



LYMM
HIGH SCHOOL

#2



NAME:

Year 7

Knowledge Organisers

Spring Term

(Half term 3 and 4)





A Knowledge-Rich Curriculum at Lymm High School

Why are we using Knowledge Organisers?

Research around memory suggests that “knowledge is sticky”: the more factual knowledge you know, the easier it is to learn more in future! But there is a catch: If knowledge is studied once, and not revisited or revised, it is not stored in long-term memory.

To strengthen your memory, and ensure information is stored permanently in your long-term memory, it must be revisited frequently. This means that after one lesson, or a single test, the knowledge is not fully embedded or learned unless it is studied again.

This is why your knowledge organiser is an important part of revising the essential information you learn in class!

Use of Knowledge Organisers for revision and in class

As part of their home learning, students should be revising what they have learned recently, but also content they were taught previously. Therefore, as part of our strategy to ensure that knowledge is embedded over time, we have developed knowledge organisers, which contain the ‘bedrock knowledge’ necessary in each subject area. A mastery of this knowledge will ensure that students can progress comfortably to new units of learning, and can be successful in their subjects.

This information will provide the basis of our assessments and exams, and so getting into good revision habits with these resources will ensure students feel as prepared as possible.

Teachers may set specific areas of each knowledge organiser as part of homework tasks on ‘Satchel one’ – formerly ‘Show my Homework’ – however students should be using their knowledge organiser for independent revision regularly.

For mastery of your subjects, remember:

“Don’t practise until you get it right. Practise until you can’t get it wrong!”

As well as supporting revision at home, this knowledge organiser should be kept in students’ bags, and brought to school each day so that it can also be used and referred to in lessons.

CONTENTS

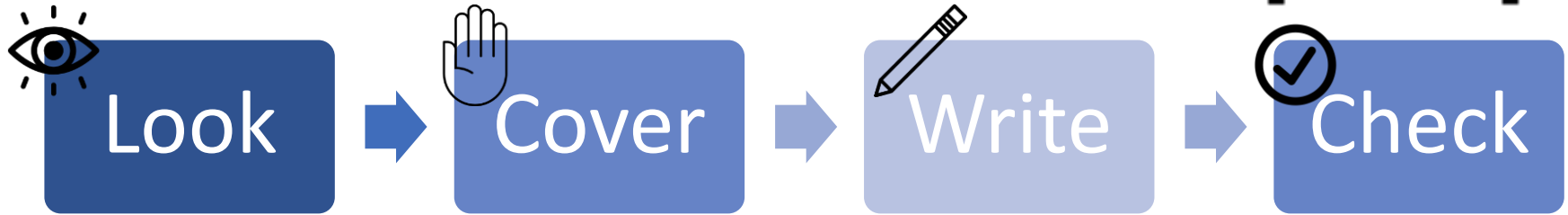
(Subjects are arranged alphabetically)

3	How to use your Knowledge organiser
4	Tier 2 Vocabulary
5	Art
7	Design Tech
10	English
12	Food Tech
15	French
17	Geography
19	History
21	IT
23	Maths
27	Music
28	Religious Studies
31	Science



How to use your knowledge organiser:

Recommended strategies (*don't just read or highlight – get active!*):



- Create **mind maps**
- Create **flash cards**
- Write out **key points on post-it notes** and place somewhere visible so you see and review them regularly
- **Write your own quiz questions** based on your knowledge organiser – leave until the next morning, next day, or next week to see how well you have retained the information
- **Get someone else to test you**
- Use **key vocabulary** from your KO in sentences
- Use the formulae, vocabulary lists, facts, processes etc on your KO to **help you complete homework tasks**
- **Draw diagrams and flow charts** of key information
- **Summarise each section** into your own words – what are the MOST important facts or details in each box?
- **“Just a minute”** – time yourself for 60 seconds. **Can you talk about this topic or explain it to someone else without stopping for a whole minute?**
- **Draw images/symbols** to represent the different concepts and vocabulary
- **Teach someone else** about this topic. Research suggests we retain even more information when we teach a topic than when we learn it or revise it.

Tier 2 Vocabulary – General academic vocabulary for success across all subjects



“The limits of my language are the limits of my world” - Ludwig Wittgenstein



List 1		List 2		List 3	
approach (v)	move towards/get closer	factors (n)	Influences/things involved in something	precise (adj)	exact
assessment (n)	test	function (n)	the point of something/what it does	required (v, adj)	needed
authority (n)	the person in charge/expert/power	identify (v)	pick out	response (n)	reply
available (adj)	free/not taken	indicate (v)	show	sector (n)	area
consistent (adj)	same every time	issues (n)	problems	significant (adj)	important
contract (n)	formal, signed agreement	legislation (n)	laws	structure (n)	how something is put together
definition (n)	what something means	labour (n)	work	subsequent (adj)	coming after
derived (from) (v)	coming from	major (adj)	important	theory (n)	An idea or belief (usually supported by evidence)
denote (v)	stand for	method (n)	way of doing something	variable (n)	A factor that might influence or change
distribution (n)	the spread of something	period (n)	chunk of time	worthwhile (adj)	worth doing
economic (adj)	to do with wealth and money	procedure (n)	Something which is done (e.g. an operation)	yearn (v)	To wish (usually for something you've lost)
establish (v)	Confirm or create something	perspective (n)	viewpoint	youthful (adj)	young

Day of the Dead

- It is a Mexican holiday celebrated throughout Mexico and around the world in other cultures.
- Dia de los Muertos: Spanish translation (language spoken in Mexico).
- It focuses on gatherings of family and friends to pray for and remember friends and family members who have died.
- It is particularly celebrated in Mexico, where the day is a bank holiday.
- The celebration takes place on October 31, November 1 and November 2, in connection with the Christian events Halloween etc
- Traditions include: Building private altars called 'ofrendas'. Leaving gifts at the grave to honour the dead (Sugar skulls, marigolds, favourite foods of the dead). They also leave possessions of the deceased.
- The main emblem for the Day of the Dead festival is the skull.

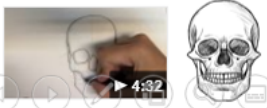


Thaneeya McArdle (name is pronounced "tuh-nee-yuh").

- An artist, designer and craftsperson from Florida.
- She is most well known for her use of vivid colours and intricate symmetrical pattern work.
- Draws and paints sugar skulls.
- The work she produces is inspired by her travels around the world.

<https://www.thaneeya.com> (Thaneeya McArdles personal website)

<https://www.art-is-fun.com> (Thaneeya McArdles website in which she has hints and tips for drawing, painting and much more!)



<https://www.youtube.com/watch?v=ECL662yPMik>
Watch this tutorial to learn how to draw a skull.



Tone	A tone is produced either by the mixture of a colour with grey, or by both tinting and shading.
Scale	Refers to the size of an object (a whole) in relationship to another object.
Block Colour	One solid colour that does not differ in tone.
Line	A mark formed by drawing.
Symmetrical Pattern	Lines and shapes that are made up of exactly similar parts facing each other or around an axis
Composition	The position and layout of shapes on the paper.
Mono printing	A form of printmaking that has lines or images that can only be made once, unlike most printmaking, which allows for multiple originals
Scruffitto	A form of decoration made by scratching through a surface to reveal a lower layer of a contrasting colour.
Clay	Clay is the raw material used in ceramics. It is a versatile material that can be transformed into a variety of shapes.

What do I include on an artist research page?

- Title (artist name)
- Images of the artists work.
- Facts/information and annotation (include your own opinion)
- Own drawings
- Key words
- Consider creative presentation.



Try to make the page reflect the artists style.



Drawing accurately

The easiest way to ensure an image is drawn accurately is by using a square grid. Over your image draw a grid. On a separate piece of paper, re draw the grid and start to plot out your image square by square.

Enlarging an image by hand

You can also use a grid to enlarge an image. Your second grid should be double in size so that when you plot your drawing it increases.

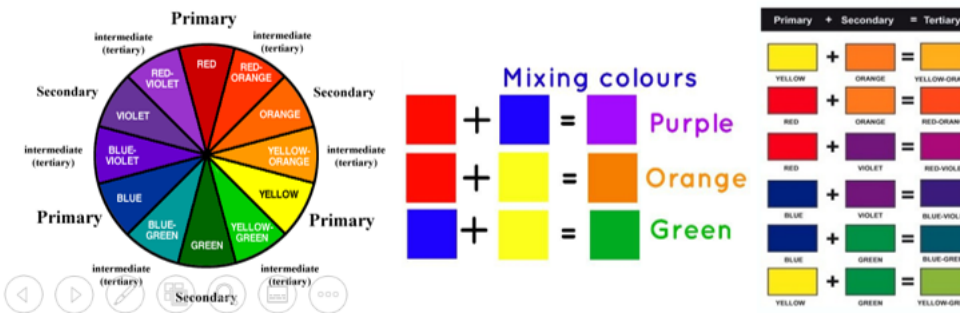
What is a Diorama?

A diorama is a model which represents a scene or story with three-dimensional figures.

Day of the Dead dioramas are based on the altars and retablos (devotional paintings) associated with the festival. They are made using tin or wood cages, known as *nichos* and contain collages of skeletons, skulls, flowers and photographs.



The colour wheel	This is a diagram that shows how colours are mixed or the relationship between colours.
Primary colours	Red, blue and yellow. These are colours that cant be made by mixing other colours together.
Secondary colours	Green, orange and purple. Mix two primary colours to create a secondary colour
Tertiary colours	These are colours create by mixing a primary and a secondary colour together.
Complimentary colours	These are colours that are opposite on the colour wheel.
Harmonious colours	These are colours from the same section of the colour wheel. These work well when blending.
Cool colours	Fall on one half of the colour wheel. Calm or soothing in nature. They are not overpowering and tend to recede in space. For this reason, they typically make a space seem larger.
Warm colours	Fall on the opposite side to the cool colours on the colour wheel. They are vivid or bold in nature. They tend to advance in space and can be overwhelming.



Organic Forms

Definition: Organic forms are associated with things from the natural world, like plants, fruit and animals.



Dawn Eaton

Born:
Nationality:
Current location:

Inspiration:

Quote: 'I like to zoom in on the exquisite beauty growing out of the mud. I discover extravagant, intricately designed, lavishly coloured leaves and petals sprouting from the ground. I am captivated by the lighting, the colour combinations, the naturally flowing curves and the graphic patterns found in flowers and their surroundings.'

What do I include on an artist research page?

- Title (artist name)
- Images and drawings of the artists work.
- Facts/information and annotation (include your own opinion)
- Consider creative presentation. Try to make the page reflect the artists style.

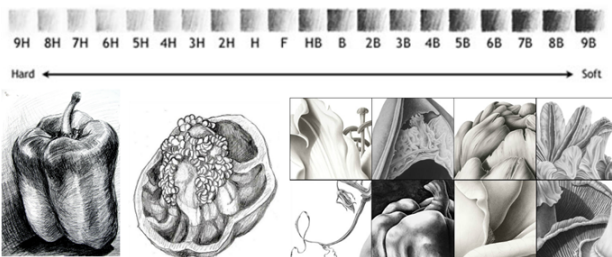
Tone	A tone is produced either by the mixture of a colour with grey, or by both tinting and shading.
Scale	Refers to the size of an object (a whole) in relationship to another object.
Line	A mark formed by drawing.
Composition	The position and layout of shapes on the paper.
Mark making	Different lines, patterns, and textures we create in a piece of art. It applies to any art material on any surface, not only paint on canvas or pencil on paper.
Blending	The technique of gently intermingling two or more colours or values to create a gradual transition or to soften lines.
Abstract	Seeks to break away from traditional representation of physical objects.
Enlarge	To make something bigger in size.
Cropping	The removal of unwanted outer areas from a photographic or illustrated image.
Viewfinder	A tool to help select a composition.

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Using watercolours

Remember to hold your brush low so you have control of your strokes



Using oil pastels

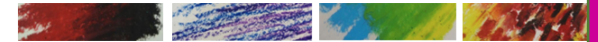
Heavy pressure blending: Generously add oil pastel in one direction. You can layer colours to achieve a blended and rich look.

Light pressure blending: Lightly apply the oil pastel in one direction. You can layer colours over each other to create various hues.

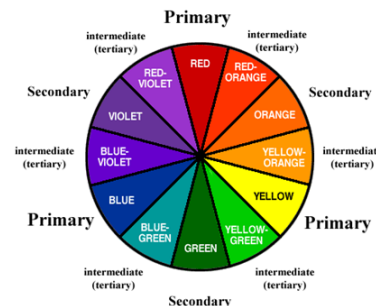
Colour Mixing: Apply a layer of oil pastel and follow with a contrasting colour.

Sgraffito: Overlap two thick layers of different colours. Use a paper clip or sharp edge to scratch and scrape away the top layer to reveal the underneath colour.

Stippling: Use small choppy strokes to create a stippled effect. Layer colours to create texture and depth.



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Macro Photography

Macro means you're taking super close-ups of objects at 1:1.

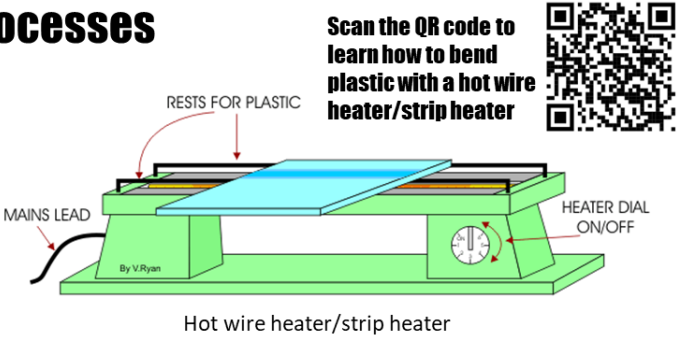
Scan the QR code to learn more about Macro photography



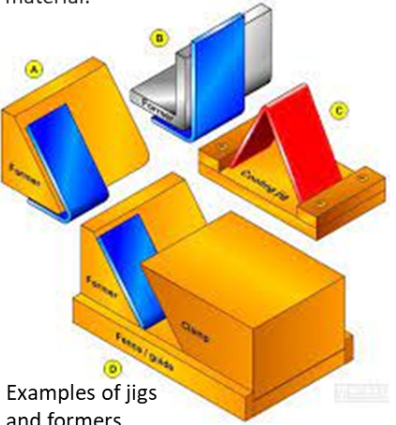
Manufacturing Processes

Line Bending.....

Line bending is a process whereby a piece of plastic is bent along a narrowly defined "line". This process allows items such as display stands, leaflet dispensers, POS display, garden furniture, binders, POP display products and acrylic tables to be made from flat material.



Scan the QR code to learn how to bend plastic with a hot wire heater/strip heater

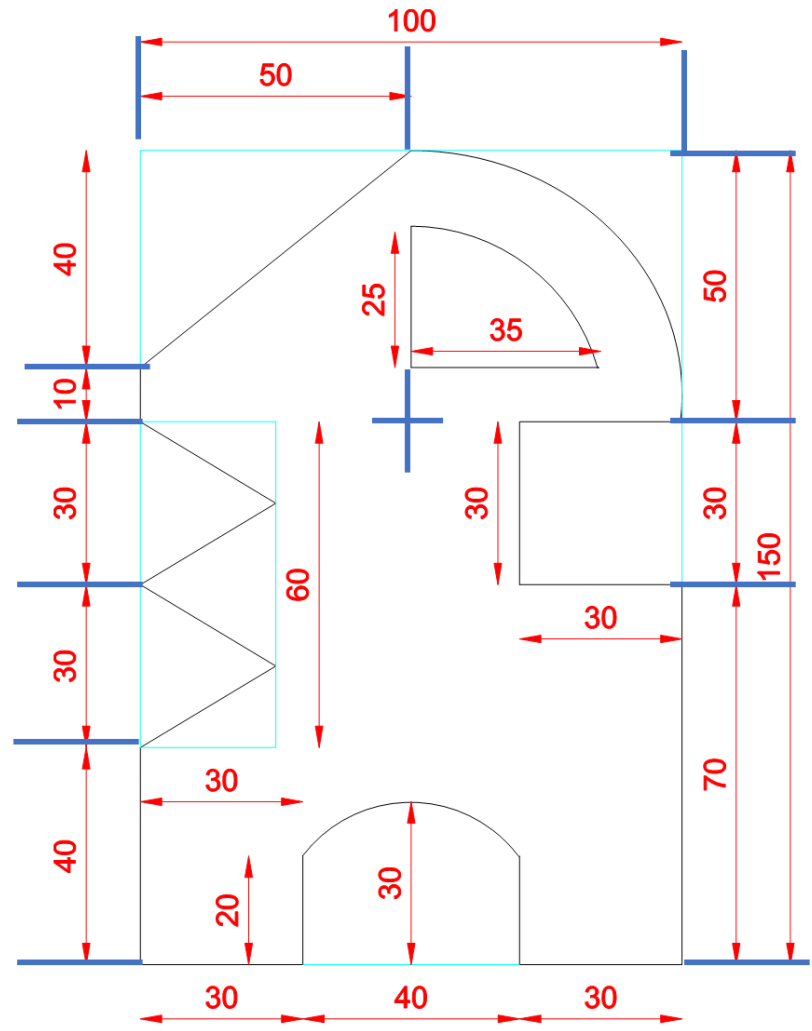


To create bends with specific angles, a jig or former can be used.



Driving Test

Use this diagram to draw an identical copy on to the plywood



1. EDGES SMOOTHED	2. MARKING OUT	3. PLACE PLASTIC ON SUPPORTS
<p>Hand files are used to smooth the edges. Wet and dry paper may also be used.</p>	<p>The position of the fold is marked with a china-graph pencil. With this type of pencil the line can be removed easily later.</p>	<p>The plastic is placed across the rests, above the heating element.</p>
4. HEAT PLASTIC	5. USE FORMER/JIG	6. QUALITY CONTROL
<p>The strip heater is turned on and the plastic is turned over every 30 seconds - one minute. This stops the plastic from becoming too soft.</p>	<p>Fit plastic 'jig'. The jig is made to the correct angle. In the example - 90 degrees. Plastic is held in position as it cools.</p>	<p>The quality of the formed plastic is checked.</p>

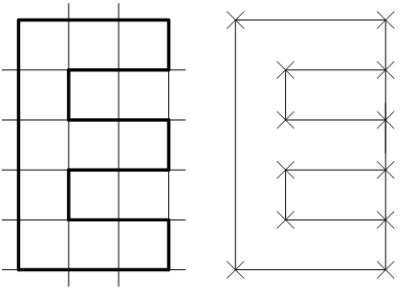
Thermoplastic: A type of plastic which becomes soft when heated and hard when cooled down.
Acrylic, PVC and polystyrene are examples of thermoplastics.

Scan the QR code to learn how to finish plastic



All dimensions in mm

Drawing using construction points.....

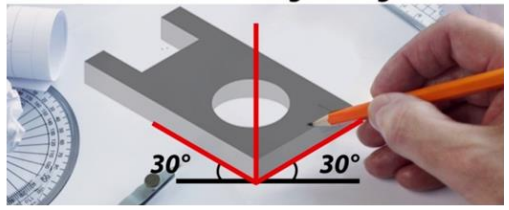


Font Styles.....

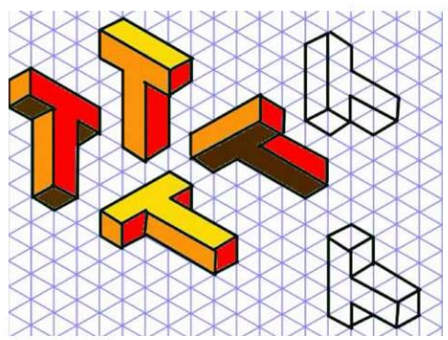


Isometric Drawing.....

axes are drawn so that the two horizontal axes are drawn at 30 degree angles



Scan the QR code to learn how to draw simple shapes in isometric.....

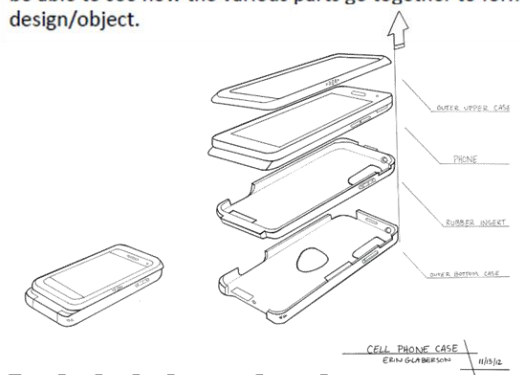


Exploded Isometric.....

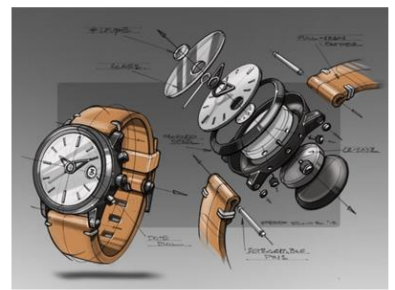
Exploded views

Exploded drawings are extremely useful when explaining a design / idea. The drawing opposite is a design for an educational toy (for a young child) has been drawn with all the parts disassembled. It is important when drawing an exploded view that all the parts line up with each other when disassembled. The vertical guidelines clearly show how the various parts are in line with each other. If an exploded drawing is constructed properly anyone looking at the drawing should be able to see how the various parts go together to form the finished design/object.

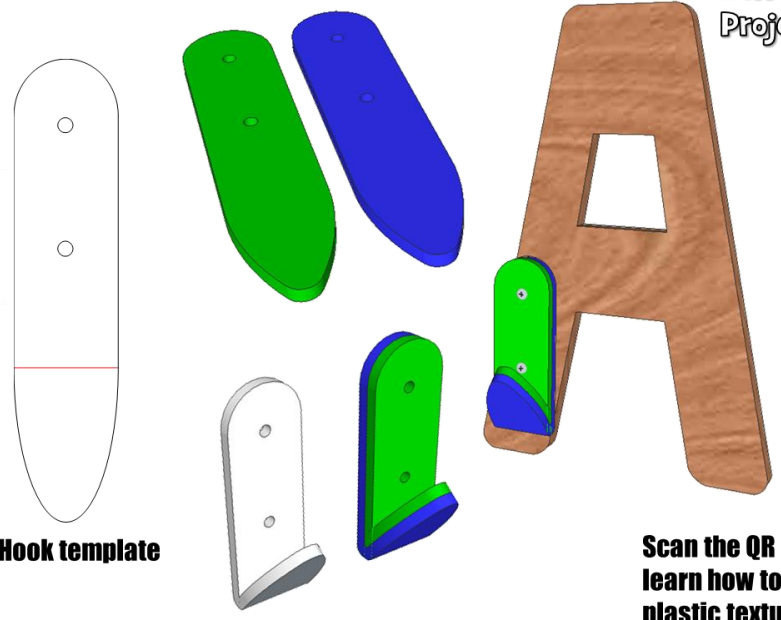
Scan the QR code to learn how to draw simple shapes in exploded isometric.....



Exploded phone drawing.....



Exploded watch drawing.....



Letter Hook Project

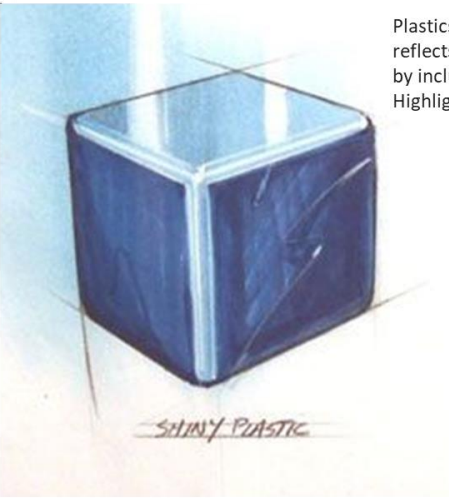
Hook template

Scan the QR code to learn how to shade a plastic texture.....



Shading an object to look like plastic....

Plastics have a shiny surface that reflects the light. We show this by including 'highlights'. Highlights are white.



Analysing Sentence Starters

I think that.....
 I liked/disliked this design as.....
 It would appeal to a target audience of.....
 The strengths of this design are..... because.....
 The weaknesses of this work are..... because.....
 Aesthetically this design.....
 The use of the colours..... means/allows.....

Design Explanation Sentence Starters

I have chosen the colours..... because
 This product is designed to.....
 My product is made from.....
 What I like about my design is.....
 My design follows the theme of.....
 I could improve my design further by.....

Annotation

Negatives:

What are the negatives about your design?

Positives:

What parts of your design work well?

Improvements:

What could you change and improve about your design?

Environment:

What impact would your design have on the environment

Manufacture:

How would your design be manufactured?

Target Market:

Who would this design appeal to and why?

Materials

What materials would you use to create this?

Key Words

Design
 Technology
 Analysis
 Investigate
 Research
 Generate
 Develop
 Model
 Evaluate
 Reflect
 Manufacture
 Sketch
 Prototype
 Aesthetics
 Safety
 Tenon saw
 Coping saw
 Pillar drill
 Bench hook
 Pine
 Plywood

Describing Words

Accurate	Cheap	Curved	Fragile	Overlapping	Uneven
Attractive	Complex	Defective	Imaginative	Repeated	Smooth
Bland	Colourful	Delicate	Innovative	Rough	Subtle
Bright	Contrasting	Elegant	Interesting	Shiny	Suitable
Bulky	Creative	Geometric	Organic	Simple	Symmetrical

Function

Does the product do the job it was intended to do?
 How does it work?
 How easy is it to use?
 What effects will using it have, including those beyond intended use and user?

Safety

How has the designer considered safety issues in the products design?
 Think about the ways it is being used and how different parts have been joined together.
 Are there any risk assessment issues in relation to the use of the product?

Customer

Who is the product designed for?
 How and where would they use it?
 What effect will it have on their lives and relationships?
 Will it add value?
 How is the product promoted to attract customers?
 Has the designer considered how people will interact with the product?
 Does the product target a particular age group or sector of people?
 What assumptions have been made about the potential buyers/users?

Aesthetics

Does the product look good?
 Does it make good use of colour and texture?
 What has inspired it's appearance? (E.g. is it organic? Is it industrial?)

Material

What materials are used to make the product and why?
 Would another type of material work better?
 What impact could the designers choice of material have on the environment?
 Where do the materials and other resources needed for production come from?
 Are they likely to run out?

Size

Are the product's proportions appropriate for its use?
 If you increased or decreased the products size, would it look or function better?

Environment

What is the product's impact on the environment?
 What happens to the product after use?
 How long will it last?
 What factors limit/lengthen its life span?
 Can it be repaired? Can parts be replaced?
 How easily can it be recycled?
 Who would pay for the cost of recycling?

Cost

What is the estimated cost of the product?
 What is the retail price?
 What is the relationship between the two?
 Is the product affordable?
 Does it offer value for money?
 What is the product's cost in relation to the income of potential buyers/users?



Scan the QR code to learn how to carry out a Task Analysis using ACCESSFM

Questions to consider when analysing a product



Design and Technology

KS3 Design Technology Sentence Starters – Annotation Support Product Analysis.....

The House with Chicken Legs

By Sophie Anderson

Plot Synopsis

All Marinka wants is a normal life, but this isn't easy when you live in a house with chicken legs and your grandmother is Baba Yaga, whose job is to guide the dead into the next world. And one day Marinka is expected to become the next Guardian of The Gate between this world and the next, although she just wishes that her house with chicken legs would stay somewhere long enough for her to make some friends.








But when Marinka befriends Nina, the spirit of a young girl who refuses to go through The Gate, she discovers a shocking secret that changes everything. And as her world is turned upside down, Marinka learns that the life of an ordinary girl isn't any simpler than the life of a Yaga. Can Marinka escape her destiny, or will she be able to find a new way to live between two worlds?



Key Characters

Baba Yaga	Marinka's grandmother and Yaga (guardian of the Gate between the land of the living and the dead.)
Marinka	12 Year female protagonist and the next Yaga. Both of her parents dies when she was a baby and she lives with Baba Yaga.
Jack	Marinka's pet jackdaw and only companion.
Benjamin	A living boy that Marinka hopes will become her friend.
Chicken leg house	Baba Yaga and Marinka live in a house with legs, that has its own personality, loves and cares for the people who live in it.

Key 'Golden' Themes

	Fate and destiny Marinka is destined to become the next Baba Yaga but longs to be able to choose her own path.
	Supernatural Baba Yaga is a supernatural being and her house with chicken legs magically moves around from place to place.
	Conflict Marinka has internal conflict about her future and destiny. She is inbetween the world of childhood and adulthood, and she has family conflict with her grandmother.
	Life and death Marinka longs to live amongst the living but her role as future Yaga means she spends all of her time with the dead as she guides them into the stars. Ultimately learning that even death can inspire us to embrace life and that death doesn't mean the end.
	Loneliness The only people Marinka meets are dead. Other than her grandmother, Baba Yaga, and her Jackdaw Jack, Marinka is utterly alone and desperate for friendship.
	Love Marinka is a young girl who is desperate for security. She feels loved by Baba Yaga but misses the love of her parents that she lost at a very young age. Marinka searches for love and security in friendship—the close friendship and love of her pet Jackdaw, briefly her friendship with and other characters she encounters on her journey to adulthood.
	Betrayal Marinka feels betrayed by her grandmother and is thrust into the adult world too soon. The difference between the act of betrayal and how that feels versus the feeling of being betrayed by someone you love.

Key Terminology

Bildungsroman	A novel about growing up, or coming of age.
Symbolism	The use of images and symbols to represent other ideas
Fantasy	Fantasy is a genre of speculative fiction set in a fictional universe, often inspired by real-world myth and folklore.
Folklore	The traditional beliefs, customs, and stories of a community, passed through the generations by word of mouth.
Oral tradition	Or oral lore, is a form of communication where knowledge, art, ideas and cultural material is received, preserved, and transmitted by mouth.
Anti-heroine	A female central character in a story, movie, or drama who lacks conventional heroic attributes.
Allegory	A story, poem, or picture that can be interpreted to reveal a hidden meaning, typically a moral one.
Guardianship	The position of protecting or defending something.
Self-discovery	A series of events where a person attempts to determine how they feel, personally, about important issues.
Ritual	A religious or solemn ceremony consisting of a series of actions performed according to a prescribed order.
Didactic	A text that is intended to teach, particularly in having moral instruction as an ulterior motive.
Exposition	The start of a narrative, or the explanation of background information.
Protagonist	The main character of a story.

Slavic Folklore: Baba Yaga



In **Slavic folklore**, Baba Yaga is a supernatural being (or a trio of sisters of the same name) who appears as a deformed or ferocious-looking old woman. In Slavic culture, Baba Yaga lived in a hut usually described as standing on chicken legs. Baba Yaga may help or hinder those that encounter her or seek her out. She may play a maternal role and has associations with forest wildlife.



According to **Propp's folktale morphology**, Baba Yaga commonly appears as a caregiver, as a villain, or may be altogether ambiguous. Her depictions vary greatly across tales, ranging from a child-eating monster, to helping a protagonist find his missing bride.

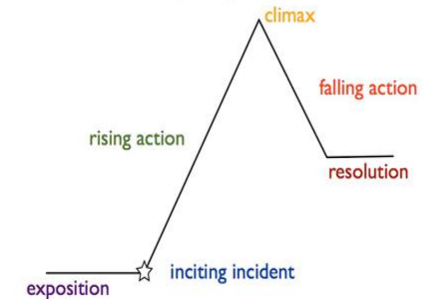


Johns identifies Baba Yaga as: "**one of the most memorable and distinctive figures in eastern European folklore**"

Slavic countries



freytag's pyramid



Further reading: Grimms Fairy-tales, The Girl Who Speaks Bear, I Shall Wear Midnight, The Girl of Ink and Stars, I Capture the Castle



Grimm's Fairy Tales: A collection of original German fairy tales – responsible for the birth of... Rapunzel, Cinderella, Hansel and Gretel, Snow white and more!



The Girl who Speaks Bear: Found abandoned in a bear cave as a baby, Yanka has always wondered about where she is from. She tries to ignore the strange whispers and looks from the villagers, wishing she was as strong on the inside as she is on the outside...

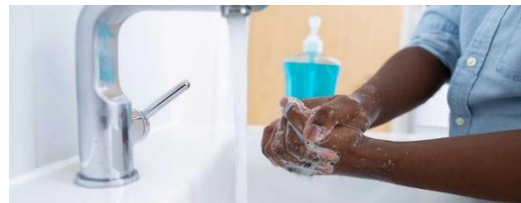
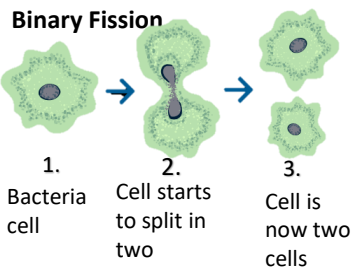


The Girl of Ink and Stars: Forbidden to leave her island, Isabella Riosse dreams of the faraway lands her father once mapped. When her closest friend disappears into the island's Forgotten Territories, she volunteers to guide the search.



I capture the Castle: 17-year-old Cassandra Mortmain keeps a journal, filling three notebooks with sharply funny yet poignant entries about her home, a ruined Suffolk castle. (J. K. Rowling recommends!)

1. Food Hygiene



Before Cooking:

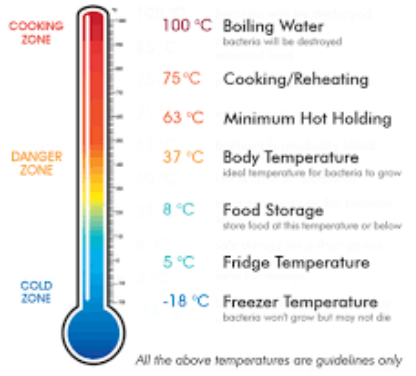
1. Put your apron on
2. Roll your sleeves up
3. If you have long hair tie it back with a bobble
4. Wash your hands with warm and soapy water
5. Dry your hands – moisture harbours bacteria

When Cooking:

1. Keep your cooking station neat and tidy

The Tidy Tick List:

- ✓ Clean and dry dishes
- ✓ No streaks and residue left on the glass bowls
- ✓ Clean dry work surfaces
- ✓ Clean sparkling hobs
- ✓ Clean cupboard doors and drawers
- ✓ Clean and dry sinks with no suds or residue food



2. Kitchen Safety

Kitchens can be dangerous places. To keep safe:

- Be aware of sharp equipment such as knives, peelers and graters- store them carefully and use the bridge hold and claw grip when chopping.
- Take care with hot equipment and food/ liquids- turn pan handles in, always use oven gloves and avoid splashes when stirring or draining foods.
- Wipe up spills quickly so you do not slip over
- Be aware of others in the kitchen
- Report any accident

Claw Grip

Used to hold long and narrow ingredients. Knuckles are used to guide the blade while pressure is pushed downwards to hold the ingredient in place.



Bridge Grip

Used to hold spherical and rounded ingredients. The knife can be placed safely between the arch of the hand.



Scan to view a quick clip about cleaning work surfaces.



Scan to view a quick clip on how to use an electronic scale.



Scan to view a quick clip about "Use By" and "Best Before".

CLEANING The 4C's

- Keep yourself and your hands clean
- Wash your hands before handling food, every 30 minutes and always after going to the toilet
- Keep work surfaces, equipment & utensils clean and disinfected
- Don't forget to clean dishcloths & cleaning equipment



Cross-contamination

Transferring bacteria from raw to ready to eat foods. Often through not washing hands or equipment after handling raw foods.

COOKING

- Cook thoroughly
- Cook raw foods to 75°C at the core, check it with a probe thermometer
- Reheat foods to 75°C
- Never reheat food more than once



Hygiene

Conditions and practices that prevent disease and illness through the act of cleanliness.

CHILLING

- Cool cooked food products as quickly as possible to 5°C
- Core temperature of cooked food must reach <10°C within 150 mins of end of cooking
- Food must be protected from contamination while cooling



Use By

The term used on products that must be eaten before or by the date stated. This term is used on high risk foods, where consumption past the stated date would cause illness.

Best Before

The term used on products that degrade slowly and can be eaten past the date stated but may not taste or look as good.

CROSS-CONTAMINATION

- Prevent cross-contamination
- Always separate raw-food from ready-to-eat food
- Use separate equipment, chopping boards and utensils
- Wash hands thoroughly after handling raw food before ready-to-eat food



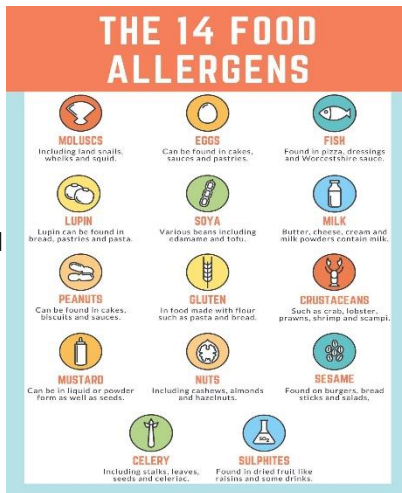
3. Weighing and Measuring

Weighing and Measuring For good results in most recipes, accurate weighing and measuring is essential. When you are baking with flour, sugar and liquids, you must measure accurately or your cooking will be spoiled. If you weigh out too much sugar or too little raising agent, your cakes would not rise or you could spoil the taste and/or texture. Food can be weighed in Grams (g) and there are 1000g in a Kilogram (kg). Liquid is measured in Millilitres (ml) or litres



4. Allergies Vs Intolerance

A true food allergy causes an immune system reaction that affects numerous organs in the body. It can cause a range of symptoms. In some cases, an allergic food reaction can be severe or life-threatening. In contrast, food intolerance symptoms are generally less serious and often limited to digestive problems.



Fruit and Vegetables

Nutrients- Vitamins and minerals

Examples- Strawberries, apples, carrots and cauliflower

Potatoes, bread, rice, pasta and other starchy carbohydrates **Nutrients-** Carbohydrates

Examples- Cereals, wholemeal pasta, brown rice

Dairy and dairy alternatives **Nutrients-** Calcium, Protein **Examples-** Milk, cheese, yoghurt, almond milk

Beans, pulses, fish, eggs, meat and other proteins **Nutrients-** Protein **Examples-** Oily fish, chick peas, soya, eggs

Oils and spreads

Nutrients- Fats **Examples-** Olive oil, sunflower spread

5. Healthy Eating

What are the 8 government guidelines for healthy eating?

- 8 TIPS FOR EATING WELL.
- Base your meals on starchy foods.
- Eat lots of fruit and vegetables.
- Eat more fish.
- Cut down on saturated fat and sugar.
- Try to eat less salt- no more than 6g a day.
- Get active and try to be a healthy weight.
- Drink plenty of water.



Scan to view a quick clip about how carbohydrates help athletes when training.



Scan to view a quick clip about how protein helps athletes when training.



Scan to view a clip about how fats work.



Scan to view a clip about how fats help athletes.

6. Electrical Equipment

Oven/Grill



Hob The hob is used for heating sauce pans, frying pans, griddle pans etc.

Dials The dials allow the user to change the settings of the hob, oven and grill.

Grill The grill uses the radiation method of cooking with food placed on a wire rack below. Heat can be increased or decreased using the dials.

Oven The oven uses the convection method of cooking. Food can be placed on different racks within the oven. The dials control the temperature.

Using the Oven Safely

- Preheat the oven to the correct temperature. Use oven gloves to put food in and take food out.
- Set the timer to ensure food does not burn or under cook.
- Remove food using oven gloves.



Salamander

A salamander is a type of grill. Electric or gas heating elements that look like pipes produce a very high heat which cooks the food placed below it. It is used in catering due to how quick it can cook food. Specific cooking techniques include; grilling, toasting, browning of gratin dishes, melting and caramelising.

Shelf

Food is placed on a baking sheet on this shelf. Handles on the shelf make it safer and easier to place food under the grill.

Hand Mixer

This equipment is used to mix dry and wet ingredients together. The mixer can be set to higher or lower speeds.



Beaters

Using the Electric Whisk Safely

- When inserting the beaters or removing them, make sure the mixer is not plugged into the mains.
- Only switch the mixer on and off when the beaters are submerged in the mixture.
- Keep hands and utensils and the electrical wire way from the beaters when in use.
- When cleaning the device, remove and wash the beaters in hot water. Wipe the body of the mixer with a damp cloth only.

Microwave

Latch

Ensures the door is securely closed so that no radio waves escape.



Turn table

Turns the food around to ensure radiation waves are evenly distributed.

Dials





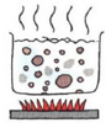
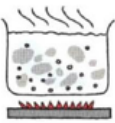

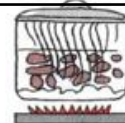



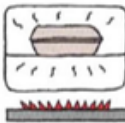
Microwaves use radiation method of cooking. Particle's in the food are made to vibrate very fast which causes heat. Metal must never be placed in a microwave.

Food Processor



A kitchen appliance that can cut, blend, grate and mince ingredients. A food processor is different to a blender because you can change the blades to complete different tasks. You can also fit more food into a food processor. Little or no water is required to ensure the food particles move around the blade.

7. Cooking Methods

Braising		Deep Frying		Saut�eing		Flamb�eing		Boiling		Simmering	
											
Wet	Slow	Dry	Fast	Dry	Fast	Dry	Fast	Wet	Fast	Wet	Fast
Pieces of food are first browned in a little fat, then cooked with some liquid in a closed pan.		Frying pieces of food in a deep pot or fryer with plenty of hot oil or fat.		Cooking small or thin pieces of food in very hot oil or fat. The frying pan is shaken constantly to stop the food from burning.		After frying, alcohol is added to the food in the frying pan and set on fire. This adds another flavour to the food.		Food is cooked in deep boiling liquid (water, stock, wine etc) in an open or covered saucepan.		Like boiling, but the liquid is kept just below boiling point in an uncovered pot.	
Steaming		Stewing		Pan-frying		Broiling/Grilling		Roasting		Baking	
											
Wet	Fast	Wet	Slow	Dry	Fast	Dry	Fast	Dry	Slow	Dry	Slow
Food is placed in a container and cooked in the steam from boiling water in a covered pan or steamer.		Cooking food in its own juices with a little additional liquid, in a covered pan at simmering point.		Frying food in a little oil or butter using a frying pan over a moderate heat.		Cooking food like steak or fish, over or under open heat, e.g. under the oven grill or on a barbeque or hot plate.		Cooking food like meat or poultry with some fat in a hot oven (between 200-240 degrees centigrade)		Cooking food like cakes, pies, bread etc. in a closed oven at a temperature of between 120-240 degrees centigrade.	

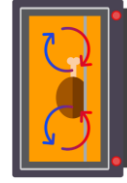
Wet or Dry Cooking Methods

Wet or dry refers to the texture of the cooked food so baking and frying are dry cooking methods and boiling and stewing are wet methods.

Fast or Slow Cooking Methods

Fast and slow methods refer to how long it takes. Generally less than an hour is a fast cooking method and over an hour is a slow cooking method.

Conduction



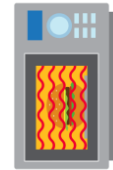
- This only happens in liquids and gases.
- The molecules of liquid or gas nearest the hot base of the pan gain heat energy, and start to rise in the pan.
- As the liquid rises to the top of the pan, it will begin to cool again, so starts to drop back to the bottom, where it will be heated up again.
- There is a convection current moving in the pan. Convection currents also happen in ovens.
- Hot air rises and cooler air falls.
- A convection oven uses a fan to move the heat around, so every part of the oven is approximately the same temperature.

Convection



- This happens when heat is directly touching a piece of equipment, or a piece of food.
- If you put a metal pan on an electric or gas hob, the heat from the hob will heat up the base of the pan.
- There are good conductors of heat, and bad conductors of heat. Metal conducts heat very well, which is why saucepans and frying pans, along with baking trays and cake tins, are made of metal.
- Water is also a good conductor of heat, which is why boiling foods works well and cooks foods quickly. Wood, plastic, cloth and glass are poor conductors of heat.

Radiation



- This occurs through space or air. Radiation transfers energy through space by invisible electro-magnetic waves. The waves are either infra-red or microwaves. Infra-red heat waves are absorbed by the food when they reach it, and they create heat inside the food which cooks it.
- This happens when you put food under a grill. Cooking foods in microwaves also uses radiation. The microwaves are created by a magnetron inside the oven. The microwaves are absorbed by the food, making the molecules vibrate and heat up, which then cooks the food. Microwaves pass straight through glass, china and plastic, and do not heat them up. Metal will reflect the microwaves and damage the magnetron so do not put metal object into a microwave oven.

Year 7 Half-Term 3 French Knowledge Organiser

Unit 3: Mon temps libre

Tu es sportif/sportive?

Je joue ...	<i>I play ...</i>	assez	<i>quite</i>
au basket	<i>basketball</i>	très	<i>very</i>
au billard	<i>pool</i>	sportif / sportive	<i>sporty</i>
au football (foot)	<i>football</i>	Il y a un garçon / une fille.	<i>There is a boy / a girl.</i>
au rugby	<i>rugby</i>	Il/Elle joue ...	<i>He/She is playing ...</i>
au hockey	<i>hockey</i>	Il/Elle porte ...	<i>He/She is wearing ...</i>
au tennis	<i>tennis</i>	un short	<i>a pair of shorts</i>
au volleyball	<i>volleyball</i>	un chapeau	<i>a hat</i>
à la pétanque / aux boules	<i>boules</i>	une casquette	<i>a cap</i>
aux cartes	<i>cards</i>	Le ciel est bleu / gris.	<i>The sky is blue / grey.</i>
aux échecs	<i>chess</i>	Il y a un bâtiment.	<i>There is a building.</i>
Je suis	<i>I am</i>	Il y a une maison.	<i>There is a house.</i>
Je ne suis pas	<i>I am not</i>	Il y a des arbres.	<i>There are some trees.</i>

Qu'est-ce que tu fais?

Qu'est-ce que tu fais?	<i>What do you do?</i>	Je fais de l'équitation.	<i>I go horse riding.</i>
Je fais du skate.	<i>I go skateboarding.</i>	Je fais des randonnées.	<i>I go hiking.</i>
Je fais du patin à glace.	<i>I go ice skating.</i>	Je ne fais pas de sport / danse, (etc.).	<i>I don't do sport / dancing, (etc.).</i>
Je fais du vélo.	<i>I go cycling.</i>	Est-ce que tu fais souvent (du vélo)?	<i>Do you do / go (cycling) often?</i>
Je fais du ski.	<i>I go skiing.</i>	Je fais ... (du vélo).	<i>I do / go (cycling) ...</i>
Je fais du judo.	<i>I do judo.</i>	parfois	<i>sometimes.</i>
Je fais du théâtre.	<i>I do drama.</i>	souvent	<i>often.</i>
Je fais de la cuisine.	<i>I do cookery.</i>	tout le temps	<i>all the time.</i>
Je fais de la danse.	<i>I do dancing.</i>	tous les jours	<i>every day.</i>
Je fais de la gymnastique.	<i>I do gymnastics.</i>	tous les weekends	<i>every weekend.</i>
Je fais de la natation.	<i>I go swimming.</i>	tous les lundis/mardis, (etc.)	<i>every Monday/Tuesday, (etc.)</i>
Je fais de l'athlétisme.	<i>I do athletics.</i>		

Point de départ

Quel temps fait-il?	<i>What's the weather like?</i>
Il fait beau.	<i>The weather's fine.</i>
Il fait mauvais.	<i>The weather's bad.</i>
Il fait chaud.	<i>It's hot.</i>
Il fait froid.	<i>It's cold.</i>
Il y a du soleil.	<i>It's sunny.</i>
Il y a du vent.	<i>It's windy.</i>
Il pleut.	<i>It's raining.</i>
Il neige.	<i>It's snowing.</i>
au printemps	<i>in spring</i>
en été	<i>in summer</i>
en automne	<i>in autumn</i>
en hiver	<i>in winter</i>
Quand (il pleut / il fait chaud)	<i>When (it rains / it is hot)</i>
Je reste à la maison.	<i>I stay at home.</i>

Tu aimes faire ça?

Qu'est-ce que tu aimes faire sur ton portable?	<i>What do you like doing on your phone?</i>
Qu'est-ce que tu aimes faire sur ta tablette?	<i>What do you like doing on your tablet?</i>
J'aime	<i>I like</i>
Je n'aime pas	<i>I don't like</i>
J'adore	<i>I love</i>
Je déteste	<i>I hate</i>
bloguer	<i>blogging</i>
écouter de la musique	<i>listening to music</i>
envoyer des SMS	<i>sending texts</i>
prendre des selfies	<i>taking selfies</i>
partager des photos / des vidéos	<i>sharing photos/videos</i>
regarder des films	<i>watching films</i>
tchatter avec mes copains / copines	<i>chatting (online) with my mates</i>
télécharger des chansons.	<i>downloading songs</i>
parce que c'est ...	<i>because it's ...</i>
amusant	<i>fun</i>
marrant	<i>funny</i>
ennuyeux	<i>boring</i>
facile	<i>easy</i>
intéressant	<i>interesting</i>
rapide	<i>fast</i>

Questions, questions, questions!

Qu'est-ce que tu aimes faire ...?	<i>What do you like doing ...?</i>
le weekend	<i>at the weekend</i>
avec tes amis	<i>with your friends</i>
quand il pleut	<i>when it rains</i>
Est-ce que tu aimes ... ?	<i>Do you like...?</i>
faire du judo	<i>doing judo</i>
prendre des photos	<i>taking photos</i>
jouer aux échecs	<i>playing chess</i>

Le sport dans les pays francophones

On fait du ski (alpin).	<i>We/People go skiing.</i>
On fait du snowboard.	<i>We/People go snowboarding.</i>
On fait du rafting.	<i>We/People go rafting.</i>
On fait de l'alpinisme.	<i>We/People go mountaineering.</i>
On fait du canyoning.	<i>We/People go canyoning.</i>
On fait du canoë-kayak.	<i>We/People go canoeing.</i>
On fait de la voile.	<i>We/People go sailing.</i>
On fait de la planche à voile.	<i>We/People go wind-surfing.</i>
On fait de la luge.	<i>We/People go tobogganing.</i> ¹⁵



Year 7 Half-Term 4 French Knowledge Organiser

Unit 4: Ma vie de famille

Point de départ

	J'ai ...	I have ...
le pays de Galles	Wales	un chat <i>a cat</i>
le Portugal	Portugal	un chien <i>a dog</i>
la Belgique	Belgium	un cochon d'Inde <i>a Guinea pig</i>
la France	France	un hamster <i>a hamster</i>
la Grèce	Greece	un lapin <i>a rabbit</i>
la Pologne	Poland	un lézard <i>a lizard</i>
la Suisse	Switzerland	un oiseau <i>a bird</i>
l'Allemagne	Germany	un poisson <i>a fish</i>
l'Angleterre	England	un serpent <i>a snake</i>
l'Écosse	Scotland	
l'Espagne	Spain	Je n'ai pas d'animal. <i>I don't have a pet.</i>
l'Irlande	Ireland	
l'Irlande du Nord	Northern Ireland	
l'Italie	Italy	
As-tu un animal?	Have you got a pet?	



Unit 1 Décris-moi ta famille

	il/elle est ...	he/she is ...
la famille	family	petit(e) small
la famille d'accueil	foster family	grand(e) tall
le (beau)-père	(step-)father	de taille moyenne medium-sized
le grand-père	grandfather	il/elle a les yeux ... he/she has ... eyes
le (demi)-frère	(half/step-)brother	bleus / verts / marron blue / green / brown
le fils / la fille	son / daughter	il/elle a les cheveux ... he/she has ... hair
la (belle)-mère	step-mother	noirs / blonds black / blond
la grand-mère	grandmother	roux / gris / bruns red / grey / brown
la (demi)-sœur	(half/step-)sister	courts / longs / mi-longs short / long / medium-length
les parents	parents	bouclés / raides curly / straight
une barbe	a beard	
des taches de rousseur	freckles	
des tatouages	tattoos	
il/elle porte des lunettes	he/she wears glasses	



Unit 2 Où habites-tu?

Où habites-tu?	Where do you live?	C'est ...	It's ...
J'habite ...	I live ...	tranquille	peaceful
en Angleterre	in England	grand	big
au pays de Galles	in Wales	confortable	comfortable
dans un appartement	in a flat	trop petit	too small
dans une maison	in a house	Il n'y a pas de place.	There's no space / room
J'aime habiter ici.	I like living here.	le salon	the living room
Je n'aime pas habiter ici.	I don't like living here.	la cuisine	the kitchen
		la chambre	the bedroom
		la salle de bains	the bathroom
		la salle à manger	the dining room
		le jardin	the garden



Unit 4 On fait la fête!

le 14 juillet	Bastille Day
la fête nationale	national holiday
un jour de congé	a day off
un défilé (militaire)	a (military) parade
un bal	a dance
regarder un feu d'artifice	to watch fireworks
faire un pique-nique	to have a picnic
faire la fête	to celebrate

Unit 5 Une drôle de famille

grincheux(-se)	grumpy
studieux(-se)	studious
marrant(e)	funny
sévère	strict
maigre	thin
furieux(-se)	angry
il habite	he lives
elle habite	she lives
ils habitent	they live

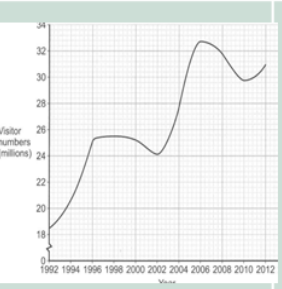
Unit 3 Qu'est-ce que tu manges au petit déjeuner?

Qu'est-ce que tu manges au petit déjeuner?	What do you have for breakfast?
Je mange ...	I eat ...
un croissant	a croissant
un fruit	a piece of fruit
du pain (grillé)	(toasted) bread
du beurre	butter
du bacon	bacon
du yaourt	yoghurt
une tartine	a slice of bread with jam or spread
de la confiture	jam
des céréales	cereal
des œufs	eggs
Je bois ...	I drink ...
du jus de fruits	fruit juice
du chocolat chaud	hot chocolate
du lait	milk
de l'eau	water
Je ne mange rien.	I don't eat anything.

What is tourism?

Tourism is the business or act of people visiting a different place for pleasure or recreation.

Is tourism growing?



Tourism is generally growing around the world. However there are some anomalies to this trend- some times external factors have caused small dips in tourism such as terrorism, economic crashes or global pandemics.

Tourism

Why is tourism growing?

- 1. More holidays** - All countries in the developing world have increased the number of holidays a person can expect to receive by law.
- 2. Elderly population** - Numbers of retired people in the developed world are higher than ever before. They have cash and are living longer than ever before. Early retirement, pensions and better health care has meant that the pensioner pound is a very important
- 3. Income** - We earn more than ever before. Prices are comparatively cheaper than ever before. Consequently we have a greater disposable income than ever before
- 4. Communication** - The communications revolution is the next big thing in tourism. Companies like GO and Lastminute.com are already developing the Internet as a tool for booking holidays.
- 5. Technology**- Improvements in technology such as computers have revolutionised the way we shop for holidays. Price comparison sites and the internet are replacing the high street travel agent, lowering prices.
- 6. Media**- This has also revolutionised our tourism tastes and trends. Travel blogs

Extreme tourism

Extreme tourism, is a type of tourism which involves visiting a place that is difficult to get to, dangerous or has certain challenges.

Tourism in Antarctica - Extreme tourism

Why do people go on extreme tourism holidays?
 Risk; Physical challenge; Adrenaline rush; showing off to their mates
 Why do people visit Antarctica?
 Glacier Walks; Wildlife Watching; Sight Seeing; historical visits

Positive Impacts:	Negative Impacts
<ul style="list-style-type: none"> Helps scientists to discover vital information about wildlife. Increase the appreciation of the nature in Antarctica. 	<ul style="list-style-type: none"> Cruise ships have struck icebergs causing oil spills which damages the environment and poisons the wildlife Discharge of sewage into the sea and leaving rubbish behind - pollution Animals become stressed because of the crowds of people causing them to abandon eggs - impact on breeding patterns Penguins in Antarctica are frightened by large numbers of people and this interrupts their breeding.

Managing Antarctica tourism

The Antarctic Treaty is an international agreement that came into force in 1961 and has now been signed by 47 countries. The Treaty is designed to protect and conserve the area and its plant and animal life.

New limits on tourism in Antarctica:

- Only ships with fewer than 500 passengers are allowed to land there and a maximum of 100 passengers are allowed on shore at a time.
- Specially protected areas- these are off limits to tourists
- Wildlife- wildlife must not be disturbed when being observed.
- Litter- nothing can be left behind by tourists and there must be no smoking during shore landings
- Supervision- tourists must stay with their group and each group must have a qualified guide
- Waste- sewage must be treated biologically and other waste stored on board the ships

Ecotourism

Ecotourism, is a type of tourism which involves protecting the environment and the way of life of local people. E.g. **Yachana lodge, in the Amazon.**
 People camp or stay in single storey lodges. Buildings are environmentally friendly. There is limited transport available. Only small sized groups stay at any one time. Local guides are used and the wages they get improve the local economy. Activities are nature based e.g. walking tours, cultural experiences, animal experiences, river rafting.

Mass tourism

Mass tourism is a type of tourism which involves lots of people visiting a destination in great numbers. They are often cheap places to visit.

Tourism in Kenya- Mass tourism

Background: Kenya is in East Africa. It has 333 miles of coastline on the Indian Ocean. It has a GNI per capita of \$760.	Attractions: The Big 5 animals for safaris, Mt Kenya, Mombasa coast for white, sandy beaches and coral reefs. Hot climate. Cultural tours of the Maasai Mara tribe and hot air balloon rides over the savannah
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Positive Impacts:	Negative Impacts
Economic impacts: Tourism contributes 15% of the country's GNP In 2003, around 219,000 people worked in the tourist industry Social impacts: The culture and customs of the native Maasai tribe are preserved because things like traditional dancing are often displayed for tourists Environmental impacts: There are 23 national parks in Kenya, e.g. Nairobi National Park. Tourists have to pay entry fees to get in. This money is used to maintain the National Park which help protect the environment and wildlife	Economic impacts: Only 15% of the money earned through tourism goes to locals. The rest goes to big companies Social impacts: Some Maasai tribespeople were forced off their land to create National Parks for tourists Some Muslim people in Kenya are offended by the way female tourists dress. Environmental impacts: Safari vehicles have destroyed vegetation and caused soil erosion Wild animals have been affected e.g. cheetahs in the most heavily visited areas have changed their hunting behaviour to avoid the crowds Coral reefs in the Malindi marine national park have been damaged by tourist boats anchoring

Managing Kenya's tourism

Kenya is trying to reduce the negative impacts of tourism through:

- Walking or horseback tours are being promoted over vehicle safaris
- Alternative activities that are less damaging than safaris are also being encouraged e.g. climbing and white water rafting
- Kenya is also trying to maintain tourism
- Kenya's tourist board and ministry of tourism have launched an advertising campaign in Russia called 'Magical Kenya'
- Kenya Wildlife Service is planning to build airstrips in Ruma National Park and - Mount Elgon national Park to make them more accessible for tourists. It also plans to spend £8 million improving roads, bridges and airstrips to improve accessibility
- Visa fees for adults were cut by 50% in 2009 to make it cheaper to visit the country. They were also scrapped for children under 16 to encourage more families to visit.

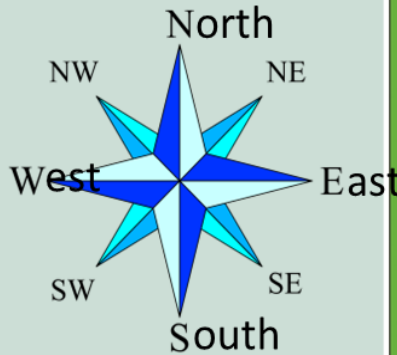
Map Skills

Direction

Never
Eat
Shredded
Wheat

Or...

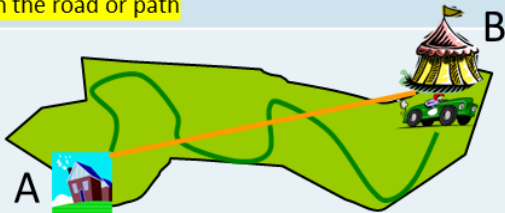
Nelly
Elephant
Squirts
Water



Distance

Distance can be measured in 2 ways:

1. As the crow flies (in a straight line) - this is the direct and shortest distance from A to B
2. Actual distance following every twist and turn in the road or path



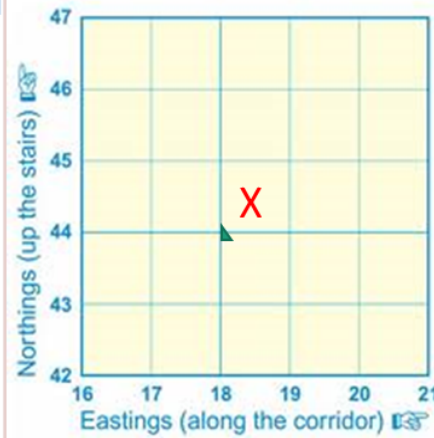
Ordnance Survey Map Symbols

Maps give us a lot of information and there is not much room for labels. So we use symbols to save space and make the map easier to read.

Railway Station	Level Crossing	Motorway	Trunk or main road	Footpath	Bridleway	National Trail/Long Distance Route/Recreational Route
Camp site/caravan site	Viewpoint	Picnic site	Access information point	Building of historic interest	Recreation/leisure/sports centre	Museum
Site of battle	Castle/fort	Cadw/Welsh Historic Monuments	Historic Scotland	English Heritage	National Park boundary	Nature reserve
Access land in woodland area	Access land boundary and tint	Cycle trail	Information centre	Telephone	Parking	Garden/arboretum
Place of worship with spire, minaret or dome	Place of worship with tower	Place of worship	Youth hostel	School	Post office	Public convenience
Bus or coach station	Cliff	Wind pump/wind generator	Electricity transmission line	Quarry	Footbridge	Well/spring
Non-coniferous trees	Coniferous trees	Marsh, reeds or saltings	Orchard	Bracken, heath or rough grassland	Scrub	Contours
Scree	Sand/sand & shingle	Mud				

Grid references

4 figure grid references:



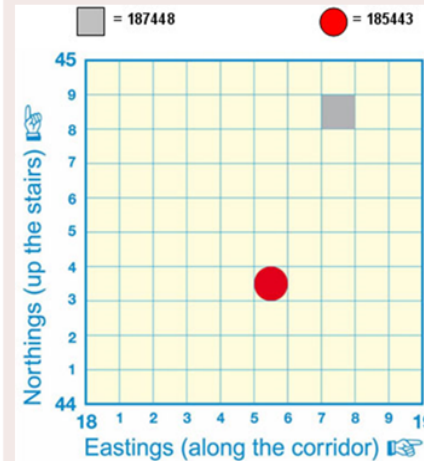
A four figure reference will point you to a square on the map.

X = 1844

The lines always meet at the bottom left hand corner of the square



6 figure grid references:



Six figure grid references are used to pin point a location within a square.

● = 185443

■ = 187448

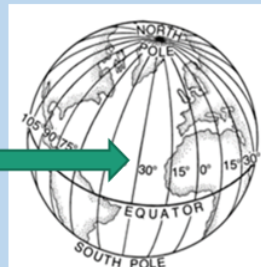
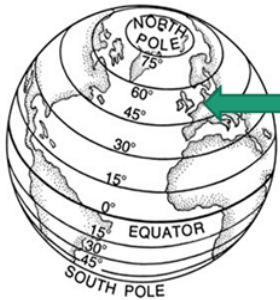
1: 25,000 This means 1 centimetre/metre/kilometre on the map represents 25,000 centimetres/metres/kilometres on land.

Latitude and Longitude

LATITUDE
Lines Around the earth!

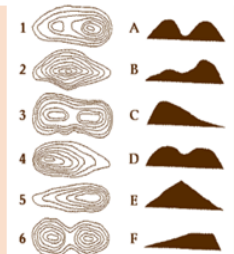
LONGITUDE
Lines Over the top of the earth!

Equator 0° Latitude
Greenwich Meridian 0° Longitude



Height of the land – Contour lines

- They show the height and relief (shape) of land.
- On most OS maps the lines are drawn every 10m.
- Several contours together make up a pattern which show the steepness and shape of the land.
- Remember the closer the contour lines, the steeper the slope.



Timeline of main events	
8 th -14 th Century	Islamic Golden age
1095	Emperor Alexius asked for help to fight the Seljuk Turks and Pope Urban launched the First Crusade to help and to capture Jerusalem.
1098	Jerusalem was captured – The crusaders murdered Muslims and Jews.
1154	Henry II appointed Thomas Becket as chancellor
1162	Henry asked Thomas to be Archbishop of Canterbury
1164	Henry proposed limits on Church power to Thomas, but Becket refused to agree. Henry tried to charge Thomas with treason.
1166	The pope gave Thomas power to excommunicate – Thomas used this against some of Henry's supporters.
1170	Thomas excommunicated the bishops that had anointed Henry's son Prince Henry. They lied and accused Thomas of planning a revolt to try have him arrested – this plan fails – so they tell Henry they had been excommunicated.
1170	Henry lost his temper and Thomas Becket was murdered at the Archbishop's Palace in Canterbury by four of the king's knights.
1174-86	Saladin took over the jihad against Christians, taking control of Egypt and Nur ad-Din's old lands in preparation.
1187	Saladin marched into Jerusalem with 30,000 men, captured the town of Tiberias, defeated the Christians at the Battle of Hattin and captured Jerusalem.

Powers of the Church and state: In medieval times, **England was run by two separate powers: the Church and the state.** The Church was led by the Archbishop of Canterbury, **who was responsible to the Pope (Head of the Catholic Church).** The state was led by the king, who had barons to help him. The king was, in theory, **answerable to no one except God.** The Church and state were closely related. For example, **the Church had the power to crown and anoint the king of England and the king usually chose people for the most important jobs in the Church e.g. Archbishop.** Henry II felt the Church courts undermined the King's courts.

<p>The Church could:</p> <ul style="list-style-type: none"> -Try Church criminals (Church Courts gave more lenient sentences) -Enforce religious laws with excommunication. -Crowned/anointed royalty 	<p>The state could:</p> <ul style="list-style-type: none"> -Try criminals -Make laws -Tax people -Wage war -Choose officials for powerful jobs e.g. archbishop
---	--



Why was the Church so important? Most medieval people led short lives, dying at the age of around 35. **As a result of short life expectancy, there was huge fear of what would happen after death.** Many believed that if they lived a holy life they would be rewarded in the afterlife and reach heaven. **For those who had committed a sin, but had not been forgiven there was a belief that these individuals would end up in hell or purgatory** (which consisted of being tortured until they had made up for their sins). The most desirable place for individuals to reach was heaven, whereby they would be welcomed by God. **To ensure all of sins were forgiven, prayer and religious ceremonies were taken very seriously.**

Why were monks nuns and priests so important? Social hierarchy was important with God at the top of the feudal system. Due to the dominance of the church, priests, monks and nuns played a significant role in society. Most villages had a priest who ran the local churches and who **dedicated their life to helping his community, as well as help his parishioners get to heaven.** Both monks and nuns made vows of poverty whereby they did not own individual property. Both also followed chastity, whereby they could not marry. **Their primary role was to ensure care was provided for the sick, elderly and terminally ill, mostly through the use of prayer and provision of food and a place to stay at monasteries.**

How did religion influence everyday life? Medieval people asked God to **judge criminals** in a trial by ordeal. There were three types of trial by ordeal. **Trial by 'hot water' or 'hot iron', trial by 'cold water' and trial by 'combat'.** These trials would often result in death, which meant that the individual was guilty. **War** was very common in the Medieval period and the church did not have the total power to stop people from fighting. In an attempt to stop people from fighting, the church came up with the idea of a 'just war'. **A 'just war' was a theory which made particular wars acceptable in the eyes of God.** For example, the crusades were 'holy wars' and therefore, 'just'.

Science: Christians believed that God set up natural laws for the world to follow, e.g. chickens would lay eggs and trees would grow apples. **Instead of questioning 'how', scientists would explore the purpose behind God creating a particular plant or animal.** Instead of looking for scientific explanations, e.g. 'gravity', medieval people looked to God. **Medicine:** It was a common belief that diseases such as leprosy or the Black Death were sent from God as a punishment for committing a sin. In the hope to escape disease and sickness, Medieval people often prayed, visited shrines in the hope to prevent illness.

Why did Henry and Thomas argue? King Henry II made Thomas Becket his chancellor in 1154, **they became close friends quickly.** As chancellor Becket helped manage the king's land and fought in battle for him. Thomas lived an extravagant lifestyle with ships and his own travelling zoo. **Henry saw Thomas as very talented and decided to use him to take control of and limit the Church's power.** Henry asked Thomas to be Archbishop of Canterbury in 1162, Becket took months to give an answer, but agreed he would take the role, but would NOT be Henry's puppet. Henry believed Thomas could do both the job as chancellor and as archbishop. However, after five months. **Thomas gave up his chancellorship.**¹⁹ **Henry was furious and felt Thomas had made the decision behind his back.**



Who was to blame for Thomas Becket's death?

Knights: The Knights killed Thomas in his own cathedral, they acted outside of direct orders from the king and they misunderstood Henry II's angry shouts.

Bishops: Helped crown Henry's son without Thomas's permission (this should have been Becket's job), they lied and said Thomas was planning a revolt and they refused an offer of a pardon from Thomas.

Thomas Becket: Did not tell the king he was stepping down from being chancellor, refused to limit the power of the Church and give the king more power and he took actions that he knew would anger the king e.g. excommunicating the bishops.

King Henry II: Made Thomas archbishop, tried to take power from the Church and called for revenge in anger, leading to the knights' actions.



How advanced was Islamic civilisation? In the Middle Ages, the Muslim world stretched from India to Spain, including Jerusalem and the Holy Land. **For Jews, Christians and Muslims, Jerusalem was and still is a holy city.** In fact for Medieval Christians it was the centre of their world spiritually and geographically according to their maps. **The Islamic Golden Age began in the 8th century and continued until the 13th c.** **Islamic culture developed and scientific research flourished.** Arab learning in the sciences and arts reached new heights, whilst the splendidly decorated buildings in Baghdad and other cities became the envy of travellers. **Arab mathematicians helped to popularise the Indian number system**, with its symbol for zero, and invented algebra. The word 'algorithm' is derived from the name of a Persian mathematician. **Some of the most advanced hospitals were built in Baghdad, Isfahan and Cairo.** The doctors were highly skilled and worked hard to thoroughly understand diseases, injuries and treatments. **Many Islamic cities had sewage systems and public baths, when these were neglected in Europe.**



Why did people join the First Crusade? In around 1077 Muslim Seljuk Turks took control of the Holy Land (Jerusalem). It became harder for Christian pilgrims to visit as various Muslim groups struggled for power. **Emperor Alexius of the Byzantine Empire asked the Pope for help against growing Seljuk rule and the mistreatment of local Christians.**

1. To obey the pope: Pope Urban II had called for Christians to protect the Holy Lands.

2. To fight for God: To capture Jerusalem (the Holy Land) from the Muslims.

3. For indulgences: To receive forgiveness for past sins. This was important for knights who had killed many people in battle.

4. For booty: Crusaders seized gold and silver, horses and mules and houses full of goods.

5. To explore new lands: To see the world and have an adventure. Some hoped to get territory overseas. This was tempting for a younger son who would not inherit his father's lands.

6. Chivalry: Knights could use their skills in battle. This appealed to a knight's sense of duty.

What were the consequences of the First Crusade?

1. Protecting captured land: Edessa, Antioch and Jerusalem were now under Christian control, but they were surrounded by Muslim forces who wanted the cities back.

2. The loss of crusaders: After Jerusalem was captured, most crusaders went home. Few were left to protect their new possessions.

3. A new crusade failed: In 1101, the pope asked those who had run away from the First Crusade to go on a new one. It was unsuccessful, leaving the Holy Land defenceless.

After the First Crusade the Muslim World called a jihad (Holy War) against the Christians. At first the jihad was led by a ruler called Zengi, who realised the best way to defeat the Christians was to unite Muslims under one leader. **Saladin is the most famous leader of the jihad against the Christians.** In 1187, while the Christians were in disagreement over who should be king, Saladin marched into Jerusalem with 30,000 men. Saladin captured the town of Tiberias, hoping the crusaders would try and take it back and fall into a trap because Saladin controlled all the water supplies in the area. When 20,000 Christians headed for the small town, Saladin's troops surrounded them, cutting off their access to water, and defeated them at the Battle of Hattin. **With few men left to defend it, Jerusalem was captured in 1187.**



KEY TERMS

Crusader	A person who made a promise to help capture and protect Jerusalem.
Caliph	The ruler of an Islamic empire.
Pilgrim	A person who is on a religious journey. Muslims are expected to go on a pilgrimage to the Holy City of Mecca in Saudi Arabia at least once.
Seljuk Turks	A group of Muslims led by Seljuk, who built up a powerful empire in the 11 th century.
Chivalry	The way a knight was supposed to behave. Knights were expected to be brave and skilled.
Booty	Valuable items stolen by the winner after a siege or battle.
Indulgence	The grant of a reduction in punishment for sins.
Holy Land	Area of land in the Middle East that is important to Christians, Muslims and Jews.
Catholicism	The Christian Church and beliefs which are followed by Catholics.
Pope	Head of the Catholic Church.
Afterlife	The experience some people believe they will have after death.
Purgatory	A place where medieval Christians believed they would be tortured until they had made up for their sins and bad thoughts.
Monastery	The collection of buildings that monks live in.
Mass	A Christian religious service performed by a Catholic priest.
Penance	A punishment for a sin.
Trial by ordeal	A task to determine guilt or innocence, usually resulted in death.
Excommunication	Being excluded from/kicked out of the 20 Catholic Church.



Safe

This is all about keeping your personal information safe.

Meeting

This is about making friends online and thinking about meeting up with them. You should only **ever** meet an online friend with a parent or carer's permission **and** if they can come with you.

Accepting

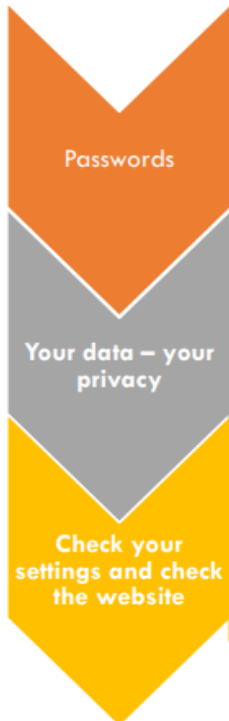
When you receive an email or instant message with an attachment, you need to think about how safe it is to open it.

Reliable

Remember that people online are not always reliable. Anyone can say anything online.

Tell

If you're ever worried, uncomfortable or just have questions about something you've seen online, the number 1 rule is...TELL SOMEONE!



- ✓ A strong password helps keep your information private.
- ✓ Include: a mixture of lower case and upper case letters.
- ✓ Use numbers and symbols (@?£\$@)
- **Remember!** Don't use easy to guess words like your name.
- **Remember!** Don't share your password with others

- **Be aware!** Websites and apps can collect and share information with other sites.
- **Be aware!** Many free apps may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others.
- **Be aware!** Information can be used to direct adverts to you.
- **Be aware!** Pop ups could direct you to inappropriate sites. Check the links
- **Check!** Ask a trusted adult if you are asked about sharing your information.

- ✓ Use the settings within apps to increase privacy.
- ✓ Look at the address bar. Some browsers will show a padlock to show the site is secure.



Bullying

- **Verbal bullying**
This could be teasing, name-calling, making inappropriate comments, taunting or threatening to hurt someone.
- **Social bullying**
People not to be friends with the victim, spreading rumours, embarrassing someone in public on purpose.
- **Physical bullying** Sometimes the most obvious kind of bullying, this could be: hitting; kicking; pinching; spitting; tripping or pushing; breaking someone's belongings; making rude gestures.
- **Cyberbullying** The bully cannot see the effect on the person and this means they are less likely to feel guilty. Other people can't see that the victim is hurt, and they are less likely to intervene. Don't reply, however tempting
 - Block the sender
 - Keep any evidence
 - Tell somebody
 - Use a 'Report' button


E-safety Rules

- Never give out your password – this doesn't matter who asks!
- Don't give out your contact details
- Don't download any software without permissions!
- Respect people's privacy
- Copying and pasting could be breaking the copyright law – make sure you always reference where you got that information from!

What makes a good user interface?

The user interface (or the human computer interface) is what the user sees, and includes:

- **The physical controls (button)**
- **How the system accepts inputs from the user**
- **How the system responds to the user input**
- **How the system outputs the results of processing**




Key Vocabulary	
Interface	The term interface can refer to either a hardware connection or a user interface. It can also be used as a verb describing how two devices connect to each other.
Techniques	Technique is the method, procedure or way something is done. Any method or manner of accomplishing something
Designs	Design is the creation or plan of an object or system
Planning	Is the management of tasks. Deciding what needs to be achieved, when it needs to be achieved by and who is going to do it. It is a process that lays down an organisations objectives and develops actions that can meet those objectives
Mind map	A diagram in which information is represented visually; usually with a central idea placed in the middle and other associated ideas arranged around it
Project List	A project list shows the tasks that need to be completed with the length of time given to each task. It is written out in a table
Visualisation diagram	A visualisation diagram is a more detailed drawing of an interface. It shows the layout and style of the different elements needed. It is annotated to explain the design choices made

Y7 GUI

Key Facts	
What is the purpose of a dashboard?	A dashboard is a user interface that organises and present information in a way that is clear and easy to read. It helps a user navigate around a system.
What does SMART stand for?	S – Specific M – Measurable A – Achievable R – Realistic T - Time-based
What is computational thinking?	Computational thinking allows us to take a complex problem and develop possible solutions. We can then present these solutions in a way that a computer, human or both can understand.
Why is it important to plan a project	<ul style="list-style-type: none"> • Setting project goals • Identifying project deliverables • Creating project Schedules • Creating support plans
Careers	<ul style="list-style-type: none"> • Programmer / Coder • UX (user experience) Designer • Software Developer • IT project manager

Design Principles


- Colours
 - Fonts
 - Language
 - User Perception
 - Layout consistency
- 

Planning Documents

Project List

What needs to be included:


- Main Tasks
- Subtasks



Mind Map

What needs to be included:


- Main Tasks (nodes)
- Subtasks (sub nodes)



Visualisation Diagram

What needs to be included:


- Images / photos / graphics
- Layout and positioning of elements
- Annotation about colours to be used
- Information about typography (All caps, font size)



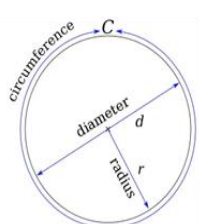
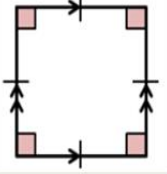
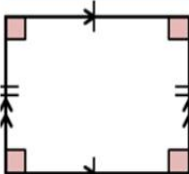
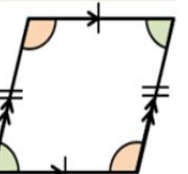

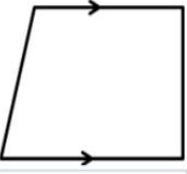
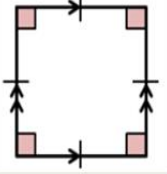
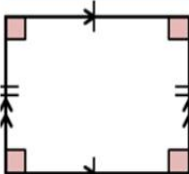
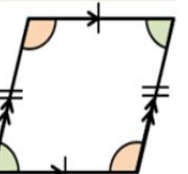

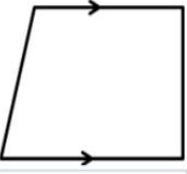
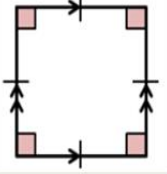
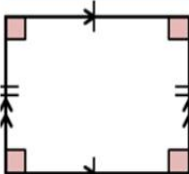
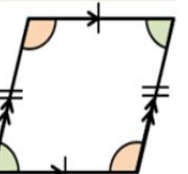

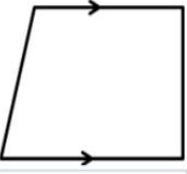
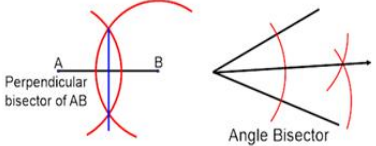
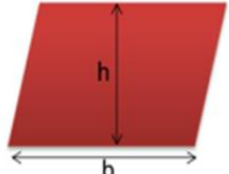
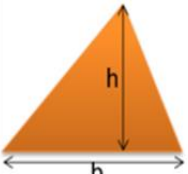
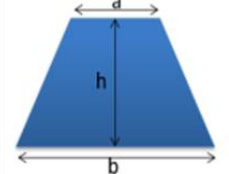

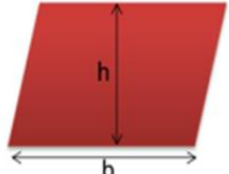
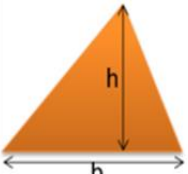
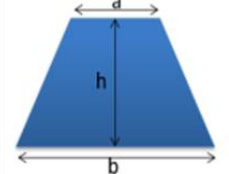

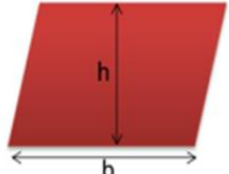
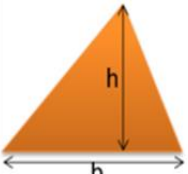
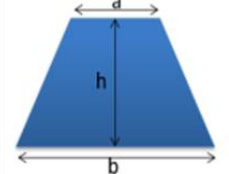

Types of Screen

- Command line** – DOS or SQL
- Menu Driven** – Cash Machine
- Forms and dialogue boxes** – Windows e.g. print
- Graphical User Interface (GUI)** – Touch Screen Menu at McDonalds
- Sensor Based Interface** – Sensors that read physical data (Heating)
- Speech Interface** – Commands taken verbally

What makes a good user interface?

- Safe** - Not Ambiguous or confusing
 - Effective** - Do what they are supposed to do
 - Efficient** - Clear and Easy to use
 - User Friendly** – Intuitive and easy to learn
- 

7A Half term 3

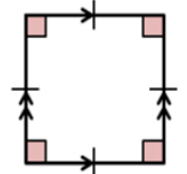
<p>A Length conversions</p> <p>10mm = 1cm 100cm = 1m 1000m = 1km</p>	<p>B Area of a circle = πr^2 Circumference = πd Or $C = 2\pi r$</p> 	<p>C Perimeter is the distance around a shape Area is the amount of space taken up by a 2D object Perpendicular means at a right angle Circumference is the perimeter of a circle</p>	<p>D</p> <table border="0"> <tr> <td style="text-align: center;">Square</td> <td style="text-align: center;">Rectangle</td> <td style="text-align: center;">Parallelogram</td> <td style="text-align: center;">Rhombus</td> <td style="text-align: center;">Trapezium</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4 equal sides 4 right angles 2 sets of parallel sides</td> <td>2 sets of equal sides 4 right angles 2 sets of parallel sides</td> <td>2 sets of equal sides 2 sets of parallel sides 2 pairs of equal angles</td> <td>4 equal sides 2 sets of parallel sides 2 pairs of equal angles</td> <td>1 set of parallel sides</td> </tr> </table>					Square	Rectangle	Parallelogram	Rhombus	Trapezium						4 equal sides 4 right angles 2 sets of parallel sides	2 sets of equal sides 4 right angles 2 sets of parallel sides	2 sets of equal sides 2 sets of parallel sides 2 pairs of equal angles	4 equal sides 2 sets of parallel sides 2 pairs of equal angles	1 set of parallel sides
Square	Rectangle	Parallelogram	Rhombus	Trapezium																		
																						
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<p>E Constructions Bisect an angle means to cut something in half Perpendicular bisector means split something in half at a right angle</p> 			<p>G Area Formulae</p> <table border="0"> <tr> <td style="vertical-align: top;"> <p>Parallelogram b = base h = perpendicular height</p>  <p>$A = b \times h$</p> </td> <td style="vertical-align: top;"> <p>Triangle b = base h = perpendicular height</p>  <p>$A = \frac{b \times h}{2}$</p> </td> <td style="vertical-align: top;"> <p>Trapezium a and b are the parallel sides and h is the distance between them</p>  <p>$A = \frac{(a + b) \times h}{2}$</p> </td> <td style="vertical-align: top;"> <p>Rectangle l = length w = width</p>  <p>$A = l \times w$</p> </td> </tr> </table>					<p>Parallelogram b = base h = perpendicular height</p>  <p>$A = b \times h$</p>	<p>Triangle b = base h = perpendicular height</p>  <p>$A = \frac{b \times h}{2}$</p>	<p>Trapezium a and b are the parallel sides and h is the distance between them</p>  <p>$A = \frac{(a + b) \times h}{2}$</p>	<p>Rectangle l = length w = width</p>  <p>$A = l \times w$</p>											
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<p>F Probability Probability can be shown on a scale from 0 to 1</p> $P(\text{outcome}) = \frac{\text{number of ways and outcome can happen}}{\text{Total number of possible outcomes}}$ <p>The probabilities of all possible outcomes sum to 1 $P(A \text{ not happening}) = 1 - P(A)$</p> <p>Mutually exclusive events are events that can not happen at the same time</p>			<p>H Algebra Expression – a collection of variables grouped together Equation – must have an equals sign</p>		<p>I Fractions Numerator – the top of a fraction Denominator – the bottom of a fraction Reciprocal – 1 divided by the given number Improper fraction – numerator is bigger than the denominator</p>																	

A Metric conversions
(length)

10mm = 1cm
100cm = 1m
1000m = 1km

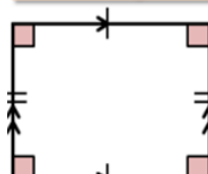
B

Square



4 equal sides
4 right angles
2 sets of parallel sides

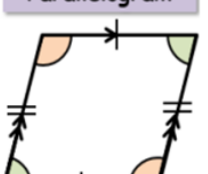
Rectangle



2 sets of equal sides
4 right angles
2 sets of parallel sides


C

Parallelogram



2 sets of equal sides
2 sets of parallel sides
2 pairs of equal angles

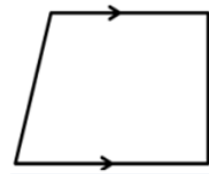
Rhombus



4 equal sides
2 sets of parallel sides
2 pairs of equal angles

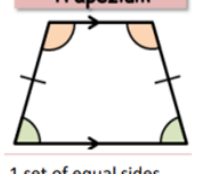
D

Trapezium



1 set of parallel sides

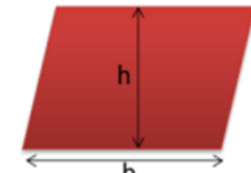
Isosceles Trapezium



1 set of equal sides
1 set of parallel sides
2 pairs of equal angles

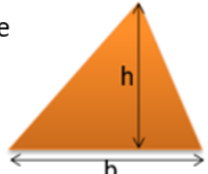
F Area Formulae

Parallelogram
b is the base and h is the perpendicular height



$A = b \times h$

Triangle
b is the base and h is the perpendicular height



$A = \frac{b \times h}{2}$

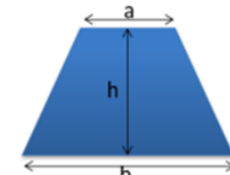
E Key Definitions

Perimeter is the distance around a shape

Area is the amount of space taken up by a 2D object


Perpendicular means at a right angle

Trapezium
a and b are the parallel sides and h is the distance between them



$A = \frac{(a + b) \times h}{2}$

Rectangle



$A = l \times w$

7A

Half-term 4

Compound Interest:

£2000 is paid into an account that pays 4.8% compound interest per annum (pa). The amount in the account after 3 years is:

$$£2000 \times 1.048^3 = £2302.05(2dp)$$

Averages and Range

Mode: The most common item

Median: The middle item after the data has been ordered.

Mean: Add up and divide by how many pieces of data

Range: Largest Value - Smallest

Percentage Multipliers:

To find 11%: $\times 0.11$

To find 3%: $\times 0.03$

To increase by 40%: $\times 1.4$

To decrease by 37%: $\times 0.63$

Dividing by a Decimal:

Make the number we are dividing by an **INTEGER**

$$\begin{array}{ccc} \times 100 & \leftarrow 0.246 \div 0.02 & \leftarrow \times 100 \\ & 24.6 \div 2 & \end{array}$$

$$\begin{array}{r} 12.3 \\ 2 \overline{) 24.6} \end{array}$$

$$\begin{array}{ccc} \times 10 & \leftarrow 1.738 \div 0.5 & \leftarrow \times 10 \\ & 17.38 \div 5 & \end{array}$$

$$\begin{array}{r} 3.476 \\ 5 \overline{) 17.380} \end{array}$$

Remember that if you divide by a number between 0 and 1 your answer will be bigger!

Converting Fractions to Percentages

Billy scored 56 out of 75 in a test. Write this as a percentage:

$$\frac{56}{75} \times 100 = 74.7\%(1dp)$$

Reverse Percentages:

A Football shirt is reduced by 17%. It now costs £51.66. The original cost was:

$$51.46 \div 0.83 = £62$$

A House increases in price by 16%. It is now worth £162,400. The original price was:

$$162400 \div 1.16 = £140,000$$

Solving Linear Equations:

To solve equations use the **BALANCING METHOD**

$$4(2x - 3) = 36$$

Expand the brackets

$$8x - 12 = 36$$

$$\begin{array}{ccc} (+12) & & (+12) \\ 8x = 48 & & \end{array}$$

$$\begin{array}{ccc} (\div 8) & & (\div 8) \\ \text{Solution: } x = 6 & & \end{array}$$

$$7x - 11 = 2x + 34$$

Subtract $2x$ from both sides as it is the smallest

$$\begin{array}{ccc} (-2x) & & (-2x) \\ 5x - 11 = 34 & & \end{array}$$

$$\begin{array}{ccc} (+11) & & (+11) \\ 5x = 45 & & \end{array}$$

$$\begin{array}{ccc} (\div 5) & & (\div 5) \\ \text{Solution: } x = 9 & & \end{array}$$

$$\frac{x}{4} + 7 = 11$$

$$\begin{array}{ccc} (-7) & & (-7) \\ \frac{x}{4} = 4 & & \end{array}$$

$$\begin{array}{ccc} (\times 4) & & (\times 4) \\ \text{Solution: } x = 16 & & \end{array}$$

Index Laws:

$$m^a \times m^b = m^{a+b}$$

$$\frac{m^a}{m^b} = m^{a-b}$$

$$(m^a)^b = m^{ab}$$

$$m^0 = 1$$

Examples:

$$4^5 \times 4^8 = 4^{13}$$

$$\frac{5^8}{5^2} = 5^6$$

$$(x^3)^5 = x^{15}$$

Standard Index Form:

Must be written in the form:

$A \times 10^n$, where $1 \leq A < 10$ and n is an integer

$$2835000 = 2.835 \times 10^6$$

$$0.00065 = 6.5 \times 10^{-4}$$

Converting Fractions to Percentages:

$$\frac{17}{20} = \frac{85}{100} = 85\% \quad \frac{31}{50} = \frac{62}{100} = 62\%$$

Percentage of Amounts without a Calculator:

47% of £120
 10% = £12 ⇒ 40% = £12 × 4 = **£48**
 1% = £1.20 ⇒ 7% = £1.20 × 7 = **£8.40**

Add these two answers together to get 47%:
£48 + £8.40 = 56.40

Percentage Increase without a calculator

1.) Increase £48 by 13%
13% of £48 = £6.24

2.) To increase, ADD on the £6.24.
New Amount = £48 + £6.24 = £54.24

Percentage of Amounts with a Calculator:

47% of £120
 47% × 120 = **£56.40**

To use the Percentage Button on your calculator, press **SHIFT** and then the () button.

Percentage Decrease with a Calculator:

Decrease £48 by 13%

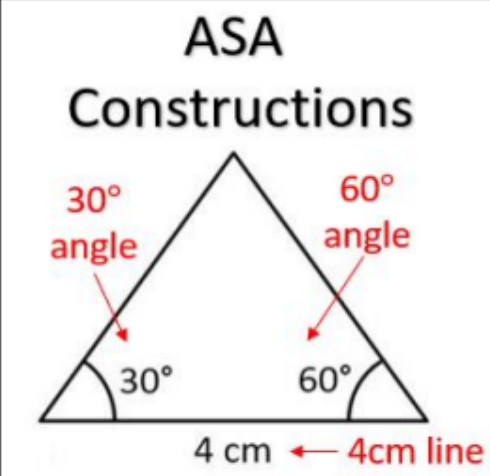
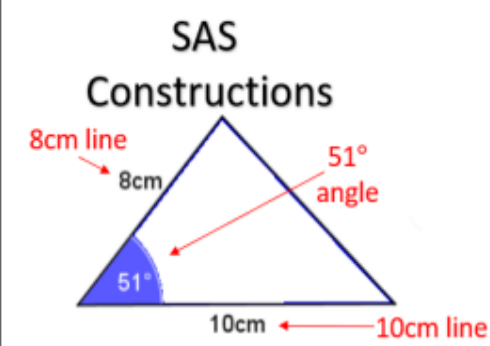
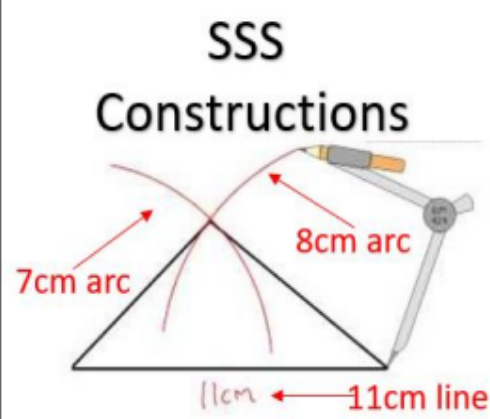
100% - 13% = 67%
67% × £48 = £41.76

Averages and Range

Mode: The most common item
Median: The middle item after the data has been ordered.
Mean: Add up and divide by how many pieces of data
Range: Largest Value - Smallest

Fraction, Decimal and Percentage Conversions

Frac.	Dec	Perc.
1	1.0	100%
$\frac{1}{2}$	0.5	50%
$\frac{1}{4}$	0.25	25%
$\frac{1}{3}$	0.33 ...	$33\frac{1}{3}\%$
$\frac{1}{8}$	0.125	12.5%
$\frac{1}{10}$	0.1	10%
$\frac{1}{100}$	0.01	1%
$\frac{3}{10}$	0.3	30%
$\frac{19}{100}$	0.19	19%
$\frac{7}{100}$	0.07	7%
$\frac{213}{100}$	2.13	213%



Y7 Music HT3 & 4 Pitch and Melody

Pitch – Pitch is high and low sound



Melody - When **Pitch** is added to **Rhythm** it creates **Melody**: The Main Tune



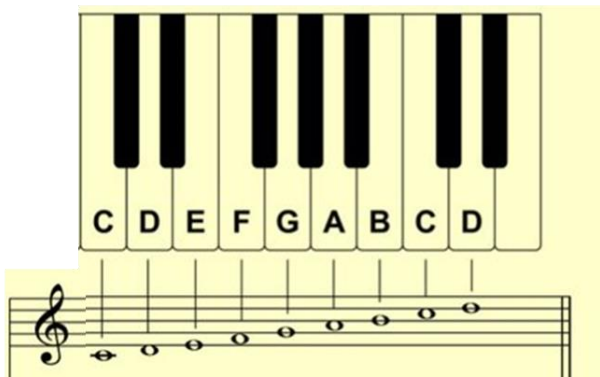
Treble Clef – the icon at the start of the music to indicate high pitch range

The Stave



The staff is a set of 5 lines and 4 spaces. Each line and space is a different pitch, and has a letter name.

‘C is to the left of the two black keys’



Y7 Music HT3&4 Pitch, Melody

Ledger Lines

A **ledger line** is used in written music to notate pitches above or below the lines and spaces of the regular musical stave.



Describing melody

Description	Definition
Ascending	Going up in pitch
Descending	Going down in pitch
Step	Moving to a neighbour note
Leap	Jumping to a note that is a distance (interval) away

INSTRUMENTS OF THE ORCHESTRA	
Brass	Trumpet, French Horn, Trombone, Tuba
Strings	Violin, Viola, Cello, Bass
Woodwind	Flute, Oboe, Clarinet, Bassoon
Percussion	Anything that is hit to make sound

What do Christians believe?

Year 7 Topic 3 - Religion, Philosophy & Ethics

'Forgive seventy times seven' Bible

'Then a voice came out of the cloud, saying, "This is My Son, My Chosen One; listen to Him!" Bible

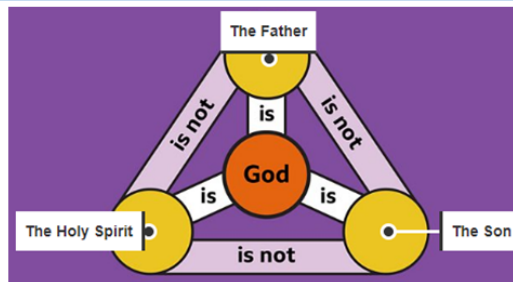
'I baptise you in the name of the Father, Son and Holy Spirit' Bible

"Love the lord your God with all your heart and love your neighbor as you love yourself" The Greatest Commandment , Bible

"I am the way, the true and the life, no one goes to the father except through me" Bible

The Nature of God & the Holy Trinity

- Christians believe there is only one God who is omnipotent, omnibenevolent, omniscient, omnipresent and creator. Christians pray to, and worship, God.
- They believe we can understand the nature of God through Bible teachings.
- Most Christians believe in the Holy Trinity which is a term used for God. The Trinity means God is three persons in one. At all times God is the 'father' (in heaven), the 'son' (Jesus) and the 'Holy Spirit' (an invisible spirit guiding us on earth today).
- The Nicene Creed (an explanation of faith) was written to explain that God is made up of three persons - Father, Son & Holy Spirit – yet remains just one God.



Features of a Church

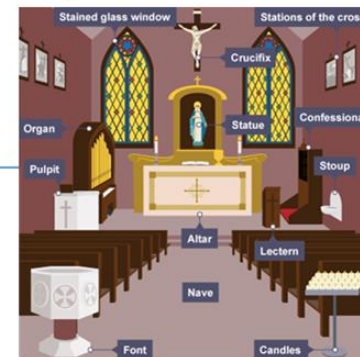
Churches are used for worship, celebrations and to learn about God through the services led by vicars or priests. Ceremonies such as baptisms, weddings and funerals take place in churches.

Features of a Church depend on the denomination (type) of Christian they are for, but most have...

- the **altar** – a table where the bread and wine are placed (or blessed if you are Catholic)
- the **lectern** – a stand where the Bible is read from
- the **pulpit** – where the priest delivers sermons
- a **crucifix** – a cross as a reminder of Jesus's death/sacrifice
- A **font** – a container of holy water used for baptism
- Face **east** because the son rises in the east so it reminds them of Jesus rising from the dead

Catholic Churches also have other features such as a confessional (enclosed cabinet where Catholics confess their sins).

Some Churches, such as Anglican, do not have statues, stone glass windows and are rarely decorative, so Anglican Christians are not distracted by these things or see them as idols.



Key Terms	Definition
Omnipotent	Means all-powerful. Christians believe God is all-powerful.
Omnipresent	Means everywhere. Christians believe God's presence is everywhere.
Omniscience	Means all-knowing. Christians believe God is all-seeing & all-knowing.
Omnibenevolent	Means all-loving. Christians believe God is all-loving.
The Bible	The Christian Holy Book, contains the teachings of God. The Bible is separated into the Old and New testament.
Incarnation	Means "made flesh" - God was made flesh in the person of Jesus.
Resurrection	Means being raised from the dead. Christians believe Jesus resurrected.
Nicene Creed	Is a statement of beliefs written by the Early Christian Church. It explains the nature of the Holy Trinity.
Saviour	Jesus is believed to be the savior – it is through His teachings, death on the cross and forgiveness of sins that Christians can go to heaven

Origins of the Christian Church & Denominations

- Christianity is the most popular religion in the world. 32% of the world's population class themselves as Christian.
- Christianity is based on the teachings of Jesus, Son of God.
- Christianity began with Jesus's birth over 2000 years ago; born miraculously to his mother Mary (a virgin), he was Jewish but rejected the Jewish laws stating that he was God on earth and came to earth with a new and final set of laws/teachings.
- Not all Christians agree on all the same beliefs so there are different groups called denominations e.g. Catholic & C of E

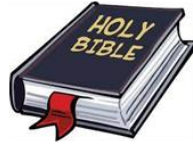


Christianity – Beliefs & Teachings

Year 7 Topic 3 - Religion, Philosophy & Ethics

The Bible

The Bible is made up of two sections; the Old Testament and the New Testament. The Old Testament explains the stories of Jews and Jewish beliefs before Jesus was born. The New Testament explains the life of Jesus and His teachings.

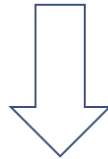


Catholic Christians

- To have sins forgiven you must complete the sacrament of reconciliation (confess to a priest)
- To enter heaven, you must have completed the sacrament of baptism to get rid of sins you are born with
- When remembering Jesus's 'last supper' the bread and wine are actually the body and blood of Christ (transubstantiation)
- Priests cannot be women as they do the work of Jesus during mass so they must represent him

Liberal Christians

- You should pray directly to God for forgiveness
- Christenings and baptisms welcome you into the Church but are not essential to get to heaven
- When remembering Jesus's 'last supper' the bread and wine are just symbols of Jesus's body and blood to remind Christians of His sacrifice on the cross
- Vicars/Priests may be women



The bad

GOATS



Didn't give food

Didn't give drink

Didn't give shelter

Didn't give clothes

Didn't look after the sick

Didn't visit those in jail

The Good

SHEEP



Gave food

Gave drink

Gave shelter

Gave clothes

Looked after the sick

Visited those in jail

The Significance of Jesus

- ❖ Most Christians believe Jesus is the incarnation of God, this means, although they call him 'the son of God', Jesus is God in the flesh as a human.
- ❖ Jesus is believed to be both **fully human and fully divine** (holy). He felt emotions and died just as humans do but, **after his crucifixion** on the third day, he rose from the dead showing his all-powerful nature.
- ❖ Jesus was significant to Christianity because **he founded (started) the religion**. He was born Jewish but, at the age of about 30 he rejected Jewish traditions and instructed people to follow the new laws he taught.
- ❖ His followers believed He was God because he was born from his virgin mother Mary and did performed many **miracles including raising from the dead**.
- ❖ Many of Jesus's teachings were seen as shocking at the time. For example, he **spent much time with sinners**, he forgave adulterous women (in Jesus's time they should have been stoned to death) and he called himself "king of the Jews" suggesting he was the Messiah that Jews had be waiting for (as prophesized in the Jewish holy texts).
- ❖ **Jews reject that Jesus was God** or anything more than a religious man because he didn't bring peace to earth or the promised land that their holy texts says will come when the Messiah comes to earth.
- ❖ Christians believe **Jesus's most important purpose on earth was to die for their sins** – they believe that to get rid of sins they no longer have to make sacrifices to God as the Jews before them did, instead Jesus sacrificed his life so that they can ask God the Father for forgiveness and can go to heaven.

Key Moral Stories as told by Jesus...

- The Parable of the Good Samaritan teaches that we should show kindness to everyone no matter what our differences are.
- The Parable of the Sheep & the Goats teaches that those who do good deeds to others on earth are showing kindness to God too and will be rewarded in heaven.
- The Parable of the Rich Man and Lazarus teaches that all will be judged at death, there is no escaping hell, and warnings of judgement are given on earth through God's teachings (the Bible).

Religion, Philosophy & Ethics

Topic 3

Buddhism – Beliefs & Practices

Year 7 Topic 4 - Religion, Philosophy & Ethics

“The world is afflicted by death and decay. But the wise do not grieve, having realized the nature of the world.”
The Buddha [Sutta Nipata]

“You have to start giving first and expect absolutely nothing” Dalai Lama (Buddhist monk)

“A disciplined mind bring happiness” Buddha



Key Terms	Definition
Buddha	Means “enlightened one”, Siddhartha Gotama is the Buddha, he achieved enlightenment
Enlightenment	When a person has attained spiritual knowledge or awareness that frees them from the cycle of rebirth
Nirvana	perfect place of happiness outside of the cycle of rebirth
Triptaka	The holy book of Buddhism
Temple	A building devoted to worship for Buddhists
The Four Noble Truths	Teachings from the Buddha about why people follow the cycle of rebirth and can't enter Nirvana
The Noble Eight Fold Path	Eight practices the Buddha taught to end suffering and help bring about enlightenment
Middle Way	Following the Eightfold Path represents avoiding a life of self-indulgence and avoiding a life of (the opposite)of denial – it is a ‘middle way’ and an ideal way to live.
Samsara	Hindus, Buddhists and Sikhs believe in a cycle of birth, death and rebirth (often called reincarnation)

Story of the Buddha

Buddha means ‘enlightened one’. Buddhism began with ‘the Buddha’, he was a man born in India around 2,500 years ago called Siddhartha Gautama.

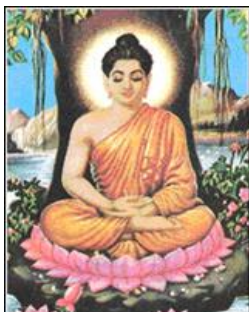
Siddhartha was the son of a princess, born into a wealthy family. Siddhartha’s father was told his son would be a great king or a holy man. He wanted his son to inherit the kingdom so decided to prevent him from experiencing life outside of the palace that may influence him to become a holy man. However, Siddhartha, when he was grown, questioned the purpose of life and so snuck out. He encountered four sights he had never seen before... 1. an old person, 2. a sick person, 3. a dead person and 4. a holy man.

The calm nature and lack of suffering the holy man felt struck Siddhartha, he left his life of luxury and went on search of truth.

In his search to understand suffering, Siddhartha fasted for long periods of time but this didn’t help him understand the world. Siddhartha found a “middle way” which enabled him to find enlightenment. The middle way involving luxury and suffering, Buddhists will use yoga and meditation to help them achieve this.

Buddhist Beliefs

- Buddhists do not believe in any Gods or creator of the world
- They follow the teachings of the Buddha, they are written in the sacred text called Tripitaka
- Buddhists live their lives trying to avoid suffering and achieve enlightenment (spiritual awareness)
- Buddhists believe in rebirth (samsara - the idea that when they die their souls are reborn into another life)
- To escape the cycle of rebirth, Buddhists have to become enlightened (have complete spiritual awareness of what is important in life) which leads them to perfect happiness (Nirvana)
- Buddhists believe in Karma, this means their actions will impact the level of suffering or positivity they experience in this life or the next
- Buddhists believe that the cause of suffering is greed, ignorance and hatred



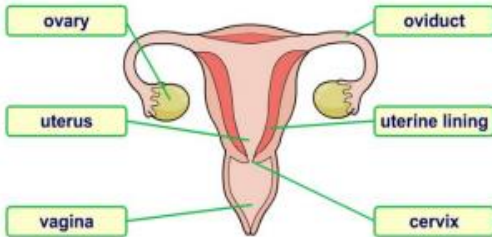
A kind man who makes good use of wealth is rightly said to possess a great treasure; but the miser who hoards up his riches will have no profit.

— Gautama Buddha —

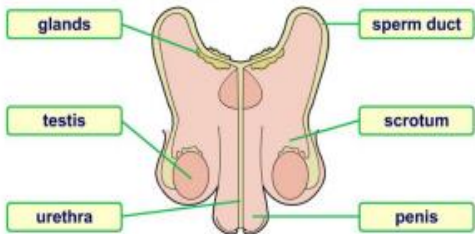
AZ QUOTES

Y7 Bio T2- Reproduction

What are the parts of the female reproductive system?



What are the parts of the male reproductive system?



What is the function of each body part?

testes	to produce sperm
ovary	to produce eggs
urethra	to carry sperm out of the body
oviduct	to carry eggs to the uterus
glands	to add fluid to sperm
sperm duct	to carry sperm from the testes
scrotum	to protect the testes

What does each reproductive process involve?

- ovulation** - The release of an egg from the ovary.
- ejaculation** - The ejection of sperm through the penis.
- fertilization** - The egg and the sperm nuclei fuse.
- implantation** - The embryo sinks into the uterus lining.

Adolescence is the period of life between child and adulthood

Puberty is the time when sex organs begin to work

The changes that happen during puberty are caused by **hormones**

Changes in boys

- sudden increase in height (growth spurt)
- hair starts to grow on body, including pubic hair
- voice deepens
- testes start to make sperm and hormones
- shoulders broaden
- sexual organs get bigger

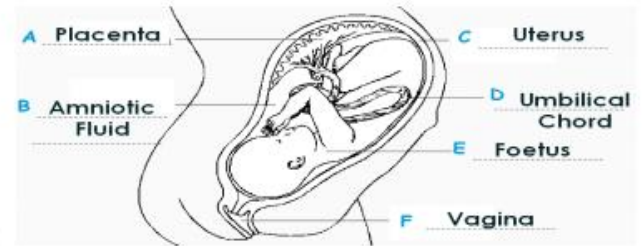


Changes in girls

- sudden increase in height (growth spurt)
- hair starts to grow on body, including pubic hair
- breasts grow
- ovaries start to release eggs and make hormones
- hips widen
- periods start



A woman is pregnant for 9 months



Menstrual cycle:

- Day 1-7: the lining of the uterus comes away and exits through the vagina.
- Day 8-13: The lining of the uterus begins to build up again. At this time an egg starts to mature in one of the ovaries
- Day 14: An egg is released by an ovary into the oviduct. (Ovulation)
- Day 15-17: The egg travels down the oviduct and into the uterus hoping to be fertilised
- Day 18-28: If the egg is not fertilised then the lining of the uterus begins to break down again

After about 9 months the baby is ready to be born. However, before it can be born, the baby must make sure it is the correct way up.



Before birth, the baby usually turns itself round so that his/her head lies above the cervix



The mother starts to feel small contractions of the uterus wall. These gradually become stronger and happen more often. Eventually the amniotic sac breaks and the amniotic fluid escapes.



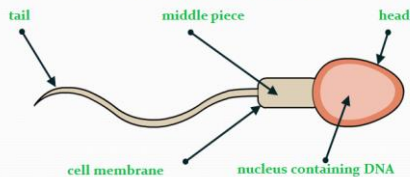
The muscles of the uterus wall now contract very strongly and start to push the baby out. As the baby is pushed out, the cervix widens and the baby's head is pushed out through the vagina.

As the baby is born it breathes air for the first time - the umbilical cord is tied and cut. After a few minutes the placenta comes away from the uterus wall. This is pushed out as the *afterbirth*.

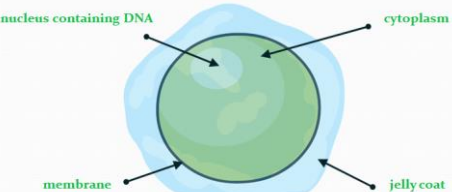


Science - Biology

In males, the sex cells are called **sperm**.

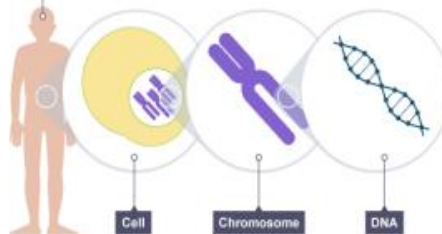


Sperm are produced in sex organs called **testes**.
In females, the sex cells are called **eggs**.



Eggs are produced in sex organs called **ovaries**.

Organism



DNA is found in the nucleus of cells.

A gene is a section of DNA which controls a characteristic like eye colour or hair colour.

A chromosome is a coiled-up length of DNA.

Humans have 46 chromosomes. 23 from mum, and 23 from dad.

Atoms and elements

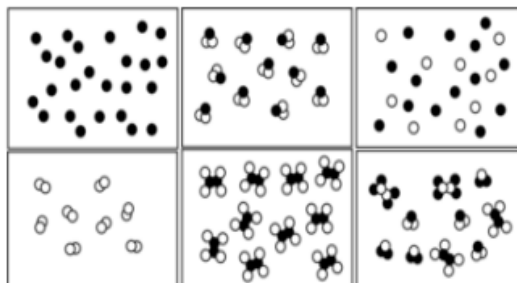
An **element** is a simple substance that cannot be split into anything simpler by chemical reactions. **Atoms** are the smallest particles of an element that can exist. Atoms of one element are all the same, and are different from atoms of all the other elements.

There are over 100 different elements. All the elements are shown in the **Periodic Table**. Each element has a **chemical symbol**, which is usually one or two letters.

A symbol is written with the first letter as a capital, and the second letter is small.

carbon C	oxygen O
nitrogen N	hydrogen H
gold Au	silver Ag
copper Cu	aluminium Al

Y7 Chem T2- Atoms, elements and compounds



Element

Compound

Mixture

Chemical reactions

In a **chemical reaction** a new substance is always formed. Most chemical changes are not easily reversed; they are **irreversible**. In a **physical change** no new substance is formed. Melting and evaporation are examples of physical changes. Physical changes are usually reversible.

You can tell that a reaction has occurred if there is a **colour change** or when a **gas** is given off. Most chemical reactions also involve an **energy change**. This is usually in the form of heat, but can also involve light being given off (for example, when something burns).

Compounds

Elements can join together to make compounds. The name of the compound tells you the elements that are in it.

Compounds made from two elements always have a name which ends in **'-ide'**. For example, sodium chloride contains sodium and chlorine.

Compounds made from three elements, one of which is oxygen, always have a name which ends **'ate'**. For example, calcium carbonate contains calcium, carbon and oxygen.

A compound always contains the same elements in the same ratio so can be represented by a chemical formula.

Mixtures

Mixtures are different substances that are combined physically, but not chemically. They can be separated by physical techniques (filtration, evaporation, distillation etc).

Elements and compounds can also be mixed together. A **mixture** is easier to separate than the elements in a compound. Soil, river water and sea water are examples of mixtures that occur naturally.

Elements and compounds melt and boil at a fixed temperature. Mixtures do not have definite **melting points** and **boiling points**.

Chemical Formula

Chemical formula tells us how many atoms of each element are in a compound.

For example:

H₂O contains 2 hydrogens (H) and 1 oxygen (O)

Na₂SO₄ contains 2 sodiums (Na), 1 sulfur (S) and 4 oxygens (O)

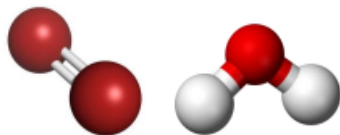
Chemical vs Physical Changes

Chemical changes are irreversible. A new substance is made. For example, when iron reacts with sulfur it produces iron sulphide. Iron sulphide is a new product.

Physical changes are reversible. No new products are made. For example, when ice melts into water. The water can be frozen back into ice.

Molecules

A molecule is two or more atoms joined together. They can be the same atom, or different atoms. Molecules can be elements or compounds.



Oxygen molecule (O₂)

Water molecule (H₂O)

Word equations

We can write **word equations** to show a chemical reaction. The chemicals that you start with are called the **reactants**. The chemicals at the end are called the **products**.

When writing word equations, the reactants are on the left and the products are on the right, separated by and arrow.

Reactants → Products

hydrogen + oxygen → water

Word equations should only contain the names of the elements and compounds, not a mixture of names and formula.

Y7 Phys T2- Electricity

Materials can be categorised as either conductors or insulators.

An electrical conductor will allow current to flow through it.

An electrical insulator will not allow current to flow through it.

Some conductors will be better at conducting than other conductors. The higher the current passing through a conductor, the better it is at conducting.

Resistance is a measure of how much current is "resisted."

More resistance means less current.

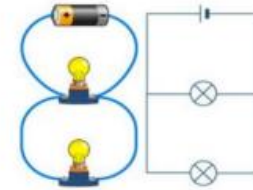
In series, adding more resistors decreases the overall current.

Electric current is the rate of flow of electrons. Current is measured in amps using an ammeter.

Potential difference (Voltage) is the energy given to the electrons. The higher the voltage, the more energy the electrons have. Voltage is measured in volts using a voltmeter.

If the electrons have more energy, the rate of flow will increase. The higher the voltage, the higher the current.

Parallel circuits are circuits where components may be on different loops. If the cell provides, for example, 1.5v, then each loop gets its own 1.5V.



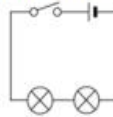
Current, however is shared in parallel. The total current divides out between the branches.

If one bulb breaks in the diagram above, the other one stays on because it gets its own voltage and current.



CIRCUIT SYMBOLS

Series circuits are circuits where all the components are in the same "loop":



In series circuit, the current is the same everywhere, and the voltage that is provided by the cell must be shared out amongst all the components.

If more and more components are added in series, then more and more resistance is added. To find the total resistance in series, you add together the resistances of all the components.

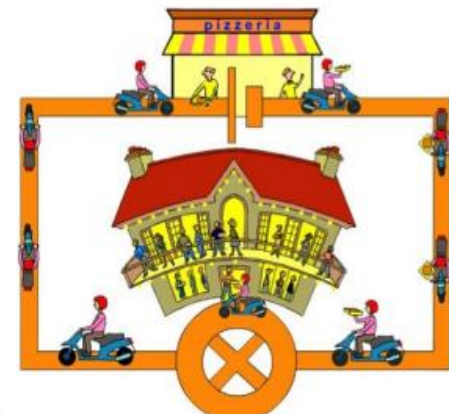
We can model electricity. In the model below:

The pizzeria represents the battery.

The delivery drivers represent the flow of electrons.

The pizzas represent the energy the electrons carry.

The house represents the bulb where the energy gets dropped off.



$$\text{voltage} = \text{current} \times \text{resistance}$$

$$V = I \times R$$

• Voltage is measured in volts (V).

• Current is measured in amps (A).



• Resistance is measured in ohms (Ω).

When using electricity, it is important to be safe. Mains electricity can shock and even kill a person.

When working around electricity it is important to follow the following safety rules:

- Don't jam anything metal in to an electrical appliance
 - Don't put liquids near electrical appliances.
 - Don't overload plug sockets.
- Don't use electrical appliances that have damaged wires.