workshop Rules

You are responsible for your own safety and the safety of others

- 2) ENSURE bags and coats are stored in a locker not around the bend
- 3) ALWAYS follow instructions and rules. Do not take short cuts. Ask for help if you need it
- you do not know how to use a piece of equipment, then don't. Ask for help if you need it
- When using machinery AI WAYS wear EYE PROTECTION & MACHINE GUARDS
- 6) Do not TOUCH machines or equipment unless you have permis
- NEVER blow dust or touch swar
- NEVER run in the workshort
- en using machines, hearth or forge, hair MUST be tied up and loose clothes removed
- 0) When finished with a machine make sure tools are returned to the correct place and the



When you are in the Academy workshop it is so important you are safe. We will show you what tools to use and how to use them safely. You must listen to and respond first time to all instructions. Can you think of any more workshop rules? Why is it so important to follow these? What does COSHH stand for and why is it important in D&T?

What PPE did you wear in the Academy workshop and why? Can you name and explain the logos on the left?

Athletics

Athletics consists of three main skills. Running, jumping and throwing.

Skill	Description			
Running	An action to move quickly with the correct technique using the major muscle groups in the arms and legs as effectively as possible.			
Throwing	The ability to propel an object through the air as far as possible.			
Jumping	The technique to propel your body into the air to either cover distance, height or both.			

Task 1: Complete the sentences using the missing words.

The 2020 and Games, due to be held in However, these were postponed until 2021. The Olympic flag consists of which represent a colour from every nations flag and the five major

The first modern Olympics were held in 1898 in

Paralympic, 5 rings, Olympics, Tokyo, Continents, Athens



Task 2: Find a list of the current Olympic World records for track and field events. These include, 100m, 200m, 800m, javelin, discus, shot put, triple jump, high jump and long jump. What did you think of the records? Are you surprised that some have not been beaten for so long?

GIRLS	100m	200m	800m	1500m	High Jump	Long Jump	Triple Jump	Shot	Javelin	Discus
GOLD	14.7s	31.0 <i>s</i>	2m 55s	6m 10s	1.25m	3.90m		6.80m	17.00m	17.00m
SILVER	16.0s	35.0s	3m 20 <i>s</i>	7m 26s	1.12m	3.50m		5.70m	14.00m	13.00m
BRONZE	18.0 <i>s</i>	38.0 <i>s</i>	4m 10s	9m 00 <i>s</i>	0.90m	2.80m		4.60m	9.00m	9.00m
BOYS	100m	200m	800m	1500m	High Jump	Long Jump	Triple Jump	Shot	Javelin	Discus
GOLD	13.4s	28.0s	2m 38s	5m 25s	1.40m	4.40m	9.70m	8.60m	26.00m	22.00m
SILVER	15.0s	31.6s	3m 05s	6m 15s	1.24m	3.80m	8.50m	6.80m	19.00m	17.00m
BRONZE	17.5s	37.0s	3m 40s	7m 10s	1.00m	3.00m	6.40m	4.80m	12.00m	12.00m

Task 3: When competing in PE lessons, you will be aiming to achieve the Gold, Silver or Bronze standards for each event. Use the grid to record your time, height and distance, then compare these with the standards for each medal.

	100m	200m	800m	1500m	High Jump	Long Jump	Triple Jump	Shot	Javelin	Discus	100m	200m
MY SCORES												

<u>oen</u>academu

Honey I shrunk the kids (cells)

	cytoplasm	site of chemical reactions in the cell	gel like substance containing enzymes to catalyse the reactions
	nucleus	contains genetic material	controls the activities of the cell and codes fro proteins
	cell membrane	semi permeable	controls the movement of substances in and out of the cell
	ribosome	site of protein synthesis	Where proteins are made
animal cell	mitochondrion	site of respiration	where energy is released for the cell to function

Eukaryotes complex organisms with nucleated cells

Prokaryotes — simple unicellular organisms with DNA present but not in a nucleus

	cell membrane	site of chemical reactions in the cell	gel like substance containing enzymes to catalyse the reactions
C	bacterial DNA	not in nucleus floats in the cytoplasm	controls the function of the cell
0	cell wall	NOT made of cellulose	supports and strengthens the cell
0	plasmid	small rings of DNA	contain additional genes
T	cytoplasm	semi permeable	controls the movement of substances in and out of the cell

Bacterial cells are much smaller than plant and animal cells

permanent vacuole	contains cell sap	keeps cell turgid, contains sugars and salts in solution
 cell wall	made of cellulose	supports and strengthens the cell
 chloroplast	site of photosynthesis	contains chlorophyll, absorbs light energy





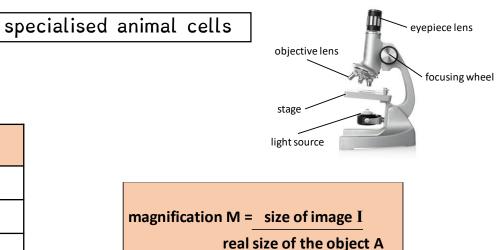
Honey I shrunk the kids (cells)

root hair	-1	absorb water and minerals from soil	hair like projections to increase the surface area
xylem		carry water and minerals	TRANSPIRATION – dead cells cell walls toughened by lignin flows in one direction
phloem	↑	carry glucose	TRANSLOCATION - living cells cells have end plates with holes flows in both directions

specialised plant cells

Feature	Light (optical) microscope	Electron microscope		
Radiation used	Light rays	Electron beams		
Max magnification	~ 1500 times	~ 2 000 000 times		
Resolution	200nm	0.2nm		
Size of microscope	Small and portable	Very large and not portable		
Cost	~£100 for a school one	Several £100,000 to £1 million plus		

nerve		carry electrical signals	long branched connections and insulating sheath
sperm	2	fertilise an egg	streamlined with a long tail acrosome containing enzymes large number of mitochondria
muscle		contract to allow movement	contains a large number of mitochondria long



Cells Key Revision Facts



- · Microscopes: used to magnify objects so we can see them in detail.
- · The main parts of a microscope are: eye piece, stage, mirror, objective lens and focusing knob.
- · Animal cells have a nucleus, cell membrane, cytoplasm and mitochondria.
- · Plant cells have all the above and vacuoles, cell walls and chloroplasts.
- Nucleus: controls the cells activities.
- Cell membrane: allows substances like water and oxygen into the cell and carbon dioxide out of the cell.
- Cytoplasm: jelly-like substance, where all the chemical reactions occur.
- Mitochondria: respiration occurs here to provide cells with energy.
- · Cell wall: made of cellulose and gives the cell support.
- Chloroplasts: contain chlorophyll and used for photosynthesis.

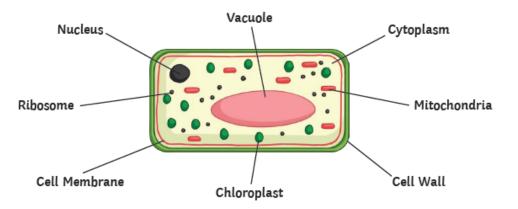


- · Specialized cells: adapted to do a particular job.
- · Red blood cells: no nucleus, transport oxygen around the body.
- Palisade cells: contain lots of chloroplasts for photosynthesis.
- · Root hair cell: increase surface area of the root, absorbs water and minerals.
- Sperm: has a tail to help it owim towards the egg and contains half the genetic material.
- Egg cell: designed to be fertilised by sperm and contains half the genetic material.
- Nerve cell: transmits messages around the body and is long and thin.
- Diffusion: this is the movement of molecules from an area of high concentration to and area of low concentration.
- Unicellular organisms: consist of one cell only.

Activity: Here revision from year 7 knowledge organisers has been shared again. You can see it has been made into a list of key facts. Turn this list of information into a useful revision page on cells.

Repeat this procedure for the other science notes.

Typical Plant and Animal Cell



1. A diagram of a typical plant cell is shown above.

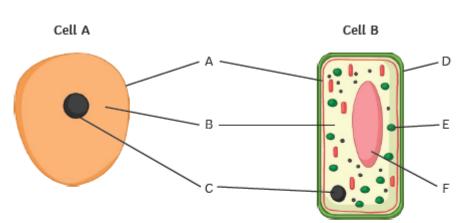
State the function of the following:

- nucleus: ______
- cell wall:
- mitochondria:
- cell membrane:
- 2. Name the specialised cells and state one way in which they have been adapted for their function.









1. What are the names of parts A-F on the diagram above?

Α	
B	
C	
D	
E.	

Ó

2. Which cell, A or B, is a plant cell?

3. Give the names of 2 parts found in plant cells but not in animal cells.

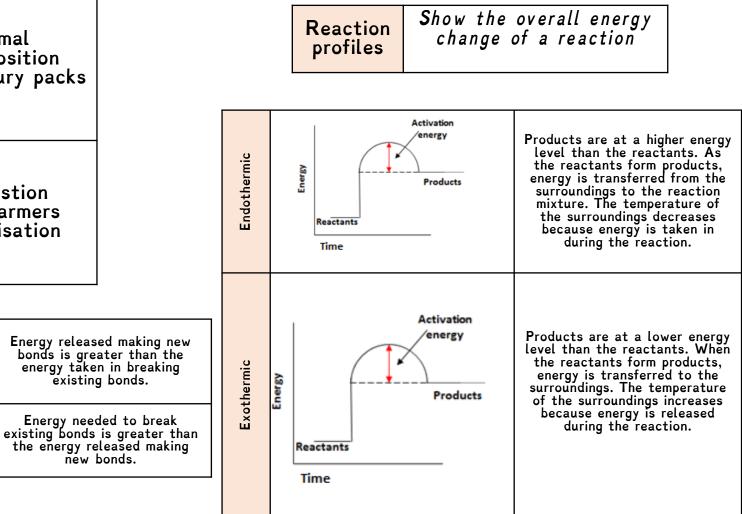
4. How can you tell that the plant cell is from a leaf and not from the roots?



Activation energy

TOO HOT TO HANDLE (ENERGY CHANGES)

Endothermic	Energy is tak in from the surroundings the temperat of the surrounding decreases	so ure	The decomp Sports in		
Exothermic	Energy is transferred the surroundi so the temperature the surroundi increases	ngs of	Hand v	ustion varmers lisation	
Chemical reactions only happen when particles collide with sufficient energy	The minimum amount of energy that colliding particles must have in order to react is called the	Overall energy change of a reaction	Exothermic Endothermic	Energy release bonds is grea energy taken existing Energy need existing bonds the energy re	g bonds.





EUREKA! (MOLECULES AND MATTER)

State	Particle arrangement	Properties
Solid	Packed in a regular structure. Strong forces hold in place so cannot move.	Difficult to change shape.
Liquid	Close together, forces keep contact but can move about.	Can change shape but difficult to compress.
Gas	Separated by large distances. Weak forces so constantly randomly moving.	Can expand to fill a space, easy to compress.

State	Solid	Liquid	Gas
Diagram			
Arrangement of particles	Regular arrangement	Randomly arranged	Randomly arranged
Movement of particles	Vibrate about a fixed position	Move around each other	Move quickly in all directions
Closeness of particles	Very close	Close	Far apart

Freezing	Liquid turns to a solid. Internal energy decreases.
Melting	Solid turns to a liquid. Internal energy increases.
Boiling / Evaporating	Liquid turns to a gas. Internal energy increases.
Condensation	Gas turns to a liquid. Internal energy decreases.
Sublimation	Solid turns directly into a gas. Internal energy increases.
Conservation of mass	When substances change state, mass is conserved.
Physical change	No new substance is made, process can be reversed.

Brownian motion is the continuous random movement of small particles suspended in a fluid, which arise from collisions with the fluid molecules. First observed by the British botanist R. Brown (1773-1858) when studying pollen particles. The effect is also visible in particles of smoke suspended in a gas.

	Units					
Density	Kilograms per metre cubed (kg/m³)					
Mass	Kilograms (kg)					
Volume	Metres cubed (m³)					

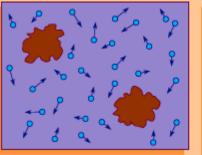
Density Mass of a substance in a given volume

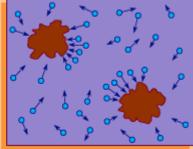
Density

1 kg of a gas has a larger volume than 1 kg of a solid. There is empty space between particles in a gas, but in a solid, they are tightly packed together.

Density = Mass / Volume

 \ldots so the density of the gas is much smaller than the density of the solid.





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ENERGY FOR LIFE (RESPIRATION)

An organism will receive all the energy it	For movement	Smooth muscle cells	To enable muscles to contract in animals. To keep a steady body temperature in a cold environment.		Cellular respiration is an exothermic reaction which is continuously occurring in all living cells		nermic	cytoplasm mitochondria	
needs for living processes as a result of	For keeping warm						usly in all		
the energy transferred from respiration	For chemical reactions	2	To build larger molecules from smaller one.					animal cell	plant cell
					ex	uring ercise	Heart rate increases	To pump oxygenated faster to the muscl and cells.	d blood e tissues
 Respiration and Pulse Rate Aerobic respiration: Releasing energy from glucose using oxygen. Occurs in every cell in the body C₆H₁₂O₆ + 6O₂ → 6H₂O + 6CO₂ Anaerobic respiration: Releasing energy from glucose without oxygen Produces less energy → less efficient Produces lactic acid → causes cramp and muscle fatigue → removed with oxygen (debt) Glucose → Lactic acid 			Aerobic respiration releases a large amount of energy from each glucose molecule	rea inc de	human body acts to reased emand energy	Breathing rate and breath volume increase	This increases the a oxygen entering the stream.		
			Anaerobic respiration releases a much smaller amount of energy than aerobic respiration.	The end res	products a	re ethanol and ca yeast cells is ca	t and yeast cells arbon dioxide. Anaerobic alled fermentation + carbon dioxide		



Knowledge Organiser: Year 8 Summer Term 1 The internet

Summary

The internet is a network of billions of devices that allows you to access resources and connect with other people on our planet. We are getting close to 8 billion people on planet Earth, each human has one or more internet enabled devices . The world of the internet is always active and never takes a break. This allows you to complete assignments, research and homework at any time that suits you, on many devices. The world of internet never sleeps.

How does the internet work?

Its a large number of computers that are in a network all over the world. It relies upon the wire, physical cables unde our city streets and the cables on the ocean floors and wireless. Wireless examples include satellites in orbit around our planet and Wifi/3G/4G/5G - that makes this communication possible.

Computers need a set of rules to have a chat, they are not as smart as humans. Anyone using smart speaker or voicecontrolled personal assistant such as Alexa will know the frustrations The rules computers use to speak to each are named protocols.

Internet Services

Smart Devices

Internet Services allows us to access huge amount of information such as text, graphics, sound and software over the



Internet of Things (IoT)

IoT is short for Internet of Things. The Internet of Things refers to the ever-growing network of physical objects that feature an IP address for internet connectivity, and the communication that occurs between these objects and other Internet-enabled devices and systems.



A smart device is an electronic device, generally connected to other devices or networks via different wireless protocols such as Bluetooth, NFC, Wi-Fi, LiFi, 3G , 45 and 5G.



Big Data

Big data is very large sets of data that are produced by people using the internet, and that can only be stored, understood, and used with the help of special tools and methods: Supermarkets use big data to track user behaviour and target cus tomers with things they like.

Key Vocabula	гу
Big Data	Lots of data produced from online activity
Http	Tells the computer to use the hyper text transfer protocol for communicating with the website
Internet	The internet is a global network of computers.
Internet of Things IoT	Devices that connect to the internet
Protocol	A set of rules or procedures for transmitting data between electronic devices
Smart Devices	A device that is connected using different protocols such as Bluetooth and Wi-Fi
URL	A website's address .Each address contains the prefix 'http:' which tells the computer to use the hyper text transfer protocol for communicating with the website.
World Wide Web	World Wide Web is the part of the internet that can be accessed through websites



http://bit.ly/2KLZ1I5

BBC









Topics covered

- ✓ What is Globalisation?
- \checkmark Benefits of Globalisation
- \checkmark Drawbacks of Globalisation
- ✓ What are TNC's?
- ✓ TNC's good or bad?
- What is the chain of production?
- ✓ What are 'sweatshops'?
- ✓ Measuring wealth/poverty
- ✓ Ways to reduce poverty
- ✓ Fairtrade

Designed by KMU for Open Academy 2019

Year 8 Knowledge Organiser: Globalisation

Key Ideas:

- 1. I can define the meaning of $\boldsymbol{G}lobalisation$
- 2. I can describe the advantages and disadvantages of Globalisation
- 3. I can explain how TNC's operate and exploitation through the chain of production.
- 4. I can measure poverty and suggest ways to reduce poverty

Skills

- To research amazing facts using ICT
 To understand different opinions and
 - viewpoints
- To calculate levels of development using
 Atlas data
- To create graphs of different types (line, bar, pie)

□ To write a detailed piece of extended writing

Places and Environments

- Asia
- ✤ Bangladesh
- Vietnam
- Indonesia
- Cameroon
- ✤ Norwich

openacademy

Key Terms Used in this Unit

- **Communications**
- Trade
- □ Migration
- Trans-National
 - ${\bf C} or porations$
- Multi-National Corporations
- Corporation
- Inward Investment
- □ Head office
- **Chain of production**
- □ Consumers
- □ Child Labour
- Exploitation
- □ Sweatshops
- **Gross Domestic Product**
- Quality of Life
- **Charity**
- □ Fair Trade Premium
- □ WTO



Year 8 Knowledge organiser: Tourism

Key Ideas:

- 1. I can define tourism
- 2. I can describe examples of tourism
- 3. I can describe good and bad impacts of tourism
- 4. I can explain how a tourism resort changed over time
- 5. I can suggest ways tourism can be more sustainable

Skills

- To locate tourism resorts in the UK and in mainland Europe
- To use mapping to investigate features and attractions
- $\hfill\square$ To analyse a range of graph types to describe
- changes in tourism
- $\hfill\square$ To construct a timeline of resort change
- □ To write a detailed piece of extended writing

Places and Environments

- **∻ G**reat
- Yarmouth
- Slackpool
- ✤ The Lake
- District
- ✤ France/Spain
- India
- Tanzania



Key Terms Used in this Unit

□ Resort □ Attractions □ Investment □ Infrastructure □ Inward Investment □ Service Sector □ Seasonal Unemployment □ Resource depletion Decline □ Second Homes □ Honeypot Sites **Congestion** □ Renewable energy □ Safari □ Cruise **Cultural**

Historic

□ Business

□ Eco-resort

Topics covered

- ✓ What is tourism?
- ✓ How has tourism changed?
- Natural and man-made attractions
- ✓ Tourism in Europe
- ✓ Good and Bad effects of tourism
- \checkmark Resort changes over time
- \checkmark Re-inventing a UK resort
- \checkmark Eco-tourism

Designed by KMU for Open Academy 2019



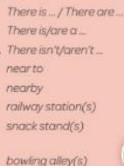
<u>Module 5: Gute Reise! (Have a Good Trip!)</u>

Here is the vocabulary you will need for Module 5.

Remember, you can hear the German pronunciation by clicking on the 'Listen' links next to the loudspeakers.

In der Stadt • In town

Es gibt ... Es gibt ein/eine/einen ... There is/are a ... Es gibt kein/keine/keinen ... There isn't/aren't ... in der Nähe von in der Nähe ... der Bahnhof(=e) der Imbiss(-e)/ die Imbissstube(-n) die Kegelbahn(-en) das Kino(-s) die Kirche(-n) der Marktplatz("e) der Park(-s) das Schloss("er) das Schwimmbad(-er) die Eisbahn(-en) der Fischmarkt(=e) das Kindertheater(-) der Radweg(-e) das Sportzentrum (die Sportzentren) der Stadtpark(-s) der Wasserpark(-s)



cinema(s)

church(es)

park(s)

castle(s)

ice rink(s)

fish market(s)

cycle path(s)

sports centre

water park(s)

market square(s)

swimming pool(s)

children's theatre(s)

(sports centres)

city/town park(s)



In this Module you will learn how to:

- talk about what there is / isn't in a town
- Buy souvenirs
- Buy snacks and drinks
- talk about holiday plans
- Understand longer spoken texts.

Keep practising your German vocabulary on <u>www.quizlet.com</u>

• Either:

click on this link: https://auizlet.com/_8iewzt?x=1aat&i=25a2il

• Or:

use your class link to go directly to your Quizlet class.



der Aufkleber	sticker
das Freundschaftsband	friendship bracelet
die Kappe	(baseball) cap
der Kuli	biro
das Kuscheltier	cuddly toy
die Postkarte	postcard
der Schlüsselanhänger	key ring
die Tasse	mug/cup
das Trikot	(football) shirt
Wie viel kostet?	How much does cost?
Wie viel kostet das?	How much does it cost?
Es kostet €16.	It costs 16 Euros.





www.textivate.com Username: openacademy Password: surname800 Go to 'my resourses' to find your work.

Ich gehe einkaufen.	l am going shopping.	
Ich möchte	I would like	
Ich möchte kaufen.	I would like to buy	Lint
Haben Sie?	Do you have_?	<u>List</u>
Kann ich dir helfen?	Can I help you?	
Sonst noch etwas?	Anything else?	
alles zusammen	all together	
Snacks und Getr		
 Buying sna 	acks and drinks	
die Bratwurst	fried sausage	
der Hamburger	hamburger	
die Pizza	pizza	
die Pommes	chips	
der Salat	salad	
das Eis	ice cream	
die Cola	cola	
das Mineralwasser	mineral water	<u>Lis</u>
der Tee	tea	
das Fleisch	meat	
der Ketchup	ketchup	
die Mayo(nnaise)/ Majonäse	mayo(nnaise)	
der Senf	mustard	
Ich möchte einmal/ zweimal/dreimal	l would like one/two/three	
Ich hätte gern	I would like	
Das macht €8.	That's €8.	
Ich esse gern.	l like eating	
Ich trinke gern.	l like drinking	



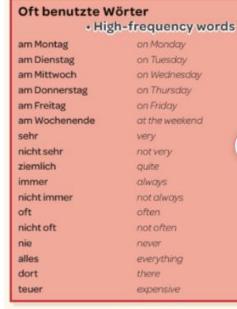
In den Sommerferien During the summer holidays Was wirst du machen? What will you do? Ich werde ... I will ... Wir werden ... We will. climb klettern im Meer schwimmen swim in the sea rodeln toboggan im See baden bathe in the lake segeln sail an den Strand gehen go to the beach tauchen dive wandern hike windsurfen windsurf Was kann man dort What can you do there? machen? Man kann ... besuchen. 'One'/People/ You can visit ... Die Stadt ist bekannt für ... The town is well known for ... Ich werde (eine Woche) I will stay (for a week). bleiben.



Read the Strategy Box for ideas to link sounds and spelling.

Listen

Click to add text





www.textivate.com Username:openacademy Password: surname800 Go to 'myresourses' to find your work.

Year 8 History: Democracy and the Suffrage Movement

	Britain prides itself in being a DEMOCRACY. This means people have an equal say in who		Timelin	
	runs the country and how. But in the 1800s it meant something very different to today	1897		
The people were not equally represented through enough CONSTITUENCIES To vote you had to be over 21, own property and MALE (only 3% of men could vote)				
	There were only two main parties: WHIGS and TORIES	1908		
	Voting was not anonymous			
GENERAL ELECTIONS were held every 7 YEARS		1909	ł	
	The Chartists are an example of a campaign group that tried to change this:			
	This was a working-class movement, which emerged in 1836 and was most active between			
	1838 and 1848. The aim of the Chartists was to gain political rights and influence for the			
	working classes.			
	Chartists argued more men should be able to vote.,			
	MPs should be paid, secret ballot, annual elections,	1913	Î	
	equal-sized electoral districts. They organised huge			
	A State of the second antitions to Parliament in the 4040s			

MPs should be paid, secret ballot, annual election equal-sized electoral districts. They organised hur rallies and petitions to Parliament in the 1840s. Although there was a Chartist riot in Newport in 1839, Britain avoided the revolutions that swept Europe in 1848. Most of the Chartists demands eventually became law.

Emmeline Pankhurst - WSPU

Led the WSPU from October 1903. Took more militent action such as windows smashing, erson and hunger strikes. Arrested numerous times, went on hunger strike and was force fed. Died in 1928.

Christabel Pankhurst – WSPU

Became a speaker for the WSPU in 1905. She trained as a lawyer but could not practice as woman. Arrested with her mother. Fled England in 1912 for fear of being arrested again. Unsuccessfully ran for Parliament in 1918.

e of Key Events NUWSS formed. Millicent Fawcett is leader. WSPU formed by Emmeline Pankhurst and daughters. Militant Campaign begins Mass rally in London - 300,000 to 500,000 activists attend. Window smashing using stones with written pleas on them. Hunger strike and force feeding starts - Marian Wallace Dunlop becomes the first hunger striker. Militant bomb and arson campaigns and increasing arrests which results in the passing of the "Cat and Mouse" Act.: hunger strikers temporarily released then rearrested to prevent dying in police custody Emily Wilding Davison attempts to pin a Suffragette scarf onto the King's Horse at the Derby. She is struck by the horse and dies 4 days later. WW1 starts - Suffragette leaders urge women to 1914 join the war effort. NUWSS continues to campaign for recognition for their work. The <u>Representation of the People Act</u> is passed, 1918 allowing men over 21 and women over 30 to vote.

Emily Wilding Davison - WSPU Millicent Fawcett - NUWSS

Joined WSPU in 1906. Became a suffragette full time. Frequently arrested for number of crimes inc. setting fire to post box. By 1911, become increasingly militent. Leading suffregist and led NUWSS. Played a key role in getting women the vote. Dedicated to using constitutional means, and argued that militancy was counterproductive.

Year 8 History: WW1

Timeline of Key Events		
28 June 1914	Assassination of Arch-Duke Franz Ferdinand	
4 August	Britain declares war on Germany	
August to	Germany's Schlieffen Plan fails to defeat	
December	France and Britain quickly; system of	
1914	trenches is dug from Switzerland to the	
	English Channel: STALEMATE	
April 1915	Second Battle of Ypres - poison gas used	
	for the first time	
31 May-1	Battle of Jutland - the only major sea	
June 1916	battle of the war proves inconclusive	
1 July - Nov	Battle of the Somme	
6 April 1917	USA declares war on Germany	
March 1918	Russia signs the Treaty of Brest Litovsk with	
	Germany after the Bolshevik Revolution	
9 Nov 1918	Kaiser Wilhelm abdicates	
11 Nov 1918 Germany signs armistice, ending the war		

Why did British men join up in 1914?	
Patriotism	British men were brought up to love their
	King and country
Social	Fear of being called a coward or being given
pressure	a white feather by a woman
Sense of	Many British men had never travelled abroad
edventure	– this was a chance to see the world!
Propaganda	British propaganda posters used very
	persuasive techniques
Belief in a	Many men thought that the war would be
auick victory	'over by Christmas

Long-Term Causes of World War One

Militeriem – the arms race between Britain and Germany to build Dreadnaughts resulted in increasing tension and conflict between them

Alliences – the Triple Alliance (Germany, Austria-Hungary and Italy) and Triple Entente (Britain, France and Russia) had agreed to support each other in a war Imperielism – Britain and France had large empires overseas. Germany wanted an empire too, but most of the available land had already been taken, resulting in tension between the 'great powers'

Short-Term Causes of World War One:

Assassination of Franz Ferdinand – Serbian nationalist Gavrilo Princip shot and killed the heir to the Austro-Hungarian throne, along with his wife, while was visiting Sarajevo. This caused Austria to declare war on Serbia, which led to Russia attacking Austria and a domino effect of other nations joining in...





Which new weapons helped Britain to win the war? Tanks: First used in 1916, they broke through German defence's and sheltered British troops in getting across NO MANS LAND Poison gas: Although cruel and at the mercy of the weather, it instilled fear

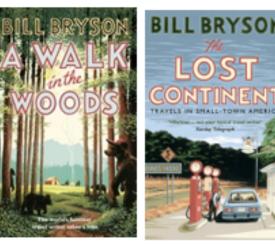
into soldiers on both sides

Airplanes: Very useful for reconnaissance and bombing / preventing bombing raids

Artillery: Forced Germans to remain in their shelters while the British advanced

۵ Augment Activity: starting point. Draw your timeline വ timeline of Try to find sources with other events. events that link to each S Ď the during ta ble the q event. war. key events as

Recommended Reading



Key terms and spellings				
Cynicism	Article			
Sarcasm	Blog			
Irony	Colloquial			
Bathos	Landscape			
Anecdote	Synonym			
Humour	Atmospheric			

Sentence types Simple - one main clause Compound - two main clauses joined together by a connective, such as 'and' Complex - a sentence containing a main clause and at least one subordinate clause Fragment - a sentence that is incomplete on its own, but can create an impact e.g. Silence.

TIPTOP (paragraphs)

Ti – is for Time

P - is for Place

To - is for Topic

P - is for Person (a new speaker)

Linguistic devices

Simile – a comparison using as, like or as if

Metaphor - a comparison, but more literal than a simile (no words such as 'as', 'like' or 'as if')

Personification - bringing an inanimate object, like a tree, to life e.g. 'the trees danced in the wind'

Alliteration – the same sound at the beginning of each word e.g. slithering silky snakes

Lists - a number of items or reasons, often used to emphasise

Structure - shifts (a change in time, place, person, topic, idea or a change from narrative to dialogue or description); zooms (zooming in on details and giving an in-depth description for the reader); Sentencing and paragraphing for effect (using sentence types to change the pace and impact on the reader's emotions); links and connections (ideas or images that remind the reader of the importance of something).

Teska

- Write about a place you would love to visit. What have you learned about it that has made you want to go? Describe the scenery and any other aspects of the place to tell me why it is so wonderful. Try to use a range of vocabulary to help communicate your thoughts, feelings and the way the place looks, smells, sounds and feels.
- Write a poem about a place you have visited. Consider the feelings you had whilst you were there, as well as the place itself. You should try to incorporate sensory language, as poems are about making the reader or listener feel something about a topic through imagery and sound.
- Create a leaflet or brochure for a theme park or resort. Use images and persuasive language to encourage them to come to the place. Use headings and subheadings to make the reader interested and entertained.
- Read the extract on the next page and highlight where the writer has used effective vocabulary and linguistic devices to bring the place to life for the reader.
- Using the same extract, annotate for structural devices that impact on the reader. Use the box at the bottom of the first page to help you to identify these.
- 6. Use the work you have done in tasks 4 and 5 to write an analysis of the effects of the writer's language and structure choices on the reader and explain why they are effective. Use auotes to support your points. Use paragraphs and aim higher by making links between each of them.
- Read the extract on page 3. How does the writer use different forms of humour to entertain the reader? Write to explain, using auotes and naming the specific type of humour that the writer has used (the box at the top of the page will help you to do this).
- Write your own humourous account of a place you have visited. Try to use as many of the types of humour you have learnt from task 7 as you can.
- If you can get online, use this link and explore the blog. What makes the blog visually appealing? What types of things does the blogger write about? Consider and answer these questions in writing. https://www.alexinwanderland.com/
- 10. Create your own blog. You could write about Norwich. Or, if you have access to the internet, you could write it about another 1-2 countries you research. Remember to write as if you are there or have been there recently and remember that your audience will want to know what it would be like for them to visit and to be given some advice on how to navigate the place, understand its culture and know where to go/what to look at. You could also write about the people, attractions and the food.

A Walk in the Woods

Bill Bryson

We hiked till five and camped beside a tranauil spring in a small, grassy clearing in the trees just off the trail. Because it was our first day back on the trail, we were flush for food, including perishables like cheese and bread that had to be eaten before they went off or were shaken to bits in our packs, so we rather gorged ourselves, then sat around chatting idly until persistent and numerous midge-like creatures (no-see-ums, as they are universally known along the trail) drove us into our tents. It was perfect sleeping weather, cool enough to need a bag but warm enough that you could sleep in your underwear, and I was looking forward to a long night's snooze - indeed was enjoying a long night's snooze - when, at some indeterminate dark hour, there was a sound nearby that made my eyes fly open. Normally, I slept through everything - through thunderstorms, through Katz's snoring and noisy midnight pees - so something big enough or distinctive enough to wake me was unusual. There was a sound of undergrowth being disturbed - a click of breaking branches, a weighty pushing through low foliage - and then a kind of large, vaguely irritable snuffling noise.

Bearl

I sat bolt upright. Instantly every neuron in my brain was awake and dashing around frantically, like ants when you disturb their nest. I reached instinctively for my knife, then realised I had left it in my pack, just outside the tent. Nocturnal defence had ceased to be a concern after many successive nights of transuil woodland repose. There was another noise, ouite near.



The Lost Continent

Bill Bryson

Cyniciam - seeing the worst in someone or something; to be cynical	Ireny - the expression of one's meaning by using language that			
is the opposite of looking at things positively.	normally signifies the opposite, typically for humorous or emphatic			
	(clear and forcible expression) effect.			
Bethes - anticlimax created by an unintentional lapse in mood from	Sercesm - to mock or convey contempt (looking down at someone			
the sublime (excellence) to the trivial (small and unimportant) or	or something).			
ridiculous.				

I had to drive to Minneapolis once, and I went on a back road just to see the country. But there was nothing to see. It's just flat and hot, and full of corn and soya beans and hogs. Every once in a while, you come across a farm or some dead little town where the liveliest thing is the flies. I remember one long, shimmering stretch where I could see a couple of miles down the highway and there was a brown dot beside the road. As I got closer I saw it was a man sitting on a box by his front yard, in some six-house town with a name like Spigot or Urinal, watching my approach with inordinate interest. He watched me zip past and in the rear-view mirror I could see him still watching me going on down the road until at last I disappeared into a heat haze. The whole thing must have taken about five minutes. I wouldn't be surprised if even now he thinks of me from time to time.

He was wearing a baseball cap. You can always spot an lowa man because he is wearing a baseball cap advertising John Deere or a feed company, and because the back of his neck has been lasered into deep crevasses by years of driving a John Deere tractor back and forth in a blazing sun. (This does not do his mind a whole lot of good either.) His other distinguishing feature is that he looks ridiculous when he takes off his shirt because his neck and arms are chocolate brown and his torso is as white as a sow's belly. In Iowa it is called a farmer's tan and it is, I believe, a badge of distinction.

YEAR 8 - DEVELOPING GEOMETRY...

Ongles in parallel lines and polygons

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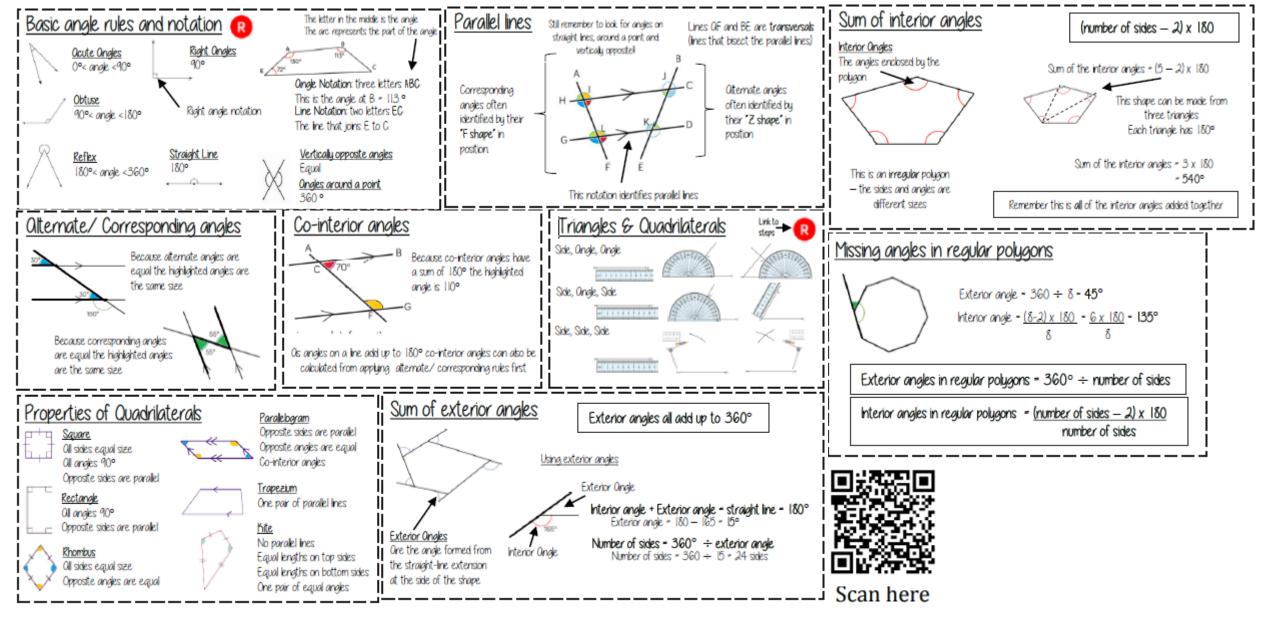
This notation identifies paralel ines

position

What do I need to be a	ible Keywords
to do? By the end of this unit you should be leantify alternate angles leantify corresponding angles leantify co-interior angles light the sum of interior angles in po Find the sum of exterior angles in po Find the sum of exterior angles in polygo	Transversal: Q line that cuts across two or more other (normally parallel) lines Isosceles: Two equal size lines and equal size angles (in a triangle or trapezium) Polygon: Q 2D shape made with straight lines Igons Isosceles: Two equal size lines and equal size angles (in a triangle or trapezium) Polygon: Q 2D shape made with straight lines Isosceles: Two equals ize angles added together) Isosceles: Two equals ize angles have equal lines
Scan here	Basic angle rules and notation Qcute Ongles 0°< angle <90° 0° angle <180° 0° angle <180° 0° angle <180° 0° angle <180° 0° angle <180° 0° angle <180° 0° angle otation 0° angle <180° 0° angle otation 0° angle otation

<u>Vertically opposite angles</u> Equal

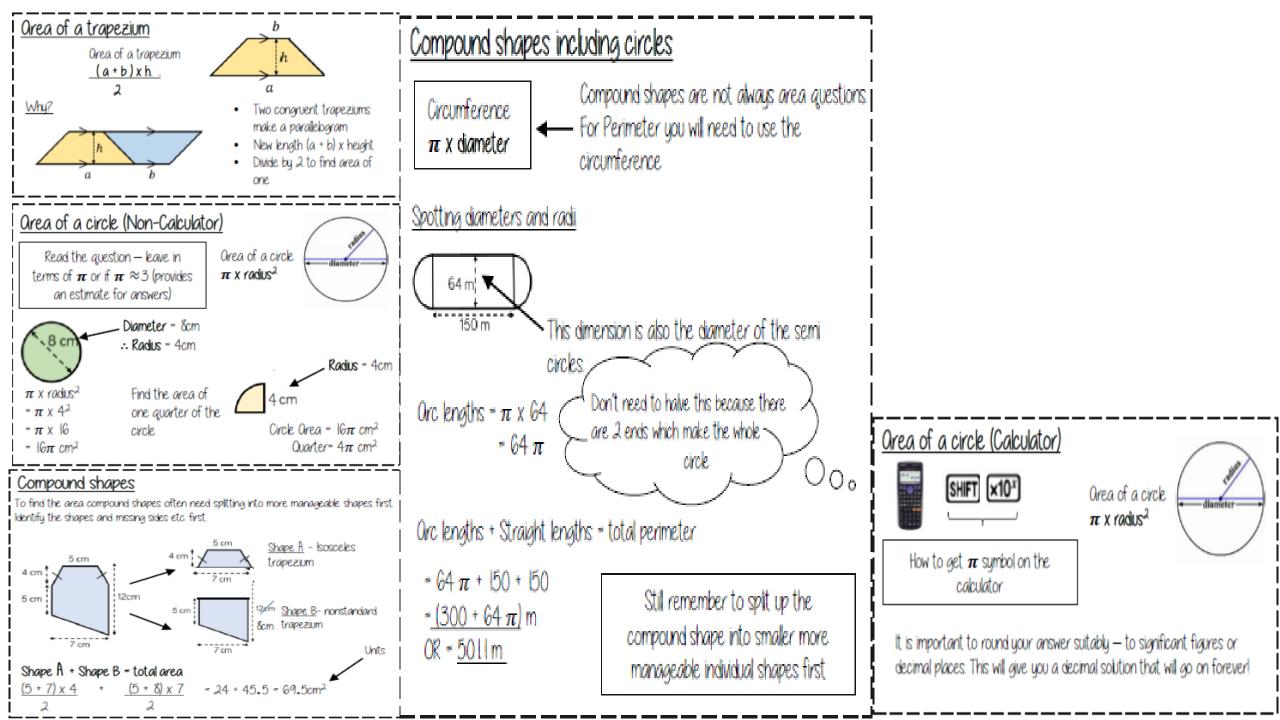
Ongles around a point



YEAR 8 - DEVELOPING GEOMETRY...

Ongles in parallel lines and polygons

What do I need to be able to do? By the end of this unit you should be able to: Recall area of basic 2D shapes Find the area of a trapezium Find the area of a circle Find the area of a circle Find the area of compound shapes Find the perimeter of compound shapes	KeywordsCongruent: The sameOrea: Space inside a 2D objectPerimeter: Length around the outside of a 2D objectPi (π): The ratio of a circle's circumference to its diameter.Perpendicular: Ot an angle of 90° to a given surfaceFormula: O mathematical relationship/ rule given in symbols Eg b x h = area of rectangle/ squareInfinity (∞): O number without a given ending (too great to count to the end of the number) — neverSector: O part of the circle enclosed by two radii and an arc.	$\begin{array}{c} \underline{\text{Orea of a trapezium}} \\ \underline{\text{Orea of a trapezium}} \\ \underline{(a+b) \times h} \\ \underline{2} \\ \underline{\text{Why?}} \\ \underline{1} \\ $
Orea — rectangles, triangles, parallelogra Rectangle Base x Height Base x Perpendicular heig	a triangle is half the size of the	Qrea of a circle (Non-Calculator)Read the question – kave in terms of π or if $\pi \approx 3$ (provides an estimate for answers)Orea of a circle $\pi \times radius^2$ Orea of a circle $\pi \times radius^2$ Diameter - & & m \therefore Radius = 4 cmRadius - 4 cmThe find the area of one quarter of the $= \pi \times 16$ Circle Orea = $16\pi \text{ cm}^2$ Circle Orea = $16\pi \text{ cm}^2$

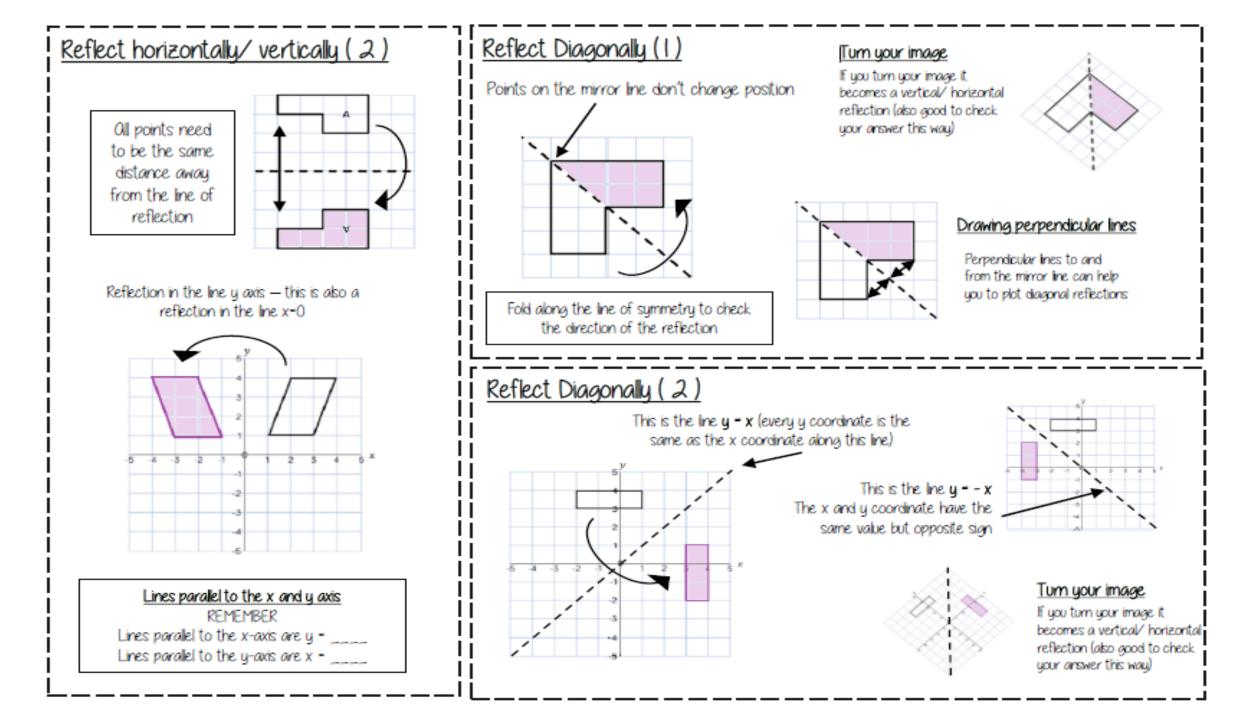


YEAR 8 - DEVELOPING GEOMETRY...

Line symmetry and reflection

What do I need to be able Keywords to do? Mirror line: a line that passes through the center of a shape with a mirror image on either side of the line. Line of symmetry: same definition as the mirror line By the end of this unit you should be able to: Reflect: mapping of one object from one position to another of equal distance from a given line. Recognise line summetry Vertex: a point where two or more-line segments meet. Reflect in a horizontal line Perpendicular: lines that cross at 90° Reflect in a vertical line Horizontal: a straight line from left to right (parallel to the x axis) Reflect in a diagonal line Vertical: a straight line from top to bottom (parallel to the y axis) Reflect horizontally/vertically(1) Lines of symmetry Rhombus Mirror line (line of reflection) two lines of summetry Reflection on an axis arid Note: a reflection doubles the area of Paralleloaram the original shape No lines of symmetry Reflection in a vertical line Shapes can have more than a circle has an infinite amount of one line of symmetry.... lines of symmetry This regular polygon (a

Reflection in the line y-Reflection in a horizontal regular pentagon has 5 lines of summetru) = Reflection in the line x~2



Year 8 RS: What does it mean to have a

Key words				
Good	To please and be kind.			
Evil	Immoral and wicked.			
Freedom	The right to act, speak or think as one wants.			
Ethics	Moral principles that govern a person's behaviour.			
Scripture	Sacred writings of a religion.			
Virtue	Behaviour showing high moral standards			
Liberal	To be favourable or respectful to individual rights and freedoms			

You're only here once, right? You need to live each day as if it's your last. Make the most of every moment and enjoy yourself. Life is too short to be filled with regret, so my plan is to have as much fun and as many laughs as I possibly canIII

Life is what you make it! I focus on trying to be the best person that I can possibly be. You never know what is around the corner, but if anything sudden ever happened, I would want to know that I'd made a positive impact on the world and that people thought good things about me because you are only here once.

Life is all about give and take, supporting each other in your community. It's important to help and take care of those around you. Buddhism- What is a good Life.

The Buddha was born in Lumbini, in India, in 583 BC. Before he became the Buddha he was known as Prince Siddhartha Gautama.

Before he was born, Gautama's mother — Queen Maya — had a dream that a white elephant entered her womb. Ten months later she gave birth to her son on a full moon night while on her way home to see her parents. When he was born it is said that he leapt onto the ground and where his feet touched it a lotus flower sprang up. Astrologers predicted he would either be a great ruler or a great religious teacher.

Prince Gautama grew up surrounded by luxury. His father tried to keep him in the palace as he wanted him to rule the kingdom. Astrologers had predicted that if he saw suffering he would become a great religious teacher. Gautama married at the age of 18 and had a son, Rahula. However, he became dissatisfied with his life. Whenever Gautama went out in his chariot, his father sent servants ahead to try to get all the blind, sick and old

people out of sight Even so, Gautama saw four sights in the picture above. They were to change his life. After seeing the first three of these, Gautama realised that he too would one day grow old and die. He was no longer satisfied with his life of luxury, but felt a great love for ordinary people, and he wanted to help them to overcome their suffering. The last person that Gautama saw was a sadhu, a holy man, who had given up all his possessions to live a spiritual life Gautama was certain that he should do the same. He thought about this for a long time, and then one night, he left his wife and son in the palace. Humanism- What is a good Life As with all animals, we are born, some of us reproduce, and we all eventually die. Unlike other animals, we worry about where our lives are going. Many of us can make important choices, which influence how our lives turn out. Within limits, we can choose to work or be idle; we can choose whom to befriend, whether to have children, and what kind of job or career we follow. Throughout history, human beings have asked themselves the auestion of what is the best way to live. What makes life worthwhile? What, if anything, makes life meaningful? These auestions raise further auestions of how we should treat others. Humanists believe that we have an obligation to make responsible and informed choices to help our lives and the lives of others go in a worthwhile and fulfilling direction. We are very small and insignificant in comparison with the vast size and age of the universe; but size is irrelevant to the auestion of meaning. Some people think that if there is no life after death and if we are limited in time, then life is somehow meaningless and pointless.

As we have seen, Prince Gautama left the palace and went into the city. He saw four sights that changed his life. An old person, an ill person, a corpse and a holy person. He realised that life involves suffering. He gave up his life as a prince, and set off to find out why people suffer. He was 29 years old. Channa, his charioteer, drove him out of the city. Then Gautama got out of the chariot. He cut off his hair, took off his fine clothes and, wearing just a simple robe, he set out on the homeless life. For six years Gautama lived a harsh life, training himself to have no food for long periods of time, and eating just enough to survive. It is said that his fasting nearly killed him. He grew so thin that you could see his back-bone through his stomach.

Finally, he realised that this kind of discipline was doing him no good. It had not helped him to find the truth about life, so he gave it up. He went down to the river to wash, where a milkmaid offered him some rice to eat, which he accepted.

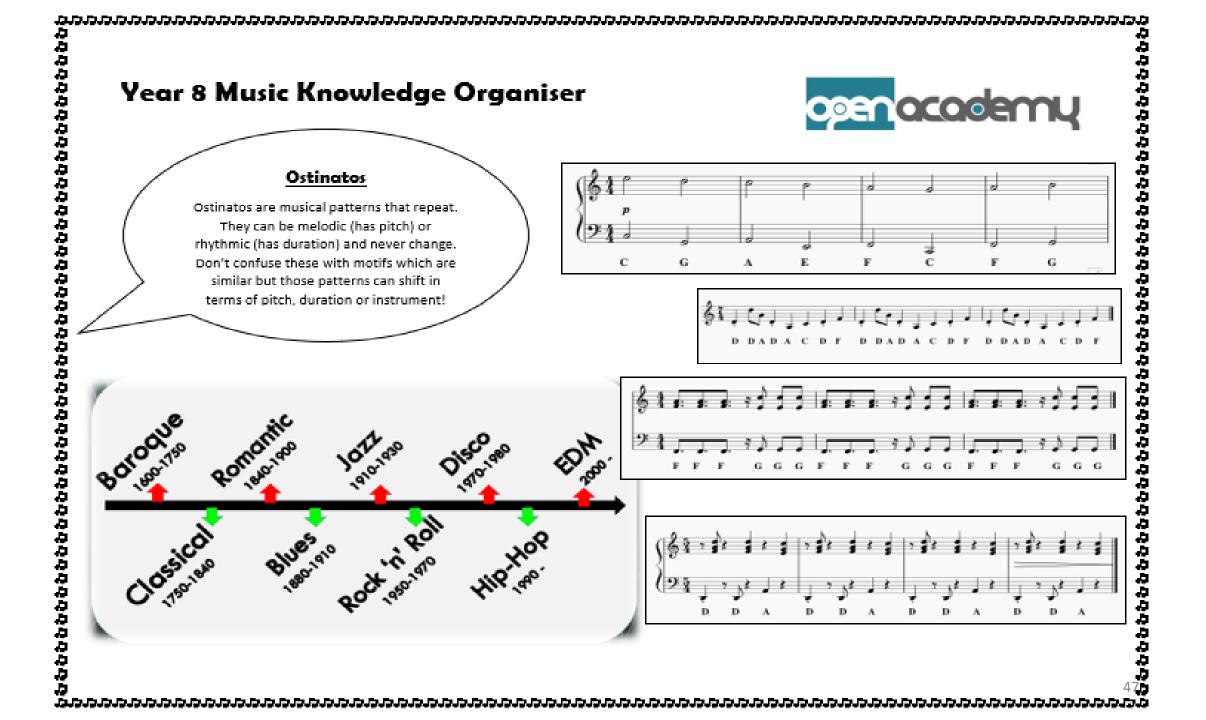
The other holy men saw him give up his fast and thought that he was going back to his life of luxury in the palace, so they deserted him. He had not achieved what he had set out to do, but he was still determined to find out how to overcome suffering. Gautama sat under a tree, and said that he would not get up again until he had achieved enlightenment. Sitting there, many images went through his mind, tempting him to give up; other images were frightening, but none of them made him change his mind. He sat under the tree all night, struggling with these temptations. Then, as dawn approached, he is said to have gained enlightenment. From then on, Gautama became known as 'the Buddha'. His followers do not think that he is a god. They describe him as an enlightened human being. In other words, they claim that the Buddha was able to see and understand the truth about life. Buddhism does not set down rules which everyone must obey all the time out of fear of being punished. There are two reasons for this: There is no god in Buddhism to reward or punish people, or to set down laws.

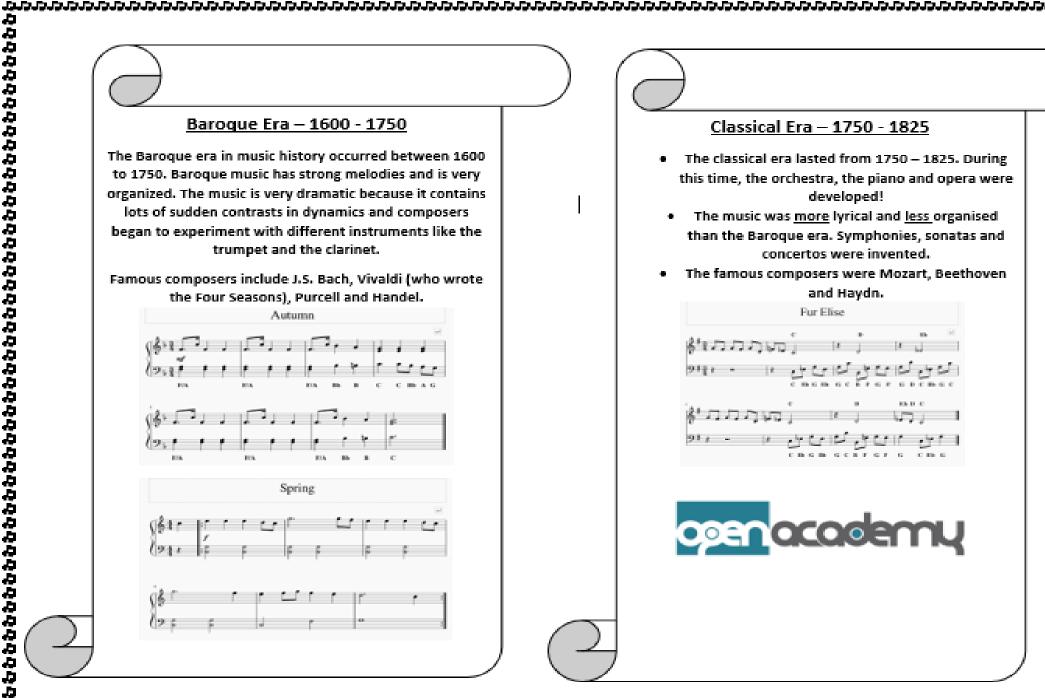
No two people are the same, so you need to judge what is right in your own circumstances, not simply obey laws.

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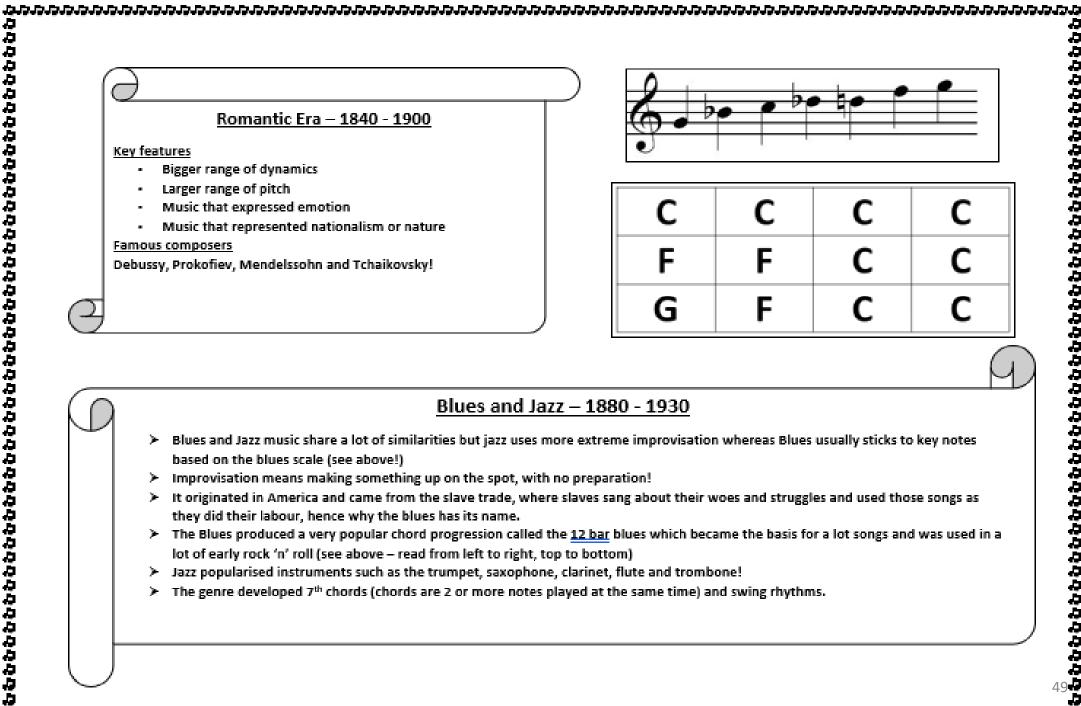
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Rock 'n' Roll - 1950 -

- The Beatles
- The Rolling Stones
- Led Zeppelin
- Pink Floyd
- AC/DC
- Fleetwood Mac
- Oueen
- Elvis Presley γ^{\prime}

Key features

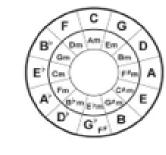
Rock 'n' roll music invented the band formula still being used to this day, using guitars, drums and vocals. Songs usually contained some sort of instrumental solo section and the lyrics centred around more adult content. Rock music has developed into many branches since the 1950's including metal, punk, soft and heavy.

Disco – 1970 – 1980

Disco is a genre of dance music and a subculture that emerged in the 1970s from the United States' urban nightlife scene.

The disco sound usually has a "four-on-the-floor" beats, syncopated basslines, and string sections, horns, electric piano, synthesizers, and electric rhythm guitars.

The most famous artists from Disco are ABBA, the Bee Gees (with Saturday Night Fever) and Gloria Gaynor - I Will Survive which uses the circle of 5ths chord progression!



Hip-Hop/Rap

- In the 1990's, hip-hop and rap became very popular, often talking about social or political issues
- Recognisable drum beats or samples from others songs were often used as a bedding track for lyrics
- Beat-boxing and body percussion also became popular meaning this music was accessible to anyone
- Rap lyrics often have a mix of perfect and imperfect rhymes and are set to a <u>4/4 time</u> signature to allow for an easy rhythmic flow

Going the extra mile activities. Here are some great ideas to do with family to avoid boredom that go above and beyond during the next half term.

The Arts	IT	DT	English and Drama	Humanities	PE	Maths	Science
Hard boil an egg. Decorate the shell into a character. Get the Egg person to do a speech. Record it and send it to friends. Eat the egg!	C an you create a piece of spreadsheet art?	Research what different kinds of materials plumbers use. Why is copper used for some pipes and plastic for others? What sort of plastic is used?	Watch one of the briefings by the government. What makes a good information giving speech? How is it being delivered?	How is living in Norfolk special? Tourism is a big industry in Norfolk. Write an advert to draw in tourists when we can all travel again.	Invent a new sport.	Explain what a square root is to someone really not mathematical.	Use equipment in your home to demonstrate the principle of moments.
Design a set out of materials in your room. Create a play for your family to act in. Give clear direction.	Advise your family members on how to keep safe on line. Explain to them how scams try to steal their money.	Design a meme. One that is informative but also can make someone laugh.	Use one of the excellent library apps to listen to or read "Of Mice and Men." How can we be like Lenny?	To what extent can the Schlieffen Plan be compared to a brawl? Knock out the biggest guy before the little guy is ready to fight.	Create a set of rules.	Where can we find the Fibonacci sequence in nature? Do some research!	Help something grow.
Research the legend of Beowulf. Look at the art work associated with it. Create a piece of your own art.	Write out all the instructions required by a human to get up and ready for home school each day. Be as specific as you would be with a computer.	Make an interesting paper model. Do some origami research to find something fascinating to attempt.	Describe the American dream. How has this driven culture in the Western world? Have a discussion with as many adults as you can.	Rearrange the furniture in your living room (with permission) to recreate World War 1 trench warfare. What is the dialogue? How can you manage the boredom and terror?	Get family members to play.	Make some mathematical art using materials at home like packets and boxes.	Research the health issues regarding vaping. Vaping is new. Is there enough mature research to definitely describe how safe or otherwise it is?
Choose 3 songs. Use simple percussion to keep the rhythm of the songs.	Think about how we can avoid mental health problems and remain connected online. Explain it to your family and make a plan.	Invent a new recipe and test it. Evaluate it compared to commercial products.	Watch a film. Be a film critic. You are being interviewed to review the film on radio 4. What would you say?	How can we be greener as a society using technology? Create an infomercial advertising a product.	Send it to the organisers of the Quarantine Olympics to include it in the next games!	Play out a Roast Battle between Pascal's triangle and The Bermuda triangle.	Find out how fans in ovens influence cooking times. What has this to do with convection?