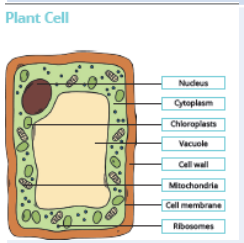
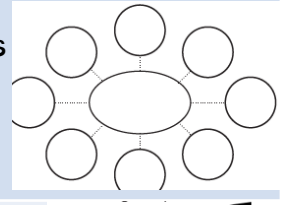
Summer 2 - Year 8 Name:

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.

The knowledge is evolutionary not revolutionary. Approximately half the knowledge is new and half helps you revise. Many of the activities are changing. We hope you enjoy them.

Idea	Explanation
Make some flash cards or PowerPoint slides. Make top trumps. 	Write down key words, quotation, questions or equations on one side of a card. On the other side, write the definition or answer. Use them to test yourself.
 Make a poster.	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!
Draw spider diagrams, or for the adventurous mind maps. 	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.
Write a song or a rap. 	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.
 Plan a lesson	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.
Write a story or comic strip. 	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.
Write a quiz. Design a game. 	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.

Sharing the Love of Reading: 11-16-year olds

The Open University

1. Can I read aloud to a friend or relative?

2. Can I hide a story or poem to be found?

3. Can I deliver a speech from a character or public figure?

4. Can I share my reading journey over the last week?

5. Can I learn about a book from someone's past?

6. Can I…

7. Can I discover what books mean to someone else?

8. Can I…

9. Can I create a paper chain of poetry?

10. Can I gain a '7-day streak' of reading?

11. Can I design my own reading den?

12. Can I recreate a scene/poem using various materials?

13. Can I read in an unusual & unexpected place?

14. Can I set up a news desk & give a report?

18. Can I make my own mini book?

15. Can I recreate a favourite book or comic cover?

16. Can I find an online video of an illustrator drawing and draw along?

17. Can I make an A-Z of authors, book titles or favourite characters?

MAYFLOWER COMMUNITY ACADEMY & NURSERY

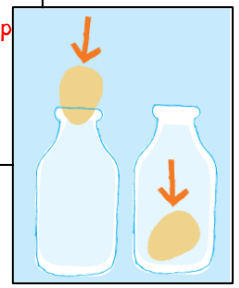
Practical Science at Home

CHANGES OF STATE
The brief: Make an egg fit into a bottle without breaking it.

The method

1. Submerge the egg in a glass of vinegar for two days: the shell will become rubbery.
2. Heat the bottle in hot water – remember to use gloves or a tea towel when handling it.
3. Rest the egg on the neck of the bottle.
4. As the air inside the bottle cools down, it will contract and suck the egg down. Top tip Try lubricating the egg with cooking oil or washing up liquid.

Now find out why this happens using your knowledge of solids, liquids and gases

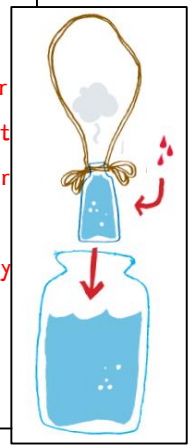


HEAT TRANSFER
The brief: Create a colourful underwater volcano.

The method

1. Cut a two foot length of string with a pair of scissors. Tie a knot around the neck of a salt shaker with one end of the string. Double-knot it to ensure the knot is secure. Repeat this process with the other end of the string, resulting in a handle to lower your shaker.
2. Empty and clean a large jar. Fill the clean jar about three quarters full with cold water.
3. Fill the salt shaker with hot water (with adult supervision) – as hot as you can get from your tap – to just below the neck. Add three to four drops of red food colouring.
4. Hold your salt shaker over the mouth of the jar by the string handle. Slowly lower the salt shaker into the jar until the shaker is completely submerged and resting upright on the bottom of the jar. Observe how the coloured water erupts from the shaker into the cold water.

Explain this using the idea of convection currents

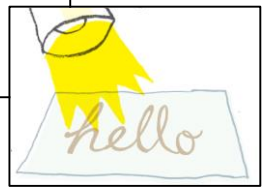


INVISIBLE INK
The brief: Write your own secret message in an invisible ink solution.

The method

1. Squeeze lemon juice into the bowl and add a few drops of water. Stir with the spoon.
2. Dip the paint brush into the juice mixture and write a message on the paper.
3. Allow the paper to dry completely. Your message should become invisible.
4. Hold the paper very close to the light bulb to heat up the message area (adult supervision required). Watch your message appear.

Why does heat uncover the message? What is a reversible reaction?

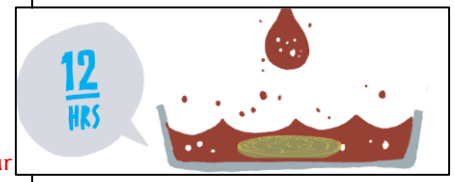


ACIDS & ALKALIS
The brief: Clean a penny using cola.

The method

1. Place the penny in the container.
2. Add enough cola so the penny is covered.
3. Leave overnight.
4. In the morning, you should find that your penny is clean.

What makes something acidic? What chemical reaction is happening to the penny?

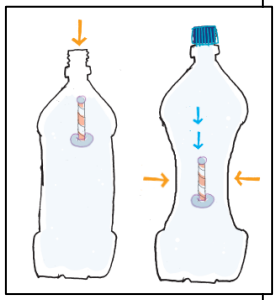


THE DENSITY DIVER
The brief: Build a Cartesian diver.

The method

1. Put a small ball of plasticine on the top of the straw to seal it.
2. Roll a sausage of plasticine and wrap it around the bottom of the straw, leaving the bottom open. This is your diver.
3. Now attempt to balance the diver so that it stays upright.
4. Place the diver vertically in the drinking glass. Add or remove weight from the base or top so that when you push it down, it just about bobs back up to the surface (and stays upright).
5. Once you are happy, place the completed diver in the two litre bottle filled to the top with water. Screw on the lid. Squeeze the bottle, and the diver will drop down to the bottom of the bottle. Release it and it floats back to the surface.

What is density? What makes something high or low density? Why might this be useful?

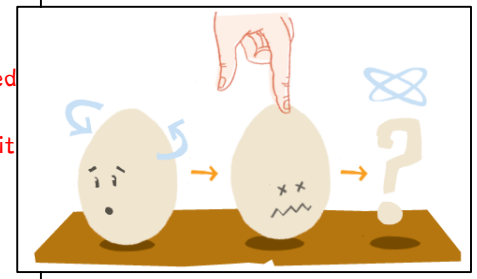


MOMENTUM
The brief: Use eggs to find out about momentum and changing direction.

The method

1. Spin each egg, one hard boiled and one fresh, on a table.
2. Leave it to spin for a few seconds then momentarily stop it by placing your finger on top.
3. Release the egg and observe what happens next.

What is happening to the inside of the egg? How do you calculate momentum?

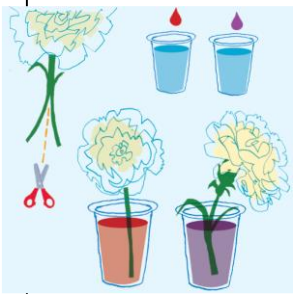


COLOURED CARNATIONS
The brief: Create multi-coloured flowers.

The method

1. Use the scissors to cut the stem of the carnation in half lengthways.
2. Take two cups and fill them with water. Add a different coloured food dye to each cup.
3. Put the split stems of the carnation into the cups and leave overnight.
4. The next morning you should find that your flower has changed colour.
5. What do you notice about the petals?

How does the food dye het to the petals? What is xylem and phloem?

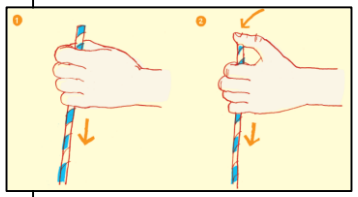


STRONG AS A DRINKING STRAW
The brief: Use a drinking straw to pierce through a raw potato.

The method

1. Hold the straw by its sides, without covering the hole at the top and try quickly stabbing the potato.
2. Repeat the experiment with a new straw but this time place your thumb over the top, covering the hole.

What forces are increasing or decreasing to allow this to happen?



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.

Bigfoot lives in the Northwest Pacific area of North America

There is a Plesiosaur (The Loch Ness Monster) living Loch Ness in Scotland

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. https://www.bbc.co.uk/sounds/play/m000dfqn

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?

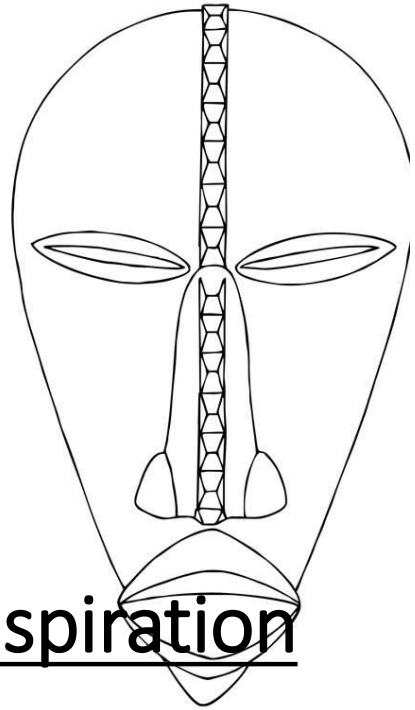
For those of you with access to Disney watch Lion Guard "Beware of the Zimwi" episode. How can belief cause panic?

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

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

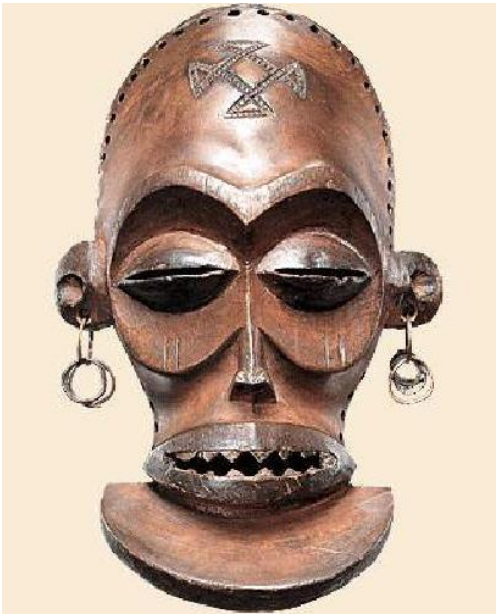
Activity 7: Challenge activity. Research one of the more popular myths and present a clear and referenced case to debunk it.

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



Year 8 African mask inspiration

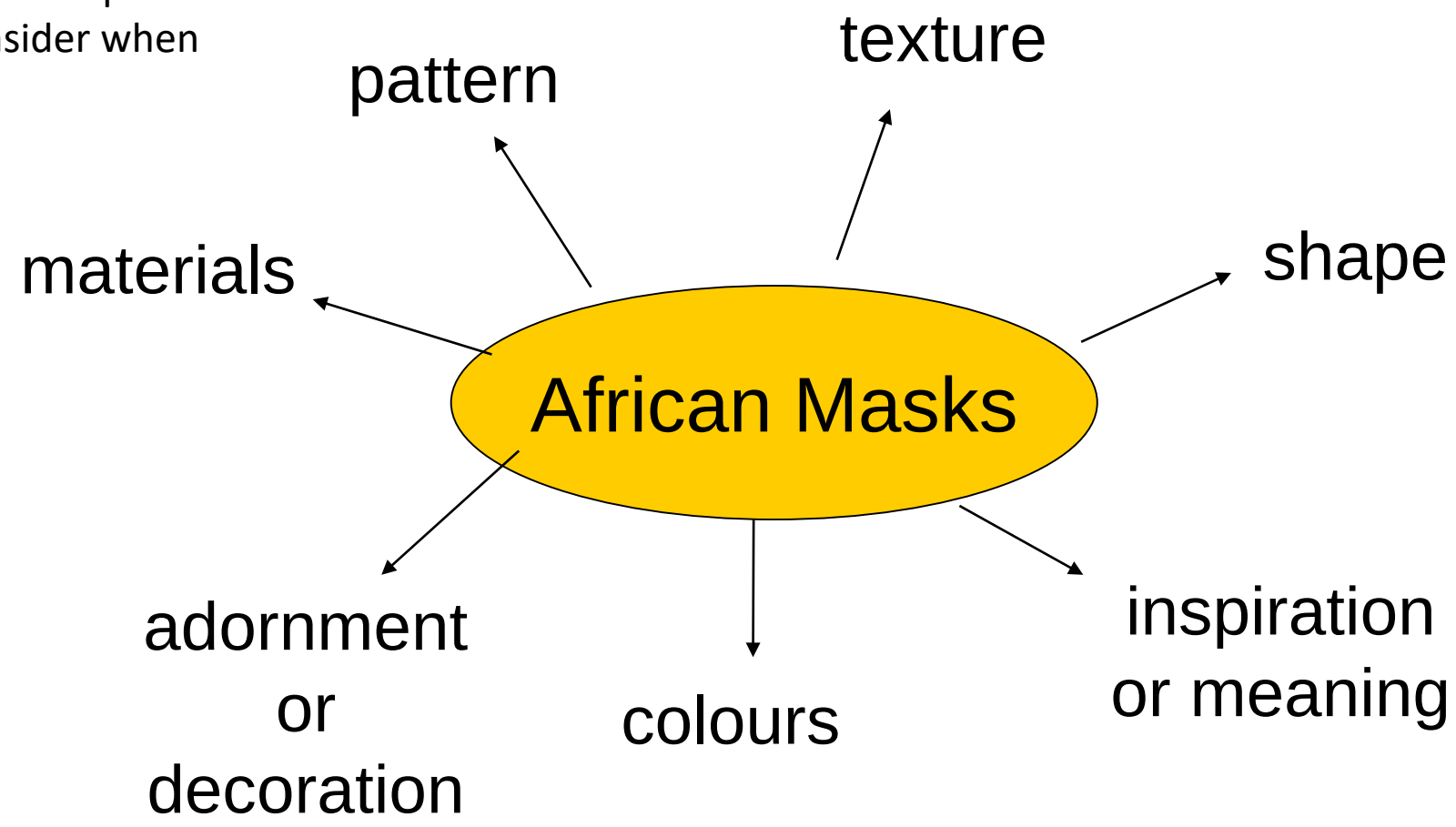
- This term we will be mostly looking at African masks and the Art work involved in them. We will be designing our own masks taking inspiration from past examples like the ones on this page.
- Masks have inspired many modern Artists and film makers as they are full of character and mood.
- Pay particular attention to the colours used. They are often Earth type colours that fit with the origins and style of the masks.
- The masks have emotions such as anger, surprise, tranquillity etc... Try to give your mask an emotion or mood.



Some ideas for different shapes….

Key Characteristics of African Masks

These are different aspects
You need to consider when
designing
Your own mask:



1

Methods of Recording

Observational drawing	Drawing from looking at images or objects
First hand observation	Drawing directly from looking at objects in front of you
Second hand observation	Drawing from looking at images of objects
Photographs	Using a camera or smartphone to record images will class as first hand observation
Sketches	Basic sketches and doodles can act as a starting point for development

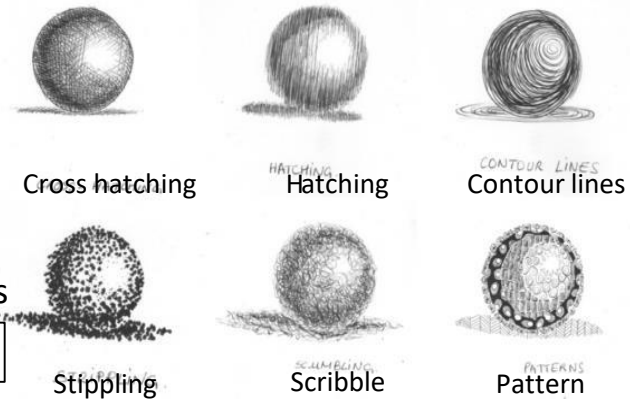
Stages of Drawing

Basic shapes → Accurate shapes → Detail → Shade

2

Tonal shade
Produce a range of tones by varying the pressure and layering consider using softer pencils for darker shades

Alternative shade techniques



3

Annotation

Describes writing notes, using images and explaining your thoughts to show the development of your work.

Step 1 Describe
What is this an image of?
What have you done here?
What was this stage of the project for?

Step 2 Explain
How was this work made?
How did you produce particular effects? How did you decide on the composition?

Step 3 Reflect
Why did you use these specific methods? Why do particular parts work better than others?
Why might you do things differently next time?

Art Key Stage 3

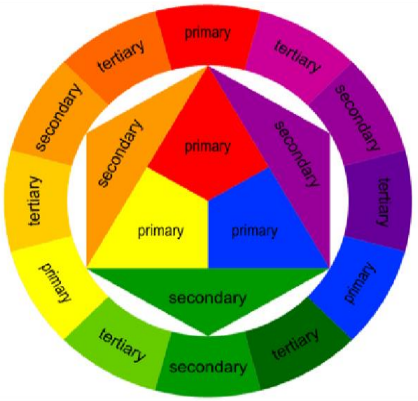
1- Formal elements are taught e.g. how to sketch and use tone to create a 3D effect. You will explore the colour wheel and how to use the basic materials in Art.
2-"The Greenman" – This project introduces you to facial proportions and how to blend oil pastels effectively. We also learn about clay and create small 3D Greenman faces. Examples of world renowned pieces of art are discussed.
3-"Perspective Landscapes"- This project introduces students to the concept of perspective and distance in Art. You learn about the technique of one-point perspective to create a feeling of depth in a landscape.

1

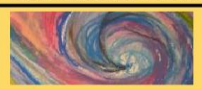
Media	The substance that an artist use to make art
Materials	The same as media but can also refer to the basis of the art work eg, canvas, paper, clay
Techniques	The method used to complete the art work, can be generic such as painting or more focus such as blending
Processes	The method used to create artwork that usually follows a range of steps rather than just one skill

3

Colour Theory	
Primary= RED, YELLOW, BLUE	Complimentary; Colours opposite on the colour wheel
Secondary= Primary+Primary	Harmonious; Colours next to each other on the wheel
Tertiary= Secondary+Primary	Monochromatic; shades, tones & tints of one colour
Shades – add black	Hue – the pigment
Tint – add white	Warm; RED, ORANGE YELLOW. Cold; BLUE, GREEN, PURPLE



2

Pencil		The basic tool for drawing, can be used for linear work or for shading
Biro		Drawings can be completed in biro and shaded using hatching or cross hatching
Pastel (chalk/oil)		Oil and chalk pastels can be used to blend colours smoothly, chalk pastels give a lighter effect
Coloured pencil		Coloured pencil can be layered to blend colours, some are water soluble
Acrylic paint		A thick heavy paint that can be used smoothly or to create texture
Watercolour		A solid or liquid paint that is to be used watered down and layered
Gouache		A pure pigment paint that can be used like watercolours or more thickly for an opaque effect
Pressprint		A polystyrene sheet that can be drawn into to print white lines – can be used as more than 1 layer
Monoprint		Where ink is transferred onto paper by drawing over a prepared surface
Collograph		A printing plate constructed of collaged materials
Card construction		Sculptures created by building up layers of card or fitting together
Wire		Thick or thin wire manipulated to create 2d or 3d forms
Clay		A soft substance used for sculpting, when fired can be glazed to create shiny colourful surfaces
Batik		A fabric technique using hot wax to resist coloured inks
Silk painting		Fabric inks painted onto silk, Gutta can be used as an outliner to prevent colours mixing

Art Key Stage 3

1

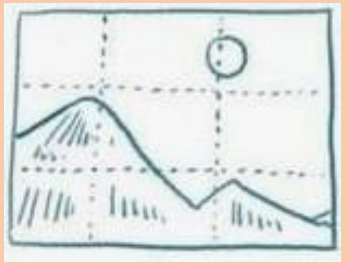
Formal Elements of Art

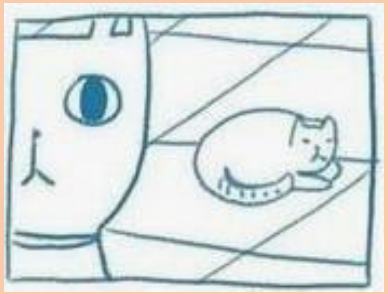
LINE	the path left by a moving point, e.g. a pencil or a brush dipped in paint. It can take many forms. e.g. horizontal, diagonal or curved.
TONE	means the lightness or darkness of something. This could be a shade or how dark or light a colour appears
TEXTURE	the surface quality of something, the way something feels or looks like it feels. There are two types : Actual and Visual
SHAPE	an area enclosed by a line. It could be just an outline or it could be shaded in.
PATTERN	a design that is created by repeating lines, shapes, tones or colours. can be manmade, like a design on fabric, or natural, such as the markings on animal fur.
COLOUR	There are 2 types including Primary and Secondary . By mixing any two Primary together we get a Secondary

2

Composition Layouts

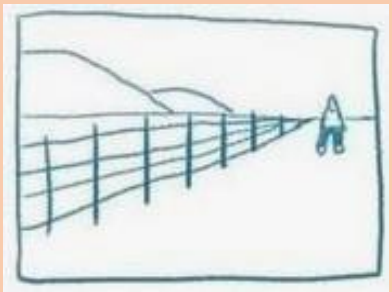
Rule of thirds – Place focal objects at 1/3 or 2/3 of the image horizontally or vertically. Not in the middle





Balance elements. If there is an emphasis on one side balance it out with smaller objects on the other

Simplify and fill. Enlarge or crop the image to fill the space



Use lines. Lines will draw the viewer in, they don't have to be straight, consider S or C

3

A Rough	A Visual/ Maquette	Final Piece
A basic sketch of a final idea	A small image or model created in selected materials	An image or sculpture pulling all preparatory work together

Art Key Stage 3

Textiles – Equipment and Fabric

Activity: Learn how to iron, darn socks. If you have some spare fabric make sock puppets for a puppet theatre. In drama create a script. Make a video you record on your phone to share with friends and family.

What is Textiles and what is a Textile Designer?

- A textile is a type of woven cloth.
- A textile designer comes up with innovative ideas, **designs** and prints for a variety of fabrics, clothing and non-clothing materials, furnishing materials, industrial fabrics and other related materials, using both natural and manmade fibres.

Tools and equipment

Embroidery Scissors
Used to cut off loose threads when sewing

Embroidery thread
Thick, colourful thread using for decoration in hand embroidery

Embroidery needle
Needle with a large eye so the thread ca fit through. Used to sew decoration onto fabric.

Embroidery hoop
Used to keep fabric taught (tight) so that it doesn't crease or bunch when sewing

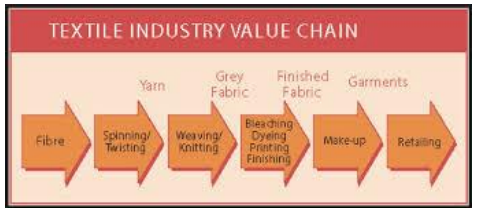
Unpicker
Used to cut through stitches and thread. Usually used to amend mistakes.

Sewing machine
Used to join fabric together, construct garments and textiles and also for decoration.

Example exam questions:

Give an example of a synthetic material. (1 mark)
Explain the term 'textile design'. (2 marks)
What is an unpicker used for?. (1 mark)
Name one different between a sewing needle and an embroidery needle. (1 mark)

Fabrics



Natural Fabrics

Cotton – produced from a cotton ball. Cotton is a soft breathable fabric used to make many fabrics for many uses. Can hold strong, bright colours when dyed.

Linen – produced from the flax plant. Linen is a strong, absorbent fabric and dries quickly.

Wool – produced commonly from sheep but also other animals such as goats and rabbits. Wool is insulating and water resistant.

Silk – the silk work produces a silk cocoon which is processed into silk. Silk is light and comfortable, has good insulating properties (warm in winter, cool in summer) and is strong.

Synthetic fabrics

Polyester – manmade from coal, water and petroleum. Polyester resilient fabric and can with stand a lot of wear an tear, holds dye well.

Nylon – manmade from petroleum, gas, coal and other materials. Nylon is a silky, strong and elasticated fabric.

Regenerated Fibre - Viscose is known as a regenerated fibre as it is made from cellulose found in wood pulp. It is often regarded as only partially man-made. It's a light, airy, breathable and biodegradable.

Bonded fabrics - Blended fabrics are created when two or more different kinds of fibres are mixed together to create a new fabric with unique properties e.g. polycotton.

Textiles – Decorative techniques

Activity: Can you make a camping blanket? What is a blanket stitch? Research and perhaps try it.

Applique

Applique is attaching shapes and patterns of fabric onto a larger piece of fabric to form a picture or pattern. Is it commonly used as decoration. The fabric can be attached by bondaweb or sewed using a machine or by hand.

Materials Required

Bondaweb, a variety of fabrics, tracing paper (if required and an iron.

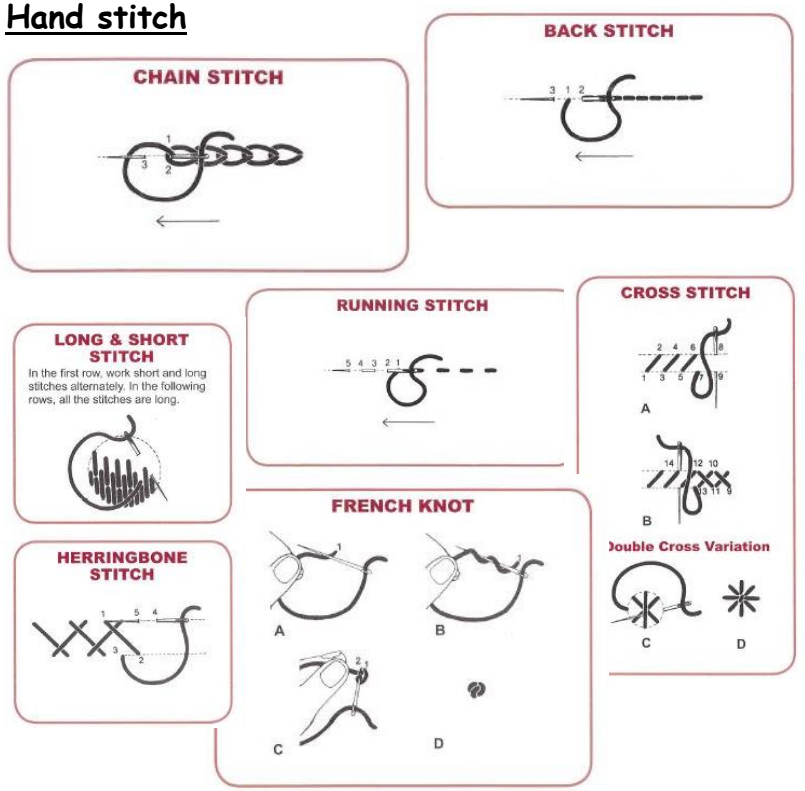
How to do Applique

- Draw a simple design
- Trace the design onto the Bondaweb - on the smooth side
- When using letters or words, you must do a mirror image using tracing paper
- Label each colour that you want to use on your design
- Select each colour fabric from the scrap fabric draws
- Cut roughly each section of the Bondaweb – this will be ironed onto each colour
- Iron onto the coloured fabric that you have selected – place the Bondaweb and the fabric in between two pieces of paper in case the design signs to the iron or the ironing board
- Cut out each shape
- Collect a larger swatch to put your applique onto
- Return to the iron, with your swatch and sections of your design
- Peel back the paper from your cut out design and lay onto the larger swatch
- Make sure that the applique is the correct way – place the design between two pieces of paper in case the design sticks to the iron or the ironing board
- Iron onto the larger swatch

Example exam questions:

Explain how to complete an applique sample when using Bondaweb (8 marks)
List 3 piece of equipment needed when completing hand embroidery. (3 marks)
Name one disadvantage of hand embroidery. (1 mark)
Explain what the term 'applique' means. (2 marks)

Hand stitch



Materials required

Embroidery needle, thread, fabric, embroidery hoop.

Advantages of hand embroidery:

- Control over length of stitches
- Range of stitches to choose from

Disadvantages of hand embroidery:

- Time consuming
- Must be tied off correctly or will unravel
- Thread can get caught and tangled.

Patterns and the sewing machine

Patterns

Patterns are used as a template when making textiles and fashion garments. They instruct you where to cut, sew, add zips and any other details you may need to know.

Pattern symbols

Notch – Pattern notches are small marks made on the pattern to ensure that one pattern piece will match up to the pattern next to it.

Grain line – this is the direction on the fabric that the pattern should be cut. Some things are cut on the grain line, other are cut on the bias which is diagonal to the grain line.

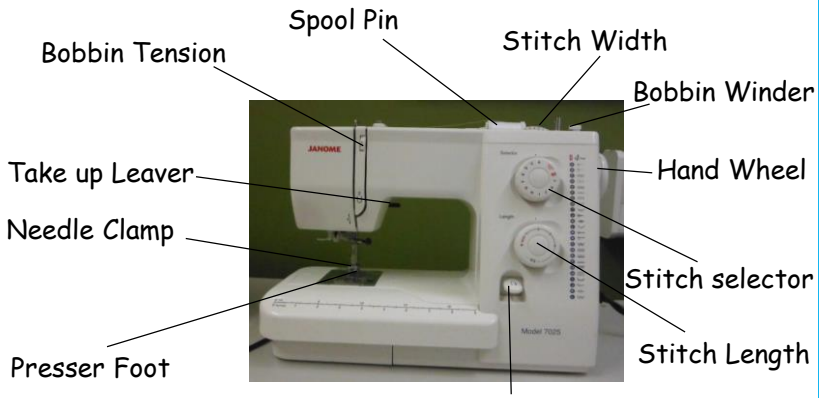
Seam Allowance – This is the space between the edge of the fabric and the sew line. Cut along this line when cutting out fabric from a pattern, this allows room for sewing it together. The seam allowance is usually 1cm.

Sewing line – Sew along this line when constructing your textile/garment.

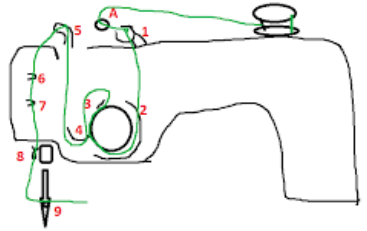
Example exam questions:

Why are notches used on pattern pieces. (2 marks)
Explain the advantages of using a sewing machine to construct textiles over hand sewing. (3 marks)
Why would the reverse stitch button be used when constructing a textile? (2 marks)
What is a bobbin used for? (2 marks)
Why is a seam allowance important? (3 marks)
What does this symbol mean on a pattern? (2 marks)
Name two disadvantages of using a sewing machine for embroidery. (2 marks)

Sewing Machine



How to thread a sewing machine



Materials required

Sewing machine, fabric, thread, scissors

Advantages of sewing machines

- Quick embroidery
- Secure stitching and construction
- Quick to use a range of stitches are available

Disadvantages sewing machines:

- Must understand how to use a sewing machine
- Can take some time to unpick incorrect stitches
- Less control over stitch lengths
- Cannot use wide a variety of different threads

Health and Safety

Micro-organisms

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)

High risk foods

- 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 dandruff falling in food
- Take off coats and blazers
- Wear an apron to prevent bacteria transferring from our clothes to our food
- Wash hands with hot soapy water to kill bacteria

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 hazard
- Put all high risk foods in the fridge to slow bacteria growth

Wash your hands after:

- Coughing
- Sneezing
- Tying shoe laces
- Going to the toilet
- Touching hair or face

Nutrition

Nutrients

Macro nutrients – needed in large quantities 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 questions:
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

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.

Dietary related health problems

Too much sugar can cause:

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

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).

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:

Fruit and vegetables: 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,

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

Oils and spreads: choose unsaturated fats such as vegetable oils and margarine over butter, use in small amounts.

Dairy and alternatives: 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.

Beans, pulses, fish, eggs, meat and other proteins: 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 fibre • 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.

Examples of UK grown produce

Autumn	Winter	Spring	Summer
Apples Mushrooms Beetroot Pears Potatoes Pumpkin Garlic	Cauliflower Sprouts Suedes Sweet potato Broccoli Oranges Cabbage	Strawberry Carrot Lettuce Leeks Asparagus Peas Spring onion	Cucumber Aubergine Tomato Raspberry Courgette Onion Corn on the 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, broccoli

Stir Fry

Ingredients (serves 2)

1 chicken breast
1 pepper
½ onion
1 garlic clove
1 small carrot
Small piece of ginger
Tsp mixed spice
Splash of soy sauce
½ chilli
Tbsp oil

Equipment

Knife
Chopping board
Wooden spoon
Wok

Skills

Slicing
Frying
Seasoning

1. Cut the onion and the pepper into thin slices. Chop your carrot into thin match stick style slices.

2. Cut the skin from the ginger and cut into small pieces. Cut the garlic into small pieces.

3. Cut your chicken in long strips.

4. Heat the oil and add the chicken, cook until the outside has turned white. Then add the ginger, garlic and chilli

5. Add your vegetables and cook for a couple of minutes.

6. Add your soy sauce, salt and pepper. Fry for another few minutes.

Tip: Don't over cook the dish as stir fry should be slightly crunchy.

Serve with egg noodles or rice.

Banana pancakes

Ingredients (makes 5)
1 banana mashed with a fork
1 egg
70g self-raising flour
1tbsp light brown sugar
OR chocolate chips
60ml milk
25g melted butter

Equipment
Frying pan
Jug
Bowl
Spoon
Spatula
Fork

Skills
Weighing
Mixing
Whisking
Melting
frying

Method

1. Combine all ingredients together

2. Cook until brown on both sides in some melted butter.

Tomato and basil tart

Ingredients
100g plain flour
50g butter or margarine
2tbsp cold water
1 tomato
Handful of basil leaves
2 eggs
125ml semi-skimmed milk
50g cheese

Try adding:
Cooked bacon, ham, sweetcorn, roasted vegetables, spinach, feta cheese, goats cheese,

Equipment
Bowl
Weighing scales
Spoon
Jug
Chopping board
knife

Skills
Weighing
measuring
Rubbing in method
Seasoning

1. Pre-heat the oven to 180°C. Rub the butter and flour together until it resembles bread crumbs.

2. Add the water gradually until the pastry comes together into a ball.

3. Roll out the pastry and line your dish.

4. Mix the eggs, milk, mixed herbs and seasoning in a jug.

5. Pour the egg mixture into the pastry shell.

6. Slice the tomatoes and cheese and lay over the top of the tart. Bake in the oven for 30 minutes.

Meatballs

For the meatballs:
250g mince
½ onion
2 tbsp breadcrumbs
1 egg

For the sauce:
1 can chopped tomatoes
1 garlic
½ onion
1 tsp mixed herbs

Optional
200g cooked pasta

Equipment
Knife
Chopping board
Bowl
Baking tray

Skills
Weighing
Chopping
Seasoning
Baking
Frying

For the meatballs:

1. Finely chop the onion and put in a bowl.

2. Add the egg, breadcrumbs and mince. Mix well with your hands.

3. Divide into even round shapes and place on a baking tray with a drizzle of oil. Cook for 20 minutes.

For the sauce:

4. finely chop the onion and garlic.

5. Gently fry for a few minutes. Then add the can of tomato's and herbs.

6. Allow to simmer for 10 minutes. Stir through the meatballs when they are cooked.

Serve with spaghetti and parmesan cheese on top.

Dutch Apple Cake

Ingredients

110g Sugar
110g Margarine
110g Self Raising Flour
1 Apple
1 tsp. Cinnamon
1 tsp. Demerara Sugar
2 eggs

You can use this sponge recipe to make lots of different cupcakes – swap the apple and cinnamon for: choc chips, banana, blueberries

Equipment

Chopping board, Knife, Measuring scales, Mixing bowl, Wooden spoon, Sieve, spatula, jug, 6 muffin cases

Skills

Grating
Creaming method
Mixing
Weighing
Baking
Seasoning
Slicing

Method

1. Cream the sugar and margarine together until light and fluffy.
2. In the jug, beat the eggs with a fork.
3. Add the beaten egg, a little at a time, to the margarine and sugar.
4. Sieve the flour into the bowl
5. Fold the flour into the mixture.
6. Fill up the muffin cases evenly.
7. Core the apple and slice thinly.
8. Arrange the apple slices over the cake mix, and then sprinkle the cinnamon and sugar on top.
9. Bake in the oven 15 min until golden and well risen.

Food Packaging

Food packaging
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.

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.
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.

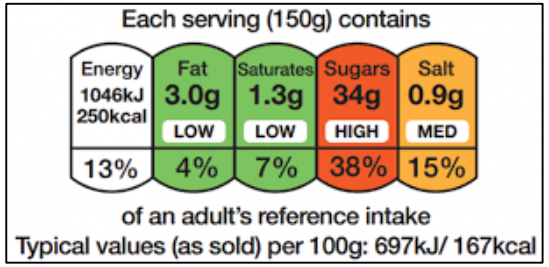
Example exam questions:
Seasonal produce and air miles
What are the advantage of buying locally produced, seasonal produce? (6 marks)
Explain the disadvantages of buying imported foods. (10 marks)
Explain the term 'air miles' (3 marks)
Explain the term 'seasonal produce' (3 marks)
How might a restaurant 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)

Reference intake

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.

Components of Physical Fitness

Aerobic Endurance

The ability of the heart and lungs to work hard to supply nutrients and oxygen to the muscles during exercise.

Muscular Endurance

The ability of the muscles to work efficiently for long periods of time

Speed

The ability to cover a distance quickly. There are 3 types of speed (Accelerative speed, Pure speed and Speed Endurance.

Muscular Strength

The maximum force, measured in kilograms (Kg) or newtons (N) that can be generated by a muscle or group of muscles.

Flexibility

The range of motion in all joints of the body and the ability to move a joint fluidly through its complete range of movement.

Body Composition

The amount of fat to fat-free muscle mass.

Watch this!

Can you now link each of the physical components to a sporting example? E.g. what sport would you usually see flexibility being used?

Why should we exercise?

Sport England posted an infographic on Twitter to give reasons why walking for 30 minutes each day was important. Scan this QR code to see the benefits.

Components of Skill-related Fitness

Agility – The ability of a sports performer to quickly change direction without losing balance or time

Balance – The ability to maintain your centre of mass over a base of support. There are two forms of balance (static which is maintaining balance in a stationary position and Dynamic which is maintaining balance while in motion)

Co-ordination – The ability of the body to work together to move smoothly and accurately

Power – The ability to use strength and speed. It is the work done in a unit of time and is calculated in the following way Power-= Force (Kg) x Distance (m) / time (mins or seconds)

Reaction time – The time taken for a sports performer to respond to a stimulus, for example, the time taken for a sprinter to react to the starter gun.

Athletics

Athletics events consist of three main areas. Running, Jumping and Throwing.

Skill	Description
Running	An action to move quickly with the correct technique using arms and legs as efficiently as possible. Activities include 100m, 200m, 400m, 800m and relay.
Jumping	The technique to propel the body into the air to either cover distance, height or both. The events are long jump, triple jump and high jump.
Throwing	The ability to propel an object through the air as far as possible. The events are Javelin, Discus and Shot Putt.

British athletes and achieving their goals

1. How would both Mo Farrah and Sophie McKinna (from Norfolk) use the F.I.T.T principle in their sports?

2. Why is rest and recovery important for an athlete?

3. What components of fitness would Mo Farrah need which is different to Sophie McKinna and why would these be important?

Diet and Nutrition for Sport	
Nutrient	**Function and Examples**
Protein	 Important for growth and development of muscle and tissue as well as making and repairing cells inside the body. Poultry, Fish, Nuts, Dairy and Soy are examples.
Carbohydrates	 Provide energy for the body over a longer period of time and helps fight disease. Potatoes, Pasta, Pulses and Fruit are sources.
Fibre	 Important for preventing constipation and also helps decrease the risk of Type 2 diabetes, heart disease and high cholesterol in later life. Fresh fruits (skin on) Dried fruit, Vegetables, Wholegrains such as brown rice and wheat bread are sources.
Calcium	 Important for strong bones and teeth. It also helps with muscle function, blood clotting and nerve transmission. Dairy products, leafy green vegetables, orange juice are sources.
Vitamin A, C and D	Vitamin A is important for eyesight, growth and the functioning of the immune system as well as healthy skin. Dark green vegetables e.g. spinach. Sweet potatoes, papayas, milk and eggs. Vitamin C is important for decreasing the amounts of colds you get, fights infections, wound healing, healthy gums and skin and also acts as an antioxidant. Citrus fruits, broccoli, strawberries, tomatoes, peppers and kale are the sources Vitamin D is important for strong bones and teeth as it absorbs calcium. It is also good for immune function. Milk, oily fish, egg yolk and even the sunlight are sources.

Diet and Nutrition activities

https://www.nhs.uk/live-well/eat-well/food-and-drinks-for-sport/

Click the link above or scan the code to see how diet and nutrition can affect sports performance

Y F E X S E N E R G Y T B T R T B Y I X
O H B R Y E B A H G N O K N E M S H X F
J O B P B S L Y S A N O H E T A J T J W
S E H A S I I C D E V Z L M A K S L Z Q
S O Q Q T F F I S W P B R P W I Q A T Q
Y E S V D W X Z L U Q O Y O Y H I E N Q
F C T Y I O L T S K M J I L D W C H E T
I A Z A I T N V R H Y Q E E O F D E I W
M P S T R H A D O D I P U V L L U O T W
M T N E T D R M X R R R O E N H M G G Z
U A C W T B Y P I O N H Y D R A T I O N
N F O F A T S H T N U J L M V E T I K N
E R J U D H O E O A S I I I U I P P D V
G I S T K L I Y O B N Q Y N D O N A L H
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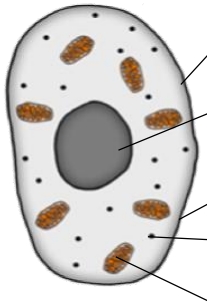
W I H H T O B W R X Z A J R P G B T F R
D K G T M U B S K Y H H C A M U E T B W
U S P Z J H Z R X C T M O L D I X G O F
N A V G F W Q Y D O R U Y S D X G J N R
M U I C L A C X Q F Q E Q H T E E T A X

ANTIOXIDANT
BONES
CALCIUM
CARBOHYDRATES
DEVELOPMENT
DIET
ENERGY
FATS
FIBRE
GROWTH
HEALTHY
HYDRATION
IMMUNE
MINERALS
MUSCLES
PROTEIN
REPAIR
TEETH
VITAMINS
WATER

Create a one week diet plan for an athlete of your choice. Your athlete will be competing in the Olympic Games next week and needs some help with their nutrition. Create a 7-day diet plan for breakfast, lunch and dinner. For example:

	Breakfast	Lunch	Dinner
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

Honey I shrunk the kids (cells)

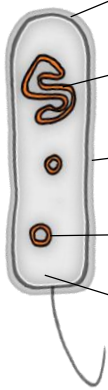


animal cell

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
mitochondrion	*site of respiration*	where energy is released for the cell to function

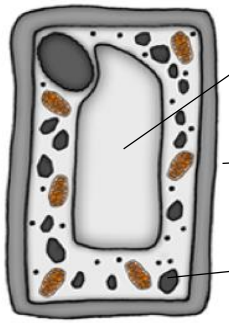
Eukaryotes complex organisms with nucleated cells

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
bacterial DNA	*not in nucleus floats in the cytoplasm*	controls the function of the cell
cell wall	***NOT** made of cellulose*	supports and strengthens the cell
plasmid	*small rings of DNA*	contain additional genes
cytoplasm	*semi permeable*	controls the movement of substances in and out of the cell

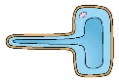
Bacterial cells are much smaller than plant and animal cells



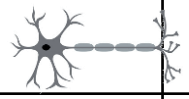
plant cell

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

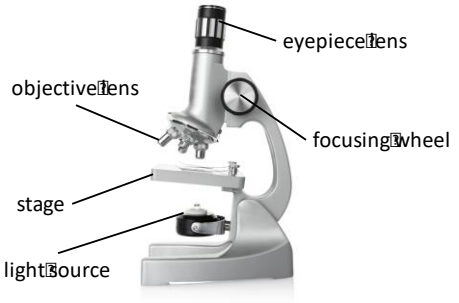
Honey I shrunk the kids (cells)

root hair		*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

nerve		*carry electrical signals*	long branched connections and insulating sheath
sperm		*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

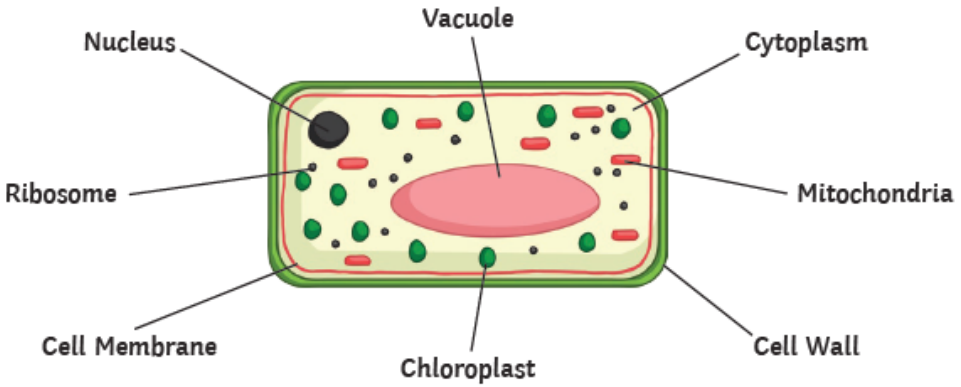
specialised animal cells



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

magnification M = size of image / real size of the object

Can you remember?

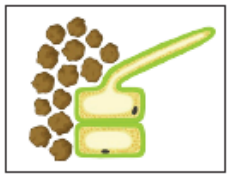


1. A diagram of a typical plant cell is shown above.

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.



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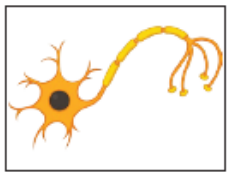

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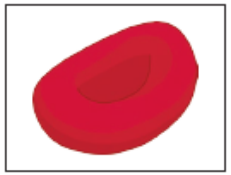

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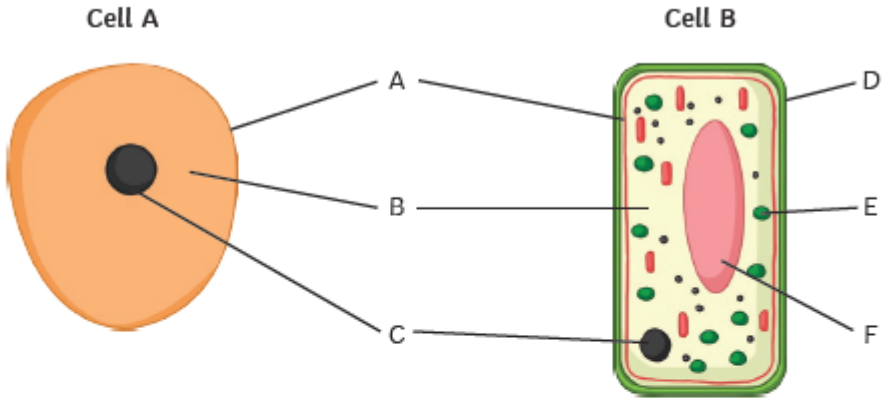
Typical Plant and Animal Cell



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

A. _____
B. _____
C. _____
D. _____
E. _____

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?

_____
_____

The human machine – the conservation and dissipation of energy

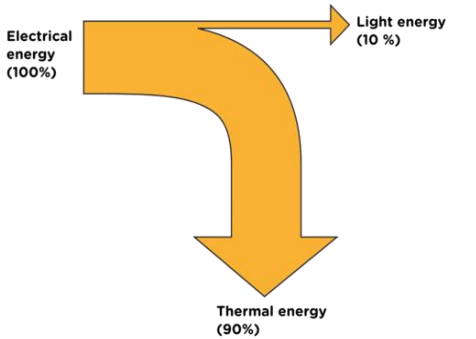
System	*An object or group of objects that interact together*	**EG:** Kettle boiling water.
Energy stores	*Kinetic, chemical, internal (thermal), gravitational potential, elastic potential, magnetic, electrostatic, nuclear*	Energy is gained or lost from the object or device.
Ways to transfer energy	*Light, sound, electricity, thermal, kinetic are ways to transfer from one store to another store of energy.*	**EG:** electrical energy transfers chemical energy into thermal energy to heat water up.
Unit	*Joules (J)*	

Dissipate	*To scatter in all directions or to use wastefully*	When energy is 'wasted', it dissipates into the surroundings as internal (thermal) energy.

Energy stores and changes

Kinetic energy	***Energy stored by a moving object***
Elastic Potential energy	***Energy stored in a stretched spring, elastic band***
Gravitational Potential energy	***Energy gained by an object raised above the ground***

Useful energy	***Energy transferred and used***
Wasted energy	***Dissipated energy, stored less usefully***



Energy pathways

Mechanical	*Force acts upon an object*
Electrical	*Electric current flow*
Heat	*Temperature difference between objects*
Radiation	*Electromagnetic waves or sound*

Ways to reduce 'wasted' energy	*Energy transferred usefully*	Insulation, streamline design, lubrication of moving parts.

Principle of conservation of energy	*The amount of energy always stays the same.*	Energy cannot be created or destroyed, only changed from one store to another.

Efficiency	***How much energy is usefully transferred***

Efficiency = $\frac{\text{Useful output energy transfer}}{\text{Total input energy transfer}}$

Knowledge Organiser: Year 8 Summer Term Part 2 Understanding computers *and data representation*

Summary

Computers require **input** hardware, **processing** hardware, **storage** hardware and **output** hardware.

CPU - The **Central Processing Unit** or **CPU** is arguably the most important component of a computer. You can think of the CPU is being like the brain in a human.

Storage - stores programs and files long term, even when they are not in use. Devices such as hard drives, USB memory sticks or SD cards are used to store files such as photos, music and software applications long term.

An **input device** is any piece of computer hardware **used to provide data to a computer system.** Examples include: keyboard, mouse, scanner, digital camera and webcam.

An **output device** is any piece of computer hardware used to communicate the results of data that has been processed. Examples include: monitor, printer, projector and speaker.

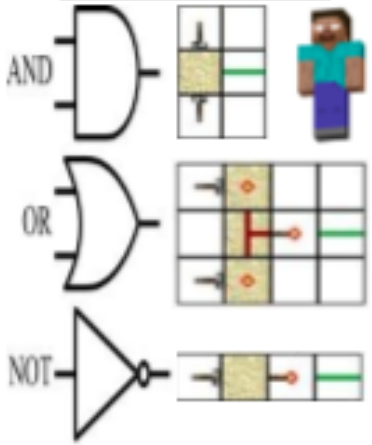
Binary is still the language for computers Binary's 0 and 1 method is quick to detect an electrical signal's off or on state.

Binary is the most efficient way to control **logic gates**

Key Vocabulary

Binary	Base 2. Symbols include up of 1 and 0
Decimal	Base 10 also known as denary. Symbols include up of 0 1 2 3 4 5 6 7 8 and 9.
CPU	Central Processing Unit - the brains of the computer that processes program instructions. Also called a **microprocessor**.
Logic gate	Compares the state switch inputs to decide what the state at their output should be
Hardware	The **physical** parts of a computer system, e.g. a graphics card, hard disk drive and CD drive.
Input Device	Hardware that sends data to a computer, allowing you to interact with and control it.
Output Device	Hardware which converts information into human-readable form. It can be **text**, **graphics**, **tactile**, **audio**, and **video**.
Storage	Hardware on which information can be stored
Software	Software is the programs that run on a computer. Commonly called apps

Logic gates

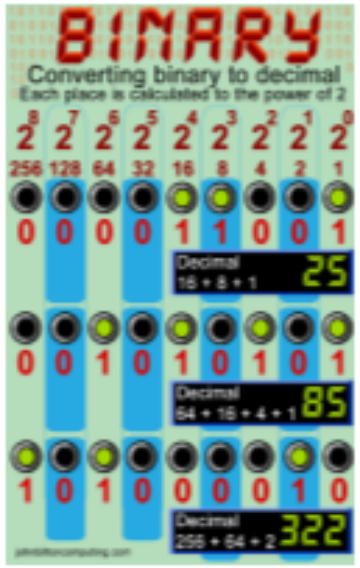


AND Gate will only turn on if both switches are in the on position.

OR Gate—When **any** switch is turned on, the power is turned on

NOT Gate—A light switch.

Decimal to Binary



Binary to Decimal

Computer system

Feedback

The Central Processing Unit or CPU is arguably the most important component of a computer.

You can think of the CPU is being like the brain in a human.

Units of information

Bit	1 or 0
Byte	8 bits
Kilobyte	1,000 bytes
Megabyte	1,000 kilobytes
Gigabyte	1,000 Megabytes
Terabyte	1,000 Gigabytes.

http://bit.ly/2Qxi9ab

BBC Bitesize

Activity: Try to play a game online with a family member unsure of technology e.g. do a quiz with Grandma.

Year 8 Knowledge organiser: Tourism

Research: How much tourism is there in Norfolk? How is the current crisis causing disruption to the industry? What can we do to help?

Topics covered

- ✓ What is tourism?
- ✓ How has tourism changed?
- ✓ Natural and man-made attractions
- ✓ Tourism in Europe
- ✓ Good and Bad effects of tourism
- ✓ Resort changes over time
- ✓ Re-inventing a UK resort
- ✓ Eco-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
- ❑ To analyse a range of graph types to describe changes in tourism
- ❑ To construct a timeline of resort change
- ❑ To write a detailed piece of extended writing

Places and Environments

- ❖ Great Yarmouth
- ❖ Blackpool
- ❖ 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

Year 8 Local Fieldwork Project – Norwich

Create a project on the following.

- ✓ What is Norwich like?
- ✓ Natural/man-made features How is Norwich changing?
- ✓ Do geographical ideas and theories work in Norwich?
- ✓ What are data types?
- ✓ How can I collect data?
- ✓ How can I present data?
- ✓ What does my data tell me?

Key Ideas:

1. I can define my local area
2. I can describe different areas within Norwich
3. I can ask geographical questions about my local area
4. I can test ideas and theories about my local area
5. I can report on the findings of my local area investigation

Skills

- ❑ To use **GIS** (digital mapping) to describe/ locate my local area
- ❑ To use mapping to investigate features
- ❑ To collect primary (my own) data on my local environment (could also be secondary data)
- ❑ To construct tables/graphs/sketches to record observations
- ❑ To write a detailed analysis of results

Places and Environments

- ❖ Open Academy
- ❖ Heartsease
- ❖ Norwich
- ❖ Trowse
- ❖ Riverside
- ❖ Anglia Square
- ❖ Gentlemans Walk
- ❖ Chapelfield

Key Terms Used in this Unit

- ❑ Primary data
- ❑ Secondary data
- ❑ Hypothesis
- ❑ Transect
- ❑ Sampling
- ❑ Bi-polar analysis
- ❑ Fieldsketch
- ❑ Pie chart
- ❑ Scattergraph
- ❑ Radar graph
- ❑ Correlation
- ❑ Proportional symbols
- ❑ Averages (mean/mode/median)
- ❑ Conclusion
- ❑ Judgement
- ❑ Reliability
- ❑ Limitations
- ❑ Evaluation

Year 8 Summer Term Spanish Knowledge Organiser

La gente (2.1); ¿Vamos a salir? (2.2)

En mi tiempo libre	**In my free time**
¿Qué haces en tu tiempo libre?	What do you do in your free time?
Bailo.	I dance.
Chateo por internet.	I chat online.
Escucho música.	I listen to music.
Hago deporte.	I do sport.
Juego con el ordenador.	I play on my computer.
Mando mensajes.	I send messages.
Salgo con mis amigos.	I go out with my friends.
Voy de compras.	I go shopping.
¿Qué te gusta?	What do you like?
Me gusta…	I like…
Me interesa…	I'm interested in…
Me encanta…	I love…
el fútbol	football
la música	music
la natación	swimming
Me gustan…	I like…
Me interesan…	I'm interested in…
Me encantan…	I love…
los cómics	comics
los videojuegos	video games
las hamburguesas	hamburgers
¿Qué no te gusta?	What don't you like?
No me gusta la música	I don't like music
Odio el fútbol	I hate football

No me interesan los cómics	I'm not interested in comics

Los amigos	**Friends**
tu mejor amigo, tu mejor amiga	your best friend
¿Cómo es?	What is he/she like? What does he/she look like?
Es…	He is…, She is…
alto, alta	tall
bajo, baja	short
delgado, delgada	slim
guapo, guapa	good-looking, attractive
¿Cómo es de carácter?	What kind of a person is he/she?
Es…	He is…, She is…
No es…	He isn't…, She isn't…
Nunca es…	He is never…, She is never…
divertido, divertida	amusing
generoso, generosa	generous
hablador, habladora	talkative, or chatty
inteligente	intelligent
perezoso, perezosa	lazy
serio, seria	serious
¿Cómo es su pelo?	What is his/her hair like?

Year 8 Summer Term Spanish Knowledge Organiser

La gente (2.1); ¿Vamos a salir? (2.2)

Tiene el pelo…	He/She has …hair
castaño	brown
negro	black
pelirrojo	red
rubio	fair, or blond
corto	short
largo	long
ondulado	wavy
¿De qué color son sus ojos?	What colour are his/her eyes?
Tiene los ojos…	He/She has …eyes
azules	blue
grises	grey
marrones	brown
verdes	green

Más o menos	**More or less**
¿Quién es más alto, más alta?	Who is taller?
¿Quién es menos alto, menos alta?	Who is less tall, or shorter?
…es más viejo, vieja que…	…is older than…
…es menos joven que…	is less young than or isn't as young

Mi rutina diaria	**My daily routine**
¿Qué haces por la mañana?	What do you do in the morning?
Por la mañana…	In the morning…
me despierto	I wake up
me levanto	I get up
me ducho	I shower
me peino	I comb or brush my hair
me visto	I get dressed
desayuno	I have breakfast
voy al instituto	I go to school
¿Qué haces por la tarde?	What do you do in the evening?
Por la tarde…	In the evening…
hago mis deberes	I do my homework
ceno	I have dinner, or supper
veo la television	I watch TV
me lavo los dientes	I brush my teeth
me acuesto	I go to bed

¿Cuándo?	**When?**
después	afterwards
luego	then
normalmente	normally
por la mañana	in the morning
por la tarde	in the evening
primero	first

Year 8 Summer Term Spanish Knowledge Organiser

La gente (2.1); ¿Vamos a salir? (2.2)

Nacionalidades	**Nationalities**
¿Cuál es tu nacionalidad?	What is your nationality?
Soy…	I'm…
argentino, argentina	Argentinian
chileno, chilena	Chilean
colombiano, colombiana	Columbian
escocés, escocesa	Scottish
español, española	Spanish
estadounidense	American
galés, galesa	Welsh
inglés, inglesa	English
irlandés, irlandesa	Irish
mexicano, mexicana	Mexican

Palabras muy útiles	**Very useful words**
nunca	never
pero	but
también	also
y	and
o	or
más	more
menos	less
mejor	better, or best

¿Adónde vas?	**Where are you going to?**
Voy…	I'm going…
al centro comercial	to the shopping centre
al cine	to the cinema
al estadio	to the stadium
al parque	to the park
al salón recreativo	to the amusement arcade
a la bolera	to the bowling alley
a la discoteca	to the disco
a la playa	to the beach

¿Qué vas a hacer?	**What are you going to do?**
Voy a…	I'm going…
bailar	to dance, or go dancing
ir de compras	to go shopping
jugar al fútbol	to play football
jugar al futbolín	to play table football
jugar a los bolos	to go bowling
tomar el sol	to sunbathe
ver un partido de fútbol	to see a football match
ver una película	to see a film

Year 8 Summer Term Spanish Knowledge Organiser

La gente (2.1); ¿Vamos a salir? (2.2)

Mi semana	**My week**
el lunes	Monday
el martes	Tuesday
el miércoles	Wednesday
el jueves	Thursday
el viernes	Friday
el sábado	Saturday
el domingo	Sunday

¿Qué vas a hacer hoy?	**What are you going to do today?**
esta mañana	this morning
esta tarde	this evening
esta noche	tonight
primero	first
luego	then
después	afterwards
más tarde	later
por último	finally

Este fin de semana	**This weekend**
Voy a…	I'm going…
No voy a…	I'm not going…
Vamos a…	We're going…
escuchar música	to listen to music
ir al balneario	to go to the spa
ir al casino	to go to the casino
ir a la peluquería	to go to the hairdresser's
salir	to go out
ver la television	to watch television

¿Te gustaría salir?	**Would you like to go out?**
¿Te gustaría…?	Would you like…
ir al parque	to go to the park
ir a la bolera	to go to the bowling alley
ir de compras	to go shopping

¿A qué hora?	**At what time?**
a la una	at one o'clock
a las tres	at three o'clock
a las cinco y cuarto	at quarter past five
a las seis y media	at half past six
a las siete menos cuarto	at quarter to seven
a las ocho	at eight o'clock
a las nueve	at nine o'clock

¿Dónde quedamos?	**Where shall we meet?**
delante de la discoteca	in front of the disco
detrás del centro comercial	behind the shopping centre

Year 8 Summer Term Spanish Knowledge Organiser

La gente (2.1); ¿Vamos a salir? (2.2)

en el parque	in the park
en la bolero	in the bowling alley
en la calle	in the street
en tu casa	at your house

De acuerdo.	OK.
Vale.	OK.
Muy bien.	Fine.
No tengo ganas.	I don't feel like it.
¡Ni hablar!	No way!
¡Ni en sueños!	In your dreams!
Bueno...	Well...
Pues...	Well...
A ver...	Let's see...
Hasta luego.	See you later.
Adiós.	Goodbye.
Hasta pronto.	See you soon.

¿Quieres salir?	**Do you want to go out?**
¿Quieres...?	Do you want...?
chatear por internet	to chat online
ir a la discoteca	to go to the disco
ir de compras	to go shopping
jugar a los bolos	to go bowling
jugar al fútbol	to play football
salir	to go out
ver un partido de fútbol	to watch a football match
ver una película	to watch a film

Lo siento, no puedo.	**I'm sorry, I can't.**
No puedo salir.	I can't go out.
¿Por qué?	Why?
Porque...	Because...
no quiero	I don't want to
no tengo dinero	I don't have any money
no tengo tiempo	I don't have any time
Tengo que...	I have to...
hacer mis deberes	do my homework
lavarme el pelo	wash my hair
ordenar mi dormitorio	tidy my room
pasear el perro	walk the dog

Los problemas...	**Problems...**
Tengo un problema.	I have a problem.
¿Qué voy a hacer?	What am I going to do?
Mis padres dicen que...	My parents say...
¡No es justo!	It's not fair!
Soy demasiado joven.	I'm too young.
¿Qué le puedo decir a mi madre?	What can I say to my mother?

Year 8 Summer Term Spanish Knowledge Organiser

La gente (2.1); ¿Vamos a salir? (2.2)

...y las soluciones	**...and solutions**
Estoy de acuerdo con tu padre.	I agree with your father
Eres demasiado joven para ir a la discoteca	You're too young to go to the disco.
Tienes que...	You must...
pensar en tu hermano	think of your brother
presentar el amigo a tu madre	introduce your friend to your mother
salir más	go out more

Palabras muy útiles	**Very useful words**
primero	first
después	afterwards
luego	then
a, al	to, to the
delante de	in front of
detrás de	behind
para	for, or to, or in order to
¿dónde?	where?
mi, mis	my
tu, tus	your
su, sus	his/her

Year 8 History: Democracy and the Suffrage Movement

Britain prides itself in being a **DEMOCRACY**. This means people have an equal say in who runs the country and how. But in the 1800s it meant something very different to today...

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**

Voting was not anonymous

GENERAL ELECTIONS were held every 7 **YEARS**

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, equal-sized electoral districts. They organised huge 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.

Timeline of Key Events	
1897	**NUWSS** formed. Millicent Fawcett is leader.
1903	WSPU formed by Emmeline Pankhurst and daughters.
1905	**Militant** Campaign begins
1908	Mass rally in London – 300,000 to 500,000 activists attend. Window smashing using stones with written pleas on them.
1909	**Hunger strike** and **force feeding** starts – Marian Wallace Dunlop becomes the first hunger striker.
1913	**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
1913	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.
1914	WW1 starts – **Suffragette** leaders urge women to join the war effort. **NUWSS** continues to campaign for recognition for their work.
1918	The **Representation of the People Act** is passed, allowing men over 21 and women over 30 to vote.

Emmeline Pankhurst – WSPU	Christabel Pankhurst – WSPU	Emily Wilding Davison – WSPU	Millicent Fawcett – NUWSS
Led the WSPU from October 1903. Took more **militant** action such as windows smashing, **arson** and **hunger strikes**. Arrested numerous times, went on **hunger strike** and was force fed. Died in 1928.	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.	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 **militant**.	Leading **suffragist** and led **NUWSS**. Played a key role in getting women the vote. Dedicated to using **constitutional** means, and argued that **militancy** was counter-productive.

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 December 1914	Germany's Schlieffen Plan fails to defeat France and Britain quickly; system of 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 June 1916	Battle of Jutland – the only major sea 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 pressure	Fear of being called a coward or being given a white feather by a woman
Sense of adventure	Many British men had never travelled abroad – this was a chance to see the world!
Propaganda	British propaganda posters used very persuasive techniques
Belief in a quick victory	Many men thought that the war would be 'over by Christmas

Long-Term Causes of World War One

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

Alliances – the Triple Alliance (Germany, Austria-Hungary and Italy) and Triple Entente (Britain, France and Russia) had agreed to support each other in a war

Imperialism – 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

Why did Germany surrender in November 1918? <u>American</u> <u>entry</u> into the war, <u>Failed German/Ludendorff offensive</u>, German <u>civilians starving</u> due to the <u>Allied Blockade</u> of German ports. This all put pressure on the Kaiser to surrender.

The aim of a knowledge organiser is to do what it says on the tin – to help you organise and consolidate your knowledge! Of course, there are an infinite number of ways in which this can be done, and will depend very much on the choices of the individual. Below you will find some suggestions of possible tasks that could be completed with the use of your knowledge organiser.

Re-write this information for a primary school child. This is harder than it sounds! What key words will you need to define for them?
Re-write a page using 10 key facts or illustrations.
Produce a timeline of all the main events – either on one particular topic or, for a challenge, everything you have studied so far!
Design a museum; what artefacts would you include to represent the facts in the knowledge organiser?
Design a time capsule; what would you put in it to represent History learned so far in each knowledge organiser?
Write a 20 question quiz (with answers). You could send this to a friend in your year, a member of your family or test yourself in 2 weeks' time.
Write a creative story – pick one of the historical figures and do it from their point of view.
Write a role play from a moment in History using the knowledge organiser. Involve other people from your family!
Make a poster titled "Keep Calm and learn about History". Use the knowledge organiser to illustrate.
Write a monologue from one of the historical figures. How would they feel about the events going on around them?
Teach a History lesson to someone else in your house using the knowledge organiser.
Pick an event in History and produce a cartoon strip or storyboard from it.
Pick an event in History and draw the scene.
Pick an event or person from the knowledge organiser and explain why they are the most important event or theme to learn about in History.
Pick an event and write a creative news article about it.
Imagine you can have a tea party with someone from History from the KO. Who would you invite and why? What would you talk about and what would you eat/drink?

Vocabulary to learn

Conflict
Courage
Inspire
Relevant
Anxiety
Protagonist
Synonym
Emphasis
Omniscient narrator

Suggested Reading

Structure analysis - methods:

- Zoom in/out
- Repetition of an image/idea
- Links and connections between paragraphs
- Shifts:
  - inside to outside (and vice versa)
  - focus
  - time
  - topic
  - setting/place
  - mood/atmosphere
  - description to dialogue (and vice versa)

Language analysis Checklist:

- Link to task
- Relevant quote
- Meaning of quote
- Method named
- Effects explained
- Word zoomed in on
- Meaning of word
- Implied meanings
- Aim higher: layers of meaning

Sentence Form	Definition	Example
Fragment sentence	An incomplete idea.	*Rolling thunder.*
Simple sentence	Contains one complete idea in an independent clause.	*The lightning flashed.*
Compound sentence	Contains two independent clauses linked by a conjunction or a semi-colon.	*The lightning flashed **and** the rain fell.* *The lightning flashed; the rain fell.*
Complex sentence	Contains an independent clause and at least one dependent clause.	*Despite the thunder and lightning, there was no rain.*

Evaluate

weigh up, form a judgement

This question asks you to **evaluate** the **extent** to which you agree with a given statement about a text.

how much

You will need to consider:

- The impressions (**opinions**) you have of the text in relation to the statement
- The methods the writer has used to create these impressions
- How the particular methods create these impressions

Words/phrases
Linguistic devices
Structural features
Sentence forms

Literary devices and word class

- Metaphor – a literal comparison – *she was a monster*
- Personification – human qualities – *the grass danced in the wind*
- Simile – as/like/as if – *he was like a man possessed*
- Onomatopoeia – the sound words – *bang, pop, sizzle*
- Alliteration – same starting sounds - *really rather raucous*
- Lists – to emphasise many reasons
- Verbs – doing words
- Adjectives – describing words
- Nouns – objects or abstract things e.g. love
- Adverbs – describe doing words e.g. wrote **neatly**
- connotations of words – associations – night-time = mystery

Activities:

- Look up and define any of the key words in the purple box that you don't feel confident with.
- Look, cover and copy the key words in the purple box. Do this each day until you get the spelling of them correctly. You could complete your learning of these words by getting a parent or sibling to test you on all of them.
- Read the poem The Bully Asleep on the next page then explain the conflict that is shown in this poem.
- When one pupil read The Bully Asleep they said he deserves to be treated this way. Analysing structure and language explain if you agree or disagree with this statement.
- Either describe a day in the life of Bill Craddock or a story about him inspired by this poem. Use some of the language devices in the blue box.
- Draw a picture of the scene in the poem and label it with quotations from the text.
- If you could be one person in this poem explain who you would be and why?
- Write a short story (200–300 words) that involves a bully or instances of bullying. Use first or third person and past or present tense, but make sure that this is consistent throughout. Use as many of the literary devices in the blue box as you can and make sure you include nouns, adjectives, verbs and adverbs that are ambitious and effective. Plan your story before you begin.
- Read or listen to a book (from the link on the next page) that explores elements of conflict. Then, write a review of it (100–200 words), detailing what you found most enjoyable and perhaps, what you didn't like so much. Imagine you are writing it for a website that young readers will look at to decide what to read next.
- Read the article below and highlight the different types of sentence. Highlight any emotive language that has been used. Using PEE skills that you have learnt write a PEE paragraph explaining how language and sentence length has been used to make the reader feel sorry for Ruby Sam.
- Explain your view of bullying and why it happens.

The Bully Asleep by John Walsh

This afternoon, when grassy
Scents through the classroom crept,
Bill Craddock laid his head
Down on his desk, and slept.

The children came round him:
Jimmy, Roger, and Jane;
They lifted his head timidly
And let it sink again.

'Look, he's gone sound asleep Miss',
Said Jimmy Adair;
'He stays up all the night, you see;
His mother doesn't care.'

'Stand away from him children.'
Miss Andrews stopped to see.
'Yes, he's asleep; go on
With your writing, and let him be.'

'

'Now's a good chance!' whispered Jimmy,
And he snatched Bill's pen and hid it.
'Kick him under the desk, hard;
He won't know who did it.'

'Fill all his pockets with rubbish –
Paper, apple-cores, chalk.'
So they plotted, while Jane
Sat wide-eyed at their talk.

Not caring, not hearing,
Bill Craddock he slept on;
Lips parted, eyes closed –
Their cruelty gone.

'Stick him with pins!' muttered Roger.
'Ink down his neck!' said Jim.
But Jane, tearful and foolish,
Wanted to comfort him

When Ruby Sam Youngz was singled out by a bully at the age of 10 in her last year of primary school, she felt isolated and confused. She'd just moved with her family from England to Wales and the bully honed in on her accent. They then started mocking her appearance. "Nothing really made sense to me," she says. "I'm in a new place, I don't really know anyone, no one likes me, and I really do not know why."

Youngz says the relentless bullying, which continued through secondary school, had a knock-on effect in all areas of her life, and she took up smoking and drinking in an attempt to cope. Now aged 46, it is only in the past year that she has come to terms with the effect that the bullying had on her.

"I felt like 'no one else likes me, so I don't like me'," she says.

Her experience underlines a painful truth. Children, for all their innocence and inexperience of the world, can be some of the most vicious bullies. Their actions, perhaps less hindered by the social norms we learn in later life, can be merciless, violent and shocking. And they can have life-long implications for the victims.

You might also like:

- **Can this technology put an end to bullying**
- **The transformational power of how you talk about your life**
- **What is the best way to stop internet trolls**

https://stories.audible.com/start-listen.

Topic: Equations and Formulae

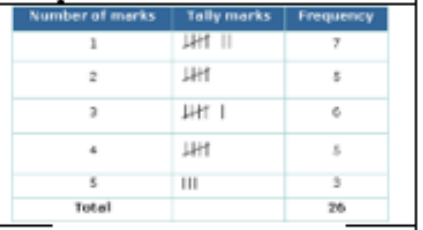
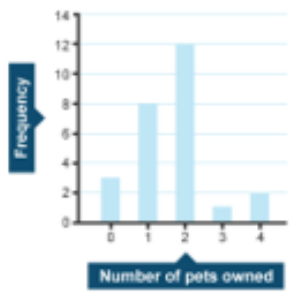
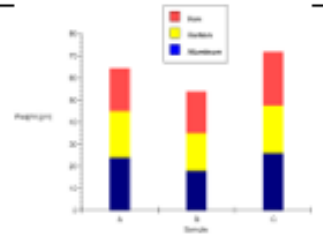
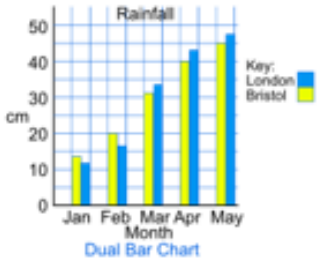
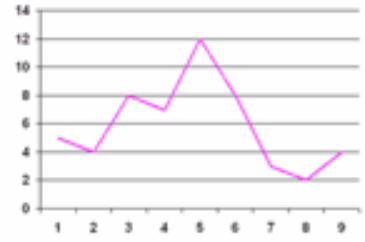
Topic/Skill	Definition/Tips	Example
1. Solve	To find the **answer**/value of something **Use inverse operations** on both sides of the equation (balancing method) until you find the value for the letter.	Solve $2x - 3 = 7$ Add 3 on both sides $2x = 10$ Divide by 2 on both sides $x = 5$
2. Inverse	**Opposite**	The inverse of addition is subtraction. The inverse of multiplication is division.
3. Rearranging Formulae	**Use inverse operations** on both sides of the formula (balancing method) until you find the expression for the letter.	Make x the subject of $y = \frac{2x-1}{z}$ Multiply both sides by z $yz = 2x - 1$ Add 1 to both sides $yz + 1 = 2x$ Divide by 2 on both sides $\frac{yz+1}{2} = x$ We now have x as the subject.
4. Writing Formulae	**Substitute letters for words** in the question.	Bob charges £3 per window and a £5 call out charge. $C = 3N + 5$ Where N=number of windows and C=cost
5. Substitution	**Replace letters with numbers**. Be careful of $5x^2$. You need to square first, then multiply by 5.	$a = 3, b = 2$ *and* $c = 5$. Find: 1. $2a = 2 \times 3 = 6$ 2. $3a - 2b = 3 \times 3 - 2 \times 2 = 5$ 3. $7b^2 - 5 = 7 \times 2^2 - 5 = 23$

Try these questions to support your knowledge.

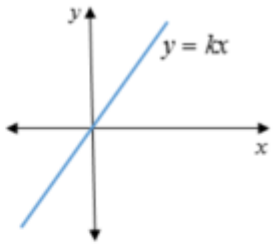
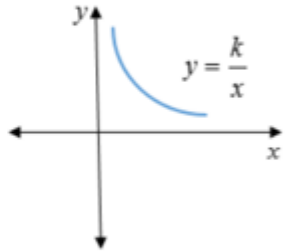
goo.gl/lMchbr

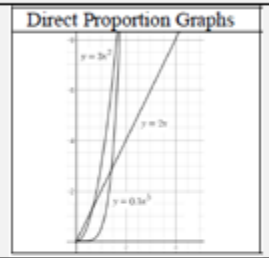
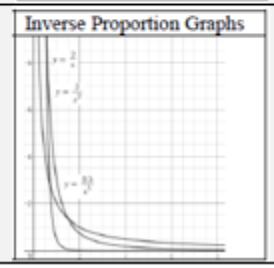
goo.gl/XZGmT5

VIDEO	PRACTISE
http://goo.gl/7cfZxf	http://goo.gl/foVckr

Topic/Skill	Definition/Tips	Example
1. Frequency Table	A record of **how often each value** in a set of data **occurs**.	
2. Bar Chart	Represents data as vertical blocks. $x-axis$ shows the **type** of data $y-axis$ shows the **frequency** for each type of data Each bar should be the **same width** There should be **gaps** between each bar Remember to **label** each axis.	
3. Types of Bar Chart	**Compound/Composite** Bar Charts show data stacked on top of each other. **Comparative/Dual** Bar Charts show data side by side.	 
4. Pie Chart	Used for showing **how data breaks down into** its constituent **parts**. When drawing a pie chart, **divide 360° by the total frequency**. This will tell you how many degrees to use for the frequency of each category. Remember to **label** the category that each sector in the pie chart represents.	 If there are 40 people in a survey, then each person will be worth 360÷40=9° of the pie chart.
5. Pictogram	Uses **pictures** or symbols to **show the value** of the data. A pictogram must have a **key**.	
6. Line Graph	A graph that uses **points connected by straight lines** to show how data changes in values. This can be used for **time series data**, which is a series of data points spaced over uniform time intervals in **time order**.	
7. Two Way Tables	A table that **organises data** around **two categories.** Fill out the information step by step using the information given. Make sure all the totals add up for all columns and rows.	Question: Complete the 2 way table below. Left Handed / Right Handed / Total Boys 10 / 58 Girls / 42 Total / 84 / 100 Answer: Step 1, fill out the easy parts (the totals) Left Handed / Right Handed / Total Boys 10 / 48 / 58 Girls / 42 Total 16 / 84 / 100 Answer: Step 2, fill out the remaining parts Left Handed / Right Handed / Total Boys 10 / 48 / 58 Girls 6 / 36 / 42 Total 16 / 84 / 100
8. Box Plots	The minimum, lower quartile, median, upper quartile and maximum are shown on a box plot. A box plot can be drawn independently or from a cumulative frequency diagram.	Students sit a maths test. The highest score is 19, the lowest score is 8, the median is 14, the lower quartile is 10 and the upper quartile is 17. Draw a box plot to represent this information. 
9. Comparing Box Plots	Write two sentences. 1. Compare the **averages** using the **medians** for two sets of data. 2. Compare the **spread** of the data using the **range or IQR** for two sets of data. The <u>smaller</u> the range/IQR, the <u>more consistent</u> the data. You must compare box plots **in the context of the problem**.	'On average, students in class A were more successful on the test than class B because their median score was higher.' 'Students in class B were more consistent than class A in their test scores as their IQR was smaller.'

Topic: Sharing Data

Topic/Skill	Definition/Tips	Example
1. Direct Proportion	If two quantities are in direct proportion, **as one increases**, the **other increases** by the **same percentage**. If y is directly proportional to x, this can be written as $y \propto x$ An equation of the form $y = kx$ represents direct proportion, where k **is the constant of proportionality**.	
2. Inverse Proportion	If two quantities are inversely proportional, **as one increases**, the **other decreases** by the **same percentage**. If y is inversely proportional to x, this can be written as $y \propto \frac{1}{x}$ An equation of the form $y = \frac{k}{x}$ represents inverse proportion.	
3. Using proportionality formulae	**Direct**: $y = kx$ or $y \propto x$ **Inverse**: $y = \frac{k}{x}$ or $y \propto \frac{1}{x}$ 1. **Solve to find k** using the pair of values in the question. 2. **Rewrite the equation** using the k you have just found.	p is directly proportional to q. When p = 12, q = 4. Find p when q = 20. 1. p = kq 12 = k x 4 so k = 3 2. p = 3q 3. p = 3 x 20 = 60, so p = 60

	3. **Substitute the other given value** from the question in to the equation to **find the missing value**.	
4. Direct Proportion with powers	Graphs showing **direct proportion** can be written in the form $y = kx^n$ Direct proportion graphs will always start at the origin.	
5. Inverse Proportion with powers	Graphs showing **inverse proportion** can be written in the form $y = \frac{k}{x^n}$ Inverse proportion graphs will never start at the origin.	

Topic: Proportion

Please use QR codes to support your knowledge:

http://goo.gl/PbnOy6 http://goo.gl/Vcv57C

Please use QR codes to support knowledge.

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Please use QR codes to support knowledge.

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Year 8 RS: How do Christians interact with culture and society?

Key words	
Worship	Act of religious honour or devotion
Liturgical worship	service which follows a set pattern
Non-liturgical worship	service which does not follow a text or set pattern
Informal Worship	a type of non-liturgical worship which is spontaneous
Private Worship	Someone praises or honours God on their own
Prayer	Communicating with God.

The Church

Church means a gathering of people and originally the church didn't have special buildings but met at people's homes. The church therefore is about people who meet to worship Christ. *"And God placed all things under his (Jesus') feet and appointed him to be head over everything for the church, which is his body".* The church as a building provides a place where Christians in the local community can meet, socialise, worship and gain spiritual guidance. Christians meet at church on a Sunday, but many churches have events happening throughout the week. Traditionally the role of the church helped with schooling, medical needs and other services. In modern times the church has projects in the community to help others following the teachings of Jesus.

Worship

It is a way for Christians to show love and respect for God. It shows Christians how important God is to them. They worship in different ways but the public worship takes place at church on Sunday. Christians prayer to ask for forgiveness, to say thanks, to ask for help or for comfort and strength. There are different types. Liturgical, non-liturgical, informal and private

Prayer

Prayer is all about communication with God. Christians ask God for help for themselves or others, ask for forgiveness, to be provided with strength or comfort or to say sorry, confess sin and ask for forgiveness or to praise God. People pray in different ways, which might include standing, kneeling or using rosary beads – for Catholics and Orthodox Christians use Icons. Christians do believe God answers prayers, but because he is transcendent (beyond our understanding) we cannot understand when or how he does it and perhaps not in the way we would want or expect. For example when Jesus is praying in the Garden of Gethsemane he asks God to *"remove this cup from me".* He is asking God to help him not have to go through the crucifixion. God doesn't stop this as there is a purpose to Jesus' suffering.

The Lord's Prayer

This is the prayer which Jesus taught he disciples to pray. *"Our father who art in heaven…."*. This is an example of set prayer and is important as it sets out how to live, for example to show forgiveness to others. It also reminds how God is part of the whole community and is said out loud together.

Pilgrimage

A pilgrimage is a special religious journey and can be seen as an act of worship in itself.

For Christians the Holy Land, where Jesus lived and died is particularly important. Pilgrimage is important as it allows people to get closer to God, strengthen faith, ask for forgiveness, pray, ask for a cure, help others and meet others who share your faith. Two important places are Lourdes and Iona.

Lourdes – In France dedicated to Mary as Bernadette believed to have seen visions of Mary in the 19th Century. A spring of water was discovered which had healing powers. Now millions of people have been to drink from the spring of water in the hope of being healed. Many sick or disabled people go to Lourdes.

Iona – An Island off the west coast of Scotland. In the 6th Century St. Columba, an Irish missionary brought Christianity to Scotland and set up a small monastic community there. Pilgrimages happen there in dedication to the virgin Mary. The community in Iona hold daily services in the Church leading a seven-mile hike to holy spots.

Festivals

Festivals remember important events in a religions calendar, for Christians this is Christmas and Easter. They are centered around Jesus who is the most important person in their religion.

Christmas – Remembers the birth of Jesus – his incarnation. It is celebrated on the 25th December. Trees and homes are decorated with nativity scenes. Lights remember Jesus is the light of the world. Carol services happen in Churches with readings from the bible. Children act out nativity plays and midnight mass takes place on Christmas Eve. *"I bring you glad tidings that today a king is born"*

Easter – It is the most important festival which celebrates Jesus' resurrection from the dead leading up from holy week. Jesus was crucified on Good Friday and rose on Easter Sunday. Special services take place and processions led by someone carrying a cross. On Easter Sunday special services take place with hymns which celebrate the resurrection. Eggs are used as a reminder of new life. *"Christ is risen from the dead".*

The Sacrament of Baptism

This is important as it is the initiation ceremony to become a Christian and part of the church and therefore receives the grace of God. Sins are forgiven and they start a new life in Christ. Jesus was baptized by John in the river Jordan, here is received the Holy Spirt and sets an example for Christians to do the same. "Therefore go and make disciples of many nations, baptising them in the name of the father, son and Holy Spirit.

Infant Baptism – Catholic, Orthodox, Anglican Methodist practice this. Everyone is a descendent of Adam and Eve and therefore carries Original Sin and so baptism washes this away. It also welcomes them to the church community.

Believer's Baptism – Baptist and Pentecostal's think children are too young to understand the meaning and therefore don't baptise infants. They have believers baptisms when a person is old enough to understand the meaning behind what they are doing. This includes a full immersion in a pool to wash away sin and start a new life in Jesus.

Activity:

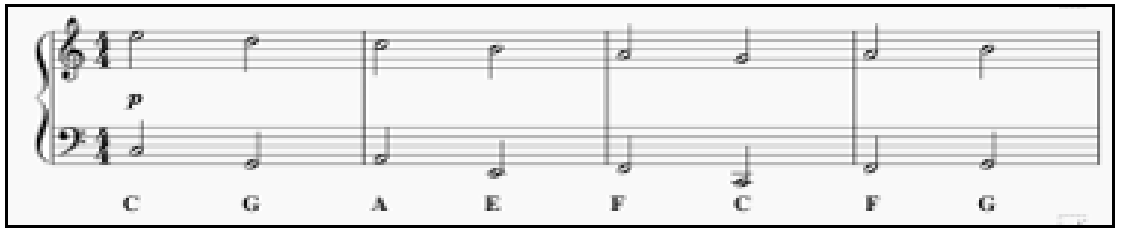
Use your network of family to find out the answers to these questions. You might be able to make contact with some churches over the internet. A good place to start is https://www.achurchnearyou.com/

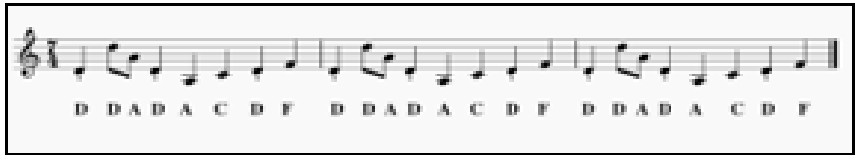
How are different churches responding to the corona virus outbreak? Norwich has a famously large humanist community. Find

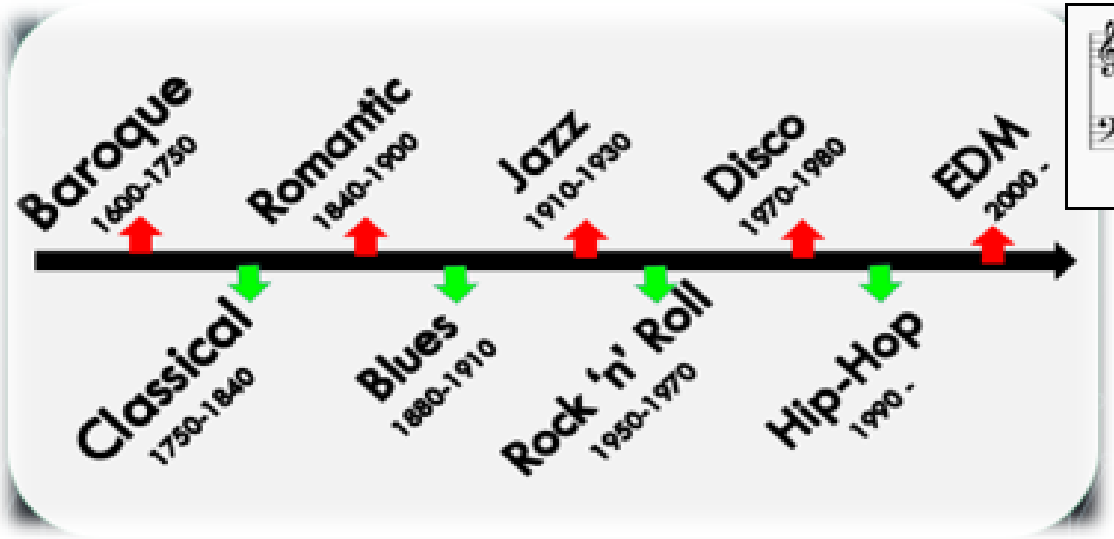
Year 8 Music Knowledge Organiser

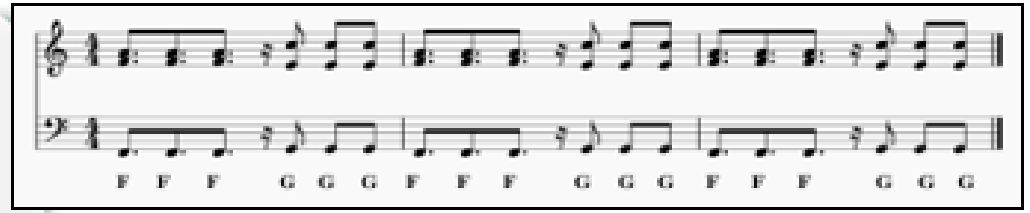
Ostinatos

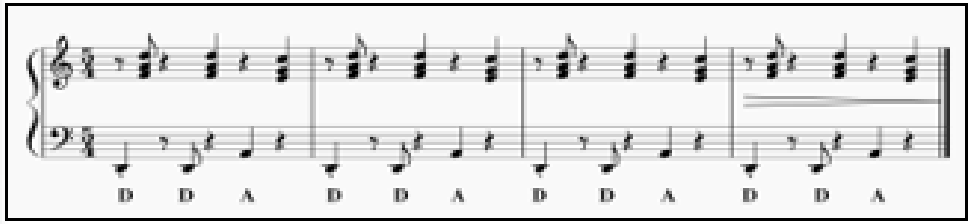
Ostinatos are musical patterns that repeat. They can be melodic (has pitch) or rhythmic (has duration) and never change. Don't confuse these with motifs which are similar but those patterns can shift in terms of pitch, duration or instrument!







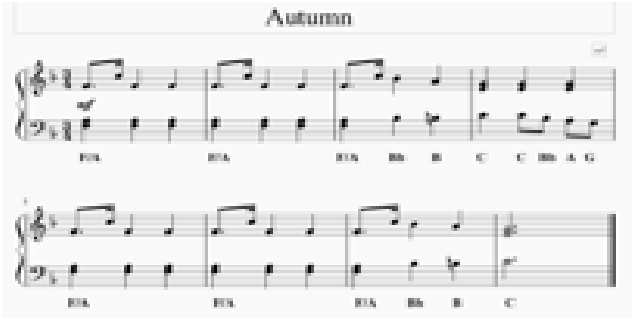


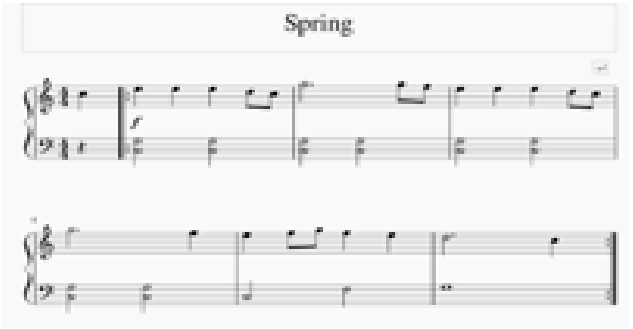


Baroque Era – 1600 - 1750

The Baroque era in music history occurred between 1600 to 1750. Baroque music has strong melodies and is very organized. The music is very dramatic because it contains lots of sudden contrasts in dynamics and composers began to experiment with different instruments like the trumpet and the clarinet.

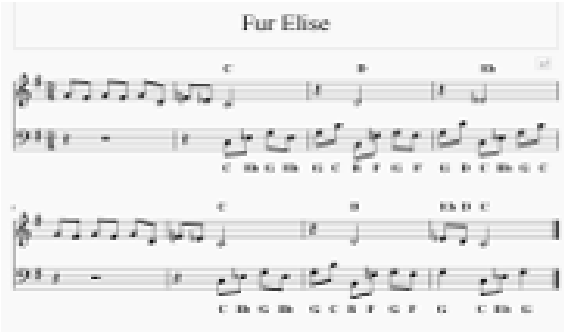
Famous composers include J.S. Bach, Vivaldi (who wrote the Four Seasons), Purcell and Handel.





Classical Era – 1750 - 1825

- The classical era lasted from 1750 – 1825. During this time, the orchestra, the piano and opera were developed!
- The music was more lyrical and less organised than the Baroque era. Symphonies, sonatas and concertos were invented.
- The famous composers were Mozart, Beethoven and Haydn.



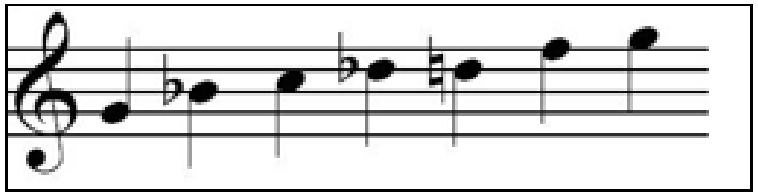
Romantic Era – 1840 - 1900

Key features

- Bigger range of dynamics
- Larger range of pitch
- Music that expressed emotion
- Music that represented nationalism or nature

Famous composers

Debussy, Prokofiev, Mendelssohn and Tchaikovsky!



C	C	C	C
F	F	C	C
G	F	C	C

Blues and Jazz – 1880 - 1930

- Blues and Jazz music share a lot of similarities but jazz uses more extreme improvisation whereas Blues usually sticks to key notes based on the blues scale (see above!)
- Improvisation means making something up on the spot, with no preparation!
- It originated in America and came from the slave trade, where slaves sang about their woes and struggles and used those songs as they did their labour, hence why the blues has its name.
- The Blues produced a very popular chord progression called the 12 bar blues which became the basis for a lot songs and was used in a lot of early rock 'n' roll (see above – read from left to right, top to bottom)
- Jazz popularised instruments such as the trumpet, saxophone, clarinet, flute and trombone!
- The genre developed 7th chords (chords are 2 or more notes played at the same time) and swing rhythms.

Rock 'n' Roll – 1950 -

- ✓ The Beatles
- ✓ The Rolling Stones
- ✓ Led Zeppelin
- ✓ Pink Floyd
- ✓ AC/DC
- ✓ Fleetwood Mac
- ✓ Queen
- ✓ Elvis Presley

Key features

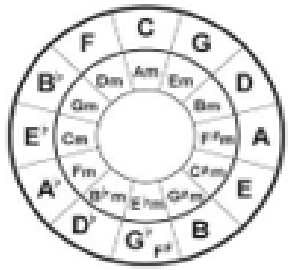
Rock 'n' roll music invented the band formula still being used to this day, using guitars, drums and vocals. Songs usually contained some sort of instrumental solo section and the lyrics centred around more adult content. Rock music has developed into many branches since the 1950's including metal, punk, 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 4/4 time 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	DT	English and Drama	Humanities	PE	Maths	Science
Create a Christmas play for you and your friends to work on over the internet. Make it hilarious.	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?	Create a detailed plan to make the world more economically equal when we are all back to normal. Share it with anyone you can get to listen.	Create a new lockdown Olympic Sport. With the cancellation of Tokyo, your sport needs a name, at least 3 rules and a list of equipment needed.	Explain what a square root is to someone really not mathematical.	Use equipment in your home to demonstrate the principle of moments.
Develop an observational humour stand up show. Watch how comedians tell a story. Think about their delivery and how they make it look like they have just had that thought. Try it.	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?	In 1917 Russia had a great revolution. What would a great revolution look like in 2027? What would be the similarities and differences if Year 9 were in charge?	Get family members to play even by TEAMs or Zoom! Send it to the organisers of the Quarantine Olympics to include it in the next games!	Where can we find the Fibonacci sequence in nature? Do some research!	Help something grow.
Watch a performance by an artist you love – many are on Instagram or YouTube. Evaluate the difference between a live performance and a studio edit.	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.	Why are we fascinated by crime? What makes Jack the Ripper such an interesting topic? Find out why if you can!	Create a diary of your physical activity each week. This could be a simple grid or list of activities.	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?
Make a playlist that means something to you. Share it with friends and explain why it matters to you.	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.	Think about what exercise or activity you completed, how long did you exercise for and how you felt during and after the activity.	Use your maths skills on page 49 to produce the report on page 35. This is the challenge from Mr Ford. How good can this be?	Find out how fans in ovens influence cooking times. What has this to do with convection?