Need To Know Book

Year 7

2024/2025

Name:_____

Form Group: _____

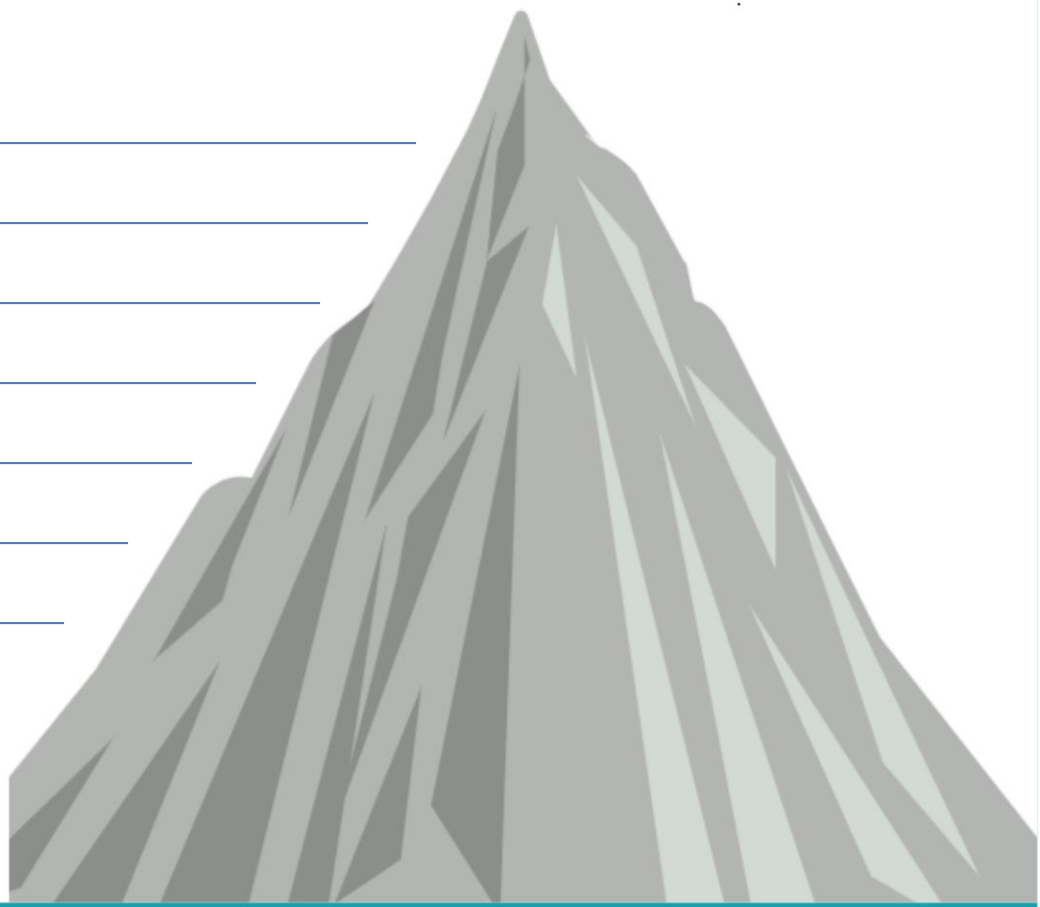
Helping every person achieve things they never thought they could.

Little Lever School
be kind | work hard | take responsibility

My Aspirational Sentence.

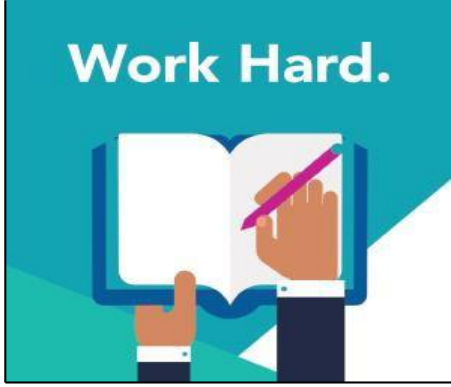
Little Lever School
be kind | work hard | take responsibility

What does the top of my mountain look like?



Contents Page

Knowledge Retrieval Sheet



What are knowledge retrieval sheets?

Here at Little Lever School, we think it is really important that you know what the essential knowledge is for each subject that you study. Learning takes place not only in the classroom, but in all areas of the school building, and at home. These knowledge retrieval sheets contain all the essential knowledge you will need to help revise and make progress towards achieving your best in all of your subjects.

By using your knowledge retrieval sheets each week you will be able to transfer your knowledge from your short-term memory, and make it stick. Within all your lessons, you will be asked to retrieve knowledge from your long-term memory. This might be in the form of quizzes or longer responses. These might require you to use lots of information you have already stored from previous lessons and from your own life experiences. These Need to Know Books will help you to check how much you can remember.

We have designed your knowledge retrieval sheets so that they are simple for you to use both in school and at home. You can even get others to help you. Below are some options for how you might use each sheet to make the knowledge stick in your brain so that you will be able to remember it.

Using Knowledge Retrieval Sheets- 5 Top Tips:

1. **'Look, Cover, Say, Write, Check'-** Look at a fact on your sheet, cover it up with your hand or a piece of paper. Say it out loud, write the fact down without checking and then uncover and check if you were correct.
2. **'If this is the answer, what is the question?'-** Quiz yourself by covering up facts on your sheet. For example, you could cover up the definition of key vocabulary and try to remember what the key vocabulary means.
3. **Independent low-stakes quizzing-** Use the questions on the back of each sheet to test yourself. You should write the answers on a separate sheet of paper so that you can use the question sheet again in future.
4. **Paired low-stakes quizzing-** Give your book or a sheet to someone else. (Could be a friend, teacher or family). They can ask you the questions on the back of any sheet and use the facts on the front to check if you are correct.
5. **Flashcard Revision-** Make flashcards using your knowledge sheets. Can you summarise the essential knowledge into your own words to put onto a pocket-sized revision card?

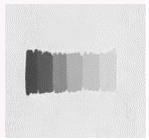
Art

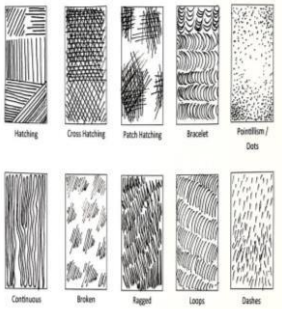
Helping every person achieve things they never thought they could.

Little Lever School
be kind | work hard | take responsibility

Year 7 Art: The Shoe Project

The Formal Elements of Art

	**Line**	A **line** is an identifiable path created by a point moving in **space**. It is one-dimensional and can vary in width, direction, and length. **Lines** can be horizontal, vertical, or diagonal, straight or curved, thick or thin.
	**Tone**	T**one** refers to the relative lightness or darkness of a colour. One colour can have an almost infinite number of different **tones**.
	**Colour**	Made up of three properties: hue, value, and intensity. Red, yellow and blue are primary colours, which means they can't be mixed using any other colours. Two primary colours mixed make a secondary colour. A primary and a secondary colour mixed make a tertiary colour
	**Shape**	A shape is an area enclosed by a line. It could be just an outline or it could be shaded in. Shapes can be either geometric, like a circle, square or triangle, or irregular.
	**Texture**	**Texture** refers to the surface quality in a work of **art**. We associate **textures** with the way that things look or feel.
	**Pattern**	Pattern is created by repeating lines, shapes, tones or colours. The design used to create a pattern is often referred to as a motif. Motifs can be simple shapes or complex arrangements.
	**Form**	Form is a three-dimensional shape, such as a cube, sphere or cone. Sculpture and 3D design are about creating forms.



Mark making

Mark making describes the different lines, dots, marks, patterns, and textures we create in an artwork. It can be loose and gestural or controlled and neat. It can apply to any material used on any surface: paint on canvas, ink or pencil on paper, a scratched mark on plaster, a digital paint tool on a screen... Artists can also use mark-making to express feelings and emotions.

Collage

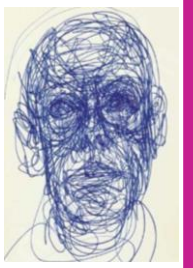
Collage (from the French meaning “to glue”) describes both the technique and the resulting work of art in which pieces of paper, photographs, fabric and other ephemera are arranged and stuck down onto a supporting surface.

Mono printing

The monoprint is a form of printmaking where the image **<u>can only be made once</u>**, unlike most printmaking which allows for multiple originals. There are many techniques of mono-printing, in particular the monotype. Printmaking techniques which can be used to make mono-prints include **lithography**, **woodcut**, and **etching**.

Alberto Giacometti

A Swiss sculptor, painter, draftsman and printmaker, known for his sculptures of elongated human figures. His work was particularly influenced by artistic styles such as **Cubism** and **Surrealism**. Giacometti would often draw out his sculpture designs before he made them using a drawing technique called continuous line.



Continuous Line Drawing

The line in a continuous line drawing is **<u>unbroken from the start to the end.</u>**
The drawing implement stays in uninterrupted contact with the surface of the paper during the entire length of the drawing.

Year 7 Art: The Shoe Project

The Formal Elements of Art

What do you know about **line?**

What do you know about **tone?**

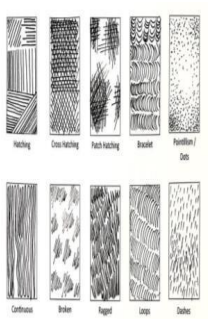
What do you know about **colour?**

What do you know about **shape**?

What do you know about **texture**?

What do you know about **pattern**?

What do you know about **form**?



Mark making

1. Give three examples of mark making techniques

2. What can mark making be used to describe?

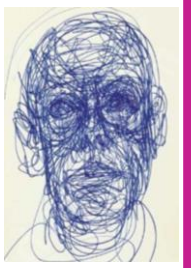
Collage

3. Which language does the word collage come from? What does it mean?

4. Give some examples of materials you could use.

5. Give some examples of printmaking techniques that can be used to make mono prints.

6. Which two art movements was Giacometti's work influenced by?



7. What kind of drawings did Giacometti use before creating his sculptures?

8. What is continuous line drawing?

Year 7 Art: Hundertwasser

The Formal Elements of Art

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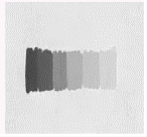 **Tone**	T**one** refers to the relative lightness or darkness of a colour. One colour can have an almost infinite number of different **tones**.
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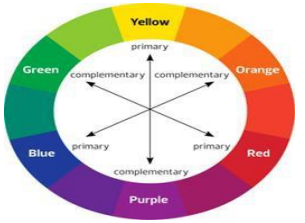
Friedensreich (Fritz) Hundertwasser

Austrian painter, architect, ecological activist and philosopher. In his work, he used spirals, organic forms, wavy lines, bright colours, and a strong individualism. He wanted humans to live in harmony with nature, where there are no straight lines. Once, he called straight lines "something cowardly drawn with a ruler, without thought or feeling. "He hated the way most buildings had straight lines and angles. He felt that buildings should fit and represent those who lived inside them. His building designs use natural forms, and often fit around nature rather than trying to bend nature to fit them.

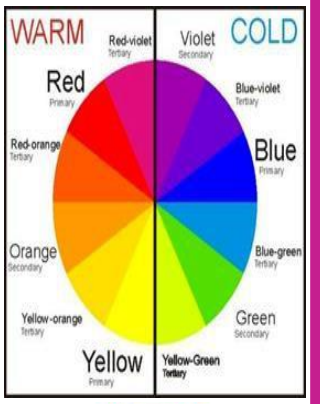
Complementary Colours

These are colours that are directly opposite each other on the colour wheel. Also called contrasting colours because they create the biggest contrast when placed next to each other (this means they make each other stand out more).



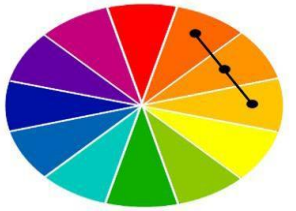
Warm and Cold Colours

The colour wheel can be split into two halves. Yellow, orange and red are warm colours because they remind us of things associated with heat such as the sun, beaches, and fire. Purple, blue and green are called cold colours because they remind us of things with the absence of heat such as water, ice, and grass.
Warm colours can be used to evoke stimulating feelings such as energy, while cold colours are more likely to have a calm, relaxing effect.



Harmonious Colours

Any colours that sit next to each other on the colour wheel. Also called Analogous colours. These groups of colours are called harmonious because they go well together.



Year 7 Art: Hundertwasser

The Formal Elements of Art

What do you know about **line?**	
What do you know about **tone?**	
What do you know about **colour?**	
What do you know about **shape**?	
What do you know about **texture**?	
What do you know about **pattern**?	
What do you know about **form**?	

1. Who was Friedensreich Hundertwasser?

2. Why did he dislike straight lines?

3. What are the key themes in Hundertwasser's work?

Colour Theory- questions	Answers
1. What are complementary colours?	
2. What do complementary colour do when placed next to each other?	
3. Name the three main pairs of complementary colours	
4. What are harmonious colours?	
5. Why are they called harmonious colours?	
6. Name three harmonious colours	
7. Name three warm colours	
8. Name three cold colours	
9. What kind of feelings can warm colours evoke?	
10. What kind of feelings can cold colours evoke?	

Which colours might you use if you wanted to portray a feeling of:

Excitement =	Sadness =
Boredom =	Happiness =
Anger =	Confusion =

Catering

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Year 7 Catering

Why is personal hygiene important?
Your hands, hair, face, skin, clothing and jewellery can all be a source of bacteria which can be transferred onto food. This is known as cross-contamination.

Good personal hygiene is important to prevent the risk of food poisoning.

How to wash your hands properly

1. In a hand sink just for hand washing.
2. Use comfortably hot water
3. Rub vigorously for 15 to 20 seconds with antibacterial soap
4. Don't forget between fingers, wrists, fingertips and thumbs!
5. Rinse hands before drying with disposable towel (not a tea towel)!

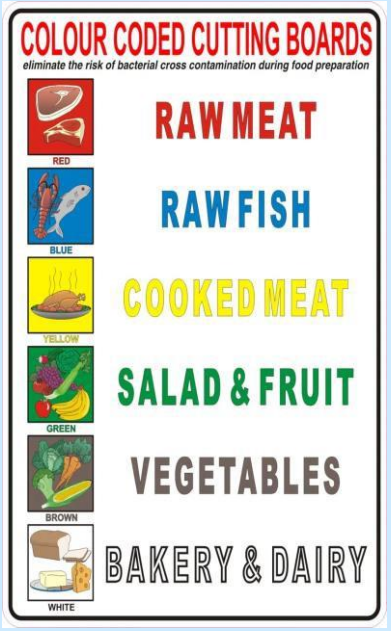
What is a Risk Assessment?
A risk assessment involves looking closely at something and deciding if there are any hazards that may be cause a risk to people. A risk assessment is used to figure out what needs to be done to prevent the risk from happening.

What are the common symptoms if you have a food-borne illness?

1. Vomiting
2. Diarrhoea
3. Nausea
4. Abdominal and stomach pains
5. Fever/high temperature

Before we start practical we should always:

- Take off coats and blazers,
- Put on and fasten a clean apron,
- Tie hair up if needed
- Wash hands thoroughly.



What are the main ingredients for bread?
Strong flour, salt, oil/butter/yeast, salt
What is yeast?
It is a raising agent.
It can be bought as a dried, fresh or powdered form.

In order to grow and ferment (produce carbon dioxide gas) it requires four things: **food, moisture, warmth and time**.

Rubbing in is a technique where flour is rubbed into a fat to make dishes such as shortcrust pastry, crumbles and scones. When you knead dough or other food, you press and squeeze it with your hands so that it becomes smooth and ready to cook.

To **sauté** a dish means to cook it in a small amount of fat over high heat, making sure that the food doesn't stick to the pan.

To **simmer** means to cook something liquid, or something with liquid in it, at a temperature slightly below boiling

The Eatwell Guide is a visual representation of the UK government's recommendations for a healthy and balanced diet

The guide is divided into five food groups, each representing a different type of food that we should aim to eat in appropriate proportions. The five groups are:
Fruit and vegetables
Starchy carbohydrates
Protein foods
Dairy and alternatives
Oils and spreads:

How do you use a probe thermometer?
Insert the stem of a probe thermometer into the thickest part of the food, or in the centre of the food if the food is even in thickness.
Wait at least 15 seconds for the reading to steady and then record the reading.
Hot food should reach at least 75c

Year 7 Catering

Why is personal hygiene important?

How do you wash your hands properly?

1.

2.

3.

4.

5.

What is a Risk Assessment?

What are the common symptoms if you have a food-borne illness?

1.

2.

3.

4.

5.

What should we do before we start a practical?

What foods do you prepare on each of the following coloured chopping boards?

Red, blue, yellow, green, brown and white

What are the main ingredients for bread?

What is yeast?

Explain the following food preparation terms:

Rubbing in and kneading

Explain the following cooking terms:

Sauté and simmer

What is The **Eatwell Guide?**

What does the Eatwell Guide show us?

How do you use a probe thermometer?

Computing

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Year 7 Computing

Device Security- how to create a strong password

1. Minimum of 1 capital letter
2. Minimum of 1 lowercase letter
3. Minimum of 1 number
4. At least 8 characters long
5. Cannot contain part of their name
6. Cannot use Microsoft easy to guess password list.

Using emails

Email safety tips:

- Don't share your password with anyone.
- Don't open attachments from anyone you don't know.
- Log out or sign off from your account when you've finished.
- Don't reply or forward an email from people you don't know. Delete them.
- Never click on links in emails without checking that the email is real.
- It is hard to spot a fake email, so if you are unsure, then **delete** it.

Define: Email Etiquette - Rules of sending professional emails.

Rules for excellent email etiquette:

- Always include a subject line.
- Start your email politely (e.g. Dear..)
- Write in full sentences using correct spellings and punctuation.
- Finish politely with your name (e.g Thank you, Joe Bloggs)
- Set priority of the email appropriately, if it is important.

Cyberbullying

Define: Cyberbullying - includes sending, posting, or sharing negative, harmful, false, or mean content about someone else online to cause them embarrassment or humiliation.

Ways you can prevent cyberbullying:

- Block and report the bully
- Tell a trusted person
- Do not retaliate - save information/evidence
- Deactivate old accounts

Too much screen time

Define: Screen time – The amount of time spent in front of an electronic screen, this could be a phone, a laptop or a TV for example.

Define: Electronic Screen Syndrome (ESS) – a term used to describe health issues related to excessive screen time.

Define: Melatonin – a hormone released by the pineal gland in the brain which regulates the sleep-wake cycles. This is affected by the blue light emitted from screens.

Negatives of too much screen time:

- Can affect the ability to fall and stay asleep.
- Prevent you from spending time doing other important things. Such as reading, socialising with friends and exercise.

Ways to protect yourself:

- Limiting your screen time to a set amount per day.
- Turn on the device blue light filter.
- Put your device into a another room when you are learning, reading etc to avoid distractions.

Year 7 Computing

What are the rules for creating a strong password?

1.

2.

3.

4.

5.

6.

Using emails

Email safety tips:

- Don't share your _____ with anyone.
- Don't open attachments from anyone you don't know.
- Log out or sign off from your account when you've finished.
- Don't reply to emails from people you _____. Delete them.
- Never click on links in emails without checking that the email is real.
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Define: Email Etiquette - _____.

Rules for excellent email etiquette:

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Cyberbullying

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Negatives of too much screen time:

-
-

Ways to protect yourself:

-
-
-

Year 7 Computing

Sharing Selfies

Define: Selfie – a photograph that you take of yourself, usually with a mobile phone.

Define: Consent – permission for something to happen or agreement to do something.

Define: Body image - the perception of the physical self and the thoughts and feelings that result from this.

Potential problems of sharing images of ourselves online:

- Edited images can distort our view of what is 'natural'.
- Sharing of potentially damaging images of ourselves to our reputation that can affect us negatively in the future.
- Once an image is shared, it cannot be unshared.

Online Groomer/ Online Predator

Define: Online Groomer/ Online Predator - A groomer is someone who tries to build a relationship with a child or vulnerable person, often online, who really intends to exploit them or hurt them in some way.

Define: Vulnerable - exposed to the threat of being attacked or harmed, either physically or emotionally.

Warning signs of an online groomer:

- Receiving or sending personal or sexual pictures
- Inappropriate or sexual chat
- Saying flattering things
- Changes their mood suddenly
- Wants to chat to you privately
- They can see you, but you can't see them (broken camera)

Contact CEOP if you are think you have been in contact with an online groomer and NEVER reply to them.

External Hardware

Define: Hardware - The machines, wiring, and other physical components of a computer or other electronic system.

Define: Input Devices - Data is entered into a computer system using input devices.

Input device examples: Mouse, keyboard, microphone, camera

Define: Output devices: Once data has been processed, it is outputted by the computer using output devices.

Output device examples: screen, speakers, printer

Internal Hardware

Define: Motherboard - Contains the CPU and RAM. Desktop motherboards have expansion slots so you can add to the motherboard. Such as video cards and wireless cards.

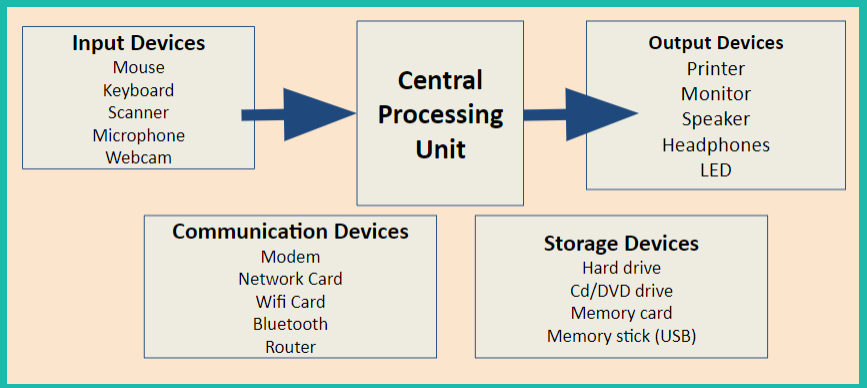
Define: RAM - This is random access memory and is used by the computer when it performs short term calculations. You can't store files here as it is cleared when the computer is switched off.

Define: Hard drive - Long term, permanent storage of the computer's data even when it is turned off.

Define: CPU - Central processing unit. Controls all the tasks and operations of a computer.

What is a computer?

A computer is a machine that helps people do many different things, like playing games, doing homework, or talking with friends online. Computers have the following parts:



Year 7 Computing

Sharing Selfies

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Define: Consent:

Define: Body image :

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- Saying _____
- Sudden change of mood
- Private _____
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External Hardware

Define: Hardware :

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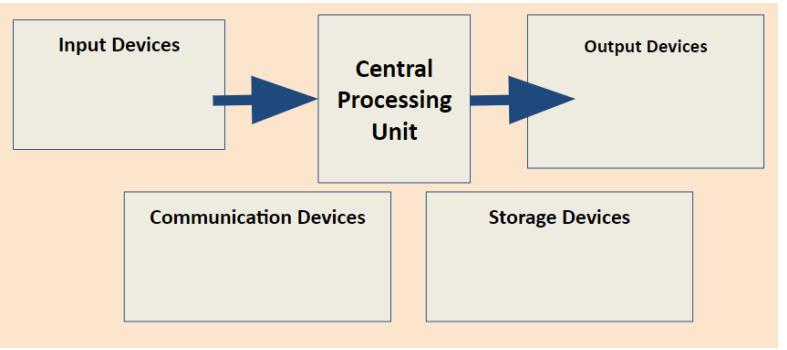

Year 7 Computing: Software

Software is the set of instructions that directs a computer to perform tasks. It is categorised into system software and application software based on its functions.

Term	Description
Software	Software is like a set of instructions that tells the computer what to do. It's the programs and apps you use.
System Software	Helps the computer run and manages all the parts inside it. It's like the boss of the computer that keeps everything working.
Application Software	includes programs designed to do specific tasks for you, like games, drawing apps, or word processors.

Types of application software

Software Category	Description	Examples
Productivity Software	These are programs that help you do things like writing documents and organising information.	Word processors, spreadsheets
Design Software	These are programs that help you create pictures, graphics, and 3D models. You use them to draw and design things on the computer.	Adobe Photoshop, Photopea
Audio and Video Software	These are programs that help you make and edit sounds and videos. You use them to create and change music, recordings, and movies.	Audacity (audio), Adobe Premiere (video)

Types of system software

Term	Description	Examples
Operating Systems	The main program that helps your computer run and lets you use other programs. It's like the manager that controls how everything works together.	Windows, macOS, Linux
Drivers	Special programs that help the computer communicate to the different parts, like the printer or the keyboard. They make sure everything works together smoothly.	Device drivers for printers, graphics cards, etc.
Utilities	Tools that help keep your computer in good shape, like cleaning up old files or protecting it from viruses. They do specific jobs to make your computer run better.	Disk Cleanup, Antivirus software
Boot Loaders	The programs that start up your computer and get it ready to use. They wake up the operating system when you turn on your computer.	GRUB, LILO (for Linux), NTLDR (for Windows)

Year 7 Computing: Software

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System Software	
Application Software	

Types of application software

Software Category	Description	Examples
Productivity Software		
Design Software		
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Types of system software

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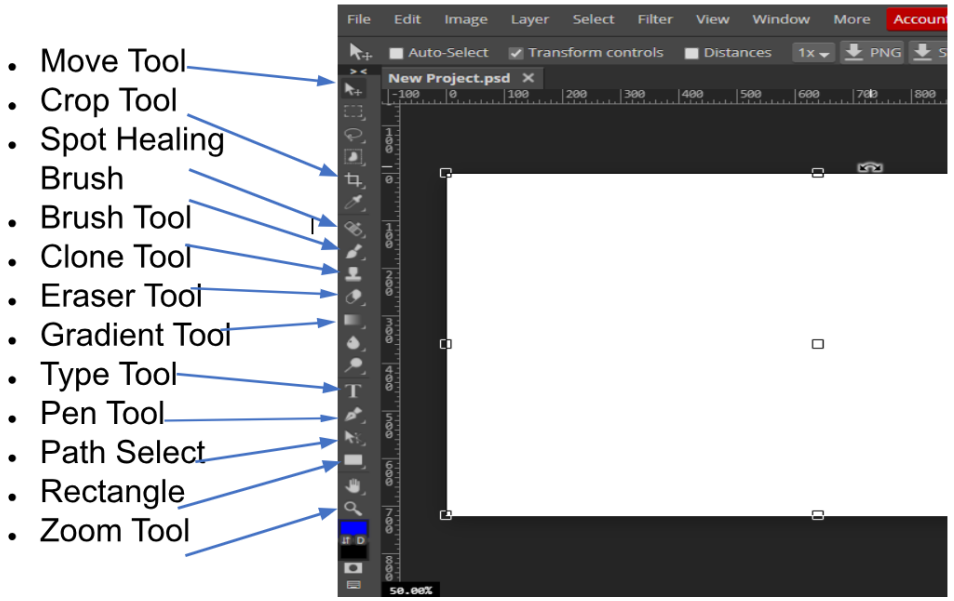
Drivers		Device drivers for printers, graphics cards, etc.
Utilities		Disk Cleanup, Antivirus software
Boot Loaders		GRUB, LILO (for Linux), NTLDR (for Windows)

Year 7 Computing: Image editing

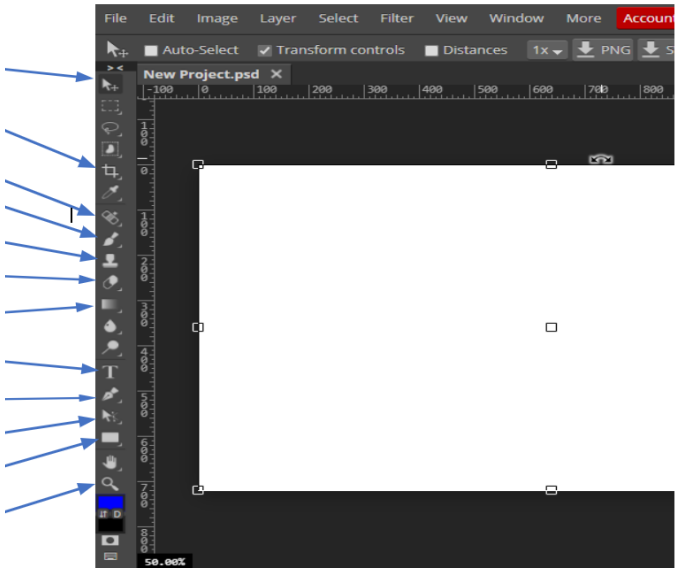


Keyword	Definition
Move Tool	The Move Tool allows users to move objects, layers, or selections within a graphic editing software.
Crop Tool	The Crop Tool is used to trim or cut down the size of an image or canvas to a specific area.
Spot Healing Brush	The Spot Healing Brush is a tool that automatically samples and blends surrounding pixels to remove blemishes or imperfections.
Brush Tool	The Brush Tool is a versatile tool for painting, drawing, or adding colour to an image using various brush shapes and sizes.
Clone Tool	The Clone Tool allows users to duplicate or "clone" a part of an image by copying pixels from one area and painting them in another.
Eraser Tool	The Eraser Tool is used to remove parts of an image or layer, making it transparent or revealing the layers below.
Type Tool	The Type Tool is used for adding text to an image or document. Users can choose fonts, sizes, and styles for the text.
Rectangle	In graphic design, a Rectangle is a geometric shape with four straight sides and four right angles, often used as a design element or container.
Zoom Tool	The Zoom Tool allows users to magnify or reduce the view of an image, making it easier to work on details or see the entire canvas.

Copyright Facts

1. When you take a photo, you own the copyright, which means you decide how it can be used.
2. Adding a copyright symbol (©) is optional; you still own the photo as soon as you take it.
3. Privacy is important: you can't take and use someone's photo without their permission.
4. You can use copyrighted photos for personal or school projects, but sharing them online without permission is illegal.
5. Reposting photos that you didn't take on social media is against the law, even if lots of people do it.

Year 7 Computing: Photopea Tool names



Keyword	Definition
Move Tool	
Crop Tool	
Spot Healing Brush	
Brush Tool	
Clone Tool	
Eraser Tool	
Type Tool	
Rectangle	
Zoom Tool	

Copyright Facts

1..

2..

3..

4..

5..

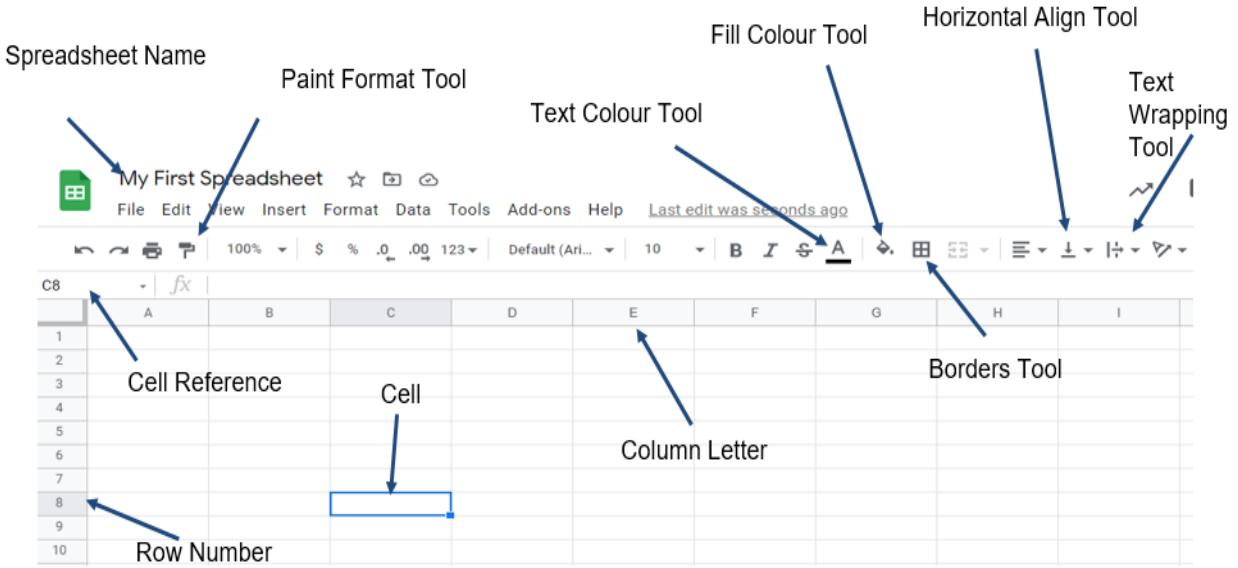
Year 7 Computing: File types, digital mapping and Spreadsheets

Keyword	Definition
JPG (JPEG)	A common picture file that makes images smaller by simplifying colours and removing some details.
PSD	A file type for Adobe Photoshop that keeps layers and details so you can keep editing the image.
PNG	A high-quality picture file that doesn't lose details and supports see-through parts.
Google Drive	An online storage service where you can save files, access them from anywhere, and work with others at the same time.
File Compression	Making a file smaller by removing unnecessary information to make it easier to manage.

Keyword	Definition
Google Earth	An online tool that shows pictures of the Earth from satellites and planes, and lets you see streets up close.
Street View	A feature in Google Maps and Google Earth that lets you see what streets look like from the ground.
Photogrammetry Software	Software that uses photos to make accurate measurements and 3D models of objects.
Augmented Reality	Technology that adds digital images or information to the real world around you.
Geolocation	Finding and sharing the exact location of a device or person using technology.

Spreadsheets

A Spreadsheet is a useful tool to help us organise lots of data, we can then use that data to create graphs, track events and even make predictions.



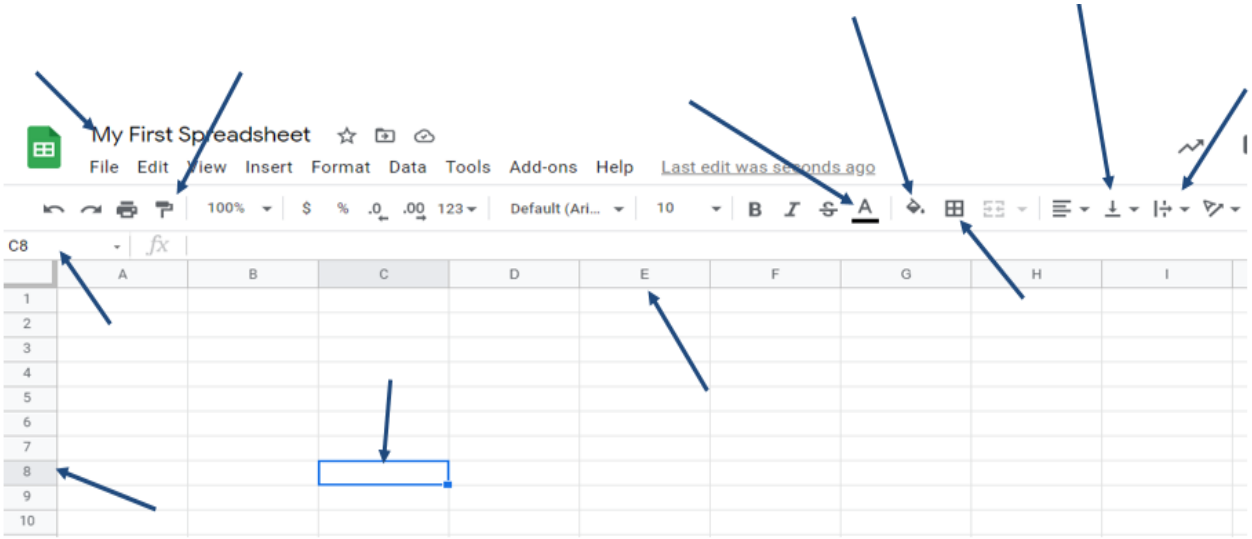
Year 7 Computing: File types, digital mapping and Spredasheets

Keyword	Definition
JPG (JPEG)	
PSD	
PNG	
Google Drive	
File Compression	

Keyword	Definition
Google Earth	
Street View	
Photogrammetry Software	
Augmented Reality	
Geolocation	

Spreadsheets

A Spreadsheet is a



Year 7 Computing: Control and Monitoring

Types of sensor
Various sensors are used in control systems to monitor conditions allowing the control system to make decisions based on those conditions:

Using Sensors in Control Systems

Humans have **5** senses:
- Sight
- Touch
- Taste
- Hearing
- Smell

Sensors help control systems 'see' and 'feel' what's happening around them. We can use cameras to see, temperature sensors to feel heat, light or movement sensors to detect light or motion, sound sensors to hear, proximity sensors to sense how close something is, and air quality sensors to check the air.

Sensor Type	Description	Example of Use in Control System
Temperature Sensor	Measures the temperature of a system or environment.	Turning on radiators when it gets too cold.
Pressure Sensor	Measures the pressure within a system or on a surface.	Making sure the pressure is just right in a hydraulic system.
Proximity Sensor	Senses if something is close by or not.	Turning on doors or lights when someone gets close.
Motion Sensor	Notices when something moves in a certain area.	Setting off security alarms or turning on lights when it detects movement.
Light Sensor	Measures how bright or dark it is around.	Changing the brightness of indoor lights based on how much natural light is outside.

Key Words	
abstraction	Identify the important aspects to start with
algorithm	Precise sequence of instructions
decomposition	Breaking down a problem into smaller parts
iteration	Doing the same thing more than once
selection	Making choices
sequence	Running instructions in order

Symbol	Name	Description
	Start/End	Indicates the start or end of a process or program.
	Process	Represents a specific task or operation in the flowchart.
	Decision	Represents a decision point with multiple outcomes.
	Input/Output	Indicates data input or output in the flowchart.
	Flow Arrow	Represents the flow or direction of the process.
	Subroutine	A subroutine is a set of computer commands that do a specific job. You can use this set of commands many times in different parts of your program. Once the subroutine finishes its job, the program continues from where it left off.

Year 7 Computing: Sensor types

Types of sensor
Various sensors are used in control systems to monitor conditions allowing the control system to make decisions based on those conditions:

Using Sensors in Control Systems

Humans have **5** senses:

-
-
-
-
-

Sensors help control systems 'see' and 'feel' what's happening around them. We can use cameras to see, temperature sensors to feel heat, light or movement sensors to detect light or motion, sound sensors to hear, proximity sensors to sense how close something is, and air quality sensors to check the air.

Sensor Type	Description	Example of Use in Control System
Temperature Sensor		
Pressure Sensor		
Proximity Sensor		
Motion Sensor		
Light Sensor		

Key Words	
abstraction	
algorithm	
decomposition	
iteration	
selection	
sequence	

Symbol	Name	Description
		
		
		
		
		
		

Year 7 Computing: Spreadsheets

Formulas and functions

Keyword	Explanation
Function	A function is like a special command that helps you perform specific tasks in your spreadsheet. It's a tool that makes it easier to do things like adding numbers together or finding the average of a group of numbers. E.g. = SUM(D3:D6)
Formula	A formula is like a set of instructions you give to the computer. It tells the spreadsheet exactly how to calculate or process certain data. For example, you can use a formula to add up numbers or multiply them. E.g. = C4 + C5
Conditional Formatting	Conditional formatting is a feature that lets you change the way your spreadsheet looks based on certain conditions. It's like giving your data a makeover by setting rules, such as making numbers turn a different color if they meet specific criteria.

Golden rule: every formula always starts with an =

Cell references begin with a letter, and finish with a number. EG: A1

	A	B	C	D	E	F	G
1							
2							
3							
4							
5							

A range is a selection of cells. EG: (A2:F4)

	A	B	C	D	E	F	G
1							
2							
3							
4							
5							

Formula Operators	
+	Adds two numbers/cells
-	Subtracts one cell or number from another
*	Multiplies two numbers/cells
/	Divides one number/cell from another one
<	Less than
>	Greater than

Common Spreadsheet Functions	
= SUM	Adds a range of cells together.
= AVERAGE	Finds the average for a range of cells.
= MAX	Finds the largest value in a range of cells.
= MIN	Finds the smallest value in a range of cells.
=COUNT	Counts how many times a range of cells contains a number.

Year 7 Computing: Spreadsheets

Formulas and functions

Keyword	Explanation
Function	
Formula	
Conditional Formatting	

Formula Operators	
+	
-	
*	
/	
<	
>	

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1							
2							
3							
4							
5							

Common Spreadsheet Functions

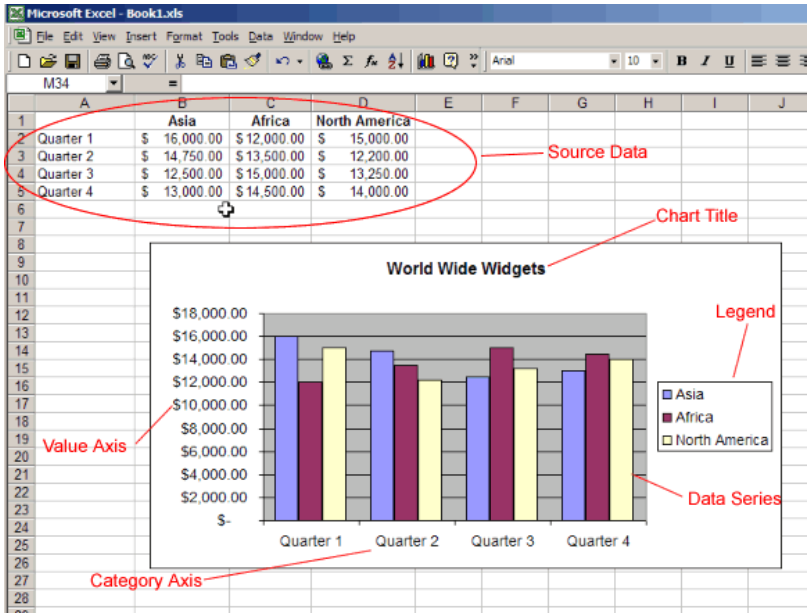
= SUM	
= AVERAGE	
= MAX	
= MIN	
=COUNT	

Year 7 Computing: Creating charts and graphs

We can represent data in spreadsheets easily using graphs, this helps the reader to visualise what the data means.

Chart Type	When it's Useful	Benefits	Drawbacks
Bar Chart	Comparing quantities between different categories.	Easy to read and interpret.	Not suitable for showing trends over time.
Line Chart	Showing trends and changes over time.	Highlights patterns and trends.	May be confusing if there are too many data points.
Pie Chart	Displaying parts of a whole.	Clearly illustrates the proportion of each component.	Can be misleading if the number of categories is large.

Chart key terms



Year 7 Computing: Creating charts and graphs

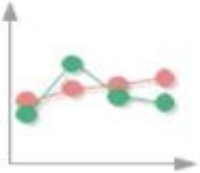
We can represent data in spreadsheets easily using graphs, this helps the reader to visualise what the data means.

Chart Type	When it's Useful	Benefits	Drawbacks

Pie

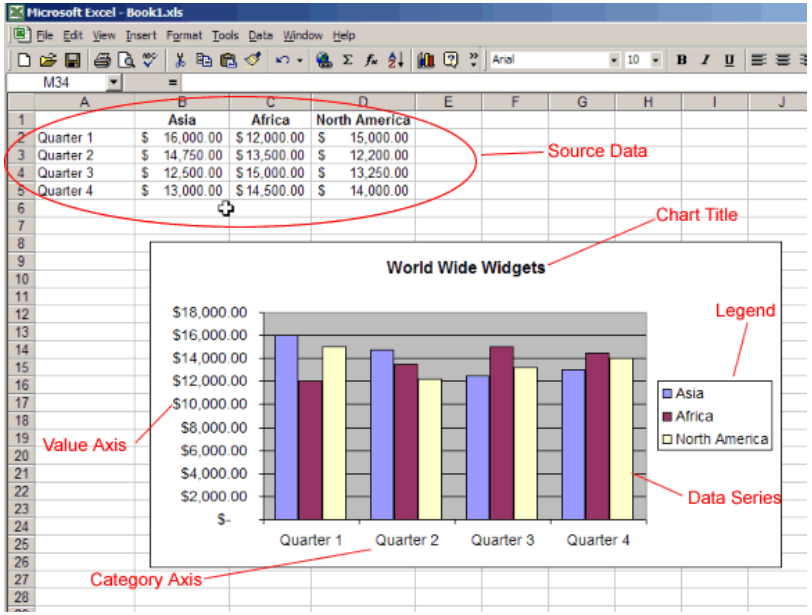
Bar

Column



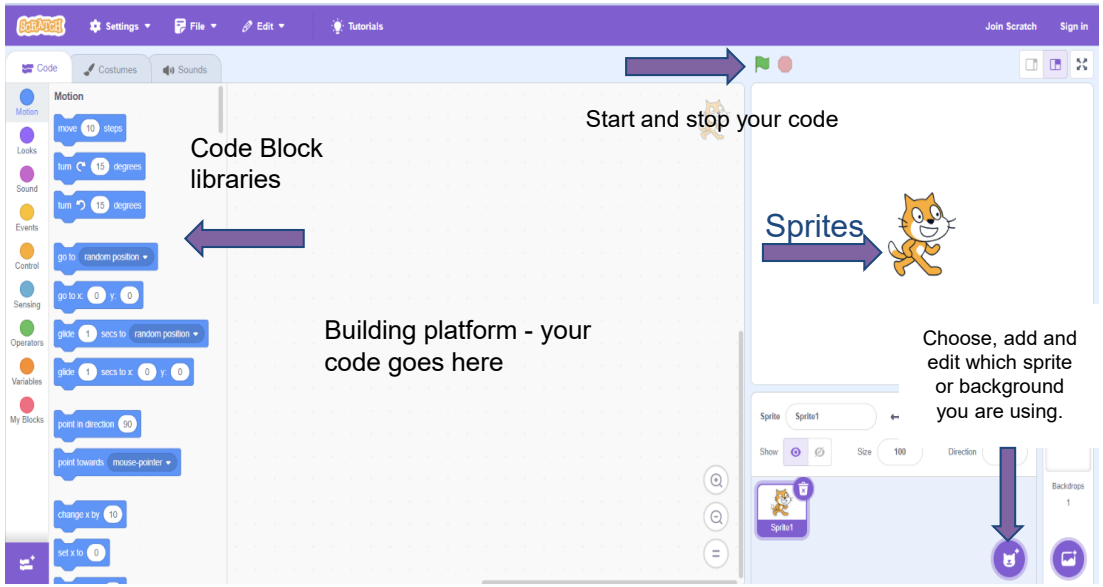
Line

Chart key terms



Year 7 Computing: Block based programming (Scratch)

Scratch works using different coloured blocks that fit together to build programs. There are lots of different coloured blocks that do different things, by combining these blocks together we can make programs



Key Words

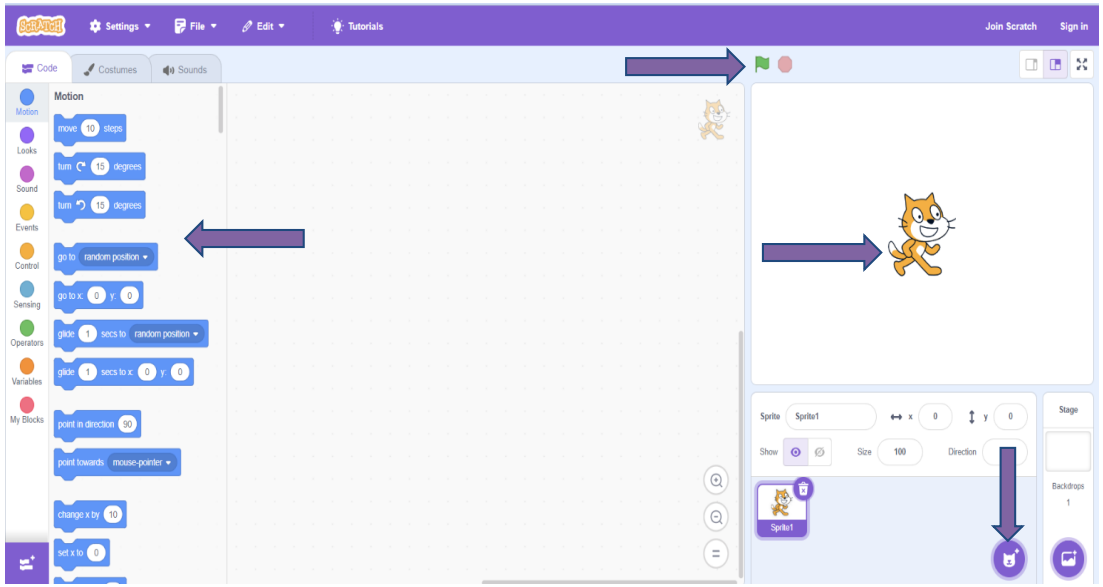
abstraction	Identify the important aspects to start with
algorithm	Precise sequence of instructions
decomposition	Breaking down a problem into smaller parts
iteration	Doing the same thing more than once
lists	Allows multiple items of data to be held
selection	Making choices
sequence	Running instructions in order
subroutine	A group of instructions that can run when called
variable	Data being stored by the computer.

Scratches programming blocks are sorted into categories to help you find the right block for the job easily. Each categories blocks do specific jobs.

Motion	These blocks make things move, you can set the position of your sprite and make it move in any direction
Looks	Use these to automatically change the background or sprite
Sound	Add noises and sound effects to your program
Events	Make something happen based on a specific action
Control	Make decisions and decide how long something happens
Sensing	Detect whether something has happened - great for controlling games
Operat	Use logic and maths - keep scores, countdown lives or health
Variabl	Create variables to keep track of important data - for example a persons name, how many lives a player starts with, what level a game starts at
My Blo	This useful option allows you to create your own blocks called subprograms that you can reuse as many times as you need

Year 7 Computing: Block based programming (Scratch)

Scratch works using different coloured blocks that fit together to build programs. There are lots of different coloured blocks that do different things, by combining these blocks together we can make programs



Key Words

abstraction	
algorithm	
decomposition	
iteration	
lists	
selection	
sequence	
subroutine	
variable	

Scratches programming blocks are sorted into categories to help you find the right block for the job easily. Each categories blocks do specific jobs.

Motion	
Looks	
Sound	
Events	
Control	
Sensing	
Operators	
Variables	
My Blocks	

Design and Technology

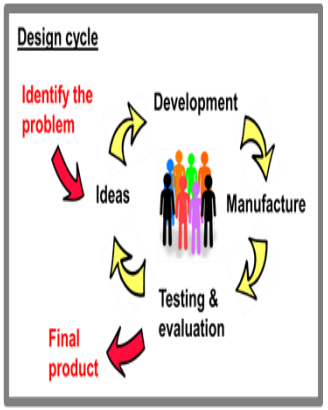
Helping every person achieve things they never thought they could.

Little Lever School
be kind | work hard | take responsibility

Year 7 Design and Technology

Safety Rules in the Workshop

1. Always **listen carefully** to the teacher and follow instructions.
2. **Do not run** in the workshop, you could 'bump' into another pupil and cause an injury
3. Know where the **emergency stop buttons** are positioned in the workshop.
4. Always **wear an apron** as it will protect your clothes and hold loose clothing such as ties in place.



Structure

There are 2 types of structure:
Shell e.g. a boat, an egg, a turtle or a car
Frame e.g. a spiders web or Blackpool Tower

The function of a structure is to do one of the following:
Supports a load – holding something up.
Span a distance or reach across a gap.
Contain or protect something.
Shape objects, machines & buildings.

Structural Failure
If a structure is to be successful it must also remain stable and not collapse. If a structure collapses this is known as STRUCTURAL FAILURE.

Equipment

Three pieces of equipment which help us to mark out straight lines for cutting a piece of timber:
Try square
Stell ruler
Pencil

Jigs help you hold something to cut or drill it accurately.
Templates help you measure & mark out materials accurately.

CAD/CAM

Using computers to draw and drive machines is called **CAD / CAM or Computer Aided Design and Computer Aided Manufacture**.

Advantages of CAD

- Ideas can be drawn and developed quickly
- Designs can be viewed from all angles and with a range of materials
- Some testing and consumer feedback can be done before costly production takes place
- It becomes easier to design and test a range of ideas

Advantages of CAM

- Fast and accurate production
- Machines can run constantly on repetitive tasks
- Good for producing on a mass/flow production line
- Less material wastage

Vectorising an image
Doing this to an images changes the way it is drawn so that it is made of lines not pixels. This means the laser cutter can reproduce the image.

There are 5 types of force:
Tension (Pulling)
Compression (Pushing)
Bending (Creates tension & compression)
Shear (forces in opposite directions)
Torsion (Twist)

Pewter

Pewter is an attractive metal which has been used for the production of household and other items in Britain since Roman times. It is an alloy consisting mostly of tin. It can be melted and **cast** in the workshop to make different shapes. The metal is poured through a channel called the **sprue**. When the metal in the channel sets it is also called the sprue and needs to be cut off when finishing.

Finishing the pewter
Cut away the sprue using the junior hacksaw.
Smooth the edges of your keyring using a selection files to remove any burrs.
Use abrasive paper to smooth the edge further, removing any file marks.
Use abrasive paper (wet & dry) to smooth the back surface and remove any tarnish from the casting process.
Polish the front surface of your keyring to achieve a silver shine.

Year 7 Design and Technology

List at least 3 safety rules for using the workshop:

1.

2.

3.

What are the 4 stages of the design cycle?

1.

2.

3.

4.

Structure

Name the 2 types of structure:

1.
2.

List the 4 functions of a structure:

1.
2.
3.
4.

What is structural failure?

Equipment

Describe how you would accurately mark out a piece of timber. List the specific equipment you should use.

What is a jig?
What is a template?

What do CAD/CAM stand for?

List the 4 advantages of CAD

- -
- -
- -
- -

List the 4 advantages of CAM?

- -
- -
- -
- -

Explain why you vectorise an image to use with the laser cutter.

What are the 5 types of force?

1.
2.
3.
4.
5.

Pewter

Explain what pewter is and how we shape it?

What is the sprue?

List the stages for finishing the pewter

Year 7 Design and Technology

Try square

Steel rule

Bench hook

Coping saw

File

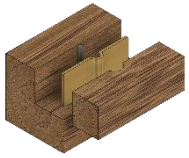
Tin snips

Centre punch

Ball pein hammer

Electric drill

Tenon saw



Jig

Staple gun

QUALITY CONTROL

Quality control refers to the processes that ensure products and services meet the required quality standards.

The Kitemark is a UK product and service quality trade mark. The Kitemark certification confirms that a product or service has been tested by experts and the purchaser can have trust in the product.

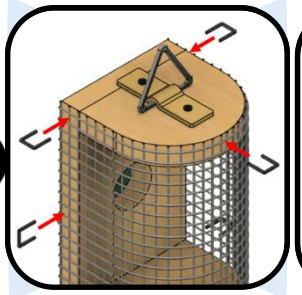
The CE mark is a symbol that indicates that a product meets EU health, safety, and environmental requirements.

Keywords

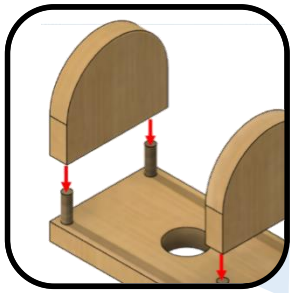
MALLEABLE MATERIAL...
Can be hammered or pressed into shape without breaking or cracking.

ACCURATE
Ensuring that all information and measurements are correct.

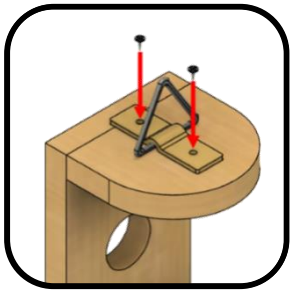
Joining methods



Staples
PVA Glue



Dowel pegs
Screws



JIG
A tool or device used to guide or hold a workpiece during manufacturing.

TOUGH MATERIAL...
Is strong enough to withstand adverse weather conditions or rough handling.

BATCH PRODUCTION
A method of manufacturing a small number of similar products.

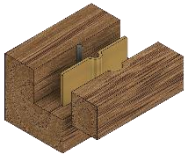
Year 7 Design and Technology





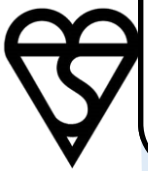
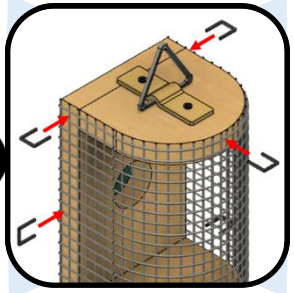
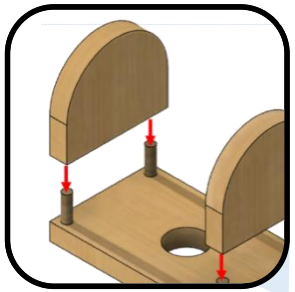




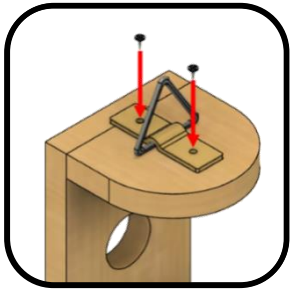




QUALITY CONTROL

Joining methods

CE

Keywords

MALLEABLE MATERIAL...

ACCURATE

JIG

TOUGH MATERIAL...

.

BATCH PRODUCTION

.

Year 7 Design and Technology

KEYWORDS

CAD (Computer Aided Design)
Using computers to create drawings, 3D models and simulations.

CAM (Computer Aided Manufacture)
Using machinery to produce products and components from CAD drawings.

VECTOR IMAGE
An image made up of individual objects and lines instead of pixels.

ALLOY
A metal that is produced by combining two or more elements together.

PEWTER
A metal alloy with a low melting point consisting of tin, copper and antimony.

PEWTER CASTING

Pewter casting is the process of creating objects by melting pewter. Pewter has a low melting point (temperature which it will turn from a solid into a liquid) and will melt at between 170°C-230°C.

WORKING WITH METALS


Wire wool


Junior hack saw


File


Emory paper

COMPUTER AIDED MANIUFACTURE (CAM)

ADVANTAGES	DISADVANTAGES
Good for producing on a mass/flow production line	Needs a skilled workforce of engineers
Machines can run constantly on repetitive tasks	Downtime required for maintenance
Fast and accurate production	Computers and machines can fail
Less material wastage	Expensive to set up

COMPUTER AIDED DESIGN (CAD)

ADVANTAGES	DISADVANTAGES
Ideas can be drawn and developed quickly	Difficult to keep up with constantly changing and improving technology
Designs can be viewed from all angles and with a range of materials	Needs a skilled workforce
Some testing and consumer feedback can be done before costly production	Expensive to set up
It becomes easier to design and test a range of ideas	Computers can fail

Year 7 Design and Technology

KEYWORDS

CAD (Computer Aided Design)

CAM (Computer Aided Manufacture)

VECTOR IMAGE

ALLOY

PEWTER

PEWTER CASTING

WORKING WITH METALS

COMPUTER AIDED MANIUFACTURE (CAM)

ADVANTAGES	DISADVANTAGES

COMPUTER AIDED DESIGN (CAD)

ADVANTAGES	DISADVANTAGES

Drama

Helping every person achieve things they never thought they could.

Little Lever School
be kind | work hard | take responsibility

Year 7 Drama:

Key Vocabulary

F	**Facial Expressions**	Showing how your character feels using your face. Example: gritted teeth, flared nostrils= anger
U	**Use of space**	Facing the audience and using the space effectively on stage
E	**Eye Contact**	Looking at other actors or the audience to make the performance more believable
L	**Levels**	The different heights on stage to show the authority of characters and make a performance look aesthetically pleasing for the audience.
B	**Body Language**	Using your body to show your character. Example: hunched posture= elderly character
A	**Audience**	Being a respectful and supportive audience during all performances
G	**Gestures**	Characters actions using their hands

The rules of a still Image (also known as a freeze frame)

A still image is a moment when all of the action on stage freezes- like a photograph. There are 3 rules when performing a still image. These are:

- **Be silent**
- **Be still**
- **Use your body language creatively**

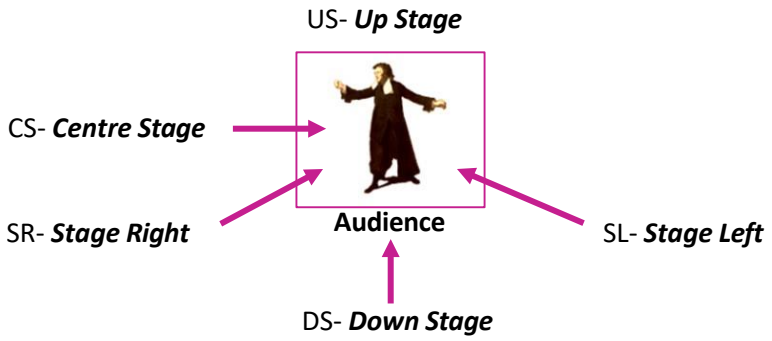
Exaggeration

'Exaggeration' means making an action or gesture even bigger than it is in real life.

Pantomime

- Pantomimes are mostly performed at Christmas time.
- Pantomime's are based on fairy tales and nursery stories.
- Pantomime stock characters include: **the Evil Villain**, **the Damsel in Distress**, **the Hero**, **The Principle Boy** (a male character played by a female**), and the Pantomime Dame** (a female character played by a male).

Areas of a Stage: The areas of the stage are labelled from the **actor's** point of view.



Year 7 Drama:

Key Vocabulary: (Complete the missing words below)

F	_____	Showing how your character feels using your face. Example: gritted teeth, flared nostrils= anger
U	_____	Facing the audience and using the space effectively on stage
E	_____	Looking at other actors or the audience to make the performance more believable
L	_____	The different heights on stage to show the authority of characters and make a performance look aesthetically pleasing for the audience.
B	_____	Using your body to show your character. Example: hunched posture= elderly character
A	_____	Being a respectful and supportive audience during all performances
G	_____	Characters actions using their hands

The rules of a still Image (also known as a freeze frame)

A still image is a moment when all of the action on stage freezes- like a photograph. There are 3 rules when performing a still image. These are:

- **Be** _____
- **Be** _____
- **Use your b____l_____creatively**

What does exaggeration mean?

Pantomime

- Pantomimes are mostly performed at _____time.
- Pantomime's are based on f____tales and _____stories.
- Pantomime stock _____include: **the Evil Villain**, **the Damsel in Distress**, **the Hero**, **The Principle Boy** (a male character played by a female**), and the Pantomime** _____(a female character played by a male).

Areas of a Stage: **Label the different parts of a stage using the labels on the left.**

US- ***Up Stage***
CS- ***Centre Stage***
SR- ***Stage Right***
DS- ***Down Stage***
SL- ***Stage Left***

Audience

Year 7 Drama:

Role-Play	**Role play is a practice in which individuals take on a role as another person and act out or perform as that person or character.**
Improvisation	Actors **invent and create** the content of performance. There is no script given in improvisation.
Freeze Frame	Freeze frame is where actors **freeze** at a particular point to show an important moment or scene.
Thought Track	This is a dramatic technique where an actor steps out of their scene and tells the audience directly, **what they are thinking**.
Scripted Performance	This is a form of Drama where the **dialogue is written down along with stage directions.**
Cross Cutting	Cross-cutting is **a device to move between two or more scenes staged in the space at the same time.**
Vocal Techniques	The skills and methods actors use to enhance their **voice** or **speech** on stage. For example; **accent, volume, emphasis, pace, pitch and tone of voice**.
Duologue	A dramatic performance limited to **two performers.**
Characterisation	This is the process of **creating a character** demonstrating their actions, words and thoughts.

Oliver Twist

Oliver Twist was written by **Charles Dickens** in the 1830s. The story follows the adventures of Oliver Twist, an **orphan** in 19th-century England, who faces a number of setbacks in his quest to find security and happiness. He lives in a harshly run orphanage until being sold as an apprentice to a cruel undertaker.

The Victorian Era

The **Victorians** were the people who lived under **Queen Victoria's reign** between 1837 and 1901. It was an era of exciting **discoveries**, **inventions** and exploration following the **Industrial Revolution**. The boom in industry saw lots of people moving to cities to find work. For the first time in world history, **more people lived in cities than in the countryside**, making city centres very cramped! Poor people lived in crowded **slums** — houses which were overcrowded, smelly and in bad repair.

Victorian Schools

Victorian schools were very grim places! The classrooms were very basic, with very little on the walls. A lot of teaching was repetition, learning the names and dates of kings and queens, or reciting the times table.
Teachers were often **strict** and very **scary**! Children soon learnt to do what the teacher asked, otherwise they would get a rap across the knuckles with a ruler, or a clip around the ears.
Most teachers were not qualified by having a college education, they learnt "on the job" in a sort of apprenticeship.
The Victorian teacher would use a **cane** to punish naughty children. The cane was given on the hand or the bottom, or sometimes given across the back of the legs. All sorts of things might be punished: being rude, answering back, speaking out of turn, poor work, in fact anything that displeased the teacher.

Year 7 Drama:

Role-Play	
Improvisation	
Freeze Frame	
Thought Track	
Scripted Performance	
Cross Cutting	
Vocal Techniques	
Duologue	
Characterisation	

Oliver Twist

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Victorian Schools

Victorian schools were ____ grim places! The classrooms were very _____, with very little on the walls. A lot of teaching was _____, learning the names and dates of kings and _____, or reciting the times table. Teachers were often **strict** and very_____! Children soon learnt to do what the teacher asked, otherwise they would get a ____ across the knuckles with a ruler, or a clip around the ____.

Most teachers were not qualified by having a _____ education, they learnt "on the job" in a sort of apprenticeship.

The _____ teacher would use a ____ to punish naughty children. The cane was given on the ____ or the bottom, or sometimes given across the back of the legs. All sorts of things might be punished: being _____, answering back, speaking out of turn, poor _____, in fact anything that displeased the teacher.

Year 7 Drama:

Ernie's Incredible Illucinations

Ernie's Incredible Illucinations is a one act play which was written especially for schools. The play was written by Alan Ayckbourn in 1969. "*Alan Ayckbourn's Ernie's Incredible Illucinations is a bright comedy based on the extraordinary powers of Ernie Fraser, a day-dreamer with a difference. Like all schoolboys Ernie has a vivid imagination, but Ernie's thoughts have a disturbing habit of turning into reality. After a number of embarrassing episodes, Ernie's parents decide to consult a doctor, who is sceptical. Several of Ernie's adventures are acted out for us in flashback, but when Ernie fails to produce a Brass Band on demand, the doctor diagnoses group hallucination and recommends a visit to a specialist. However, 'Ernie's incredible illucinations' aren't to be dismissed quite so lightly, as you will see…*"

Stereotypical Characters

Stereotype: A widely held and oversimplified idea of a particular type of person.

Simple meaning: When people are placed into a certain group with expected behaviour and looks.

The characters in Ernie's Incredible Illucinations are stereotypical characters.

Comedy…how to make it effective;

- **Timing** is essential!
- Use your **facial expressions**.
- Bring your **energy** level **UP** when performing.
- Have **fun** with it!

Working from a script is different to improvisation.
You will need to;

1 Know your lines.
2 Practice the same sections of the script again and again.
3 Make sure you understand the dialogue.
4 Follow the stage directions (*these are the actors instructions, normally written in italics*).
5 Remember to use your acting skills, you are not just reading out your lines. Think about the physical and vocal skills you will need to use to make your character believable.

Annotating a Script – This means to write on your script, all of the actions and ideas for your character. You could make notes on;

-how they speak the line.
-what actions they do on the line.
-how they react to other peoples lines.
-whether they use any props or set.
-when they may enter or exit the stage.

Year 7 Drama:

Ernie's Incredible Illucinations

Ernie's _____ _____is a one act play which was written especially for schools. The play was written by _____ _____in 1969. *"Alan Ayckbourn's Ernie's Incredible Illucinations is a _____ comedy based on the extraordinary powers of Ernie Fraser, a day-dreamer with a difference. Like all _____ Ernie has a vivid imagination, but Ernie's _____ have a disturbing habit of turning into _____. After a number of embarrassing episodes, Ernie's _____ decide to consult a doctor, who is _____. Several of Ernie's _____ are acted out for us in _____, but when Ernie fails to produce a Brass _____ on demand, the doctor diagnoses group hallucination and _____ a visit to a _____. However, 'Ernie's incredible illucinations' aren't to be dismissed quite so _____, as you will see…"*

Stereotypical Characters

Stereotype:

Simple meaning:

Comedy…how to make it effective;

Working from a script is different to improvisation.
You will need to;

1
2
3
4
5

Annotating a Script – This means to write on your script, all of the actions and ideas for your character. You could make notes on;

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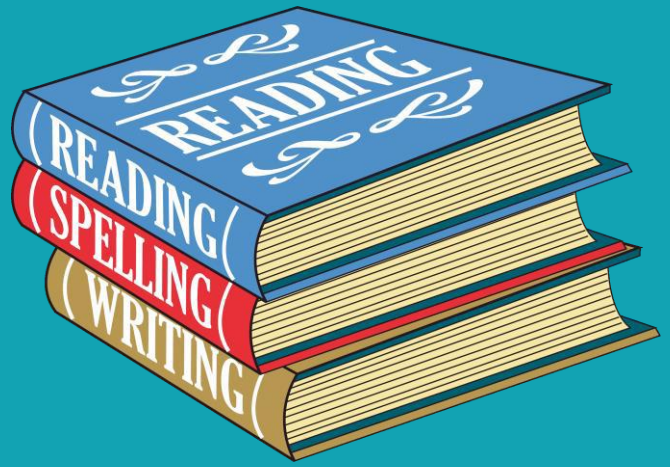
English



Helping every person achieve things they never thought they could.

Little Lever School
be kind | work hard | take responsibility

Year 7 English: 'The Giver' and Narrative Writing

Non Fiction is factual writing or writing based on real events.

Fiction is writing about imaginary people, places or events.

We use **quotations** from the text to prove that what we are saying about a text is true. We show it is a quotation by using **quotation marks**.

Explicit meanings are the obvious meanings behind words, phrases and texts.

Implicit meanings are the hidden meanings behind words, phrases and texts.

Skimming is when you look over a text quickly to get the general idea of it. You don't need to read every word - just pick out key words and sentences.

Scanning is when you look over a text quickly, line by line, hunting for key words, dates, names and numbers. It's a useful skill to use when you need answers to specific questions.

Knowledge for Reading

Writing about Literature

P **Point** — Answer the question

E **Evidence** — Include a quote

A **Analyse** — Explain the inferences behind the quote in detail

Use the words as/so/because/which to explain your ideas fully

Knowledge for Writing

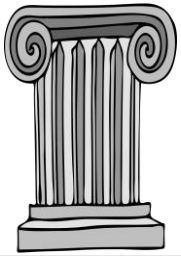
When we are writing a narrative (story) I should use interesting vocabulary and language techniques to describe the events, setting and characters.

Language Technique	Definition
Metaphor	Say something is something it isn't *e.g. the battlefield was a sea of red*
Simile	Compare two things using 'like' or 'as' *e.g. she sang like a bird*
Personification	Describe an animal or object as having human characteristics *e.g. The storm commanded respect*

When we are writing a narrative (story) I should hook my reader's attention with an interesting opening (exposition).

We use a new paragraph when we change the time, place, topic or person we are writing about. (TiP ToP)

The first line of every paragraph should be a **topic sentence**, which gives a clue about what the paragraph with focus on.

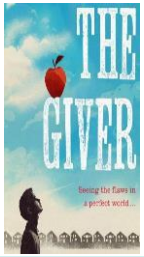


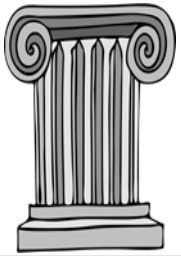
Dystopia vs Utopia

Dystopias and Utopias are fictional worlds created for novels, plays and poems.

In a Dystopia, the world contains suffering and little freedom or justice, where people live in fear. A Utopia is a world full of perfect peace and harmony.

Writers have often written dystopian texts to criticise something about the world they live in e.g. '*1985*' by George Orwell.





Year 7 English: 'The Giver' and Narrative Writing

What is **non-fiction?**

What is **fiction**?

Why do we use **quotations** from the text?

How do we show it is a **quotation?**

What are **explicit** meanings**?**

What are **implicit** meanings**?**

What is skimming?

What is scanning?

Knowledge for Reading

Writing about Literature

P **P**_____ Answer the question

E **E**_____ Include a quote

A **A**_____ Explain the inferences behind the quote in detail

Use the words as/so/because/which to explain your ideas fully

Knowledge for Writing

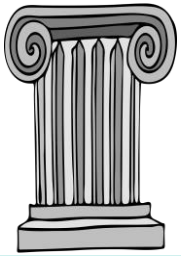
What should we use when we are writing a narrative (story)?

Language Technique	Definition
Metaphor	*e.g. the battlefield was a sea of red*
Simile	*e.g. she sang like a bird*
Personification	*e.g. The storm commanded respect*

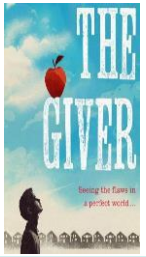
What is another word for an interesting opening?

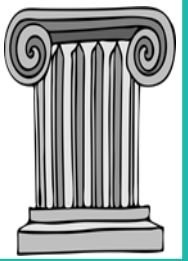
When should we create a new paragraph?

What should the first line of every paragraph be?



Dystopia vs Utopia	
1. Dystopias and Utopias are what kind of worlds?	
2. What does a dystopian world contain?	
3. What is a utopia?	
4. Why do some writers create dystopian worlds in their books?	





Year 7 English:

Vocabulary	Definition	Example
1. Dictatorship	A society where people are scared of their leaders and are punished for doing or saying something the leaders do not agree with.	*Stalin's Soviet Union was a dictatorship.*
2. Democracy	A society where the people choose their leader through voting in elections.	*Being able to vote is a key part of a democracy.*
3. Regulations	Rules, guidelines and laws.	*He follows the regulations.*
4. Thriving	To grow and develop well.	*They were thriving after they moved to high school.*
5. Stereotypical	An idea of what a certain type of person should be like, which isn't necessarily true.	*A stereotypical teenager is grumpy and obsessed with their mobile phone.*
6. Restricted	Not allowed to move, act or think freely.	*The people felt restricted by their country's laws.*
7. Prejudiced	A way of describing an unfair opinion or dislike you have of someone, because of race, gender, religion, disability etc.	*His views were unacceptable as they were prejudiced.*
8. Community	A group of people living together and working as a team to look after each other.	*The school was a community that really cared for one another.*
9. Segregated	When people are separated and divided from each other.	*On the farm, the cows are segregated from the sheep.*
10. Protagonist	The main character in a novel, play, film etc.	*In the novel 'The Giver', Jonas is the protagonist.*

Grammar

11. Nouns
A thing, person, place or concept (idea)

Table, King Charles, London, Tom, Dreams, Fears,

12. Proper Nouns
Names and titles for specific things

Joe Bloggs, Jonas, Britain, Coca-Cola, Bolton Wanderers FC,

13. Abstract Nouns
Do not have a physical form (ideas, emotions, traits)

Ambition, Grief, Expectations, Rules

14. Concrete Nouns
Things you can experience through your senses (sight, touch, sound, smell, taste)

Noodles, Trumpet, Rain.

15. Verbs
A doing, action or being word

Watching, Thinking, Cleaning, Writing, Planning, Counting, Is, Are, Were, Be.

16. Modal Verbs
Come before verbs. They should how likely the verb is to happen.

Will, Won't, Could. Should, May, Might.

Punctuation

17. Capital Letter
Used to show the beginning of a sentence

The community was peaceful.

18. Capital Letter
Used at the beginning of a proper noun

Jonas is the protagonist in The Giver.

19. Full Stop
Used at the end of the sentence.

The novel is set in a futuristic utopian society.

Year 7 English:

Vocabulary	Definition	Example
1. Dictatorship		*Stalin's Soviet Union was a dictatorship.*
2. Democracy		*Being able to vote is a key part of a democracy.*
3. Regulations		*He follows the regulations.*
4. Thriving		*They were thriving after they moved to high school.*
5. Stereotypical		*A stereotypical teenager is grumpy and obsessed with their mobile phone.*
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9. Segregated		*On the farm, the cows are segregated from the sheep.*
10. Protagonist		*In the novel 'The Giver', Jonas is the protagonist.*

Grammar

11.	12.	13.	14.	15.	16.
A thing, person, place or concept (idea)	Names and titles for specific things	Do not have a physical form (ideas, emotions, traits)	Things you can experience through your senses (sight, touch, sound, smell, taste)	A doing, action or being word	Come before verbs. They should how likely the verb is to happen.
Table, King Charles, London, Tom, Dreams, Fears,	*Joe Bloggs, Jonas, Britain, Coca-Cola, Bolton Wanderers FC,*	*Ambition, Grief, Expectations, Rules*	*Noodles, Trumpet, Rain.*	*Watching, Thinking, Cleaning, Writing, Planning, Counting, Is, Are, Were, Be.*	*Will, Won't, Could. Should.*

Punctuation

17. _____
Used to show the beginning of a sentence
The community was peaceful.

18. **Capital Letter**
_____
_____
Jonas is the protagonist in The Giver.

19. _____
Used at the end of the sentence.
The novel is set in a futuristic utopian society.

Year 7 English: 'Romeo and Juliet' and Descriptive Writing

Knowledge for Reading

We use **quotations** from the text to prove that what we are saying about a text is true. We show it is a quotation by using **quotation marks**. We also refer to quotations as **evidence**. Quotations should always be **relevant** to the idea you are discussing.

All writers have an **intention** – this is a reason for writing and a message they want to deliver to the reader.

The **plot** of a story means the events that happen in the story.

The **setting** of a story is when or where it takes place..

Characterisation means how the characters are designed by the writer.

Themes are topics and ideas that occur in a text.

The **atmosphere** of a text is the mood or the feelings created in the text.

Writing about Literature

P **Point** Answer the question

E **Evidence** Include a quote

A **Analyse** Explain the inferences behind the quote in detail
Use the words as/so/because/which to explain your ideas fully

Z **Zoom** Explain what a powerful word or technique suggests

Knowledge for Writing

Language Technique	Definition
Oxymoron	Two opposite words in a phrase to show conflict or confusion *e.g. they have a love hate relationship*
Hyperbole	An exaggerated word or phrase to emphasise meaning *e.g. I am exhausted!*
Tripartite Structure	List of three, used to exaggerate or give examples of something *e.g. It was a long, dark, haunting night.*

A method is anything the writer does on purpose.

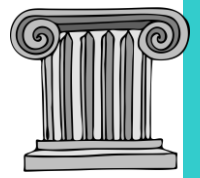
A **connotation** is a thought, feeling or idea we associate with a word. Writers pick words with specific connotations to shape how the reader thinks or feels.

A **protagonist** is a leading character in a narrative.

An **antagonist** is a character that opposes (disagrees with) the protagonist.

Foreshadowing is where the writer hints at what might happen later in the text.

William Shakespeare, who lived in the 16th century, was a renowned playwright and poet.
He created some of the most beloved plays in history, such as "Romeo and Juliet" and "Hamlet," which are still performed today.
He helped to pay for The Globe Theatre in London to be built, where his plays were performed.
In the 16th Century, women were not allowed to be actors. Female characters (like Juliet) would be performed by men.



Year 7 English: 'Romeo and Juliet' and Descriptive Writing

Why do we use quotations?

What punctuations do we use for quotations?

How else do we refer to quotations?

What should quotations always be?

What is meant by the writer's intention?

What is a plot?

What is a setting?

What is Characterisation?

What are themes?

What is an atmosphere?

Writing about Literature

P **Point** _____

E **Evidence** _____

A **Analyse** _____

_____

Use the words

_____ _____to

explain your ideas fully

Z **Zoom** _____

_____

_____

Language Technique	Definition
Oxymoron	*e.g. they have a love hate relationship*
Hyperbole	*e.g. I am exhausted!*
Tripartite Structure	*e.g. It was a long, dark, haunting night.*

What is a method?

.

What is a connotation?

What is a protagonist?

What is an antagonist?

What is foreshadowing?

William Shakespeare, who lived in the _____ century, was a renowned _____ and _____.
He created some of the most beloved plays in history, such as "_____ _____ _____" and "_____," which are still performed today.
He helped to pay for The _____ Theatre in London to be built, where his plays were performed.
In the 16th Century, _____ were not allowed to be actors. Female characters (like Juliet) would be performed by _____.

Year 7 English:

Vocabulary	Definition	Example
1. Play	A text that is written to be performed on stage, in a theatre, by actors.	*Shakespeare wrote many plays, including 'Romeo and Juliet'.*
2. Playwright	A person who writes plays.	*Shakespeare is a playwright and poet.*
3. Feud	An ongoing disagreement.	*The feud between the Capulets and the Montagues was continuous.*
4. Conflict	A fight, argument or disagreement.	*The streets of Verona were full of conflict.*
5. Loyalty	A strong feeling of support for someone or something, where you always stand by them.	*Juliet showed more loyalty to Romeo than her father.*
6. Tragedy	Can be used to describe a disastrous event. Is also a genre of play.	*Shakespeare's 'tragedies' include Hamlet, 'Macbeth' and 'Romeo and Juliet'.*
7. Fate	The belief that a person's life is already pre-planned and mapped out by the stars and/or God.	*Many believe Romeo and Juliet's meeting was fate.*
8. Mutiny	Where people refuse to obey authority, rebelling or rising against it	*There was mutiny in the streets of Verona so The Prince declared harsher laws.*
9. Deceive	Being dishonest or misleading people on purpose.	*Friar Lawrence deceived the Montague and Capulet parents.*
10. Impulsive	Acting in the movement, without thinking the consequences of your actions through.	*Some argue that Romeo's behaviour is too impulsive.*

Grammar

11. Adjectives
Describe nouns

Quiet, tense, loving, fierce, young, innocent, passionate, fearful.

12. Adverbs
Describes verbs (actions)

Quickly, loudly, harshly, stupidly, tragically, happily, secretly

13. Pronouns
Take the place of nouns in a sentence

He, she, we, I, it, them, they, you, us

14. First Person
Writing from your own point of view

I, me, we, us, my, our

15. Second Person
Addressing the reader directly in writing

You, your

16. Third Person
Discussing other people
(not yourself or the reader).

He, she, they, him, her, their, his, her

Punctuation

17. , Commas
Used to separate items in a list.

Tybalt is loyal, violent and hateful..

18. ' Apostrophes for possession
Used to show something belongs to something else

Tybalt is Juliet's cousin.

19. ' Apostrophes for contractions
Used when words are blended together and letters are missed out.

Romeo and Juliet can't be together.

Year 7 English:

Vocabulary	Definition	Example
1. Play		*Shakespeare wrote many plays, including 'Romeo and Juliet'.*
2. Playwright		*Shakespeare is a playwright and poet.*
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Grammar

11. Adjectives

_____

_____

Quiet, tense, loving, fierce, young, innocent, passionate, fearful.

12. Adverbs

_____

_____

Quickly, loudly, harshly, stupidly, tragically, happily, secretly

13. Pronouns

_____

_____

He, she, we, I, it, them, they, you, us

14. First Person

_____

_____

I, me, we, us, my, our

15. Second Person

_____

_____

You, your

16. Third Person

_____

_____

(not yourself or the reader).
He, she, they, him, her, their, his, her

Punctuation

17. , Commas

_____.

Tybalt is loyal, violent and hateful..

18. ' Apostrophes for possession

_____

_____

Tybalt is Juliet's cousin.

19. ' Apostrophes for contractions

_____

_____

Romeo and Juliet can't be together.

Year 7 English: 'Animal Farm' and Transactional Writing

Knowledge for Reading

When you **compare** texts, you explain how they are **similar and/or different**.

When you compare texts, you should use connectives to introduce the similar or different idea.

Connectives for similar ideas-
similarly, likewise, also
Connectives for different ideas-
In contrast, on the other hand, however

You should also use quotations from each texts to prove your ideas are accurate.

A writer always chooses the plot, characterisation and setting in a text for a reason.
Plot – What happens in the narrative
Characterisation – How characters are designed
Setting – Where the story takes place

Animal Farm is an **allegory**. This is a text with a hidden message.

Writing about Literature

- **P** **Point** Answer the question
- **E** **Evidence** Include a quote
- **A** **Analyse** Explain the inferences behind the quote in detail
- **Z** **Zoom** Explain what a powerful word or technique suggests
- **E** **Effect** Explain what the writer wants us to feel or understand
- **L** **Link to Context** Explain how these ideas link to the real world

Knowledge for Writing

Newspaper articles include:

a) **A headline** – A short, catchy title that summarises the story in a few words

b) **Images and captions** – Pictures with a summary of what the picture is of

c) **5 Ws** – The first paragraphs will contain the most important information: who, what, where, when, why.

d) **Clear paragraphs** – each paragraph should give more detail on one aspect of the news story.

e) **Direct speech** – Quotes from witnesses and experts

f) **Past tense** – used to describe what has already happened

g) **Third person** – explaining what happened to other people, using their names and pronouns he/she/they

Democracy

- means 'ruled by the people'
- the people choose their leaders by voting

Dictatorship

- leaders have unlimited power
- they take power by force or misleading people

Year 7 English: 'Animal Farm' and Transactional Writing

Knowledge for Reading

When you compare texts, you should use connectives to introduce the similar or different idea.

Connectives for similar ideas-

Connectives for different ideas-

A writer always chooses the plot, characterisation and setting in a text for a reason.

Plot –
Characterisation –

Setting –

Writing about Literature

- P
- E
- A
- Z
- E
- L

Knowledge for Writing

Newspaper articles include:

a) **A headline –**

b) **Images and captions –**

c) **5 Ws –**

d) **Clear paragraphs –**

e) **Direct speech –**

f) **Past tense –**

g) **Third person –**

Democracy

Dictatorship

Year 7 English:

Vocabulary	Definition	Example
1. Propaganda	Information that is misleading to try and control what people think or do	*The pigs use propaganda to control the animals on the farm*
2. Deception	The act or lying, misleading or hiding the truth to someone	*Napoleon gains power though deception..*
3. Corrupt	Acting dishonestly for money or to gain something for yourself	*The farm is run by the pigs who are corrupt and untrustworthy*
4. Inequality	Unfairness between people, where some people have more advantages and opportunities than others	*There is a clear inequality between the animals.*
5. Hypocrite	A person or character that does not behave in the way that they expect others to behave	*Napoleon is a hypocrite as he breaks his own rules.*
6. Tyranny	Cruel and harsh leadership where people are not free to think, speak and act for themselves	*The farm suffers from Jones' tyranny*
7. Manipulate	When a person controls or influences another person by pressure or trickery	*Snowball tells lies to manipulate the animals*
8. Authority	The power to give orders, take control and enforce the rules	*Before he dies, Old Major has the authority to give a speech about the farm's future*
9. Exploitation	The action of taking advantage of your power to use people and benefit from their work	*The exploitation of Boxer is tragic.*
10. Anthem	An uplifting song linked with a particular group or cause	*'Beasts of England' becomes the anthem of the farm to raise the spirits of the animals*

Punctuation

17. ? Question Mark

Used to indicate a question.

"Do we want Jones back on the farm?".

18. Exclamation Mark

Used to show something forceful, surprising, exaggerated or humorous

"Napoleon! No!"

19. " " Speech Marks

Indicate a character's spoken words

"I will work harder," said Boxer..

Grammar

11. Nouns
The name we give things: objects, people, places, ideas

Chair, fear, Mr Jones

12. Abstract Nouns
Names of things we cannot see, touch, hear, feel or taste

Hope, love, aspirations

13. Concrete Nouns
Names of things we can see, touch, hear, feel or taste

Book, bacon, fork, screen

14. Proper Nouns
Names of specific people, places, texts, months, days etc.

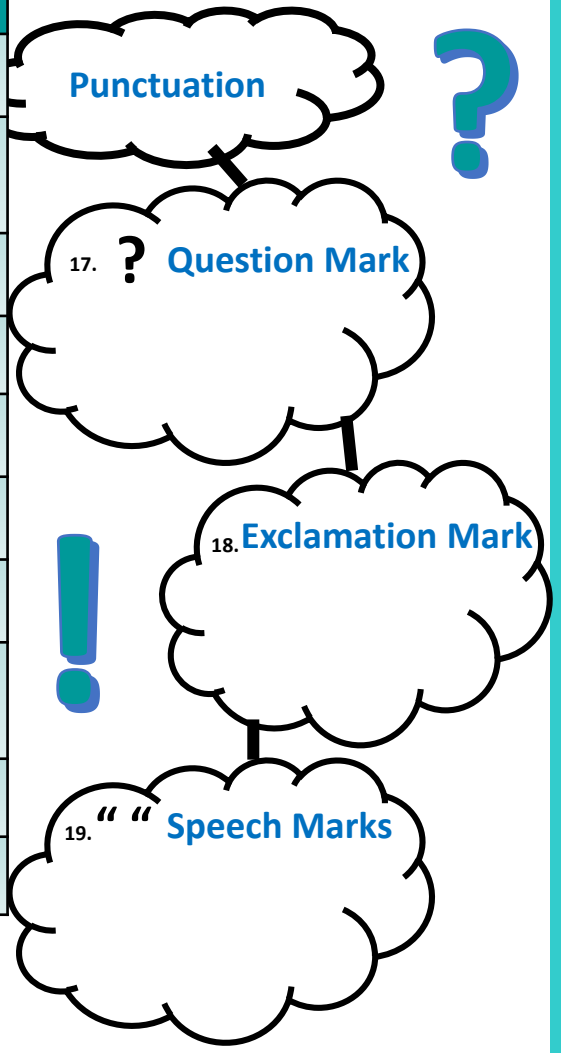
Monday, Orwell, 'Animal Farm;

15. Pronouns
Words that we use in place of a noun so that we don't repeat nouns in our speech/writing

He, she, they, I, you, we

Year 7 English:

Vocabulary	Definition	Example
1. Propaganda		
2. Deception		
3. Corrupt		
4. Inequality		
5. Hypocrite		
6. Tyranny		
7. Manipulate		
8. Authority		
9. Exploitation		
10. Anthem		



Grammar	11. Nouns	12. Abstract Nouns	13. Concrete Nouns	14. Proper Nouns	15. Pronouns
		Hope, love, aspirations		*Monday, Orwell, 'Animal Farm;*	

English: Spelling Challenge- Most commonly misspelled words.

1. Acceptable	11. Believe	21. Disappear	31. Foreign	41. Ignorance
2. Accidentally	12. Calendar	22. Disappoint	32. Fourth	42. Immediate
3. Accommodate	13. Category	23. Drought	33. Gauge	43. Independent
4. Acquire	14. Cemetery	24. Embarrass	34. Generally	44. Indispensable
5. Acquit	15. Changeable	25. Equipment	35. Grammar	45. Intelligence
6. A lot	16. Collectible	26. Exceed	36. Grateful	46. Interrupt
7. Amateur	17. Committed	27. Excite	37. Guarantee	47. Judgement
8. Apparent	18. Conscience	28. Existence	38. Harass	48. Knowledge
9. Argument	19. Conscientious	29. Experience	39. Height	49. Leisure
10. Because	20.Definitely	30. February	40. Hierarchy	50. Library

English: Spelling Challenge- Most commonly misspelled words.

1.	11.	21.	31.	41.
2.	12.	22.	32.	42.
3.	13.	23.	33.	43.
4.	14.	24.	34.	44.
5.	15.	25.	35.	45.
6.	16.	26.	36.	46.
7.	17.	27.	37.	47.
8.	18.	28.	38.	48.
9.	19.	29.	39.	49.
10.	20.	30.	40.	50.

English: Spelling Challenge- Most commonly misspelled words.

51. Lightning	61. Occurrence	71. Questionnaire	81. Rhythm	91. Umbrella
52. Maintenance	62. Official	72. Receive	82. Schedule	92. Vacuum
53. Manoeuvre	63. Parallel	73. Recommend	83. Scissors	93. Vicious
54. Millennium	64. Parliament	74. Referred	84. Sensible	94. Whether
55. Miniature	65. Particle	75. Reference	85. Separate	95. Weigh
56. Minute	66. Pigeon	76. Relevant	86. Special	96. Weird
57. Mischievous	67. Possession	77. Religious	87. Success	97. Whistle
58. Noticeable	68. Preferable	78. Restaurant	88. Tomorrow	98. Wonderful
59. Occasion	69. Principle	79. Ridiculous	89. Twelfth	99. Yoghurt
60. Occur	70. Privilege	80. Rhyme	90. Tyranny	100. Youth

English: Spelling Challenge- Most commonly misspelled words.

51.	61.	71.	81.	91.
52.	62.	72.	82.	92.
53.	63.	73.	83.	93.
54.	64.	74.	84.	94.
55.	65.	75.	85.	95.
56.	66.	76.	86.	96.
57.	67.	77.	87.	97.
58.	68.	78.	88.	98.
59.	69.	79.	89.	99.
60.	70.	80.	90.	100.

Geography

Helping every person achieve things they never thought they could.

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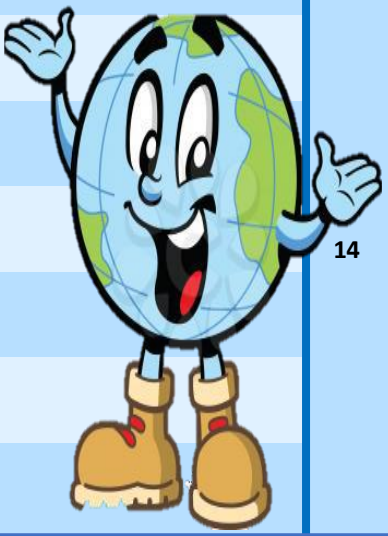
be kind | work hard | take responsibility

Year 7 Geography: Misconceptions

Key Vocabulary

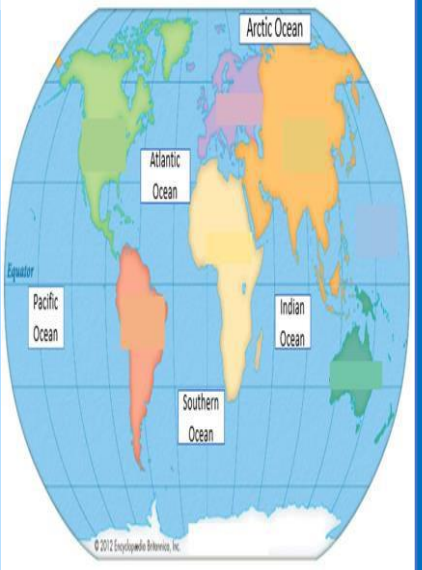
1	**Geography**	Geography is the study of the Earth's landscapes, peoples, places, and environments. It is, quite simply, about the world in which we live.
2	**Continent**	A major expanse of land.
3	**Country**	A nation with its own government that occupies a particular territory.
4	**Misconception**	A view or opinion that is based on something that is factually wrong.
5	**Stereotype**	A stereotype is an oversimplified view about a group or place.
6	**Standard of living**	Refers to the level of wealth, comfort, material goods and necessities available to a certain class or geographic area
7	**Quality of life**	A measure of happiness
8	**Migration**	The movement of people from one place to another.
9	**Immigration**	The movement of people into an area.
10	**Emigration**	The movement of people out of an area.
11	**Push Factor**	Something that pushes you away from an area.
12	**Pull Factor**	Something that pulls you towards an area.



Where in the world?

13 **The seven continents of the world**

14 **The five major oceans of the world**



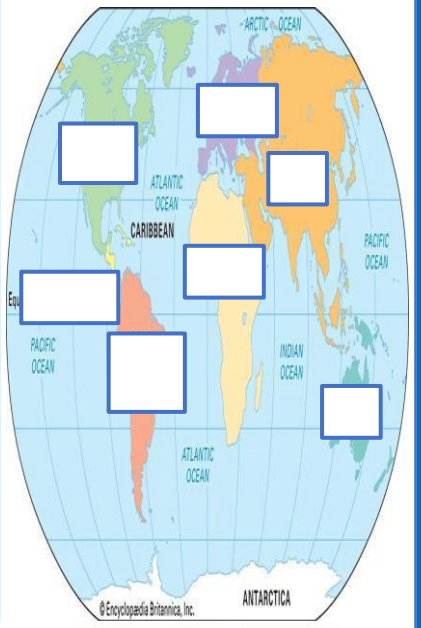
Year 7 Geography: Misconceptions

Key Vocabulary

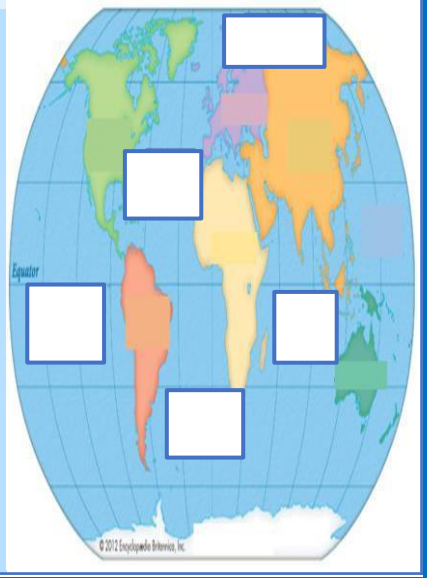
1	What is geography?
2	What is a continent?
3	What is a country?
4	What is a misconception?
5	What is a stereotype?
6	What do we mean by standard of living?
7	What do we mean by quality of life?
8	What is migration?
9	What is immigration?
10	What is emigration?
11	What is a push factor?
12	What is a pull factor?

Where in the world?

13 Can you name and label the seven continents of the world?



14 Can you name and label the five major oceans of the world?



Year 7 Geography: Misconceptions

Africa

15	**Is Africa a country?**	Africa is a continent. There are 54 countries, the newest is South Sudan created in 2011.
16	**Is everyone in Africa poor?**	42.3% of Africans live in poverty In South Africa 1% of the population own 70% of the wealth..
17	**Does everyone in Africa have a disease?**	No, however more people here have a disease compared to Europe. 90% of malaria death occur in Africa.
18	**Is Africa all desert?**	The Sahara Desert makes up 25% of Africa however, you also find other biomes such as rainforests and savannah.
19	**Does everyone in Africa speak African?**	There is an estimated 1.500-2000 different languages in Africa. Most countries speak more than one official language.
20	**Is there any water in Africa?**	25% of Africa suffers water shortages with 13% suffering droughts (very little/no water)
21	**Does everyone in Africa live in slums?**	71% of people in Africa live in slums. Slums are poor quality housing made of anything people can find.
22	**Is Africa a vibrant place?**	Africa has a range of customs and cultures including a range of foods, celebrations and ways of living.
23	**Do people in Africa have technology?**	60 million people in Africa have a mobile phone. 13.5% have access to the internet.

Wealth vs Health: inequality

24 **What signs of wealth and poverty can you see in this picture?**

Wealth: Clean, strong building materials, balcony pools, outdoor sports facilities.

Poverty: Poor quality housing, poor building materials, dirt tracks for roads.

Migration

25	**Name four push factors:**	Poverty, war, poor education, natural hazards
26	**Name four pull factors:**	Good healthcare, family ties, job opportunities, better education.

Year 7 Geography: Misconceptions

Africa

15	Is Africa a country?
16	Is everyone in Africa poor?
17	Does everyone in Africa have a disease?
18	Is Africa all desert?
19	Does everyone in Africa speak African?
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22	Is Africa a vibrant place?
23	Do people in Africa have technology?

Wealth vs Health: inequality

24 What signs of **wealth** and **poverty** can you see in this picture?

Wealth:

Poverty:

Migration

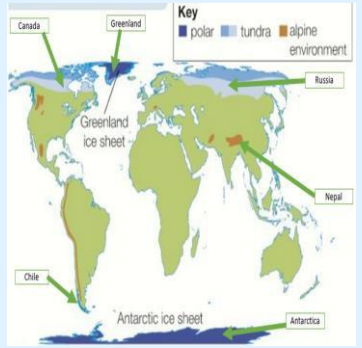
25	**Name four push factors:**
26	**Name four pull factors:**

Year 7 Geography: Cold Environments

Key Vocabulary

1	**Latitude**	The distance north and south of the equator.
2	**Altitude**	Height (usually above sea level)
3	**Climate**	The weather conditions in an area over a long period.
4	**Precipitation**	Moisture falling from the sky (rain, hail, sleet and snow)
5	**Adaptation**	How plants and animals change their bodies to survive in different locations.
6	**Behavioural Adaptation**	How animals behave in order to survive, for example huddling together.
7	**Anatomical Adaptation**	How an animals physical structure changes to survive, for example having webbed feet to swim.
8	**Physiological Adaptation**	How the inside of an animal's body changes to survive, for example having a blubber layer.
9	**Ice Cap**	An ice cap is a thick layer of snow and ice covering less than 50,000 square kilometres.
10	**Treaty**	A formally concluded agreement between states.
11	**Cold Environments**	Cold environments include the polar and tundra <u>biomes</u>. They are the coldest environments on Earth.

Examples of cold environments

12	**Label the continent/ country shown on the map which are cold environments.**	
13	**What makes Canada a cold environment?**	Canada lies in the Arctic North. Temperatures drop below -20°C. This is a tundra environment.
14	**What makes Russia a cold environment?**	1/10 of Russia is tundra. Temperatures drop to -40°C in Siberia with summer highs of only 10°C.
15	**What makes Nepal a cold environment?**	Nepal is an alpine environment. The Himalayas are the highest mountains in the world. Mt Everest is 8849m above sea level and temperatures reach -26°C at the summit.

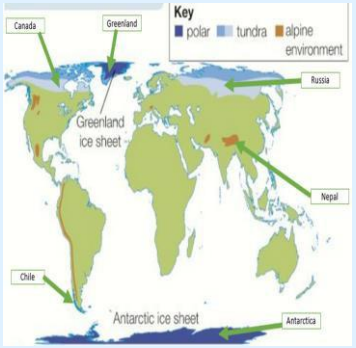
Year 7 Geography: Cold Environments

Key Vocabulary

1	What is latitude?
2	What is altitude?
3	What is climate?
4	What is precipitation?
5	What is adaptation?
6	What do we mean by behavioural adaptation?
7	What do we mean by anatomical adaptation?
8	What do we mean by physiological adaptation?
9	What is an ice cap?
10	What is a treaty?
11	What are cold environments?

Examples of cold environments

12 Label the continent/ country shown on the map which are cold environments.



13 What makes Canada a cold environment?

14 What makes Russia a cold environment?

15 What makes Nepal a cold environment?

Year 7 Geography: Cold Environments

Living in the cold

16	**How do Orcas adapt to the cold?**	They have streamlined bodies to glide through the water. They have blubber for warmth and use echolocation to locate prey.
17	**How do Arctic Foxes adapt to the cold?**	They have thick fur to provide insulation. Their fur is white to provide camouflage and they have sharp claws to grip the ice.
18	**What is the main misconception about Polar Bears?**	That Polar Bears live in Antarctica. Polar Bears only live in the Arctic.
19	**Give two behavioural adaptations of a penguin:**	1. Baby chicks lie on adults' feet to keep warm under the fur. 2. Penguins huddle together in groups to keep warm.
20	**Give two anatomical adaptations of a penguin:**	1. They have sharp beaks to catch fish and krill. 2. Extremities like the head and feet are small to prevent heat loss.
21	**Give two physiological adaptations of a penguin:**	Close to the tail there is an oil gland used to waterproof their feathers. 2. The black colouring absorbs heat from the sun.
22	**How do humans adapt to living in cold environments?**	**Insulation**: The thicker the insulation in clothing, the warmer you will be. **Transport**: Snowmobiles are the easiest way to travel due to snow and ice. **Safety**: In Svalbard, people leave their doors unlocked so they can easily escape from polar bears.

Working in the cold

23	**What jobs can you do in Antarctica?**	**Biologist**: Studying how animals adapt to the cold. **Oceanography**: Studying the water around Antarctica. **Meteorology**: Studying and monitoring changes in the weather.
24	**What are the impacts of melting sea ice?**	**Coastal flooding**: Sea level rise will cause coastal areas to flood. **Shipping**: As ice melts, new shipping routes open up in the Arctic. **Wildlife**: Where there is less sea ice, animals such as polar bears and arctic foxes who rely on the ice may perish.

Year 7 Geography: Cold Environments

Living in the cold

16	How do Orcas adapt to the cold?
17	How do Arctic Foxes adapt to the cold?
18	What is the main misconception about Polar Bears?
19	Give two behavioural adaptations of a penguin:
20	Give two anatomical adaptations of a penguin:
21	Give two physiological adaptations of a penguin:
22	How do humans adapt to living in cold environments?

Working in the cold

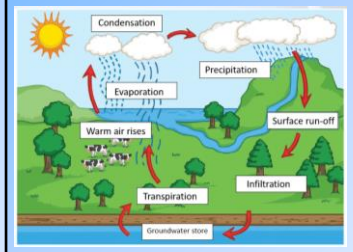
23	What jobs can you do in Antarctica?
24	What are the impacts of melting sea ice?

Year 7 Geography: Water

Key Vocabulary

1	**Condensation**	As moist air rises, it cools. Water vapor changes back into liquid water droplets. This produces clouds.
2	**Evaporation**	The sun heats the surface of the Earth. Water changes from a liquid into water vapor.
3	**Precipitation**	Moisture falling from the sky (e.g. rain, snow, hail)
4	**Surface run-off**	Water flowing across the surface of the ground.
5	**Transpiration**	Evaporation of water from the surface of plants
6	**Water Vapour**	When water turns from a liquid to a gas
7	**Latitude**	Invisible lines around the globe which measure distance from the equator
8	**Population**	The number of people in an area
9	**Water deficit**	Where the demand for water is greater than the supply
10	**Water surplus**	Where there is more water available than what is needed
11	**Water availability**	How much water is available
12	**Water insecurity**	The lack of access to fresh water

The water cycle:

13	Label the water cycle	

Where is the water:

14	Where does our water come from in the UK?	In the UK water mainly comes from lakes, rivers and reservoirs. An example of this is Thirlmere reservoir in Cumbria.. The remaining water comes from underground sources that are known as aquifers.

Water use and extraction:

15	How is water used in agriculture?	Farming, including cultivation of the soil for the growing of crops and the rearing of animals to provide food, wool, and other products.
16	How is water used by industry?	The processing of raw materials and manufacture of goods in factories.
17	How is water used by domestic households ?	Use of groundwater by an individual or a household to support domestic activity. Such use may include water for drinking, washing, or cooking purposes.

Water security:

18	Why does Ethiopia have water scarcity?	**In Ethiopia Less than half of the people in the country have access to clean, potable water. What many people do is store water in containers. But over time, those containers become contaminated. Many of the health problems and deaths in this country are caused by drinking contaminated water.**
19	What causes Haiti to have little clean water?	**. Haiti. This country has had water scarcity issues for years. However, the 2021 earthquake made the situation worse. What plumbing infrastructure the country had before the quake was mostly destroyed.**
20	Why is South America water secure?	**Large areas of South America are water secure because they are close to a large rainforest.**

Water management:

21	Name four ways you can save water	• **Have showers instead of baths** • **Charge more for water so people use it in a sustainable way** • **Install water meters in all homes** • **Water butts for using grey water in the garden** • **Fix leaking water pipes**

Year 7 Geography: Water

Key Vocabulary

1	**Condensation**	
2	**Evaporation**	
3	**Precipitation**	
4	**Surface run-off**	
5	**Transpiration**	
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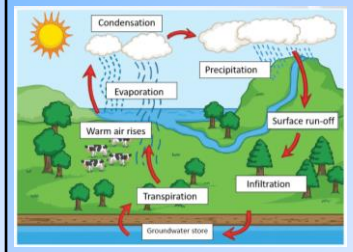
13	Label the water cycle	

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19	What causes Haiti to have little clean water?	
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Water management:

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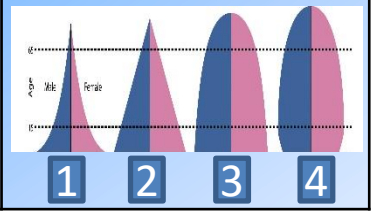
Year 7 Geography: Population

Key Vocabulary

1	**Population**	The amount of inhabitants of a particular place
2	**Population density**	How many people are in a particular area e.g. per square mile
3	**Life expectancy**	The average age people live till
4	**Natural increase**	When there are more births than deaths
5	**Natural decrease**	When there are more deaths than births
6	**Working population**	The number of people at working age
7	**Overpopulation**	Where there are too many people in an area
8	**Population control**	Systems to limit the number of people in an area
9	**Birth rate**	The number of babies born per 1000 population per year
10	**Death rate**	The number of deaths per 1000 population per year
11	**Migration**	The movement of someone from one place to another.
12	**Youthful population**	A population with a higher percentage of young people.

Population pyramids:

13	Pyramid 1 – rapidly expanding Pyramid 2 – Expanding Pyramid 3 – Stationary Pyramid 4 - Contracting	

Youthful population:

14	Name 3 advantages of a youthful population	• There are more taxes paid as there are more citizens working • There are lots of workers for the future • Lots of young people could join the military creating a strong armed forces
15	Name 3 disadvantages of a youthful population	• Young children need healthcare e.g vaccination. These can be expensive to provide • There may be a lack of housing resulting in homelessness • Providing schools and teachers are expensive

Overpopulation:

16	Can the world achieve zero hunger by 2030?	No. If recent trends continue, the number of people affected by hunger will surpass 840 million by 2030, 9.8% of the population
17	How many people in the world go hungry?	Currently, 690 million people are hungry, 8.9% of world population.

Population control:

18	What are birth control programmes?	• These aim to reduce the birth rate. • Some governments do this by having laws about how many children you can have. • Others may help couples plan to have children by providing free contraception and sex education.
19	What are immigration laws?	• Immigration laws aim to control the number of people moving into a country. • Governments can limit the number of people that are allowed to immigrate. • They can also be selective about who they let in.
20	What is the China one child policy??	Established in 1979, it meant that each couple was only allowed one child.

What's next:

21	Name two positives of population growth in Africa?	• There may be a larger number of the population who are educated • There will be a large working population. This will bring benefits to the economy.
22	Name two negatives of population growth in Africa	• Population is growing faster than jobs are created • More people means more greenhouse gas emissions that contribute to climate change • Waste disposal may be an issue, leading to dirty cities

Year 7 Geography: Population

Key Vocabulary

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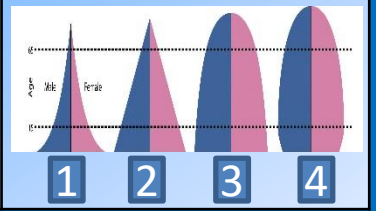
13	Pyramid 1 – rapidly expanding Pyramid 2 – Expanding Pyramid 3 – Stationary Pyramid 4 - Contracting	

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History

Helping every person achieve things they never thought they could.

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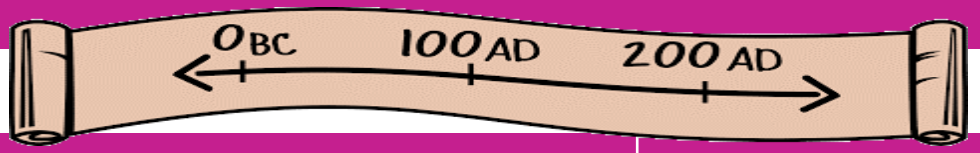
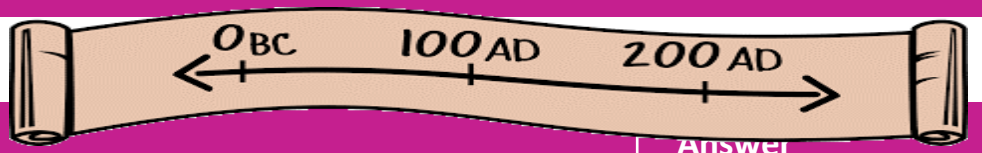
Year 7 History:



Topic		Question	Answer
Chronology	1	Which word describes the arrangement of dates, events, etc. in the order that they occurred?	Chronology
	2	What century would 1066 be in?	11th Century
	3	What does BOTH BC and AD stand for?	Before Christ and Anno Domini
	4	Which word means one thousand years?	Millennium
	5	The years 1-99AD make up which Century?	1ST Century
Historical Concepts	6	Which concept is the relationship between events and processes, where one causes another?	Cause and consequence
	7	Which concept is how some things change and others stay he same over a period of years?	Change and Continuity
	8	Which concept is the degree to which people, societies and events share things in common or are different?	Similarity and Difference
	9	Which word relates to how important or impactful an event was?	Significance
Historical Perspectives	10	What do sources do?	Tell us something about the past
	11	Which type of source normally made at the time of an event and by someone who was there to see, hear or experience it?	Primary source
	12	Which type of source is "second hand" information that has been interpreted, reworded or analysed by someone who isn't a witness	Secondary source
	13	What is a persons own explanation based upon evidence?	An interpretation

Year 7 History:



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Year 7 History:

Topic		Question	Answer
England before 1066	14	Who ruled England before the arrival of Anglo-Saxons?	The Romans
	15	How was England divided?	Earldoms
	16	Who was the most powerful earl in England?	Harold Godwinson
	17	What was the main religion in Anglo-Saxon England?	Christianity
	18	Which group invaded during the control of the Anglo-Saxons?	The Vikings
Contenders to the throne	19	Which English king died in January, 1066?	Edward the Confessor
	20	What were the king's advisors called?	The Witan
	21	Where was Harald Hardrada from?	Norway
	22	What was William's title?	Duke of Normandy
Historical Perspectives	23	Where had Harold beaten Hardrada's army in battle?	Stamford Bridge
	24	Where did Duke William's army land in England?	Pevensey
	25	What were Norman knights on horseback called?	Cavalry
	26	When was the Battle of Hastings?	14th October 1066

Year 7 History:

Topic		Question	Answer
England before 1066	14	Who ruled England before the arrival of Anglo-Saxons?	
	15	How was England divided?	
	16	Who was the most powerful earl in England?	
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	24	Where did Duke William's army land in England?	
	25	What were Norman knights on horseback called?	
	26	When was the Battle of Hastings?	

Year 7 History:

Topic		Question	Answer
Norman control	27	What was the name of the survey William had done of the land?	Domesday Book
	28	What does hierarchy mean?	Ranking order
	29	Who is at the bottom of the feudal system?	Peasant
	30	What was the name of the first castle William built?	Motte and Bailey
	31	Name two weaknesses of motte and bailey castles	They could be burnt, the would rot, the required rebuilding, easily attacked by battering ram.
How did William deal with rebellions?	32	Where did most rebellions happen?	Northern England
	33	What does it mean to harry?	To attack a place lots of times and very aggressively
	34	Why did the Northern Earls rebel against William?	Earls Edwin and Morcar were replaced with Normans
	35	What were **SHORT TERM** effects of the Harrying of the North?	Most of the north became wasteland, people turned to cannibalism, there were no more rebellions.
	36	What were **LONG TERM** effects of the Harrying of the North?	Impact on the population, took the North 30 years to recover

Year 7 History:

Topic		Question	Answer
Norman control	27	What was the name of the survey William had done of the land?	
	28	What does hierarchy mean?	
	29	Who is at the bottom of the feudal system?	
	30	What was the name of the first castle William built?	
	31	Name two weaknesses of motte and bailey castles	
How did William deal with rebellions?	32	Where did most rebellions happen?	
	33	What does it mean to harry?	
	34	Why did the Northern Earls rebel against William?	
	35	What were **SHORT TERM** effects of the Harrying of the North?	
	36	What were **LONG TERM** effects of the Harrying of the North?	

Year 7 History:

King John
King of England 1199- 1216
Dad- Henry II
Taking over England after it has been engaged in a series of **crusades**

Crusades definition: A series of medieval military expeditions made by Europeans to the Holy Land in the 11th, 12th, and 13th centuries.

Terms of the Magna Carta

How did King John upset the barons?
The barons began to fall out with the King. Some didn't like him being **excommunicated**; others disliked him losing lands in France. John made things worse, to pay for his wars he made them pay heavy fines and taxes. He sent some barons abroad and insulted others.

The King was not allowed to demand more and more money from his nobility.

The Church had the final say who was appointed to Church positions of power.

Everyone has the right to a fair trial.

Magna Carta is Latin for 'great charter'

In 1215 the Magna Carta set out the laws which the king and everyone else had to follow for the first time. This still applies to current day!

Year 7 History:

King John

Crusades definition:

Terms of the Magna Carta

How did King John upset the barons?

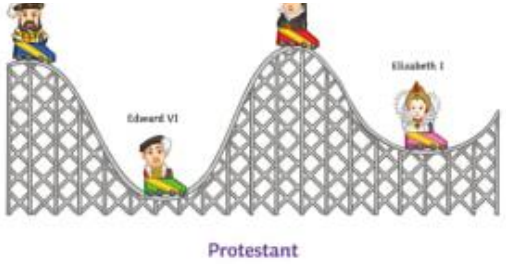
The barons began to fall out with the King. Some didn't _____ him being _____; others disliked him losing lands in _____. John made things worse, to pay for his _____ he made them pay heavy _____ and taxes. He sent some barons abroad and _____ others.

Magna Carta is Latin for '_____ _____'

Year 7 History: Changes to religion under the Tudors

1) Why is the Tudor dynasty referred to as a 'religious rollercoaster'?
The official religion of the country changed between Protestant and Catholic so many times over this period!

The Tudor religious rollercoaster



2) Edward VI
Edward was brought up Protestant and became king when Henry died in 1547. He believed in a strict form of Protestantism, so all priests had to wear plain clothes, pictures of saints were destroyed, and a new prayer book was written in English

3) Lady Jane Grey…Queen for 9 days
Edward named his protestant cousin as heir. Mary was angry when she discovered she had been overlooked for the throne, she marched down to London, imprisoned Lady Jane and executed her!

4) Mary I
Mary was a strict Catholic and because of this, married the then Catholic prince of Spain, Phillip In 1554, the country was formally united with the Catholic church and the Pope was declared 'Head of the Church' again.

5) How did Mary treat protestants?
Between 1555- 1558, around 300 Protestants were burned to death for refusing to accept Catholic beliefs! BUT Nearly all evidence on this comes from one source (Foxe's Book of Martyrs) written by a Protestant who was very biased.

6) Elizabeth I
She takes on the throne following her Catholic sister Mary. The country is divided over religion.

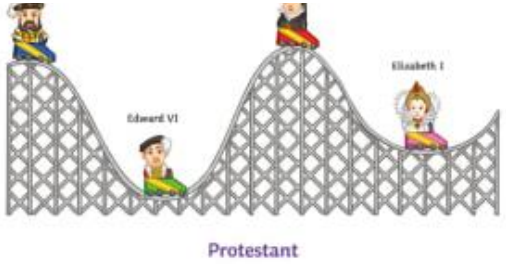
Many Catholics did not feel she had a right to be Queen. Catholics did not recognise the divorce of her father Henry VIII to his first wife, Catherine of Aragon.

What is Elizabeths Middle Way?
Elizabeth was raised a Protestant but tried to find a 'Middle way' between the Catholics and Protestants. She wanted to keep both sides happy and prevent unrest.

Year 7 History: Changes to religion under the Tudors

1) Why is the Tudor dynasty referred to as a 'religious rollercoaster'?

The Tudor religious rollercoaster



2) Edward VI

3) Lady Jane Grey…Queen for 9 days

4) Mary I

5) How did Mary treat protestants?

6) Elizabeth I

Many _____ did not feel she had a right to be _____. Catholics did not recognise the d_____ of her father _____ VIII to his first wife, Catherine of Aragon.

What is Elizabeths Middle Way?

Year 7 History: Elizabethan exploration

Question	Answer
List two reasons why Elizabethans went of voyages	• To increase their wealth- bring back new goods to sell • To develop new trade markets • To compete with the Spanish • To discover new land • Nationalism/patriotic • Developments in ship and maps
What is a voyage?	Going on a journey at sea.
What is a galleon?	A type of ship. These were designed to be more manoeuvrable (high speeds) and have weapons to defend/attack
What is the printing press?	A device that was invented in 1440 which allowed for work to be printed and shared with others. It allowed for maps to be developed
What is a astrolabe?	A device that used the sun to track direction. It was used by sailors at sea
What did Francis Drake do in 1577-1580?	He successfully circumnavigated the world
What does circumnavigation mean?	Sail around the world

Key word	Definition
New World	The Americas
Exploration	Going to a new area/land

Question	Answer
Who was given royal permission to explore the Americas and the New World?	Walter Raleigh
Define colonise	Send settlers (people) to establish control over an area
What did Raleigh have to give Elizabeth in return for the land he colonised?	One fifth of all the gold and silver he found there
Did Raleigh ever go to the Americas?	No, he sent others to explore in his name
Where was a colony established on the east coast of America?	Roanoke
When did the colony leader of Roanoke leave to return back to England?	1587
What was discovered when returned to Roanoke	All of the colonist had gone and the word ‘Croatoan’ (name of a local tribe) was carved into a tree

Year 7 History: Elizabethan exploration

Question	Answer
List two reasons why Elizabethans went of voyages	
What is a voyage?	
What is a galleon?	
What is the printing press?	
What is a astrolabe?	
What did Francis Drake do in 1577-1580?	
What does circumnavigation mean?	

Key word	Definition
New World	
Exploration	

Question	Answer
Who was given royal permission to explore the Americas and the New World?	
Define colonise	
What did Raleigh have to give Elizabeth in return for the land he colonised?	
Did Raleigh ever go to the Americas?	
Where was a colony established on the east coast of America?	
When did the colony leader of Roanoke leave to return back to England?	
What was discovered when returned to Roanoke	

Life Chances

Helping every person achieve things they never thought they could.

Little Lever School
be kind | work hard | take responsibility

Year 7 Life Chances: CEIAG (careers)

Employment Definitions

Employer	An individual or organisation who pays someone for the work they complete.
Employee	A person employed for wages or salary, to complete set tasks or expectations.

Soft skills are general skills that most **employers** look for when recruiting and are **needed for most** jobs. They are sometimes called **transferable skills** or **employability skills** by employers.

Hard skills are skills needed to do a specific job, generally gained through **work**, **learning** or **training**.

What is a job sector?

A job sector is a term used to classify a broad group of jobs that are related by what they do

Media and Creative	Retail
Healthcare	IT
Law	Sport
Education	Science
Engineering	Construction
Agriculture	Finance

Employment Skills

Transferable skills can make you really stand out to employers, even if you don't have specific experience in their industry. These can include:

- Team work
- Flexibility
- Problem solving
- Time management
- Positivity
- Creativity
- Flexibility

What is the difference between a job and a career?

Job	Your job is the role you have at your place of work. Firefighter, airline pilot, teacher, politician – these are all jobs. A job can be something you do just to earn money. But it can also be part of something much bigger. This is called a "**career**".
Career	A career is about more than just earning a wage. It is to do with your **long-term aims and ambitions**, and what you want to achieve in your life. In a career, each job you have helps you achieve this goal. This is called your career path.

Year 7 Life Chances: CEIAG (careers)

Define the words below:

Employer	
Employee	

What are soft skills?

What are hard skills?

What is a job sector?

• - • - • - • - • - • -	• - • - • - • - • - • -

What are transferable skills- provide examples:

What is the difference between a job and a career?

Job	
Career	

Year 7 Life Chances: CEIAG (careers)

Law

Civil Law	Civil law deals with private matters between businesses or individuals. For example, a breach of contract, like when someone doesn't keep up with repayments on a loan
Criminal Law	Criminal law relates to crimes committed that are perceived as threatening, harmful, or a danger to property, health, safety, and moral welfare. This might be, for example, theft or murder.

What does it mean to be enterprising?

An entrepreneur is someone who is enterprising and takes a risk to start their own business

Being enterprising is about coming up with ideas and being able to do things independently. It combines a mix of skills including creativity, positivity, resilience and communication.

Stereotypes and equality in the workplace

A stereotype is a widely held belief about a certain social group or a type of individual based on prior assumptions. Stereotypes can also be based on popular cultural depictions of groups of people or deeply held beliefs passed down through generations.

Often, stereotypes can be negative or even harmful. The most common stereotypes that tend to be negative include:

- **Cultural stereotypes**
- **Social stereotypes**
- **Racial stereotypes**
- **Gender stereotypes**
- **Religious stereotypes**

Year 7 Life Chances: CEIAG (careers)

What is the difference between civil and criminal law?

Civil Law	
Criminal Law	

What does it mean to be enterprising?

An entrepreneur is…

Being enterprising is about…

What is a stereotype?

A stereotype is…

Often, stereotypes can be negative or even harmful. The most common stereotypes that tend to be negative include:

- -
- -
- -
- -
- -

Year 7 Life Chances: Wellbeing

The Equality Act (2010)

This is designed to prevent discrimination on a number of grounds. These grounds are called '**protected characteristics**'.

Mental Health

Your mental health affects how you feel, think and act.
It refers to your **emotional**, **psychological** and **social** wellbeing.
Your mental health can change on a daily basis and over time, and can be affected by a range of factors.

When children and young people have good levels of wellbeing it helps them to:

- **Learn and explore the world**
- **Feel, express and manage positive and negative emotions**
- **Form and maintain good relationships with others**
- **Cope with, and manage, change, setbacks and uncertainty**
- **Develop and thrive**

What can you do to challenge mental health discrimination?

Avoid using language that might be offensive or upsetting, challenge this language when used, encourage people to be understanding and supportive around mental health, avoid trivialising or making fun of mental health issues

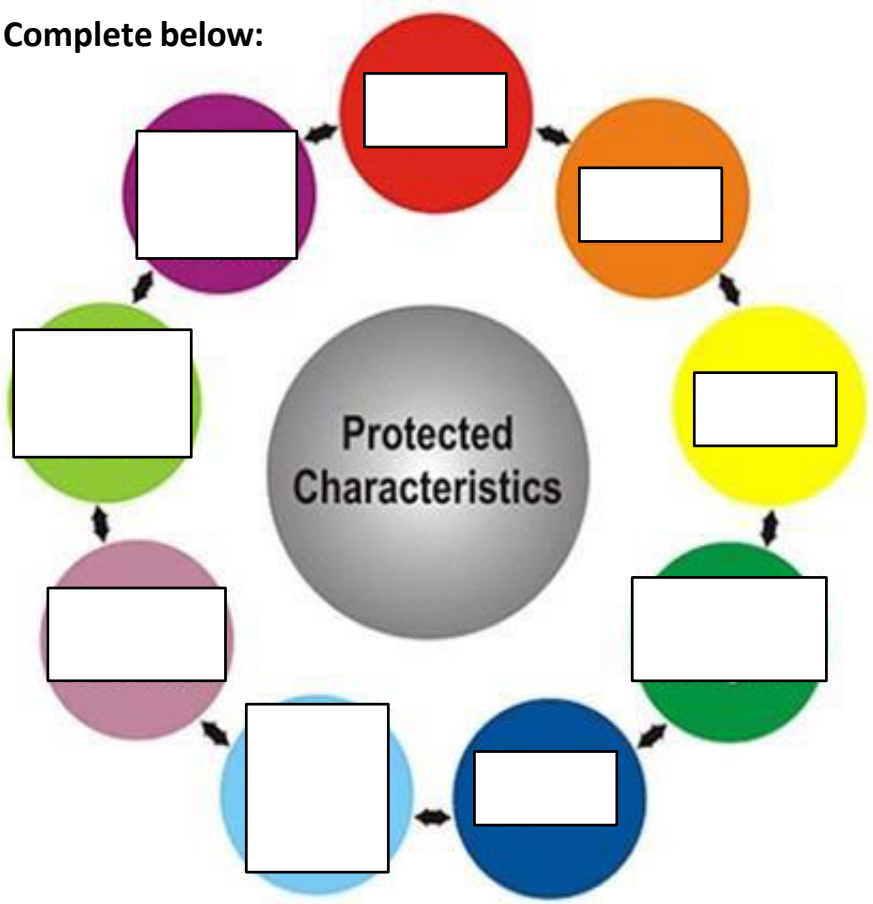
Resilience

Resilience is a skill that helps people to recover quickly from difficulties, change or misfortune; to adapt to and overcome risk and adversity; to persevere and 'bounce back'.

Year 7 Life Chances: Wellbeing

What is the Equality Act (2010)?

Complete below:



What is mental health?

Your mental health affects

When children and young people have good levels of wellbeing it helps them to:

- -
- -
- -
- -
- -

What can you do to challenge mental health discrimination?

What is resilience?

Year 7 Life Chances: Road safety

Road Safety
Key points to remember:

- Always use a crossing if you can. It might mean walking a bit further, but pedestrians are **three** times more likely to be killed when they don't use a crossing.

Look and listen for traffic and don't be distracted:

*Put your phone away.
*Stop chatting to friends.
*Hold on to smaller children.
*Look at the road and check the traffic before crossing.

Road Safety
Key points to remember:

*Keep looking and listening. As you cross keep looking out for traffic in case there is something you didn't see, especially cyclists, electric cars or trams, as they can be very quiet.
*ALWAYS **STOP,** LOOK and **LIS TEN** before crossing a road.
*Make eye contact with the drivers. If the driver does not look at you, assume they have not seen you.
*Never cross in front of a lorry, bus or large vehicle.
*Be patient and wait – vehicles go faster than we think .
*Be seen. Wear or carry something bright.
*When it is dark, cross near a streetlight or use a torch (most mobile phones have them).

Year 7 Life Chances: Road safety

Road Safety
Key points to remember:

•

Look and listen for traffic and don't be distracted:

*
*
*
*

Road Safety
Key points to remember:

*Keep looking and listening. As you cross keep looking ___ for traffic in _____ there is something you didn't _____, especially _____, electric _____ or trams, as they can be very quiet.
*

*Make eye contact with the drivers. If the _____ does not _____ at you, assume they have not _____ you.
*

*Be patient and _____ – vehicles go faster than we _____.
*Be _____. Wear or carry something _____.
*

Year 7 Life Chances: Dangers around water

Dangers Around The Water

Seven things to watch out for:

Slippery banks – the banks on rivers and lakes can be very slippery, making it hard to exit the water.

Waste – unfortunately, some people dump their rubbish into our waterways. This can harm you if you touch sharp or entangling objects.

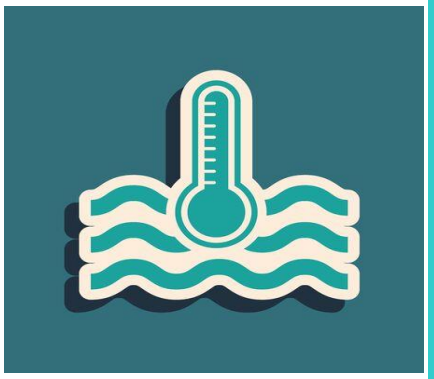
Pollution – some waterways contain dangerous chemicals which can hurt you.

Currents – underwater currents can be very strong and sweep you away from safety within seconds.

Cold temperatures – open water in the UK remains cold all year round. This can cause your muscles to stop working properly. It can also make you gasp for air, potentially causing you to breathe in water.

Water levels – the depth of open water changes drastically. This can make wading treacherous and means you should never dive in without knowing the water's depth.

No lifeguard – swimming in the great outdoors means that you may be very isolated and that nobody will be there to help if things go wrong.
If you want to go swimming, it is much safer to always go to a purpose-built swimming pool with a lifeguard present.



Year 7 Life Chances: Dangers around water

Dangers Around The Water

Seven things to watch out for:

Slippery banks

Waste

Pollution

Currents

Cold temperatures

Water levels

No lifeguard

Year 7 Life Chances: Dangers around water

Who is harmed and what type of accidents happen?

Tombstoning can lead to death and injuries.

- Most involve males (85%)
- Teenagers are involved in just over half the cases (55%), followed by those in their 20s
- Of the non-fatal incidents, spinal and limb injuries (both at 20%) were most reported.

Many of the non-fatal incidents have resulted in life-changing injuries.

Tombstoning - the name given to when a person falls or plunges into deep water, in a similar way a stone would.	**Why is it dangerous?** •Water depths alter with the tide – the water may be shallower than it seems •Submerged objects like rocks may not be visible – these can cause serious impact injuries •The shock of cold water can make it difficult to swim •Getting out of the water is often more difficult than people realise •Strong currents can rapidly sweep people away

Year 7 Life Chances: Dangers around water

Who is harmed and what type of accidents happen?

Tombstoning can _____ to death and injuries.

- Most involve males (____)
- Teenagers are involved in just over half the cases (____), followed by those in their __s
- Of the non-fatal incidents, _____ and limb injuries (both at 20%) were most _____.

Many of the ____ _____ incidents have resulted in life-changing injuries.

Tombstoning -	Why is it dangerous?

Year 7 Life Chances: Personal Hygiene

What needs our attention?	How do we keep it/them clean?	What product/s can we use to help?	Physical effects if we don't do this?
Teeth	Brush twice a day Floss regularly Visit the dentist regularly	Toothpaste Dental floss Mouthwash	Toothache Tooth decay Bad breath Loss of teeth
Hands	Use warm water and soap. Rub between the fingers and thumb for at least 20 seconds. Wet the hands thoroughly and dry thoroughly.	Soap Hand wash.	Infection Illness Contamination disease
Hair	Wash every other day. Brush it every day.	Shampoo Brush/comb	Greasy hair Hair will knot and tangle
Armpits (including hair)	Soap Water Dry thoroughly	Soap Body wash Antiperspirant	Bad odour
Feet	Wash your feet Wear socks made from natural fibres.	Soap Body wash.	Athletes Foot. Odour.

- Personal hygiene means making sure the external parts of the body are kept clean. Not keeping up standards of personal hygiene leads to an increased risk of infection or illness, as well as having social implications.

- Personal hygiene helps you to keep looking and feeling fresh. It also helps to prevent sickness, infection and embarrassment.

Year 7 Life Chances: Personal Hygiene

What needs our attention?	How do we keep it/them clean?	What product/s can we use to help?	Physical effects if we don't do this?
Teeth			
Hair			
Armpits (including hair)			

Year 7 Life Chances: Personal Hygiene

Sweaty Facts!

- Sweating isn't medically dangerous but it can be embarrassing and emotionally distressing
- Sweating doesn't cause body odour
- Bad body odour is caused when bacteria living on the skin breaks down protein and fatty substances secreted by sweat glands
- People usually sweat in the armpits (underarms), the groin and feet (due to wearing socks and shoes)
- Many teenagers notice that they sweat more than they used to. This is normal throughout puberty (from about 10-18 years old)
- Sometimes, excessive sweating can be caused by obesity or medical conditions (such as diabetes). Occasionally the problem needs to be investigated by a GP.

What Might Help?
Avoid things that make your sweating worse (such as spicy foods or alcohol)
Wash/shower every day to remove the odour causing bacteria
Wear clean clothes (underwear, shirts) every day
Use antiperspirant after washing (rather than deodorants)
Avoid tight, restrictive clothing and man-made fibres, such as nylon
Wearing white or black clothing can minimise the signs of sweating
Wear socks that absorb moisture, for example thick, soft socks made of natural fibres or sports socks designed to absorb moisture. Avoid synthetics and change your socks at least once a day.
Buy shoes that are made of leather, canvas or mesh rather than synthetic (man-made) material

Year 7 Life Chances: Personal Hygiene

Sweaty Facts!

•Sweating isn't _____ dangerous but it can be embarrassing and _____ distressing

•Sweating doesn't cause body _____

•_____ body odour is caused when bacteria living on the skin _____ down protein and fatty substances secreted by sweat_____

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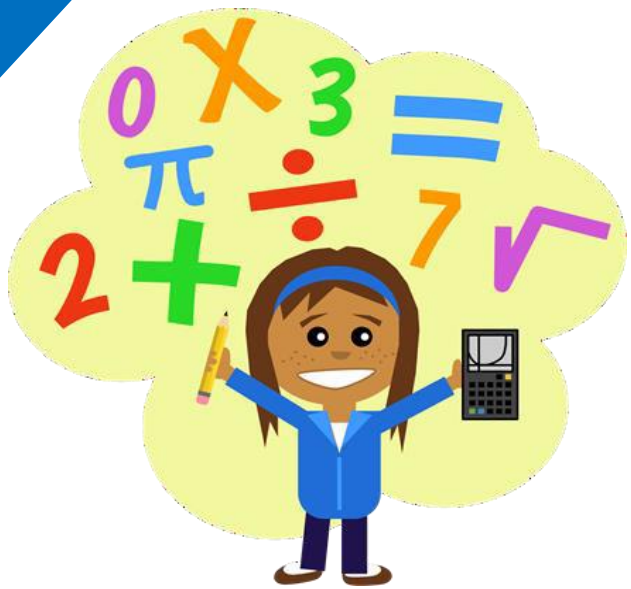
What Might Help?

Maths



Helping every person achieve things they never thought they could.

Little Lever School
be kind | work hard | take responsibility

Year 7: All the topics that will be taught this year.		
Topic		**Sparx Code**
Place Value	Integer Place Value	M704
	Decimal Place Value	M522
	Converting between Fractions and Decimals	M958
	Ordering Negative Numbers	M527
	Using Number Lines	M763
Addition & Subtraction	Adding Integers	M928
	Adding Decimals	M429
	Subtracting Integers	M347
	Subtracting Decimals	M152
Range	Calculating the Range	M328
	Calculating the Range from Ungrouped Frequency Table	M127
Multiplying & Dividing	Multiplying and Dividing by Powers of 10	M113
	Converting Standard Form	M678/M719
	Multiplying Integers	M187
	Multiplying Decimals	M803
	Dividing Integers	M462/M873/M354/M262
	Dividing Decimals	M491
Negative Numbers	Adding and Subtracting Negative Numbers	M106
	Multiplying and Dividing Negative Numbers	M288
Median & Mode	Calculating the Median	M934
	Calculating the Mode	M841
	Median and Mode from Frequency Tables	M127
	Calculating the Mean	M940
	Mean from Frequency Tables	M127
	Choosing Suitable Averages	M440
Factors, Multiples & Primes	Finding Factors	M823
	Finding Highest Common Factor	M698
	Finding Lowest Common Multiple	M227
	Finding Prime Numbers	M322
	Prime Factor Decomposition	M108
	HCF and LCM by Venn Diagram	M365
Fractions, Decimals & Percentages	Finding Fractions of Shapes	M158
	Finding Equivalent Fractions	M410
	Simplifying Fractions	M671
	Converting between Improper Fractions and Mixed Numbers	M601
	Converting between Fractions, Decimals and Percentages	M264
	Fraction of Amount	M695
Ratio	Writing and Simplifying Ratios	M885
	Converting between ratios, fractions and percentages	M267
	Writing Ratios in the form 1:n	M543
	Sharing amounts in a given ratio	M525
Powers & Roots	Calculating with Roots and Powers	M135
Algebraic Notation and Simplification	Algebraic Notation	M813
	Algebraic Terminology	M830
	Collecting like terms	M795/M531
	Simplifying expressions using index laws	M120
	Expand Single Brackets	M237
Order of Operations	Order of Operations	M521
Function Machines	Function Machines	M175
	Function Machines with Letters	M428
Substitution	Substituting into Expressions	M327
	Substiting into Formulae	M208/M979
Area & Perimeter	Perimeter of rectangles, triangles and parallelograms	M635
	Area of Rectangles	M390
	Area of Triangles	M610
	Area of Compound Shapes	M269
Solving Equations	Solving 1 Step Equations	M707
	Solving 2 Step Equations	M634/M647/M401
Probability Scale	Using Probability Phrases	M655
	Writing Probabilities as Fractions, Decimals and Percentages	M938
	Writing Probabilities as Fractions	M941

Year 7 Maths:

1	**Integer**	• A whole number • Not fraction or a decimal • Can be positive or negative	Integers: 7, -5, 0, 123, -56 Not integers: 0.84, $\frac{1}{2}$, -0.76
2	**Decimal**	• Has a whole number part and a fractional part with a decimal point	3.11 is an example of a decimal. Its fractional equivalent is $3\frac{11}{100}$.
3	**Symbols**	• $=$ equal to • $\neq$ not equal to • $<$ less than • $\leq$ less than or equal to • $>$ greater than • $\geq$ greater than or equal to	$5 = 5 \quad 5 \neq 6$ $5 < 6 \quad 6 > 5$ $x \geq 2$ means that x can take any value greater than or equal to 2, so: 2, 3, 4, 5, 6, ...
4	**Sum**	• Add the numbers togethers	The sum of 5 and 7 is 12
5	**Difference**	• The result of subtracting one number from another	The difference between 7 and 5 is 2
6	**Product**	• The result of multiplying numbers	The product of 5 and 7 is 35
7	**Calculate**	• To work out an answer, by using one or more of the mathematical operations	Calculate the cost of 10 apples when each apple costs £0.20

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Year 7 Maths:

1	What in an **integer**?
2	What is a **decimal**?
3	What do each of these symbols mean? **=, ≠, <, ≤, >, ≥**
4	When a question asks you to **sum** the numbers, what is the calculation you need to do?
5	When a question asks for the **difference** in numbers, what is the calculation you need to do?
6	When a question asks for the **product** of numbers, what is the calculation you need to do?
7	What does the word **calculate** mean?

8. Fill in the multiplication grid below:

×	1	2	3	4	5	6	7	8	9	10	11	12
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

Year 7 Maths:

Key Vocabulary

1	**Addition**	• To find the total, or sum, of two or more numbers	"add", "plus", "sum" $3 + 2 + 7 = 12$
2	**Subtraction**	• To find the difference between two numbers • To find out how many are left when some are taken away	"minus", "take away", "subtract" $10 - 7 = 3$
3	**Multiplication**	• Can be thought of as repeated addition	"multiply", "times", "product" $3 \times 6 = 6 + 6 + 6 = 18$ $4 \times 1 = 1 + 1 + 1 = 4$
4	**Division**	• Splitting into equal parts of groups • The process of calculating the number of times one number is contained within another one.	"divide", "share" $20 \div 4 = 5$ $\frac{20}{4} = 5$
5	**Median Value**	• The middle value. • Put the data in ascending (smallest to largest) order and find the middle one. • If there are two middle values, find the number half between them by adding them together and dividing by 2.	Find the median of: 4, 5, 2, 3, 6, 7, 6 Ordered: 2, 3, 4, 5, 6, 6, 7 Median = 5
6	**Mode**	• Most frequent/common • Can have more than one mode (called bi-modal or multi-modal) or no mode (if all values appear once)	Find the mode of: 4, 5, 2, 3, 6, 4, 7, 8, 4, Mode = 4

Key Facts

7 The Commutative Law – when adding numbers or multiplying numbers we can swap them around and still get the same answer:

$$5 + 6 = 6 + 5$$
$$5 \times 6 = 6 \times 5$$

8 The Associative Law – when adding or multiplying numbers we group the numbers (i.e. which we calculate first) in different ways and still get the same answer:

$$(5 + 6) + 7 = 5 + (6 + 7)$$
$$(5 \times 6) \times 7 = 5 \times (6 \times 7)$$

9 The Distributive Law – multiplication can be distributed across addition, for example, 2 lots of (5 + 6) is the same as 2 lots of 5 plus 2 lots of 6.

$$2 \times (5 + 6) + 7 = 2 \times 5 + 2 \times 6$$

10 A negative number multiplied or divided by a positive number gives a negative number. E.g.

$5 \times -6 = -30$ $\quad -2 \times 3 = -6$

$10 \div -2 = -5$ $\quad -20 \div 2 = -10$

11 A negative number multiplied or divided by a negative number gives a positive number. E.g.

$-5 \times -6 = 30$ $\quad -2 \times -3 = 6$

$-10 \div -2 = 5$ $\quad -20 \div -2 = 10$

Year 7 Maths:

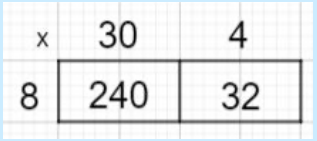
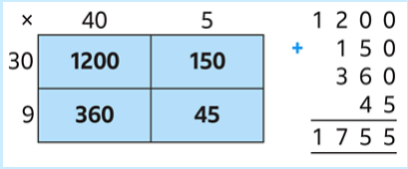
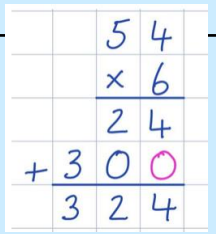
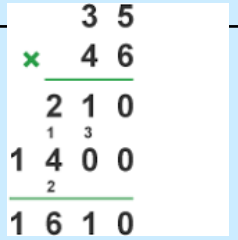
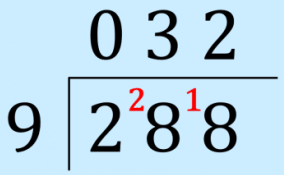
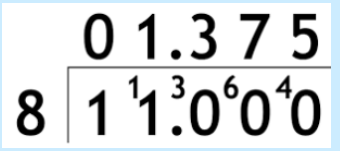
Key Vocabulary

1	What is the process of **addition**?	
2	What is the process of **subtraction**?	
3	What can **multiplication** be thought of as?	
4	What can be used instead a division sign to show **division**?	
5	How do you find the **median** value in a set of data?	
6	How do you find the **mode** in a set of data?	

Key Facts

7	**Explain the Commutative Law:**
8	**What is the Associative Law?**
9	Describe the Distributive Law:
10	A negative number multiplied or divided by a _____number gives a negative number. $-5 \times 7 = ?$ $-32 \div 8 = ?$
11	A negative number multiplied or divided by a _____number gives a positive number. $-5 \times -4 = ?$ $-21 \div -3 = ?$

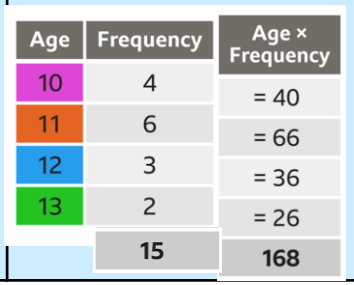
Year 7 Maths: Multiplying and Dividing

	Key Skill	Thinking Points	WAGOLL	
1	Multiplying using the grid method	Partition both numbers Create a grid and write the partitioned first number along the top, and the partitioned second number along the side Use the grid to multiply these numbers Add up the numbers inside the grid	34 × 8  240 + 32 272	45 × 39 
2	Multiplying using the column method	Write one number underneath the other, making sure the place value alignment is correct.	54 × 6  	35 × 46 
3	Dividing using the bus stop method	The dividend (the number being divided) is under the shelter of the bus stop. The divisor (the number the dividend is divided by) is outside the bus stop.	~~288 ÷ 9~~  	~~11 ÷ 8~~ 

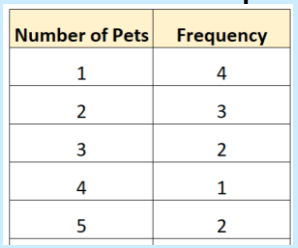
Year 7 Maths: Multiplying and Dividing

	Key Skill	Practice	
1	Multiplying using the grid method	8×39	21×73
2	Multiplying using the column method	26×7	89×14
3	Dividing using the bus stop method	What is 628 divided by 9?	What is 258 divided by 12?

Year 7 Maths: Statistics – Range and the Mean

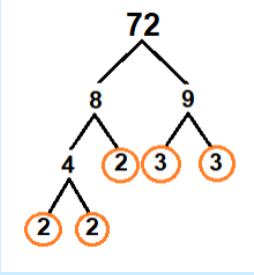
	Key Skill	Thinking Point	WAGOLL
1	Working out the range	• The range shows us how spread out a set of data is. • The range only considers the highest and lowest values. • Subtract the smallest number in your data set from the largest number.	**Find the range of: 8 5 23 11 6 2 14 17** Range: 23 – 2 = 21 **Find the range of: -4 7 -6 19 0 5 -1 12 1 18** Range: 19 – – 6 = 25
2	The Mean From a list	• Add together all the numbers • Then divide by how many numbers there are	**Find the mean of: 3 2 8 7** 3 + 2 + 8 + 7 = 20 20 ÷ 4 = 5 Mean = 5 **Find the missing number, when the mean of the numbers is 8: 6 10 ? 13 2** 8 x 5 = 40 (total) 6 + 10 + ? + 13 + 2 = 40 6 + 10 + 13 + 2 = 31 40 – 31 = 9 ? = 9
3	The Mean From a frequency table	• Add together all the frequencies • Create a new column titled number x frequency and fill in this column • Work out the total of this column • Divide the answer from total of the number x frequency column by the total frequencies	 168 ÷ 15 = 11.2

Year 7 Maths: Statistics – Range and the Mean

	Key Skill	Thinking Point	Practice
1	Working out the range	• What is the range?	**Find the range of: 2 5 23 11 6 0 14 17** **Find the range of: -4 7 -8 19 5 -1 12 1 22**
2	The Mean From a list	• How do you work out the mean from a list of numbers?	**Find the mean of: 3 2 10 8 7** **Find the missing number, when the mean of the numbers is 7: 6 10 ? 13 2**
3	The Mean From a frequency table	• What is the first step in working out the mean from a frequency table? • What do you do next? • What is the final step?	**Work out the mean number of pets** 

Number of Pets	Frequency
1	4
2	3
3	2
4	1
5	2

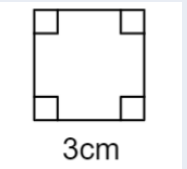
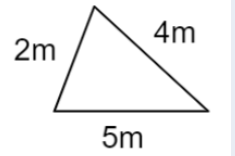
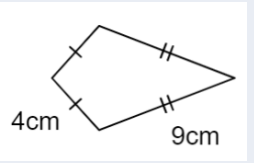
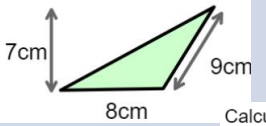
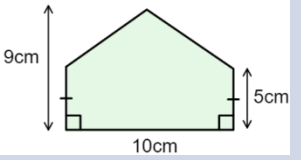
Year 7 Maths: Factors, Multiples and Primes

	Key Skill	Thinking Point	WAGOLL
1	Highest Common Factor by listing	• List the factors of both numbers • Find the highest number that appears in both lists	HCF of 12 and 30 Factors of 12: 1, 12, 2, 6, 3, 4 Factors of 30, 1, 30, 2, 15, 3, 10, 5, 6 HCF = 6
2	Lowest Common Multiple by listing	• List the multiples of both numbers • Find the lowest number that appears in both lists	LCM of 12 and 30 Multiples of 12: 12, 24, 36, 48, 60, 72, 84, 96, 108, 120 Multiples of 30, 30, 60, 90, 120, 150, 180, 210, 240, 270, 300 LCM: 60
3	Prime Decomposition	• Split the number into a pair of factors (you can't use 1 and the number itself) • If either of these factors are a prime number, circle them. If not, continue to split them into factor pairs. • If a number has been circled, it is one of the prime factors and you don't split that number any further. • At the end, write out the prime factors with a x between them.	Write 72 as a product of its prime factors  $= 2 \times 2 \times 2 \times 3 \times 3$ $= 2^3 \times 3^2$

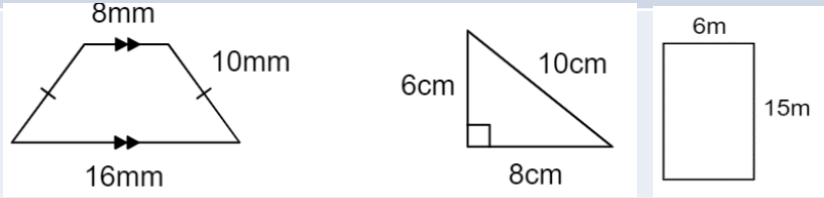
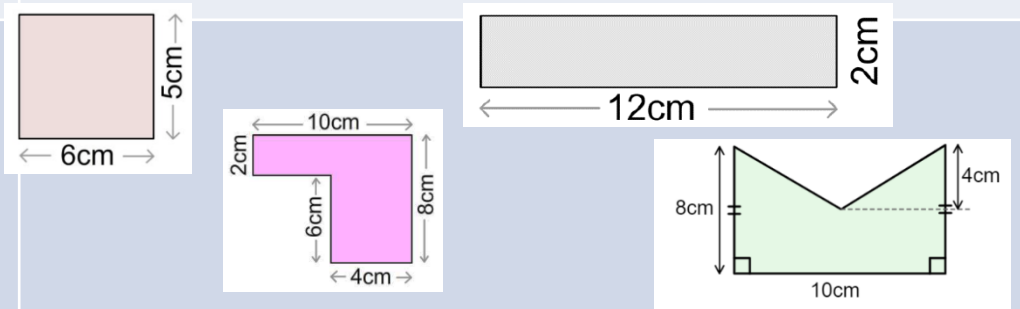
Year 7 Maths: Factors, Multiples and Primes

	Key Skill	Thinking Point	Practice
1	Highest Common Factor by listing	• How do you work out the highest common factor?	HCF of 16 and 40
2	Lowest Common Multiple by listing	• How do you work out the lowest common multiple?	LCM of 30 and 75
3	Prime Decomposition	• How do you know if you should circle a number in the prime factor tree?	Write 54 as a product of its prime factors

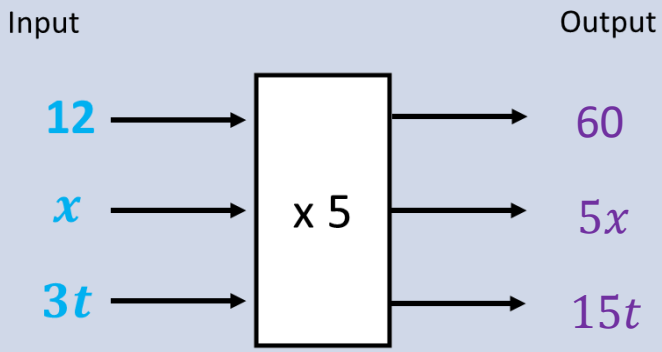
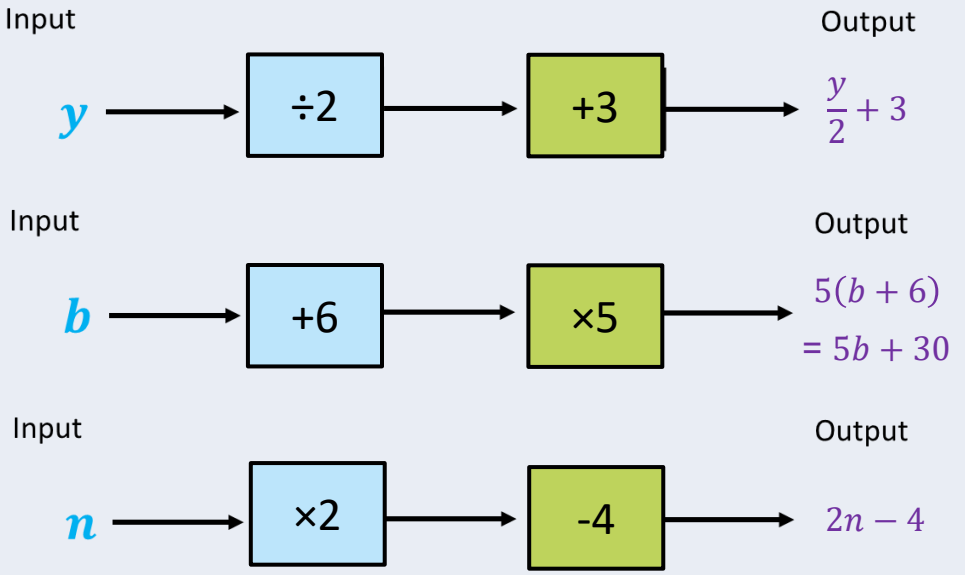
Year 7 Maths: Ratio, Perimeter and Area

Key Skill	Thinking Point	WAGOLL
Equivalent ratios	• If two ratios are equivalent, they have the same constant of proportionality. • We can find equivalent ratios by multiplying all the parts by a scale factor.	3 : 5 (x 2 ↓ / x 2 ↓) 6 : 10 7 : 9 (x 10 ↓ / x 10 ↓) 70 : 90
Simplifying ratios	• Reducing a ratio to its simplest form by dividing by common factors	60 : 24 (÷ 12 ↓ / ÷ 12 ↓) 5 : 2
Comparing ratios	• Use multiples to solve ratio problems	Annie and Ben share some money in the ratio 4:3. Annie receives £24. How much does Ben receive? A : B 4 : 3 (x 6 ↓ / x 6 ↓) 24 : 18
Perimeter	• The distance around the edge of a shape	Work out the perimeter for each shape:  3 + 3 + 3 + 3 = 12cm  2 + 4 + 5 = 11m  4 + 4 + 9 + 9 = 26cm
Area	• The amount of space inside a shape • Area of a rectangle or square: $base \times perpendicular\ height$ • Area of a triangle: $\frac{base \times perpendicular\ height}{2}$	Calculate the area $= \frac{1}{2} \times 8 \times 7$ $= 28cm^2$  Calculate the area: Area of Rectangle = $50cm^2$ Area of triangle = $\frac{4 \times 10}{2}$ = $20cm^2$ Total Area = $70cm^2$ 

Year 7 Maths: Ratio, Perimeter and Area

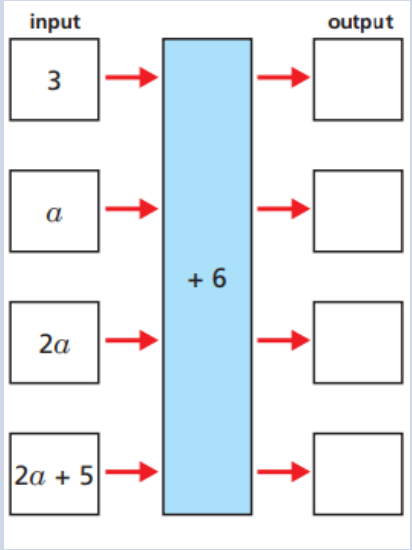
Key Skill	Thinking Point	WAGOLL
Equivalent ratios		4 : 11 ↓ ↓ 2 : 7 ↓ ↓
Simplifying ratios		18 : 9 ↓ ↓ 45 : 36 ↓ ↓
Comparing ratios		Courtney and Dan share some money in the ratio 3:5. Dan receives £20. How much does Courtney receive?
Perimeter		
Area		

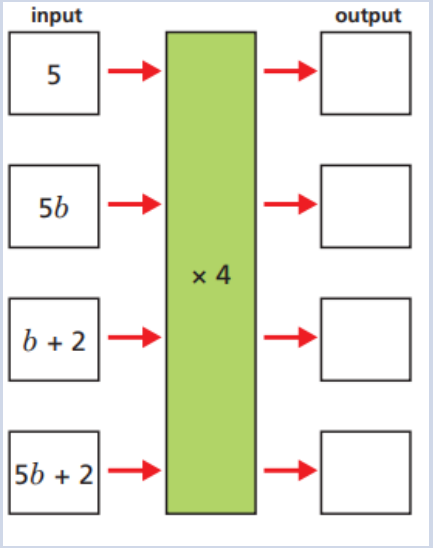
Year 7 Maths: Function Machines

Key Skill	Thinking Point	WAGOLL
One step function machines	• A function relates an input to an output • A function machine is a diagram that we can use to show what happens when we input a number and apply a 'function' or operation to it.	
Two step function machines	• Two step function machines are used to apply operations in a given order • A function machine can be applied to numbers or be used for algebraic manipulation.	

Year 7 Maths: Function Machines

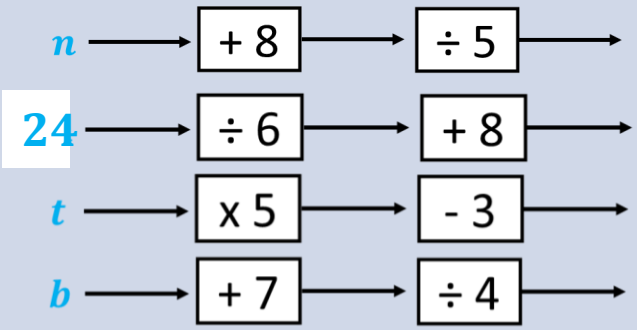
Key Skill	Thinking Point	Practice
One step function machines		
Two step function machines		





Input

Output



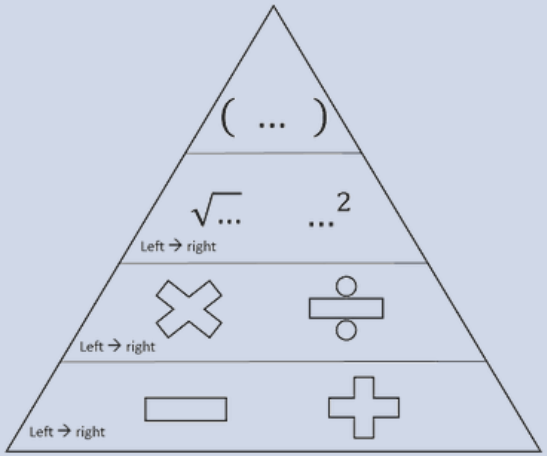
Year 7 Maths: Substitution

Key Skill	Thinking Point	WAGOLL
Substituting	• Substitute means to put something in the place of something else. • In algebra, substitution means replacing the variables (letters) in an algebraic expression with their numerical values	$y = 3x$ Find the value of y when $x = 2$ $3 \times (2)$ $= 6$ $y = \frac{18}{x}$ Find the value of y when $x = 6$ $\frac{18}{(6)}$ $= 3$ $y = 9x - 5$ Find the value of y when $x = 6$ $9 \times (6) - 5$ $54 - 5$ $= 49$ $y = 10x^2$ Find the value of y when $x = 2$ $10 \times (2)^2$ 10×4 $= 40$

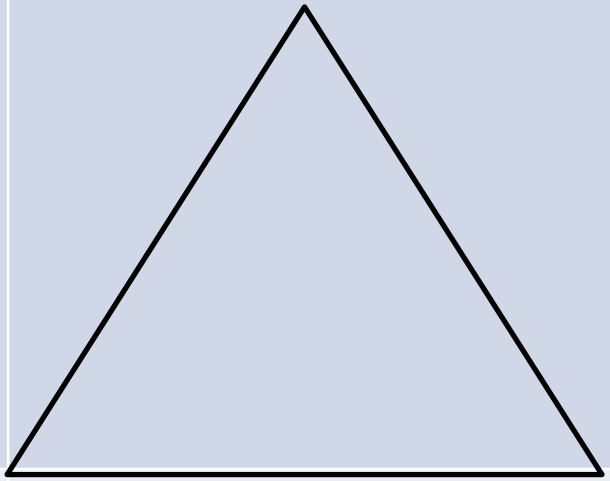
Year 7 Maths: Substitution

Key Skill	Thinking Point	Practice
Substituting		By substituting, work out the value of: $a = \mathbf{7}$ $b = \mathbf{2}$ $3a$ $12b$ $a + b$ $\frac{28}{a}$ b^2 $a + 2b$ $b - a$

Year 7 Maths: Order of operations

Key Skill	Thinking Point	WAGOLL
Order of operations	• Use this pyramid to help you remember the order of operations in calculations.  	$10 \times (3 - 5)$ 10×-2 $= -20$ $28 - 6 \div 2$ $28 - 3$ $= 25$ $7 + 9^2$ $7 + 9^2$ $7 + 81$ $= 88$ $(5 + 3)^2$ 8^2 $= 64$
	• Multiplication and division are of equal priority and should be completed from left to right. • Similarly, addition and subtraction are of equal priority to each other and are completed from left to right.	$9 \times 8 \div 4$ $72 \div 4$ $= 18$ $24 - 5 + 2$ $19 + 2$ $= 21$

Year 7 Maths: Order of operations

Key Skill	Thinking Point	Practice
Order of operations	• Use this pyramid to help you remember the order of operations in calculations. 	$14 + 10 \div 2$ $3 + 8^2$ $5 \times (2 - 4)$
		$30 - 7 + 9$ $11 \times 12 \div 6$

Modern Foreign Languages

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Little Lever School
be kind | work hard | take responsibility

Year 7 French:

Pronouns

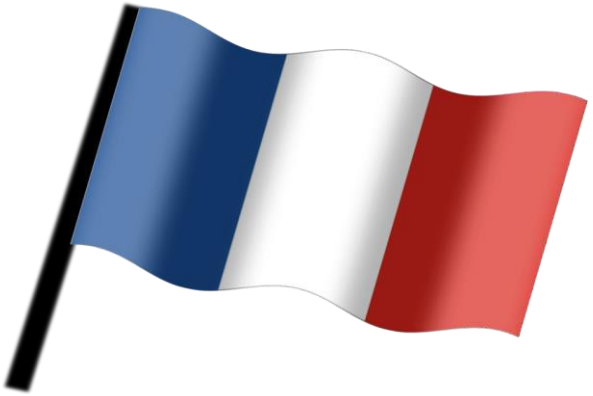
Je	I
Tu	You
Il	He
Elle	She
Nous	We
Vous	You
Ils	They (Masculine or mixed group)
Elles	They (Feminine)

Responses/Emotions

Bien	Well
Mal	Bad
Comme ci comme ça	So-so
Fatigué/Fatiguée	Tired
Content/Contente	Cheerful
Heureux/heureuse	Happy
Détendu/Détendue	relaxed

Name

Je m'appelle	My name is….
Il s'appelle	His name is…
Elle s'appelle	Her name is…



Key Grammar	A	The	My
Masculine	Un	Le	Mon
Feminine	Une	La	Ma
Plural	Des	Les	Mes

Questions

Comment t'appelles-tu?	What is your name?
Où habites-tu?	Where do you live?
Comment ça va?	Her name is…
Quel âge as-tu?	What is your age?
Quel est ton anniversaire?	When is your birthday?
Quel est ton caractère?	What is your personality like?

Year 7 French:

Complete the French pronouns below:

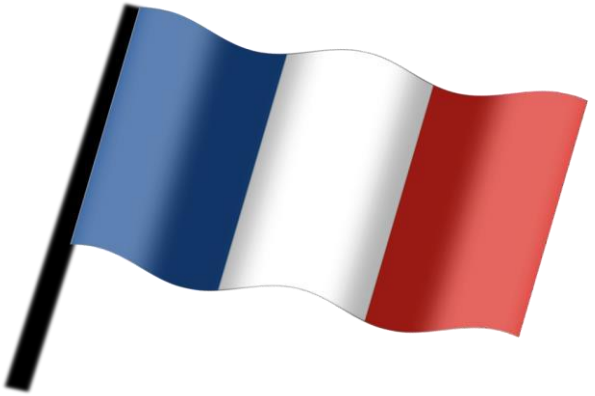
	I
	You
	He
	She
	We
	You
	They (Masculine or mixed group)
	They (Feminine)

What does each word below mean?

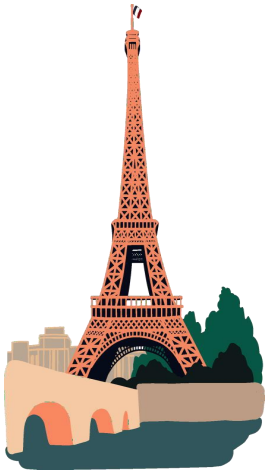
Bien	
Mal	
Comme ci comme ça	
Fatigué/Fatiguée	
Content/Contente	
Heureux/heureuse	
Détendu/Détendue	

How do we write/say the following sentences for introductions?

	My name is….
	His name is…
	Her name is…



Key Grammar	A	The	My
Masculine			
Feminine			
Plural			



What do each of the questions below mean?

Comment t'appelles-tu?	
Où habites-tu?	
Comment ça va?	
Quel âge as-tu?	
Quel est ton anniversaire?	
Quel est ton caractère?	

Year 7 French:

To have… (Verb)	
Avoir	To have
J'ai	I have…
Tu as	You have…
Il a	He has…
Elle a	She has…
Nous avons	We have…
Vous avez	You have (formal/plural)
Ils ont	They have… (Masculine/mixed)
Elles ont	They have… (feminine)

To be… (Verb)	
Être	To be
Je suis	I am…
Tu es	You are…
Il est	He is…
Elle est	She is…
Nous sommes	We are…
Vous êtes	You are… (formal/plural)
Ils sont	They are… (Masculine/mixed)
Elles sont	They are… (feminine)

To live… (Verb)	
Habiter	To live
J'habite	I live…
Tu habites	You live…
Il habite	He lives…
Elle habite	She lives…
Nous habitons	We live…
Ils/elles habitent	They live…

Months			
January	**Janvier**	July	**Juillet**
February	**Février**	August	**Août**
March	**Mars**	September	**Septembre**
April	**Avril**	October	**Octobre**
May	**Mai**	November	**Novembre**
June	**Juin**	December	**Décembre**

1 Un	**11 Onze**
2 Deux	**12 Douze**
3 Trois	**13 Treize**
4 Quatre	**14 Quatorze**
5 Cinq	**15 Quinze**
6 Six	**16 Seize**
7 Sept	**17 Dix-sept**
8 Huit	**18 Dix-huit**
9 Neuf	**19 Dix-neuf**
10 Dix	**20 Vingt**

Year 7 French:

To have… (Verb) Complete below:	
	To have
	I have…
	You have…
	He has…
	She has…
	We have…
	You have (formal/plural)
	They have… (Masculine/mixed)
	They have… (feminine)

To be… (Verb) Complete below:	
	To be
	I am…
	You are…
	He is…
	She is…
	We are…
	You are… (formal/plural)
	They are… (Masculine/mixed)
	They are… (feminine)

To live… (Verb) Complete below:	
	To live
	I live…
	You live…
	He lives…
	She lives…
	We live…
	They live…

Complete below:			
January		July	
February		August	
March		September	
April		October	
May		November	
June		December	

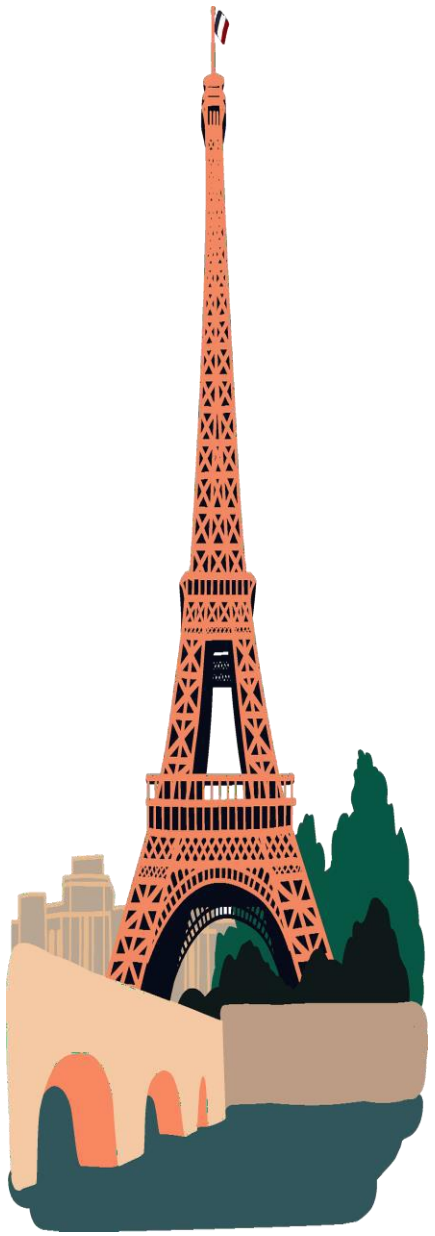
1 .	11 .
2 .	12 .
3 .	13 .
4 .	14 .
5 .	15 .
6 .	16 .
7 .	17 .
8 .	18 .
9 .	19 .
10 .	20 .

Year 7 French:

Je suis *(I am)*			**beau** *(handsome) (m)*		**méchant** *(mean) (m)*
Tu es *(You are)*			**fort** *(strong) (m)*		**ennuyeux** *(boring) (m)*
Il *(He)*	**est** *(is)*		**grand** *(tall) (m)*		**généreux** *(generous) (m)*
Mon frère *(My brother)*			**gros** *(fat) (m)*		**marrant** *(funny) (m)*
Mon père *(My father)*			**mince** *(slim)*		**sympathique** *(nice)*
Elle *(She)*			**moche** *(ugly)*		**têtu** *(stubborn) (m)*
Ma sœur *(My sister)*			**musclé** *(muscular) (m)*		**timide** *(shy)*
Ma mère *(My mother)*			**petit** *(short) (m)*		
			belle *(beautiful) (f)*	**et** *(and)*	**méchante** *(mean) (f)*
			forte *(strong) (f)*		**ennuyeuse** *(boring) (f)*
			grande *(tall) (f)*	**mais** *(but)*	**généreuse** *(generous) (f)*
			grosse *(fat) (f)*		**marrante** *(funny) (f)*
			mince *(slim)*		**sympathique** *(nice)*
			moche *(ugly)*		**têtue** *(stubborn) (f)*
			musclée *(muscular) (f)*		**timide** *(shy)*
			petite *(short) (f)*		

Year 7 French:

Handsome *(m)*	
Strong *(m)*	
Tall *(m)*	
Fat *(m)*	
Slim	
Ugly	
Muscular *(m)*	
Short *(m)*	
Pretty *(f)*	
Strong *(f)*	
Tall *(f)*	
Fat *(f)*	
Slim	
Ugly	
Muscular *(f)*	
Short *(f)*	



Mean *(m)*	
Boring *(m)*	
Generous *(m)*	
Funny *(m)*	
Nice	
Stubborn *(m)*	
Shy *(m)*	
Mean *(f)*	
Boring *(f)*	
Generous *(f)*	
Funny *(f)*	
Nice	
Stubborn *(f)*	
Shy *(f)*	

Year 7 French:

Questions:

Qu'est-ce que tu aimes? = What do you like?
Key point: Qu'est-ce que = what

Grammatical Point: Opinion plus infinitive.

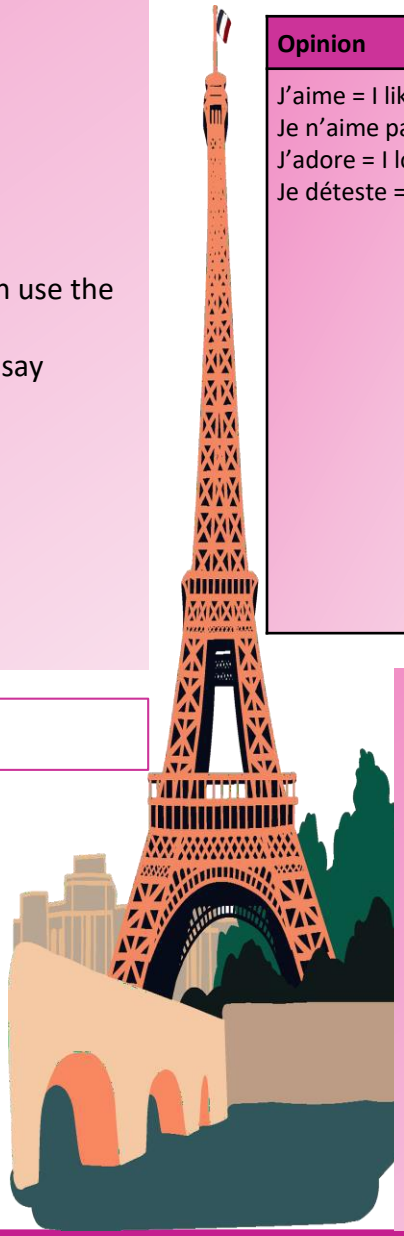
To form a sentence to say that you like something, you can use the correct form of 'aimer' plus an infinitive verb.
For example, if you want to say '**I like** to study' you would say '**j'aime** étudier'.

Other infinitive verbs you can use this rule for this are:
Jouer = to play
Lire = to read
Bavarder = to chat
Manger = to eat

Opinion	Verb	Subject
J'aime = I like Je n'aime pas = I don't like J'adore = I love Je déteste = I hate	étudier = to study	l'anglais = English les sciences = science (remember that science is plural in French) les mathématiques = maths l'histoire = history la géographie = geography la technologie = technology l'informatique = computing l'éducation réligieuse le sport = PE l'espagnol = Spanish le français = French le dessin = art

RECAP: Être = to be

French	English
Je suis	I am
Tu es	You are (singular/informal)
Il est / Elle est / C'est	He is / she is / it is
Nous sommes	We are
Vous êtes	You (plural) are
Ils sont	They are (masculine/mixed)
Elles sont	They are (feminine)



Justifications and opinions

To give a justification or opinion for why you like something, you can use:

Parce que c'est…(because it is) **or** parce que ce sont (because they are)
Car c'est …(because it is) **or** parce que ce sont (because they are)
You then add your adjective.

For example, j'aime étudier l'histoire parce que c'est amusant.

Year 7 French:

Questions:
Qu'est-ce que tu aimes? =
Key point: Qu'est-ce que =

Grammatical Point: Opinion plus infinitive.

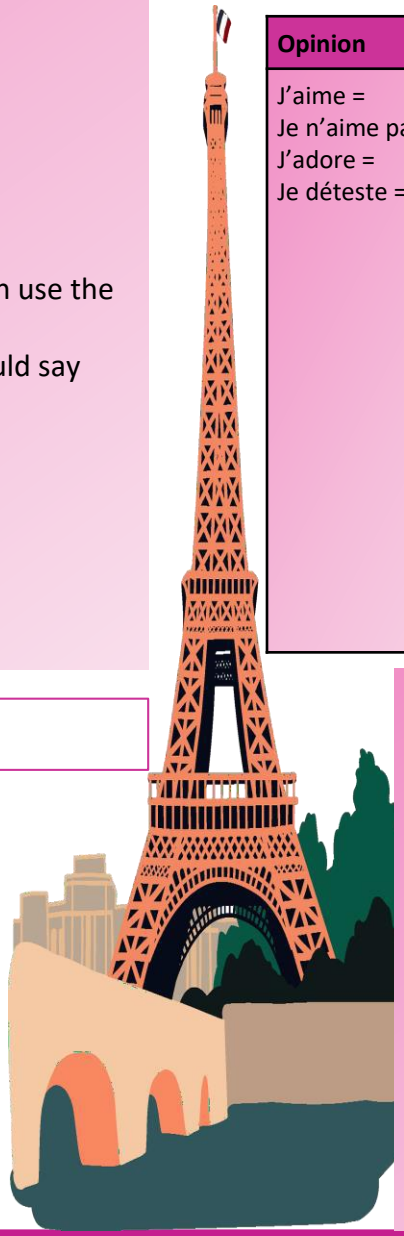
To form a sentence to say that you like something, you can use the correct form of '_____' plus an infinitive verb.
For example, if you want to say '_ ____ __ _____' you would say '**j'aime** étudier'.

Other infinitive verbs you can use this rule for this are:
_____ = to play
____ = to read
_____ = to chat
_____ = to eat

Opinion	Verb	Subject
J'aime = Je n'aime pas = J'adore = Je déteste =	= to study	l'anglais = les sciences = (remember that science is plural in French) les mathématiques = l'histoire = la géographie = la technologie = l'informatique = l'éducation réligieuse le sport = l'espagnol = le français = le dessin =

RECAP: Être =

French	English
	I am You are (singular/informal) He is / she is / it is We are You (plural) are They are (masculine/mixed) They are (feminine)



Justifications and opinions
To give a justification or opinion for why you like something, you can use:

Parce que c'est… **or** parce que ce sont

Car c'est … **or** parce que ce sont

You then add your adjective.

For example,

Year 7 French:

Describing subjects and teachers

Remember that in French adjectives change depending on the **noun** you are talking about and how many nouns you are talking about.

A noun is the name of a person, place or thing.

Monsieur Smith est amusant
Mr Smith is fun

Madame Smith est amusant**e**
Mrs Smith is fun

Mes professeurs sont amusant**s**
My teachers are fun

David est = David is
Mon professeur est = My teacher is
Mon professeur est amusant = My teacher is funny

Key adjectives

	Masculine	**Masculine Plural**	**Feminine**	**Feminine Plural**
amusing	amusant	amusants	amusante	amusantes
boring	ennuyeux	ennuyeux	ennuyeuse	ennuyeuses
funny	marrant	marrants	marrante	marrantes
Interesting	intéressant	intéressants	intéressante	intéressantes

Key Grammar

Infinitive verbs
Remember that an infinitive verb is the verb in the 'to' form before it has been changed.
Infinitive verbs end in ER, RE or IR
Examples are aimer = to like, faire= to do, avoir = to have.

Conjugating regular verbs that end in ER in the present tense.

Reminder: conjugating a verb means that you are taking its infinitive form (ER, RE or IR endings) to change it to I, you, we and to a particular tense (present, past, future)

To change a verb that ends in ER to the present tense, use the following process:

1) Choose who you want to talk about and select the correct subject pronoun.
2) Take the ER ending off the infinitive to form the **stem**. For example, change **étudier** to **étudi**
3) Choose the correct ending according to the pronoun you are using.
   For ER verbs, the present tense endings are as follows:

Subject Pronoun	Present Tense ER verb ending
Je (I)	e
Tu (You)	es
Il, elle, (He, she,)	e
Nous (We)	ons
Vous (You plural)	ez
Ils, elles (They)	ent

Example: You study = **tu étudies**

Year 7 French:

Describing subjects and teachers

Remember that in French adjectives change depending on the **noun** you are talking about and how many nouns you are talking about.

A noun is the name of a person, place or thing.

Monsieur Smith est amusant

Madame Smith est amusant**e**

Mes professeurs sont amusant**s**

David est =
Mon professeur est =
Mon professeur est amusant =

Key adjectives

	Masculine	Masculine Plural	Feminine	Feminine Plural
amusing				
boring				
funny				
Interesting				

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   For ER verbs, the present tense endings are as follows:

Subject Pronoun	Present Tense ER verb ending
Je (I)	
Tu (You)	
Il, elle, (He, she,)	
Nous (We)	
Vous (You plural)	
Ils, elles (They)	

Example: You study =

Year 7 French:

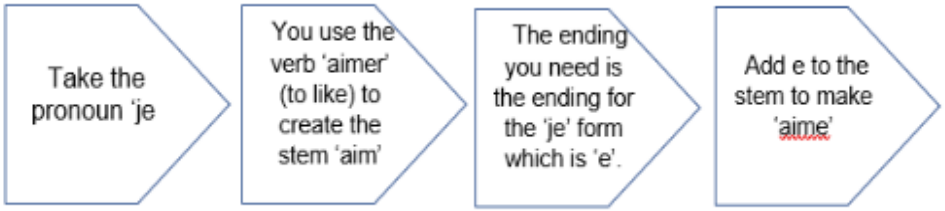
Present tense verb conjugations to learn this term

étudier = to study
Note the present tense endings for each pronoun

J'étudi**e***	I study
Tu étudi**es**	You study (singular/informal)
Il étudi**e**	He studies
Elle étudi**e**	She studies
Nous étudi**ons**	We study
Vous étudi**ez**	You study (formal/plural)
Ils étudi**ent**	They study(masculine/mixed)
Elles étudi**ent**	They study (feminine)

*** Grammatical Point:** It cannot be je étudie as we do not have je + a vowel. Instead, we change je to j'.

Likewise, to form 'I like':



Therefore, 'I like' is 'j'aime'.
Other examples…
David aime = David likes
Jane aime = Jane likes

Days of the week (recap)

Remember that days of the week do not take a capital letter in French.
lundi = Monday
mardi = Tuesday
mercredi =Wednesday
jeudi = Thursday
vendredi = Friday
samedi = Saturday
dimanche = Sunday

Day of the week	Verb	Subjects
Le lundi* = On Mondays Le mardi = On Tuesdays Le mercredi = On Wednesdays Le jeudi = On Thursdays Le vendredi = On Fridays Le samedi = On Saturdays Le dimanche = On Sundays	j'étudie = I study tu étudies = you study nous étudions = we study	l'anglais = English les sciences = science (remember that science is plural in French) les mathématiques = maths l'histoire = history la géographie = geography la technologie = technology l'informatique = computing le sport = PE l'espagnol = Spanish le français = French le dessin = art

*Le lundi iterally means 'the Monday'

Year 7 French:

Present tense verb conjugations to learn this term

étudier = to study
Note the present tense endings for each pronoun

	I study
	You study (singular/informal)
	He studies
	She studies
	We study
	You study (formal/plural)
	They study(masculine/mixed)
	They study (feminine)

*** Grammatical Point:** It cannot be je étudie as we do not have je + a vowel. Instead, we change je to j'.

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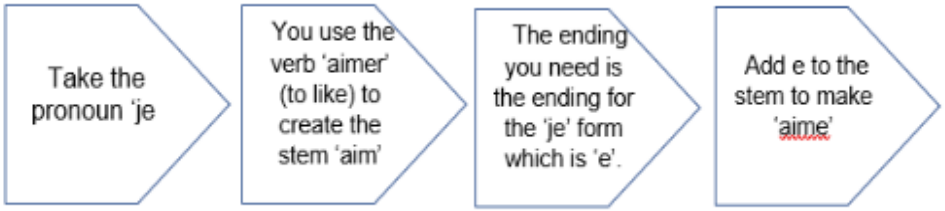

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lundi =
mardi =
mercredi =
jeudi =
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samedi =
dimanche =

Day of the week	Verb	Subjects
	= I study = you study = we study	

*Le lundi iterally means 'the Monday'

Year 7 French:

Recap: Infinitive verbs

An infinitive verb is the verb in the 'to' form before it has been changed.

Infinitive verbs end in ER, RE or IR

Examples:

ER	RE	IR
Parler = to speak Regarder = to watch Jouer = to play Danser = to dance Écouter = to listen	Faire = to do Être = to be	Sortir = to go out Avoir = to have

Conjugating the ER verbs in the present tense.

To change a verb that ends in ER to the present tense, use the following process:

1. Remove the ER to form the **stem**. For example, change **regarder** (to watch) to **regard**
2. Choose the correct ending according to the pronoun you are using. For ER verbs, the present tense endings are as follows:

English Pronoun	French Pronoun	Present Tense ER verb ending	French	English meaning
I	Je	e	Je regarde	I watch
You	Tu	es	Tu regardes	You watch
He, she We	Il, elle On	e	Il, elle regarde On regarde	He, she watches We watch

You use the same rule to conjugate these verbs in the present tense.

This term we will be describing sports that we play and do. We will use the verbs JOUER (to play) and FAIRE (to do) in the present tense.

Jouer = to play. This is used for **sports with a ball**.

Je joue	I play
Tu joues	You play
Il joue	He plays
Elle joue	She plays
On joue	We play

Other examples…
Alain joue = Alain plays
Eloise joue = Eloise plays

You then use the correct form of jouer, such as 'je joue' and then add the sport.

For masculine sports, change **le** to **au.** For example, le foot is football.
Je joue **au** foot = I play football.

For plural sports, use **aux**. For example, je joue **aux** cartes (I play cards)

Year 7 French:

Recap: Infinitive verbs

An infinitive verb is the verb in the 'to' form before it has been changed.

Infinitive verbs end in ER, RE or IR

Examples:

ER	RE	IR

Conjugating the ER verbs in the present tense.

To change a verb that ends in ER to the present tense, use the following process:

1. Remove the ER to form the **stem**. For example, change **regarder** (to watch) to _____
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English Pronoun	French Pronoun	Present Tense ER verb ending	French	English meaning

You use the same rule to conjugate these verbs in the present tense.

This term we will be describing sports that we play and do. We will use the verbs JOUER (to play) and _____ (to do) in the _____ tense.

_____ = to play. This is used for **sports with a ball**.

	I play
	You play
	He plays
	She plays
	We play

Other examples…

Alain joue =

Eloise joue =

You then use the correct form of jouer, such as '__ _____' and then add the sport.

For masculine sports, change **le** to **au.** For example, le foot is football.

__ __ ____ ____= I play football.

For plural sports, use **aux**. For example, __ _____ _____ _____ (I play cards)

Year 7 French:

Faire = to do
This is an irregular verb, so there are no rules with endings. It has to be fully learned using the table below.
This verb is used for **sports without a ball.**

Je fais	I do
Tu fais	You do
Il fait	He does
Elle fait	She does
On fait	We do

Alain fait = Alain does
Eloise fait = Eloise does

You then use the correct form of faire, such as 'je fais' and then add the sport.

In French you use 'some' with the sport, for example 'I do some skiing'

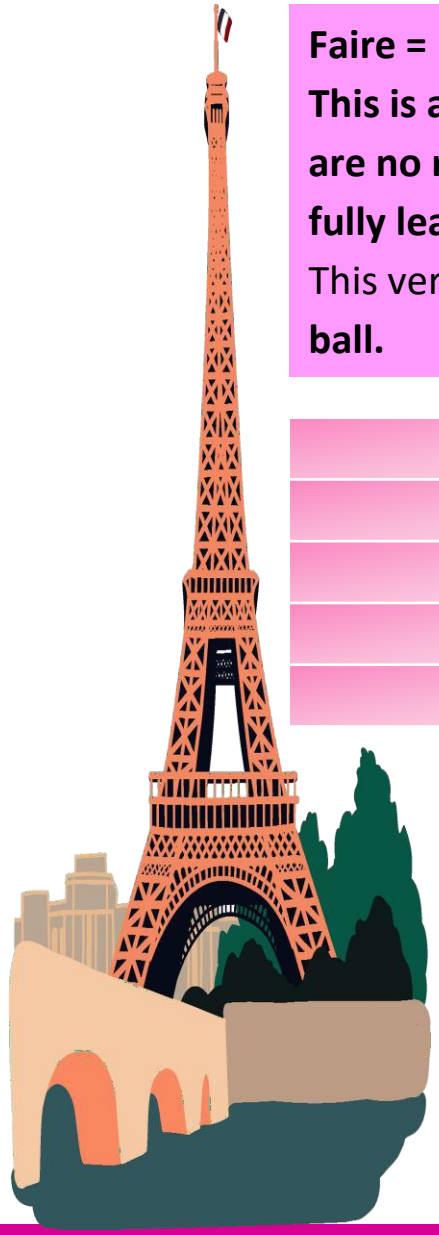
How to say 'some' in French

For masculine sports, change **le** to **du.** For example, le ski is skiing. Je fais du ski = I do some skiing.

For feminine sports, change **la** to **de la.** For example, la natation is swimming. Je fais de la natation = I do some swimming

Masculine	Feminine	Plural
Du	De la	Des

Year 7 French:



Faire =

This is an _____ verb, so there are no rules with endings. It has to be fully learned using the table below.

This verb is used for **sports _____ a ball.**

	I do
	You do
	He does
	She does
	We do

Alain fait =

Eloise fait =

You then use the correct form of faire, such as 'je ____' and then add the sport.

In French you use '____' with the sport, for example 'I do some skiing'

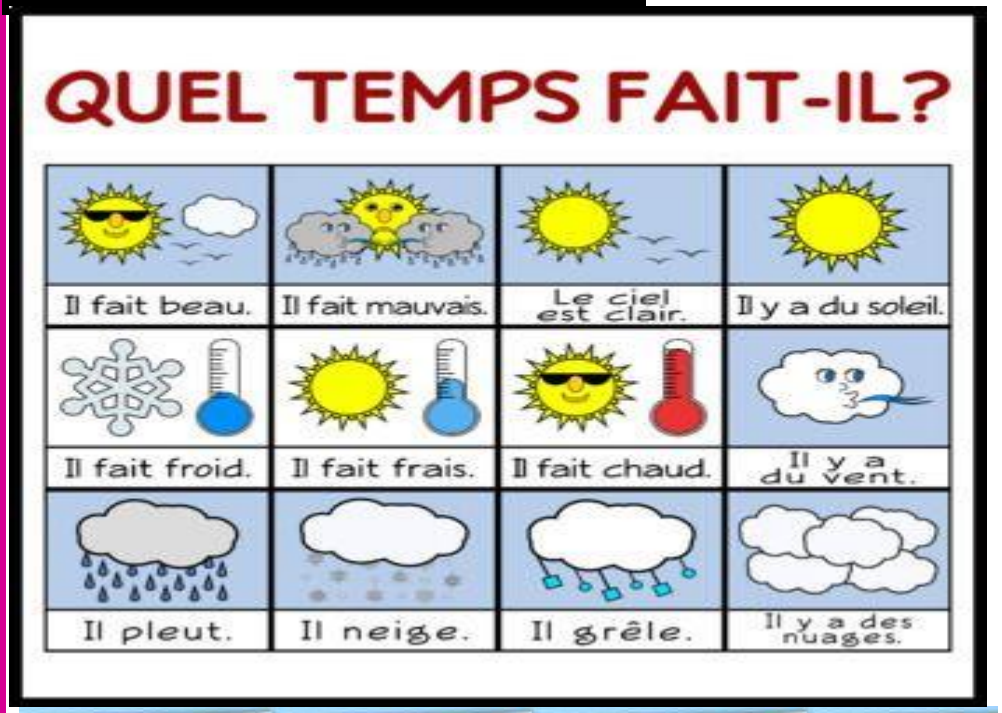
How to say 'some' in French

For masculine sports, change __ to **du.** For example, __ __ __ _____. Je fais du ski = I do some skiing.

For _____ sports, change ___ to **de la.** For example, la natation is swimming. Je fais de la natation =_ __ ____ _____

Masculine	Feminine	Plural

Year 7 French:



Talking about what you do according to the weather

Quand = when

Quand il pleut = when it is raining.

Therefore, you can add your activity at the end of the sentence. For example, quand il pleut, je joue au foot (when it is raining I play football).

See table below for other examples:

Quand (When)	il pleut (it is raining)	je joue au foot (I play football)
	il y a du soleil (it is sunny)	je joue au golf (I play golf)
	il fait beau (it is nice weather)	je joue au tennis (I play tennis)
	il fait chaud (it is hot)	je fais de la natation (I do swimming)
	il fait froid (it is cold)	je fais du ski (I do skiing)

Opinions

Parce que = because

C'est = it is

Super = superb

Amusant = fun

Fantastique = fantastic

Génial = great

Cool = cool

Intéressant = interesting

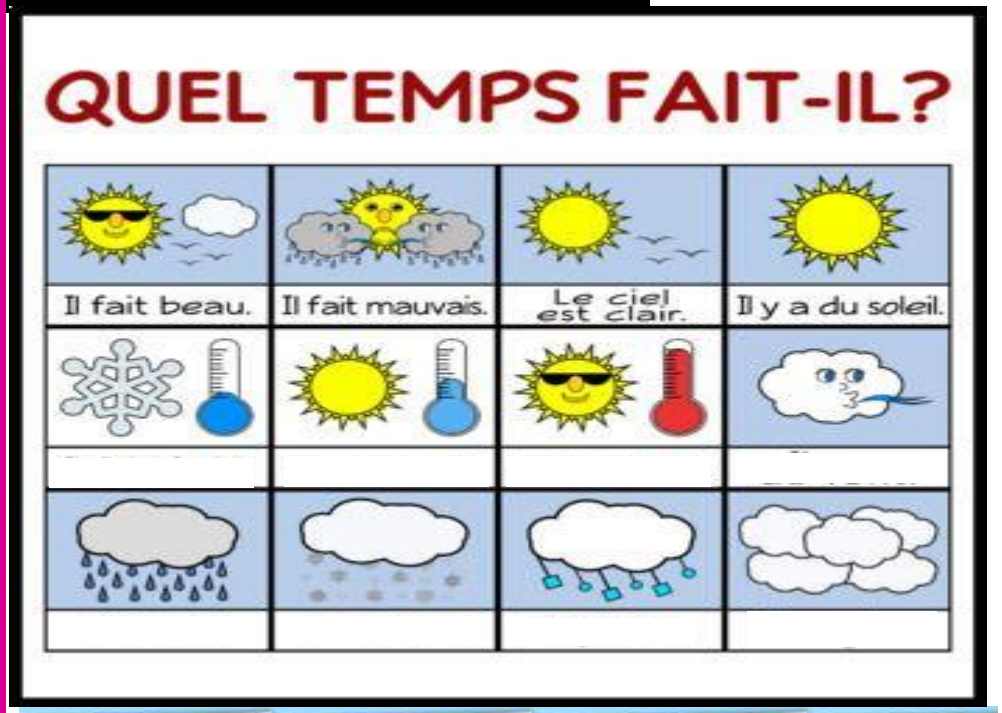
Fatigant = tiring

Ennuyeux = boring

Nul = Rubbish

So, parce que c'est super = because it is superb

Year 7 French:



Talking about what you do according to the weather

Quand =

Quand il pleut =

Therefore, you can add your activity at the end of the sentence. For example, quand il pleut, __ __ _____ _____(when it is raining I play football).

See table below for other examples:

Quand (When)	(it is raining)	(I play football)
	(it is sunny)	(I play golf)
	(it is nice weather)	(I play tennis)
	(it is hot)	(I do swimming)
	(it is cold)	(I do skiing)

Opinions

Parce que =

C'est =

Super =

Amusant =

Fantastique =

Génial =

Cool =

Intéressant =

Fatigant =

Ennuyeux =

Nul =

So, parce que c'est super =_____ __ __ ____

Year 7 Spanish:

Pronouns

Yo	I
Tú	You
Él	He
Ella	She
Nosotros	We
Ellos/Ellas	They

Key Grammar	A	The	My
Masculine	Un	El	Mi
Feminine	Una	La	Mi
Masculine Plural	Unos	Los	Mis
Feminine Plural	Unas	Las	Mis

Adjectives

An adjective is also known as a **describing word.**

A noun is the name of a **person, place or thing.**

An adjective adds detail to a noun.

But in Spanish, adjectives usually come **after the noun**.

La casa **moderna**
The **modern** house

Adjectives vs Nouns

In Spanish adjectives change based on the **gender** of the noun.

Mi padre está **contento**
My Dad is **cheerful**

Mi madre está **contenta**
My Mum is **cheerful**

How do you know which nouns are masculine or feminine?

Words that end in -a are usually feminine and words that end in -o are usually masculine.

However, some nouns do not end in a or o. For these nouns you just have to check what article they start with:

el / **la** = the
un / **una** = a

This will show whether it is masculine or feminine.

Questions

¿Cómo te llamas?	What is your name?
¿Dónde vives?	Where do you live?
¿Cómo estás?	How are you?
¿Cuántos años tienes?	How old are you?
¿Cuándo es tu cumpleaños?	When is your birthday?
¿Cómo eres?	What are you like? (personality)

Year 7 Spanish:

Pronouns

	I
	You
	He
	She
	We
	They

Key Grammar	A	The	My
Masculine			
Feminine			
Masculine Plural			
Feminine Plural			

Adjectives

An adjective is also known as a **describing word.**

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But in Spanish_____

_____.

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How do you know which nouns are masculine or feminine?

Questions

	What is your name?
	Where do you live?
	How are you?
	How old are you?
	When is your birthday?
	What are you like? (personality)

Year 7 Spanish:

To have… (Verb)

Tener	To have
Tengo	I have…
Tienes	You have…
Tiene	He/She/It has…
Tenemos	We have…
Tenéis	You have (plural)
Tienen	They have…

Remember in Spanish the ending of a verb tells you who you are talking about

Months

January	**Enero**		July	**Julio**
February	**Febrero**		August	**Agosto**
March	**Marzo**		September	**Septiembre**
April	**Abril**		October	**Octubre**
May	**Mayo**		November	**Noviembre**
June	**Junio**		December	**Diciembre**

To be… (Verb)

Ser	To be
Soy	I am…
Eres	You are…
Es	He/She/It is…
Somos	We are…
Sois	You are… (plural)
Son	They are…

Ser (to be) is used to talk about…

- **Characteristics of people or things**
- **Nationality**: *Soy inglés* - I am English
- **Professions**: *Mi madre es médica* - My mother is a doctor.
- **The date and time**: *¿Qué hora es?* - What time is it?

Ser is **NOT** used to talk about…

- **Feelings** - You would have to use **Estar** (to be) e.g. *Estoy feliz* - I am happy

Greetings

Hello	**Hola**
Good morning	**Buenos días**
Good afternoon	**Buenas tardes**
Good night	**Buenas noches**
Thank you	**Gracias**

1 Uno	**11 Once**
2 Dos	**12 Doce**
3 Tres	**13 Trece**
4 Cuatro	**14 Catorce**
5 Cinco	**15 Quince**
6 Seis	**16 Dieciséis**
7 Siete	**17 Diecisiete**
8 Ocho	**18 Dieciocho**
9 Nueve	**19 Diecinueve**
10 Diez	**20 Veinte**

Year 7 Spanish:

To have… (Verb) (Complete below):

To be… (Verb) (Complete below):

	To be
	I am…
	You are…
	He/She/It is…
	We are…
	You are… (plural)
	They are…

Greetings (complete below):

Hello	
Good morning	
Good afternoon	
Good night	
Thank you	

Remember in Spanish the ending of a verb tells you who you are talking about

Ser (to be) is used to talk about…

- -
- -
- -
- -

Ser is **NOT** used to talk about…

- -

Complete the months below:

January	**Enero**		July	**Julio**
February	**Febrero**		August	**Agosto**
March	**Marzo**		September	**Septiembre**
April	**Abril**		October	**Octubre**
May	**Mayo**		November	**Noviembre**
June	**Junio**		December	**Diciembre**

1	**11**
2	**12**
3	**13**
4	**14**
5	**15**
6	**16**
7	**17**
8	**18**
9	**19**
10	**20**

Year 7 Spanish:

Soy *(I am)*			**guapo** *(good looking) (m)*		**antipático** *(mean) (m)*
Eres *(You are)*			**fuerte** *(strong)*		**aburrido** *(boring) (m)*
			alto *(tall) (m)*		**generoso** *(generous) (m)*
			gordo *(fat) (m)*		**divertido** *(fun) (m)*
Él *(He)*	**es** *(is)*		**delgado** *(slim)*		**simpático** *(nice)*
			feo *(ugly)*		**terco** *(stubborn) (m)*
Mi hermano *(My brother)*			**musculoso** *(muscular) (m)*		**tímido** *(shy)*
			bajo *(short) (m)*		
Mi padre *(My father)*			**guapa** *(good looking) (f)*	**y / e** *(and)*	**antipática** *(mean) (f)*
			fuerte *(strong)*		**aburrida** *(boring) (f)*
Ella *(She)*			**alta** *(tall) (f)*	**pero** *(but)*	**generosa** *(generous) (f)*
			gorda *(fat) (f)*		**divertida** *(fun) (f)*
Mi hermana *(My sister)*			**delgada** *(slim)*		**simpática** *(nice)*
			fea *(ugly)*		**terca** *(stubborn) (f)*
Mi madre *(My mother)*			**musculosa** *(muscular) (f)*		**tímida** *(shy)*
			baja *(short) (f)*		

Year 7 Spanish:

Handsome *(m)*	
Strong *(m)*	
Tall *(m)*	
Fat *(m)*	
Slim	
Ugly	
Muscular *(m)*	
Short *(m)*	
Pretty *(f)*	
Strong *(f)*	
Tall *(f)*	
Fat *(f)*	
Slim	
Ugly	
Muscular *(f)*	
Short *(f)*	

Mean *(m)*	
Boring *(m)*	
Generous *(m)*	
Fun *(m)*	
Nice	
Stubborn *(m)*	
Shy *(m)*	
Mean *(f)*	
Boring *(f)*	
Generous *(f)*	
Fun *(f)*	
Nice	
Stubborn *(f)*	
Shy *(f)*	

Year 7 Spanish:

Questions:
¿Que te gusta? = What do you like?
Key point: ¿Que = what

Opinion	Verb	Noun
Me gusta = I like No me gusta = I don't like Me encanta = I love Odio = I hate	estudiar = to study	alemán = German dibujo = art español = Spanish francés = French inglés = English teatro = drama biología = biology educación física = PE geografía = geography historia = history informática = ICT música = music química = chemistry religión = RE ciencias = science matemáticas = maths

Justifications and opinions
To give a justification or opinion for why you like something, you can use:
Porque es…(because it is) **or** porque son (because they are)
You then add your adjective.
For example, me gusta estudiar historia porque es divertido.

Recap: Ser (to be)

<u>Ser (to be)</u>
Ser (to be) is used to talk about...
- **Characteristics of people or things: Mi hermana es divertida** - My sister is fun
- **Nationality**: **Soy inglés** - I am English (masculine).
- **Professions: Mi madre es médica** - My mother is a doctor.
- **The date and time**: **¿Qué hora es?** - What time is it?

Ser is NOT used to talk about…
Feelings - You would have to use **Estar** (to be)
e.g. **Estoy feliz** - I am happy

Spanish	English
Soy	I am
Eres	You are
Es	He/she/it is
Somos	We are
Sois	You (plural) are
Son	They are

Year 7 Spanish:

Questions:
¿Que te gusta? =
Key point: ¿Que =

Opinion	Verb	Noun
= I like = I don't like = I love = I hate	= to study	= German = art = Spanish = French = English = drama = biology = PE = geography = history = ICT = music = chemistry = RE = science = maths

Justifications and opinions
To give a justification or opinion for why you like something, you can use:
…(because it is) **or** (because they are)
You then add your adjective.
For example,

Recap: Ser (to be)

Ser (to be)
(to be) is used to talk about...
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- My sister is fun
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- **Professions:** - My mother is a doctor.
- **The date and time**: - What time is it?

Ser is NOT used to talk about…
Feelings - You would have to use (to be)
e.g. - I am happy

Spanish	English
	I am You are He/she/it is We are You (plural) are They are

Year 7 Spanish:

Describing subjects and teachers

Remember that in Spanish adjectives change depending on the **noun** you are talking about and how many nouns you are talking about.
A noun is the name of a person, place or thing.
For example:

Señor Smith es divertid**o**
Mr Smith is fun

Señora Smith es divertid**a**
Mrs Smith is fun

Mis profesores son divertid**os**
My teachers are fun

Key adjectives	Masculine	Feminine	Masculine Plural	Feminine Plural
fun	divertido	divertida	divertidos	divertidas
easy	fácil	fácil	fáciles	fáciles
interesting	interesante	interesante	interesantes	interesantes
useful	útil	útil	útiles	útiles
boring	aburrido	aburrida	aburridos	aburridas

Say what days of the week I study different subjects.

Infinitive verbs

Remember that an infinitive verb is the verb in the 'to' form before it has been changed.

Infinitive verbs end in AR, ER or IR
Examples are estudiar = to study, hacer = to do, vivir = to live.

Conjugating regular verbs that end in AR in the present tense.

Reminder: conjugating a verb means that you are taking its infinitive form (verbs that end in AR, ER, IR) and changing it to I, you, we and to a particular tense (present, past, future).
To change a verb that ends in AR to the present tense, use the following process:
1.Take the AR ending off to form the **stem**.

For example, change **estudiar** to **estudi**

2.Choose the correct ending according to the person you are talking about.
For AR verbs, the present tense endings are as follows:

Pronoun	Present tense AR verb ending
I	o
You	as
He/she	a
We	amos
You plural	áis
They	an

Year 7 Spanish:

Describing subjects and teachers

Remember that in Spanish adjectives change depending on the **noun** you are talking about and how many nouns you are talking about.
A noun is the name of a person, place or thing.
For example:

Mr Smith is fun

Mrs Smith is fun

My teachers are fun

Key adjectives	Masculine	Feminine	Masculine Plural	Feminine Plural

Say what days of the week I study different subjects.

Infinitive verbs

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To change a verb that ends in AR to the present tense, use the following process:
1.Take the ending off to form the **stem**.

For example, change

2.Choose the correct ending according to the person you are talking about.
For AR verbs, the present tense endings are as follows:

Pronoun	Present tense AR verb ending
I	
You	
He/she	
We	
You plural	
They	

Year 7 Spanish:

Estudiar (to live) is a regular AR infinitive verb.

Estudiar (to live)

Spanish	English
Estudi**o**	I study
Estudi**as**	You study
Estudi**a**	He/she/it studies
Estudi**amos**	We study
Estudi**áis**	You plural study
Estudi**an**	They study

Remember in Spanish the **endings of verbs** tell you what the tense is and the person you are talking about.

Day of the week	Verb	Noun
Los lunes = on Mondays Los martes = on Tuesdays Los miércoles = On Wednesdays Los jueves = On Thursdays Los viernes = On Fridays Los sábados = On Saturdays Los domingos = On sundays	estudio = I study estudias = you study estudiamos = we study	alemán = German dibujo = art español = Spanish francés = French inglés = English teatro = drama biología = biology educación física = PE geografía = geography historia = history informática = ICT música = music química = chemistry religión = RE ciencias = science matemáticas = maths

Days of the week:
Remember that days of the week do not take a capital letter in Spanish.

lunes	*Monday*
martes	*Tuesday*
miércoles	*Wednesday*
jueves	*Thursday*
viernes	*Friday*
sábado	*Saturday*
domingo	*Sunday*

Year 7 Spanish:

Estudiar (to live) is a regular AR infinitive verb.

Estudiar (to)

Spanish	English
	I study You study He/she/it studies We study You plural study They study

Remember in Spanish the **endings of verbs** tell you what the tense is and the person you are talking about.

Day of the week	Verb	Noun
= on Mondays = on Tuesdays = On Wednesdays = On Thursdays = On Fridays = On Saturdays = On sundays	= I study = you study = we study	= German = art = Spanish = French = English = drama = biology = PE = geography = history = ICT = music = chemistry = RE = science = maths

Days of the week:
Remember that days of the week do not take a capital letter in Spanish.

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

Year 7 Spanish:

Recap: Infinitive verbs

An infinitive verb is the verb in the 'to' form before it has been changed.

Infinitive verbs end in AR, ER or IR

AR	ER	IR
Hablar = to speak Jugar = to play Bailar = to dance Escuchar = to listen	Hacer = to do Ser = to be Ver = to watch	Salir = to go out Ir = to go

Conjugating the AR verbs in the present tense.

To change a verb that ends in AR to the present tense, use the following process:

1. Remove the AR to form the **stem**. For example, change **hablar** (to talk) to **habl**
2. Choose the correct ending according to the person you are talking about . For AR verbs, the present tense endings are as follows:

English Pronoun	Present Tense AR verb ending	Spanish	English meaning
I	o	Hablo	I talk
You	as	Hablas	You talk
We	amos	Hablamos	We talk

In Spanish **the ending of the verb** tells you **who** you are talking about.

Other regular AR verbs are:

Escuchar = to listen

Bailar = to dance

Year 7 Spanish:

Recap: _____verbs

An _____ verb is the verb in the 'to' form before it has been changed.

Infinitive verbs end in __, ___ or ___

Hablar = Jugar = Bailar = Escuchar =	Hacer = Ser = Ver =	Salir = Ir =

Conjugating the AR verbs in the present tense.

To change a verb that ends in AR to the present tense, use the following process:

1. Remove the AR to form the **stem**. For example, change _____ (to talk) to **habl**
2. Choose the correct ending according to the person you are talking about . For ___ verbs, the _____ tense endings are as follows:

English Pronoun	Present Tense AR verb ending	Spanish	English meaning

In Spanish **the ending of the verb** tells you **who** you are talking about.

Other regular AR verbs are:

_____= to listen

_____= to dance

Year 7 Spanish:

Conjugating the ER verbs in the present tense.

To change a verb that ends in ER to the present tense, use the following process:

1. Remove the ER to form the **stem**. For example, change **comer** (to watch) to **com**
2. Choose the correct ending according to the person you are talking about . For ER verbs, the present tense endings are as follows:

English Pronoun	Present Tense ER verb ending	Spanish	English meaning
I	o	Como	I eat
You	es	Comes	You eat
We	emos	Comemos	We eat

Conjugating the IR verbs in the present tense.

To change a verb that ends in IR to the present tense, use the following process:

1. Remove the IR to form the **stem**. For example, change **vivir** (to live) to **viv**
2. Choose the correct ending according to the person you are talking about. For IR verbs, the present tense endings are as follows:

English Pronoun	Present Tense ER verb ending	Spanish	English meaning
I	o	Vivo	I live
You	es	Vives	You live
We	emos	Vivimos	We live

Year 7 Spanish:

_____ the ER verbs in the present tense.

To change a verb that ends in ER to the present tense, use the following process:

1. Remove the ER to form the ____. For example, change _____ (to watch) to **com**
2. Choose the correct ending according to the person you are talking about . For __ verbs, the present tense _____ are as follows:

English Pronoun	Present Tense ER verb ending	Spanish	English meaning

Conjugating the __ verbs in the present tense.

To change a verb that ends in IR to the present tense, use the following process:

1. Remove the IR to form the _____. For example, change **vivir** (to _____) to ____
2. Choose the correct ending according to the person you are talking about. For IR verbs, the _____ tense endings are as follows:

English Pronoun	Present Tense ER verb ending	Spanish	English meaning

Year 7 Spanish:

JUGAR (to play)
HACER (to do) in the present tense.

Jugar = to play. This is used for **sports with a ball**.

Juego	I play
Juegas	You play
Jugamos	We play

You then use the correct form of jugar, such as 'juego' and then add the sport.

For masculine sports, change **el** to **al.** For example, el fútbol is football. Juego **al** fútbol = I play football.

This is an irregular verb, so there are no rules with endings. It has to be fully learned using the table to the right.

This verb is used for **sports without a ball.**

Hago	I do
Haces	You do
Hacemos	We do

You then use the correct form of hacer, such as 'hago' and then add the sport.

For example: hago natación (I do swimming).

Year 7 Spanish:

JUGAR (__ _____)
HACER (__ ____) in the present tense.

Jugar = __ _____. This is used for **sports with a ____.**

	I play
	You play
	We play

You then use the correct form of _____, such as ‘juego’ and then add the sport.

For masculine sports, change ___ to **al.** For example, el fútbol is football. Juego **al** fútbol =_ ____ _____.

This is an irregular ____, so there are no rules with endings. It has to be fully learned using the table to the right.

This verb is used for _____ **without a ball.**

	I do
	You do
	We do

You then use the correct form of _____, such as ‘____’ and then add the sport.

For example: hago _____ (I do swimming).

Year 7 Spanish:

Talking about the weather in Spanish

When talking about the weather and seasons in Spanish there are two main verbs used:

- hacer -to do / to make
- hay - there is / there are

Hacer is the verb most commonly used.

When using **hacer** to describe the weather the verb changes to 'hace'.

The literal translation of **hace** is 'it makes'. For example,

Hace calor means, literally "it makes heat" or "it does heat", but in English it sounds more sensible to say "it is hot".

Here are some examples of when you can use **hace**:

Spanish	English
hace buen tiempo	it is nice weather
hace calor	it is hot
hace fresco	it is cool
hace sol	it is sunny
hace frío	it is cold

The silent 'h'

In Spanish, 'h' isn't pronounced.

Instead it is silent, so it's important to remember to emphasise the first vowel sound after the silent 'h'.

For example, when you say

hace (it is), the emphasis should be on the 'a'.

The seasons

The weather in Spain can differ depending on which part you are visiting.

In Winter it's usually very cold, and in Summer it's usually very hot.
Take a look at the Spanish words for the seasons below:

Spanish	English
primavera	Spring
verano	Summer
otoño	Autumn
invierno	Winter

Year 7 Spanish:

Talking about the weather in Spanish

When talking about the weather and seasons in Spanish there are two main _____ used:

- hacer -to do / __ _____
- hay - there is / _____ ___

Hacer is the verb most commonly used.

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	it is hot
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	it is sunny
	it is cold

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Take a look at the Spanish words for the seasons below:

Spanish	English
	Spring
	Summer
	Autumn
	Winter

Year 7 Spanish:

Talking about what you do according to the weather

Cuando = when

Hace sol = it is sunny

Therefore, you can add your activity at the end of the sentence. For example, cuando hace sol juego al fútbol (when it is sunny I play football).

See table below for other examples:

Cuando (When)	llueve (it rains)	juego al fútbol (I play football)
	hace sol (it is sunny)	juego al golf (I play golf)
	hace buen tiempo (it is nice weather)	juego al tenis (I play tennis)
	hace calor (it is hot)	hago natación (I do swimming)
	hace frío (it is cold)	hago patinaje sobre hielo (I do ice-skating)

Opinions

Porque = because

Es = it is

divertido = fun

fantástico = fantastic

genial = great

super guay = super cool

interesante = interesting

cansado = tiring

aburrido = boring

basura = rubbish

So, porque es divertido = because it is fun

Year 7 Spanish:

Talking about what you do according to the weather

Cuando =

Hace sol =

Therefore, you can add your activity at the end of the sentence. For example, _____ ___ ____ _____ __ _____(when it is sunny I play football).

See table below for other examples:

Cuando ( )	(it rains)	(I play football)
	(it is sunny)	(I play golf)
	(it is nice weather)	(I play tennis)
	(it is hot)	(I do swimming)
	(it is cold)	(I do ice-skating)

Opinions

Porque =

Es =

= fun

= fantastic

= great

= super cool

= interesting

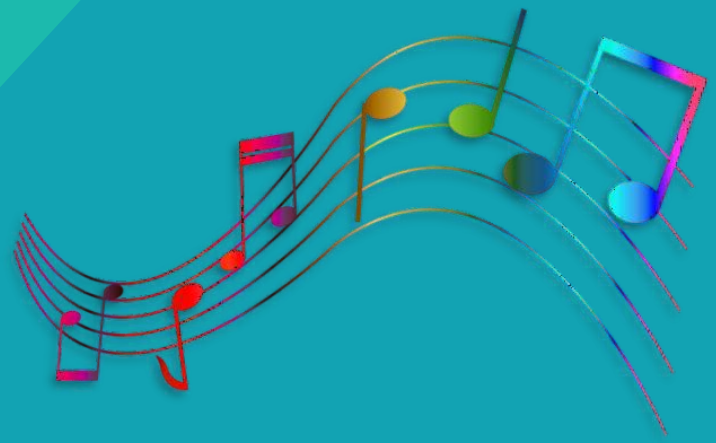
= tiring

= boring

= rubbish

= because it is fun

Music



Helping every person achieve things they never thought they could.

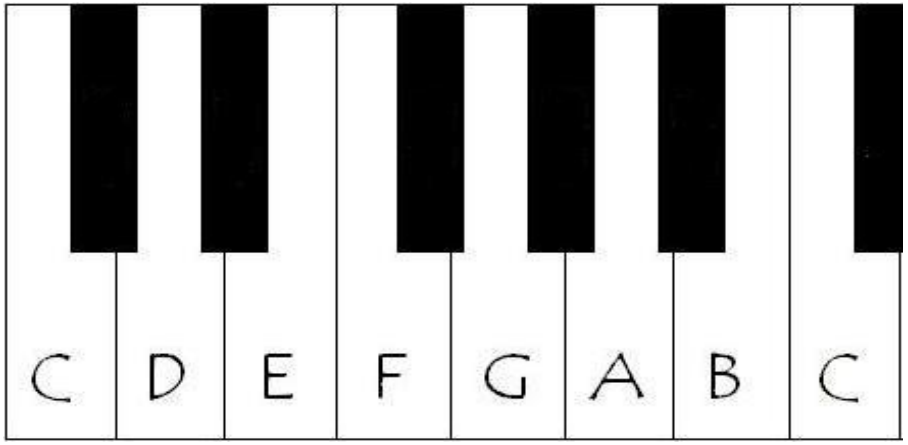
Little Lever School
be kind | work hard | take responsibility

Year 7 Music:

Key Terminology

1	**Pitch**	How high or low a note/ sound is
2	**Dynamics**	How loud or quiet a note/sound is.
3	**Tempo**	How fast or slow a piece of music is.
4	**Structure**	How a piece of music is organised into sections
5	**Rhythm**	A combination of short or long notes played one after an another
6	**Timbre**	The sound different instruments make
7	**Texture**	How many instruments are playing together e.g. thin texture (not many) or a thick texture (many instruments)
8	**Major**	If in a major key the music will usually sound uplifting and happy
9	**Minor**	If in a minor key the music will usually sound sad and unhappy

Notes of the Keyboard

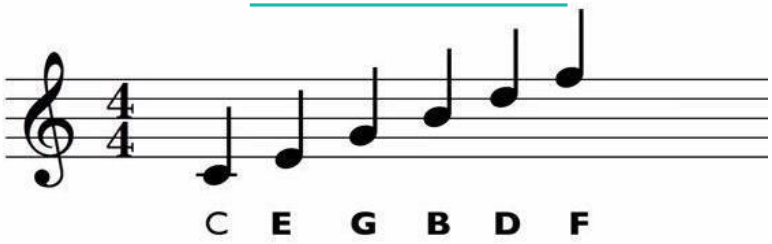


Treble Clef

Duration of Notes

Note	Name	Beats
	Semi Breve	4 beats
	Minim	2 beats
	Crotchet	1 beat
	Quaver	½ beat
	Semi Quaver	¼ beat

Treble Clef Pitch

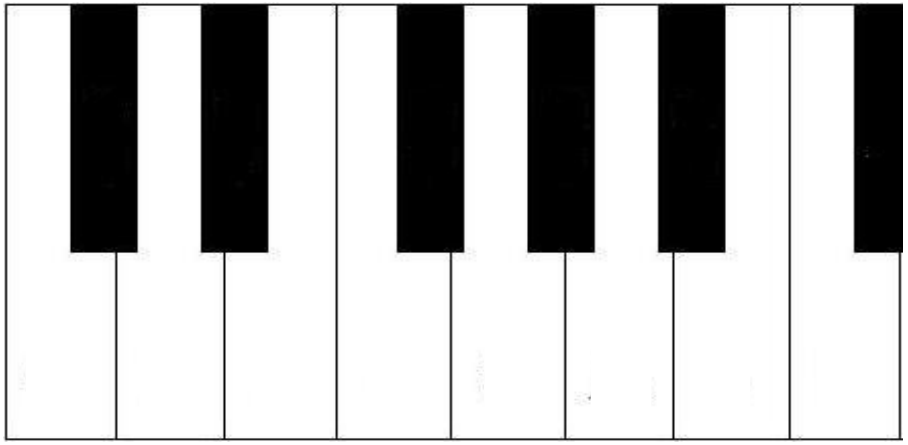


Year 7 Music:

Key Terminology

1	Pitch	
2	Dynamics	
3	Tempo	
4	Structure	
5	Rhythm	
6	Timbre	
7	Texture	
8	Major	
9	Minor	

Notes of the Keyboard

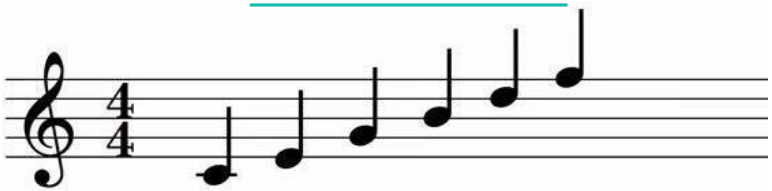


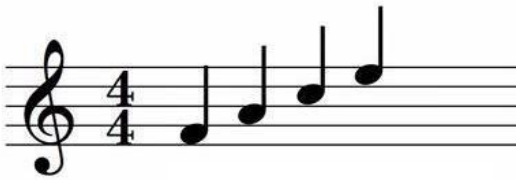
Treble Clef

Duration of Notes

Note	Name	Beats

Treble Clef Pitch

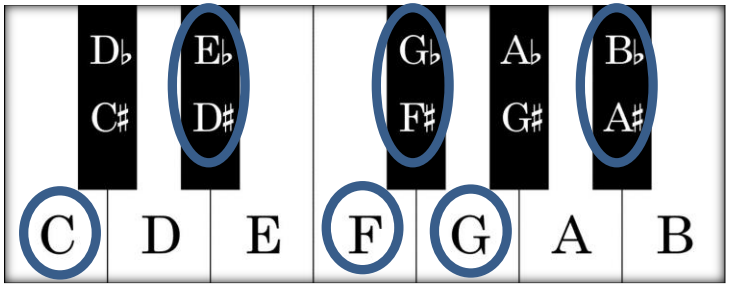




Year 7 Music:

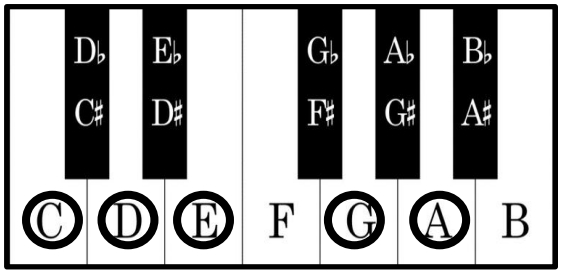
1	**Pentatonic Scale**	A scale using only five notes
2	**Improvisation**	Making music up on the spot
3	**Blues**	The Blues originated by African Americans in the USA around the end of the 19th century. The genre has its roots in African musical traditions, and African-American work songs.
4	***Bassline***	The musical part which sits at the bottom of the texture.
5	***Chord***	Two or more notes played simultaneously on a piano or guitar.

Blues Scale



The Blues scale is a very specific scale used in the blues style of Music. It consists of the notes C Eb F Gb G Bb. When played it has a very cool sound which is suitable for blues and improvisation.

Pentatonic Scale



Erhu

Dizi

Zither

The Pentatonic Scale

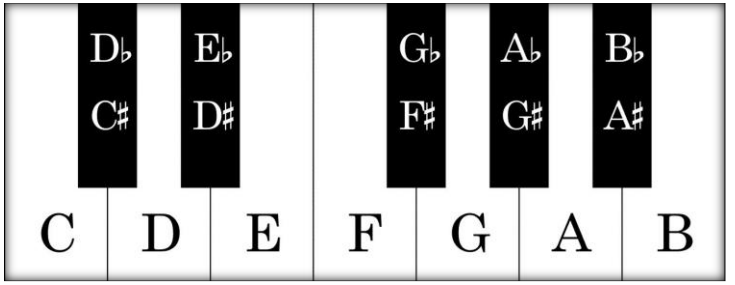
A pentatonic scale uses 5 notes in its scale. This means that only 5 notes are played in the melody of the music.
This scale has been developed by many ancient civilisations and is still used today particularly in traditional Chinese Music

Historical documents and archaeology tell us that Chinese music is thousands of years old. There are many traditional instruments. The **erhu** or Chinese violin is a bowed string instrument The **guzheng**, also known as a Chinese **zither**, is a plucked string instrument The **dizi** is a bamboo flute
A **gong** is a flat, circular metal percussion instrument which is hit with a mallet.

Year 7 Music:

1	**Pentatonic Scale**	
2	**Improvisation**	
3	**Blues**	
4	***Bassline***	
5	***Chord***	

Blues Scale



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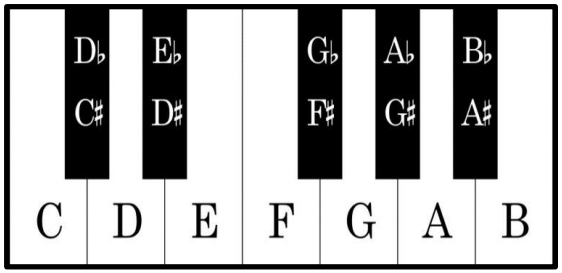
Pentatonic Scale



The Pentatonic Scale

A pentatonic scale uses ____ notes in its scale. This means that only _____notes are played in the melody of the music. This scale has been developed by many ancient civilisations and is still used today particularly in traditional Chinese Music

Historical documents and archaeology tell us that Chinese music is thousands of years old. There are many traditional instruments. The ___ or Chinese violin is a bowed string instrument The _____, also known as a Chinese ____, is a plucked string instrument The _____ is a bamboo flute
A _____ is a flat, circular metal percussion instrument which is hit with a mallet.

Year 7 Music:

KEY IDEAS & CONCEPTS	
Purpose	Music in a film is there to **set the scene**, **enhance the mood**, **tell the audience things** that the visuals cannot, or **manipulate** their feelings. **Sound effects are *not* music!**
Specially composed music	Some music is **composed specially** for a film. Much of this is broadly classical in style.
Borrowed music	Some music used in film soundtracks was composed for other (non-film) purposes, but is **adopted** for use in a film because it fits the film-maker's intentions.
Theme song	Sometimes a song, usually a pop song, is used as a **theme song** for a film. This helps with marketing and **publicity**.

INSTRUMENTS & COMMON ASSOCIATIONS (Musical Cliché's)	
Woodwind	**Natural** sounds such as bird song, animals, rivers
Bassoons	Sometimes used for **comic effect** (e.g. a drunkard)
Brass	**Soldiers**, war, royalty, **ceremonial** occasions
Tuba	**Large** and slow-moving things
Harp	**Tenderness**, love
Glockenspiel	**Magic**, music boxes, fairy tales
Timpani / Drums	War, **fighting**, **thunder**
Strings	Often used to portray **emotions**: passion, grief, etc.
Tremolo Strings	**Tension**, fear, drama

MUSICAL ELEMENTS & COMMON ASSOCIATIONS (Musical Cliché's)		
Tempo	**Fast**	**Excitement**, action or fast-moving things (e.g. a chase scene)
	Slow	**Contemplation**, rest or slow-moving things (e.g. a funeral procession)
Melody	**Ascending**	Upward movement, or a feeling of **hope** (e.g. climbing a mountain)
	Descending	Downward movement, or feeling of **despair** (e.g. movement down a hill)
	Large Leaps	**Distorted** or grotesque things (e.g. a monster)
Harmony	**Major**	Happiness, **optimism**, success
	Minor	Sadness, **seriousness** (e.g. a character learns of a loved one's death)
	Dissonant	**Scariness**, pain, mental anguish (e.g. a murderer appears)
Rhythm & Metre	**Strong sense of pulse**	**Purposefulness**, action (e.g. preparations for a battle)
	Dance-like rhythms	**Playfulness**, dancing, partying (e.g. a medieval feast)
	Irregular rhythms	Excitement, **unpredictability** (e.g. a fast-moving fight)
	Rhythmic ostinato	**Menace**, tension (e.g. the countdown to an invasion)
Dynamics	**Loud**	**Surprise**, power, large things (e.g. a vast panorama)
	Soft	**Gentleness**, weakness, intimacy, small things (e.g. a new-born lamb)
	Crescendo / Diminuendo	Objects or events getting **closer** / objects getting **further away**

KEY TERMS	
Click Track	A **click metronome** heard by musicians through headphones as they record.
Cues	The **parts of the film that require music**. This is agreed between the director and the composer.
Diagetic	**Music that is part of the action**: the characters in the film can hear it.
Leitmotif	A **short melody** that is **associated with a character** or idea in a film.
Mickey Mousing	When the **music fits precisely** with a specific part of the action in a film.
Non-diagetic	**Music that is *not* part of the action**: the characters in the film **cannot hear it**. It is just for the audience.
Syncing / sync point	A precise moment where the timing of the music needs to fit with the action.
Underscore	Where **music is played at the same time** as the action or dialogue.

KEY COMPOSERS
Bernard **Herrmann**
John **Williams**
John **Barry**
Jerry **Goldsmith**
Hans **Zimmer**
James **Horner**
Danny **Elfman**
Alan **Silvestri**
Howard **Shore**

Year 7 Music:

KEY IDEAS & CONCEPTS

INSTRUMENTS & COMMON ASSOCIATIONS (Musical Cliché's)

MUSICAL LEMENTS & COMMON AQSOCIATIONS (Musical Cliché's)

KEY TERMS

KEY COMPOSERS

PE

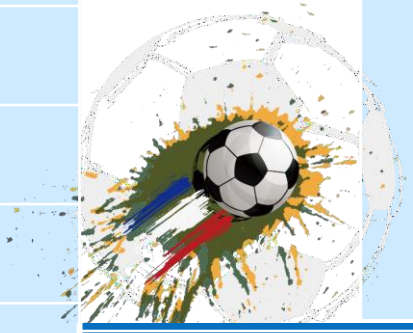
Helping every person achieve things they never thought they could.

Little Lever School
be kind | work hard | take responsibility

Year 7 PE: Football

Motor Competence

Passing	Accuracy, weight of pass
Receiving	Get in line, cushion
Dribbling	Little touches
Possession	Back foot
Outwitting an opponent	1v1, one - two
Defending	Jockeying, touch tight
Shooting	Placement
Game play	Basic rules



Rules, Strategies and Tactics

A goal kick	Occurs when the attacking team has the last touch before the ball goes behind the goal line. Any player can then pass the ball from the six yard box.
A corner kick	Occurs when the defending team has the last touch before the ball goes behind the goal line. Any player can then pass the ball from the corner of the goal and side line. The corner ball must be placed in the quadrant.
Restarting	The game after a goal is scored from the halfway line.
Free kick	When a player makes contact or handles the ball a foul is committed and the ball will be restarted with a free kick. A goalkeeper can only handle the ball in their penalty area.
Throw in	If the ball goes over the side lines of the pitch, the team who touches the ball last will give away a throw in to the other team. The throw in must be taken from the point it goes out of play.

Healthy Participation

Muscles	Gluteal, hamstrings, quadriceps, gastrocnemius
Fitness components	Foot eye coordination, pace, speed, stamina.

Key Terms:

1.Spatial awareness 2.Team work 3.Cooperation 4.Communication 5.Fair play 6.Sportsmanship 7.Etiquette 8.Leadership 9.Gamesmanship 11.Values 12.Teamwork

Year 7 PE: Football

What are the key ideas linked to each motor competence? Complete below.	
Passing	
Receiving	
Dribbling	
Possession	
Outwitting an opponent	
Defending	
Shooting	
Game play	

Rules, Strategies and Tactics

What is a goal kick? ➡

What is a corner kick? ➡

What happens when a match is 'restarting'? ➡

What is a free kick? ➡

What is a throw in? ➡

Healthy Participation

Which **muscles** are used in football?	
What are the **fitness components** of football?	

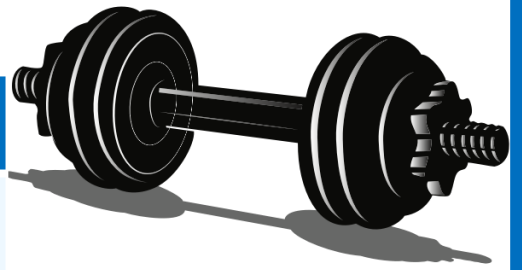
Key Terms:

1.Spatial awareness 2.Team work 3.Cooperation 4.Communication 5.Fair play 6.Sportsmanship 7.Etiquette 8.Leadership 9.Gamesmanship 11.Values 12.Teamwork

Year 7 PE: Fitness

Motor Competence

Muscular strength	The amount of force you can put out or the amount of weight you can lift.
Muscular Endurance	Perform exercises to failure so that you improve your muscular endurance.
Speed	Moving your body fast as possible
Agility	Changing direction rapidly, whilst maintaining speed and precision.
Flexibility	A joint or series of joints to move through an unrestricted, pain free range of motion.
Balance	Even distribution of weight enabling someone or something to remain upright and steady.
Coordination	Throw with one hand, catch with the other.
Reaction time	How fast an athlete is able to respond to a stimulus.
Cardiovascular Fitness	To exercise the whole body for long periods



Healthy Participation

Muscles commonly used in the lesson:

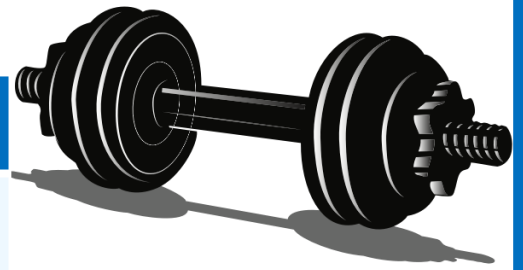
- Gluteal
- Hamstrings
- Quadriceps
- Gastrocnemius
- Abdominals

Rules, Strategies and Tactics

All of the movements completed to improve agility and speed must use the **correct technique** as this would stop any injuries or muscular injuries occurring.

All participants must have **warmed up** their muscles before completing flexibility and balance skills as if not muscles can easily be torn or damaged.

Year 7 PE: Fitness



Motor Competence- define the terms below.

Muscular strength	
Muscular Endurance	
Speed	
Agility	
Flexibility	
Balance	
Coordination	
Reaction time	
Cardiovascular Fitness	

Healthy Participation

Muscles commonly used in the lesson:

- _____
- _____
- _____
- _____
- _____

Rules, Strategies and Tactics

All of the movements completed to improve agility and speed must use the _____ as this would stop any injuries or muscular injuries occurring.

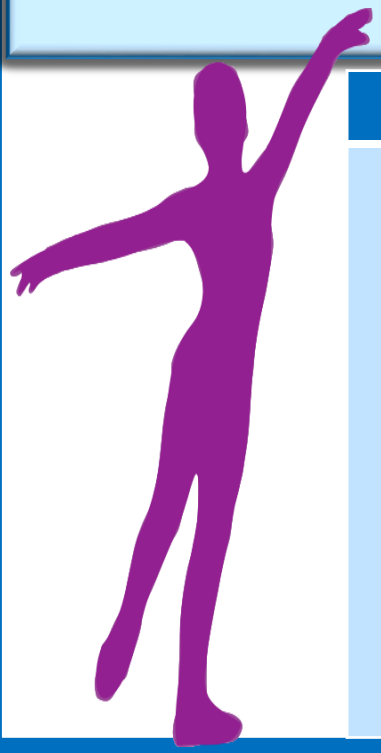
All participants must have _____ their muscles before completing flexibility and balance skills as if not muscles can easily be torn or damaged.

Year 7 PE: Aesthetic Movement

Rules, Strategies and Tactics

Students must start each movement with their arms stretched and extended up by the side of their head with their fingers extended. When they finish the movement they also must finish in the same manner.

Students must link up the parkour movements in which they are able to perform. This means that they may choose what order they place movements in so that the sequence flows in a smooth manner. Students must make sure that the way they perform each movement is precise as this will stop them not being able to clear any obstacles.



Healthy Participation

Muscles commonly used in the lesson:

- Gluteal
- Hamstrings
- Quadriceps
- Gastrocnemius

Motor Competence

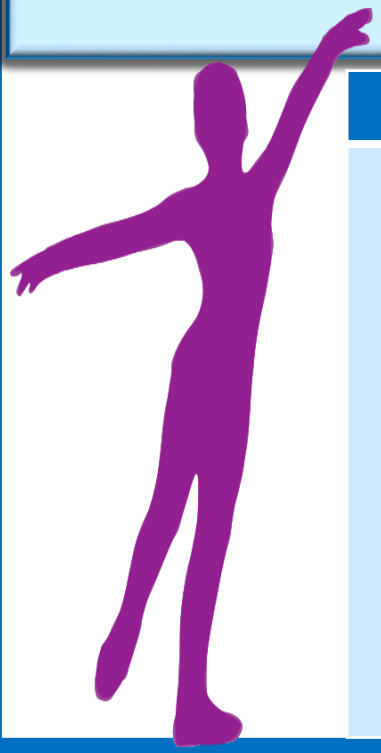
Balance	Weight evenly distributed based on different points of contact.
One point of contact balance	One body part touching the floor
Contact balance	Two body parts touching the floor
Four point of contact balance	Four body parts touching the floor
Forwards roll	Feet together, drop head and tuck in chin, follow the curve of your spine.
Backwards roll	Squat position, bend arms close to body, keep knees tucked to chest. Use momentum to roll backwards quickly and push up with shoulders.
Cartwheel	Kick forward, use momentum to rotate on both hands, put legs into V shape, bring hand and leg down on opposite side
Roundoff	Gather speed, lunge and place both hands on the ground, propel body with one leg, rotate body on hands 180 degrees

Year 7 PE: Aesthetic Movement

Rules, Strategies and Tactics

Students must start each movement with their arms _____and _____up by the side of their head with their fingers extended. When they finish the movement they also must finish in the same manner.

Students must link up the parkour movements in which they are able to perform. This means that they may choose what order they place movements in so that the sequence flows in a smooth manner. Students must make sure that the way they perform each movement is precise as this will stop them not being able to clear any obstacles.



Healthy Participation

Muscles commonly used in the lesson:

- _____
- _____
- _____
- _____

Motor Competence- define he key terms below:

Balance	
One point of contact balance	
Contact balance	
Four point of contact balance	
Forwards roll	
Backwards roll	
Cartwheel	
Roundoff	

Year 7 PE: Games for understanding

Rules, Strategies and Tactics

Warm up - Dynamic and static stretching. Hold stretches for 8-10 seconds.
Agility - move with speed and push off using your feet to move in and out.
Power - start low and extend up and out throwing your arms forward and land with bending legs.
Coordination - start off slow then speed up when you have a rhythm. Take a full catch and aim on the wall around chest height.
Cool down - low intense activity and stretching for 10-12 seconds.
Movement deciding on which way to move to get there in the quickest time
Stamina - starting of slow then building up your pace.
Speed - run through the finish line.
Attacking - Protect the ball from the opponent. Ability to fake, tease your opponent.
Defending - Use your body to protect. Close down, choosing the right moment to tackle

Motor competence

Three stage of a warmup - pulse raiser, Stretching (static and dynamic)

Agility - Illinois agility test

Power - a standing long jump

Coordination - wall toss, students will have 30 seconds to throw and catch the ball with one hand

Cool down - low intense activity including light jogging and movement.

Stretches of legs, arms and trunk.

Healthy participation

Three stages of a warm up -
pulse raiser, stretches, activity
based practice. What happened to
the body - rise in temperature, heart rate and breathing rate. Main muscles used, hamstrings, gastrocnemius, quadriceps, gluteals, pectorals, abdominals, bicep and tricep.

- Agility - how quickly you can change direction whilst maintaining speed.
- Power - speed x strength.
- Coordination (hand/foot to eye) moving two or more body parts at the same time effectively.
- Mental health - exercise is a break from normal activity, reduces stress, makes you feel good and improves self confidence.
- Physical health - improved fitness levels, improved body shape and size. Links to diet and sleep.
- Cool down - reduces muscles aches and pains, reduces injury, helps your revolver, allows breathing rate and heart rate to return to normal quicker. Repay oxygen debt and the removal of lactic acid.

Year 7 PE: Games for understanding

Rules, Strategies and Tactics

Warm up –

Agility –

Power –

Coordination –

Stamina –

Attacking –

Defending –

Motor competence

Three stage of a warmup - pulse raiser, Stretching (static and dynamic)

Agility -

Power -

Coordination –

Cool down –

Healthy participation

Three stages of a warm up -

based practice. What happened to the body - rise in temperature, heart rate and breathing rate. Main muscles used,

- Agility –
- Power -
- Coordination
- Mental health –
- Physical health –
- Cool down –

Year 7 PE: Athletics

Motor Competence

Running - 100m and 200m - Standing our crouched starts. Stay in your lane. Tall posture, lead with the 'belt buckle'. High knees with stepping action. Accelerate with forward lean from ankle to ears. Big arm action 'hip to lip'.
Running - Relay - when passing over, hold opposite arm back and straight. Start to accelerate facing forward as teammate approaches. Place baton in palm of hand.
Throwing - Javelin - grip using the palm with fingers wrapped around. Throw with pulling action. Side on with dominant arm at the back. Rotate body for power. See it out.
Running - 800m and 1500m - Standing start, move to the inside lanes, steady pace throughout , breathing in through the nose, out through the mouth. Increase of speed at the finish, duck at the line.
Throwing - Discus - grip flat in the palm, wrap fingers around the edge, stand side on with dominant hand at the back. Release from index finger, see it out.
Jumping - Standing long - bend knees, swing arms, fall forwards
Throwing - Shot Putt - Dirty fingers, dirty neck, 'chin-knee-toe' stance. Push and use power from the legs and body. Aim for a 45 degree trajectory. See it out.

Rules, Strategies and Tactics

Running - Fingers must be behind the white line during a sprint start

100&200m - stay in your lane

800&1500m - use inside lanes

Throwing - Only throw and collect when instructed to do so

Throwing - Feet behind the throwing line. Score from where the equipment lands, not where it rolls to

Jumping - score from part of the body that is furthest back

Healthy Participation

Warm up - Involves a pulse raiser and dynamic stretches. Prepares participants physically and mentally. Helps to prevent injury.

Muscles used when running - Quadriceps, hamstrings, gastrocnemius, deltoids, biceps, triceps

Muscles used when throwing - Quadriceps, deltoids, biceps, triceps, trapezius

Muscles used when jumping - Gluteus Maximus, quadriceps, hamstrings, gastrocnemius

Fitness components used during athletics - Cardiovascular endurance, muscular strength & endurance, speed and power

Year 7 PE: Athletics

Motor Competence

Running –

Running –

Throwing –

Running –

Throwing –

Jumping –

Throwing –

Rules, Strategies and Tactics

Running –

100&200m –

800&1500m –

Throwing –

Throwing –

Jumping -

Healthy Participation

Warm up –

Muscles used when running –

Muscles used when throwing –

Muscles used when jumping –

Fitness components used during athletics -

Year 7 PE: Striking and Fielding

Motor Competence

Throwing Technique - underarm for short distances and overarm for long distances, see it out

Catching technique - See it in, cupped hands, fingers pointed up and thumbs together if above the waist, fingers down and pinkies together if below the waist

Long Barrier - get in line, whole body behind the ball, bend knee and twist to the side, fingers pointing down to collect

One handed pick up - moving forward, fingers pointing down, collect from front foot

Rounders bowling - knees bent, smooth underarm action, aim between shoulder and hip

Cricket bowling - Seam between index and middle finger, straight arm, release at top of swing

Rounders batting - Hold with one hand, stand side one, keep your eye on the ball and time your swing, aim for the space

Rules, Strategies and Tactics

Flat Bat Rounders: Where should the fielders stand. Can only stump batters out at first base. Where do you go after they have passed that base in order to prevent them from scoring? After first base to get the batter out, they must be touched or hit with the ball. Do you chase them or throw the ball at them to hit them and get them out?
Only score by hitting the ball so contact must be made.
The backstop may hit the batter with the ball, throw to first base fielder to stump them out or to other fielders to hit the batter with the ball to get them out. If the backstop catches the ball when the batter has hit it, the batter is out.

Cricket: Throwing the ball at the correct wickets. Backing up.
Required to hit the ball in order to score runs.
To catch the ball when missed by the batsman, or when thrown towards him.

Healthy Participation

Pupils to understand the importance of warm ups. Biceps, triceps, deltoid, pectorals, latissimus dorsi, hamstrings, gluteals, quadriceps, gastrocnemius.
How exercise improves health and the benefits of being physically active long term.
What happens to out body during exercise? - Heart rate increases, breathing deepens, increase in body temp, sweat.
Understanding why these things happen and how they Benefit us?
Social enjoyment, having fun, learning new skills and improving them. becoming part of a team - teamwork and ultimately representing the school or playing for a team outside of school - club links.

Year 7 PE: Striking and Fielding

Motor Competence

Throwing Technique –

Catching technique –

Long Barrier –

One handed pick up –

Rounders bowling –

Cricket bowling –

Rounders batting –

Rules, Strategies and Tactics

Flat Bat Rounders:

Cricket:

Healthy Participation

Pupils to understand the importance of warm ups. Biceps, triceps, deltoid, pectorals, latissimus dorsi, hamstrings, gluteals, quadriceps, gastrocnemius.
How exercise improves health and the benefits of being physically active long term.
What happens
to out body during exercise?

Understanding why
these things happen and how they
Benefit us?

Year 7 PE:Officiating & Fair Play

Whistle

You need to blow your whistle to get the attention of the players

Reason

Explain why you have made that decision with confidence and assertiveness

Etiquette

Polite behaviour in sport. Shaking hands with opponents. Complimenting them if they do something well.

Sportsmanship

Applauding opponents when they do something well. Admitting if a foul is made of if the ball is out of play. Playing fair.

Signal

Use arm signals to give a visual cue of what decision you have made

Restart

Know how to restart the game correctly

Gamesmanship

Bending the rules to gain an advantage. Not classed as cheating.

Year 7 PE:Officiating & Fair Play

Whistle

Sportsmanship

Reason

Etiquette

Signal

Restart

Gamesmanship

Religious Education

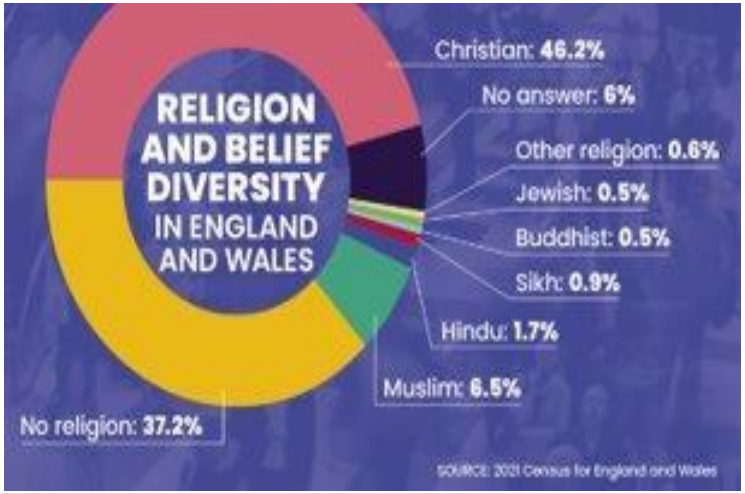
Helping every person achieve things they never thought they could.

Little Lever School
be kind | work hard | take responsibility

Year 7 RE: : Introduction

Name of Religion	Place of worship	Holy Book	Symbol	Festival
Buddhism	Vihara	Tripitaka		Wesak
Christianity	Church	Bible		Easter
Hinduism	Mandir	Vedas		Diwali
Islam	Mosque	Qur'an		Eid ul Adha
Judaism	Synagogue	Torah		Rosh Hashana
Sikhism	Gurdwara	Guru Granth Sahib		Vaisakhi

- A **pujari** leads worship in a mandir.
- A **rabbi** teaches Jews about religious laws.
- An **imam** leads the 5 daily prayers in the mosque.



Key words

Atheist – someone who does not believe in God.

Agnostic – someone who is unsure of God's existence.

Humanist – someone who wants to do what they feel is right but not for religious reasons.

Buddhist **monks** often live together in a monastery. Many teach about Buddhism and lead meditation in the vihara.

Christian leaders are given different names depending on the denomination (group) they belong to. For example, Roman Catholics have **priests**, whereas the Church of England have **vicars**.

Year 7 RE: : Introduction

Name of Religion	Place of worship	Holy Book	Symbol	Festival
Buddhism				
Christianity				
Hinduism				
Islam				
Judaism				
Sikhism				

Key words

What is an atheist?

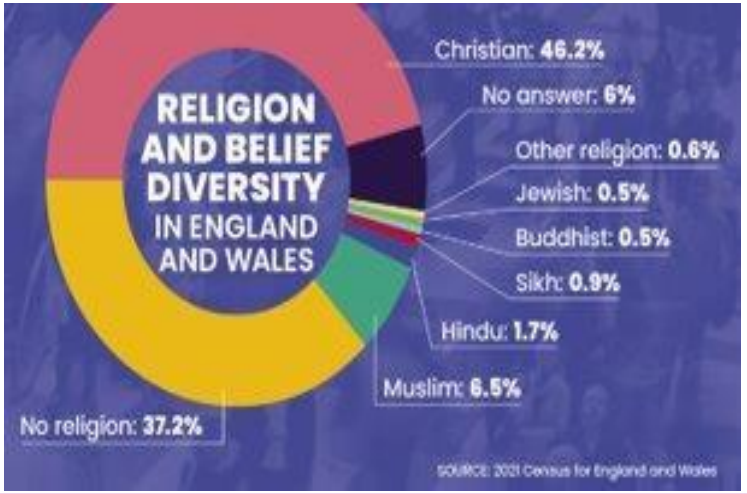
What is an agnostic?

What is a humanist?

Describe how Buddhist monks live and teach:

What are Christian leaders called?

- A **pujari** leads:
- A **rabbi** teaches:
- An **imam** leads:

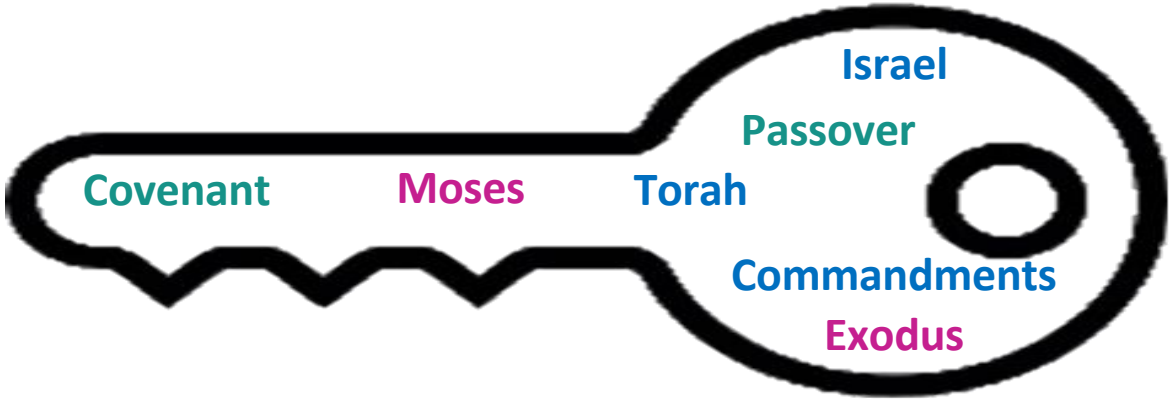


Year 7 RE: Judaism

Events in Abraham's life	Age
Birth of Abraham	0
God first speaks and move to Canaan	75
Birth of Ismael	86
Agreement to circumcise	99
Birth of Isaac	100
Death of Sarah and marriage to Katurah	137
Isaac marries Rebecca	140
Death of Abraham	175

Key learning / concepts

Covenant	Monotheism	Passover
An agreement between two people *E.g. God and Abraham*	Belief in one God	Passover – the Angel of Death `passed over ` Egypt *(10th Plague)*



Key Word Meanings

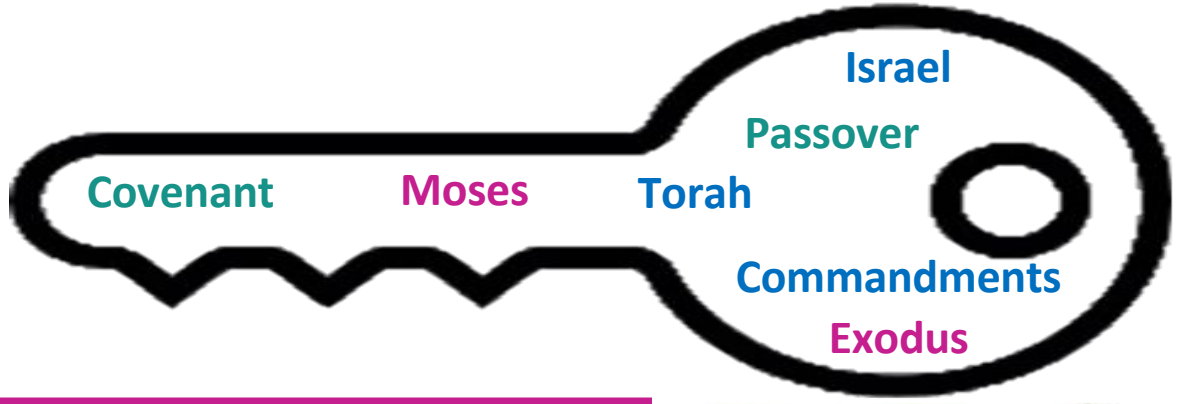
Exodus	Escape (from Egypt, led by Moses)
Sacrifice	Slaughtering an animal as an offering to God
Prophet	An inspired teacher about the will of God
Commandment	Religious rule

Year 7 RE: Judaism

List the events in Abraham's life:	Age
	0
	75
	86
	99
	100
	137
	140
	175

Key learning / concepts (explain below):

Covenant	Monotheism	Passover



Define the key words below:

Exodus	
Sacrifice	
Prophet	
Commandment	

Year 7 RE: Judaism

A synagogue is the Jewish place of worship. Some Jewish people call it a **shul**. They are also used as a place to study, and often as a community centre as well.

The largest room in a synagogue is likely to be the hall of worship. This is called the **Sanctuary**. Inside the sanctuary, there are various pieces of furniture.

Traditionally, synagogues face towards Jerusalem, the holy city of the Jewish people. In Western parts of the world like the UK, therefore, synagogues usually face east. Seats for the congregation of worshippers face towards the Ark and so also towards Jerusalem.

In Orthodox synagogues, men and women sit separately; sometimes women worship from a raised balcony above the sanctuary. In Reform Judaism, men and women worship together.

Features inside the synagogue	Description
Torah Scrolls 	The Jewish holy book that explains how people should live their lives.
Ark 	The special box where the Torah Scrolls are kept safe.
Bimah 	The raised platform in the centre of the synagogue where the Torah Scrolls are read from
Menorah 	The seven branch candle stick that reminds Jews of the lamps in the temple.
Ner Tamid 	The eternal light that never goes out

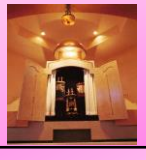
Year 7 RE: Judaism

A synagogue is the Jewish place of _____. Some Jewish people call it a ____. They are also used as a place to study, and often as a _____ centre as well.

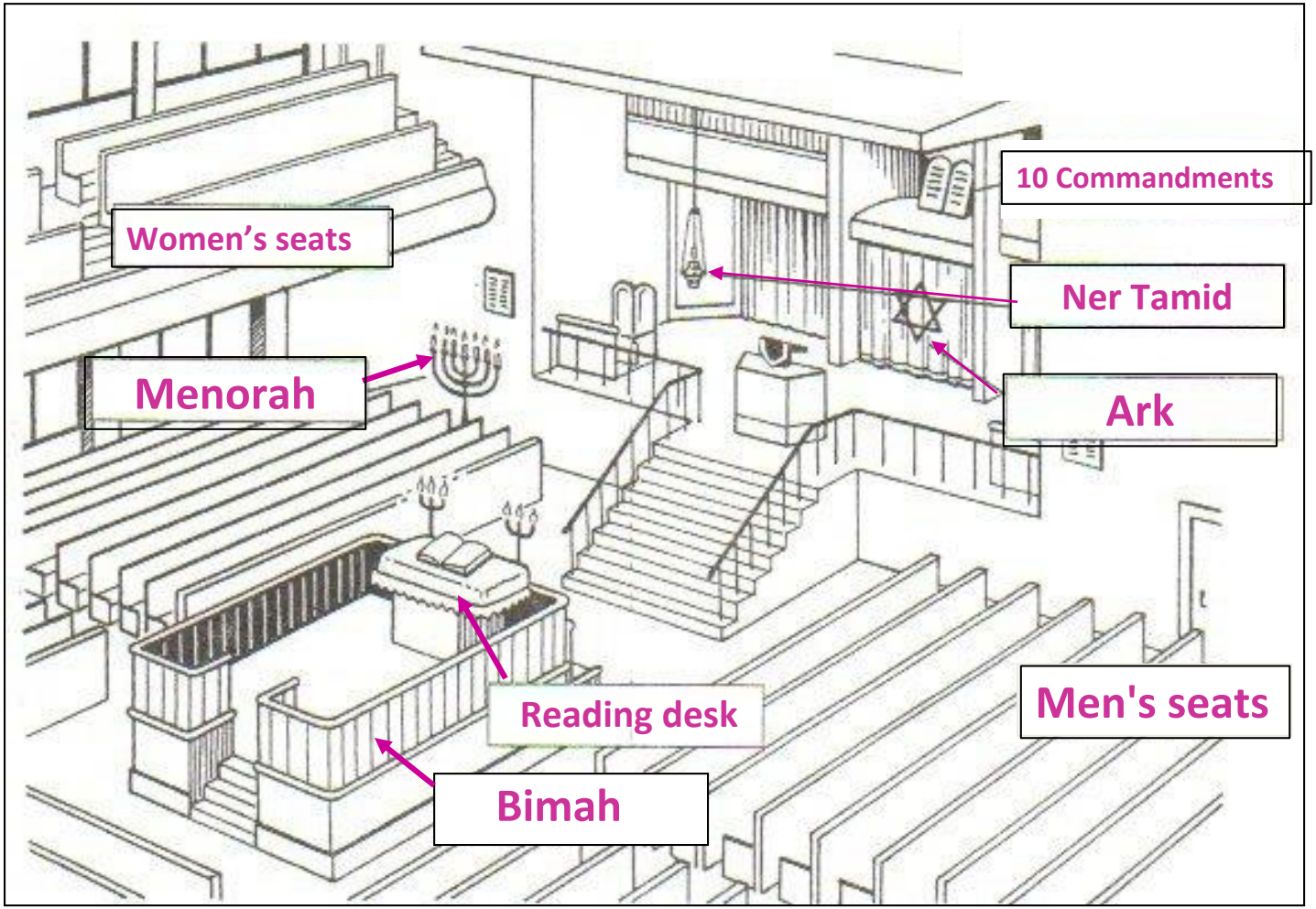
The largest room in a _____ is likely to be the hall of worship. This is called the _____. Inside the sanctuary, there are various _____ of furniture.

Traditionally, synagogues ____ towards Jerusalem, the holy city of the Jewish people. In _____ parts of the world like the __, therefore, synagogues usually face ____. Seats for the congregation of worshippers face towards the ____ and so also towards Jerusalem.

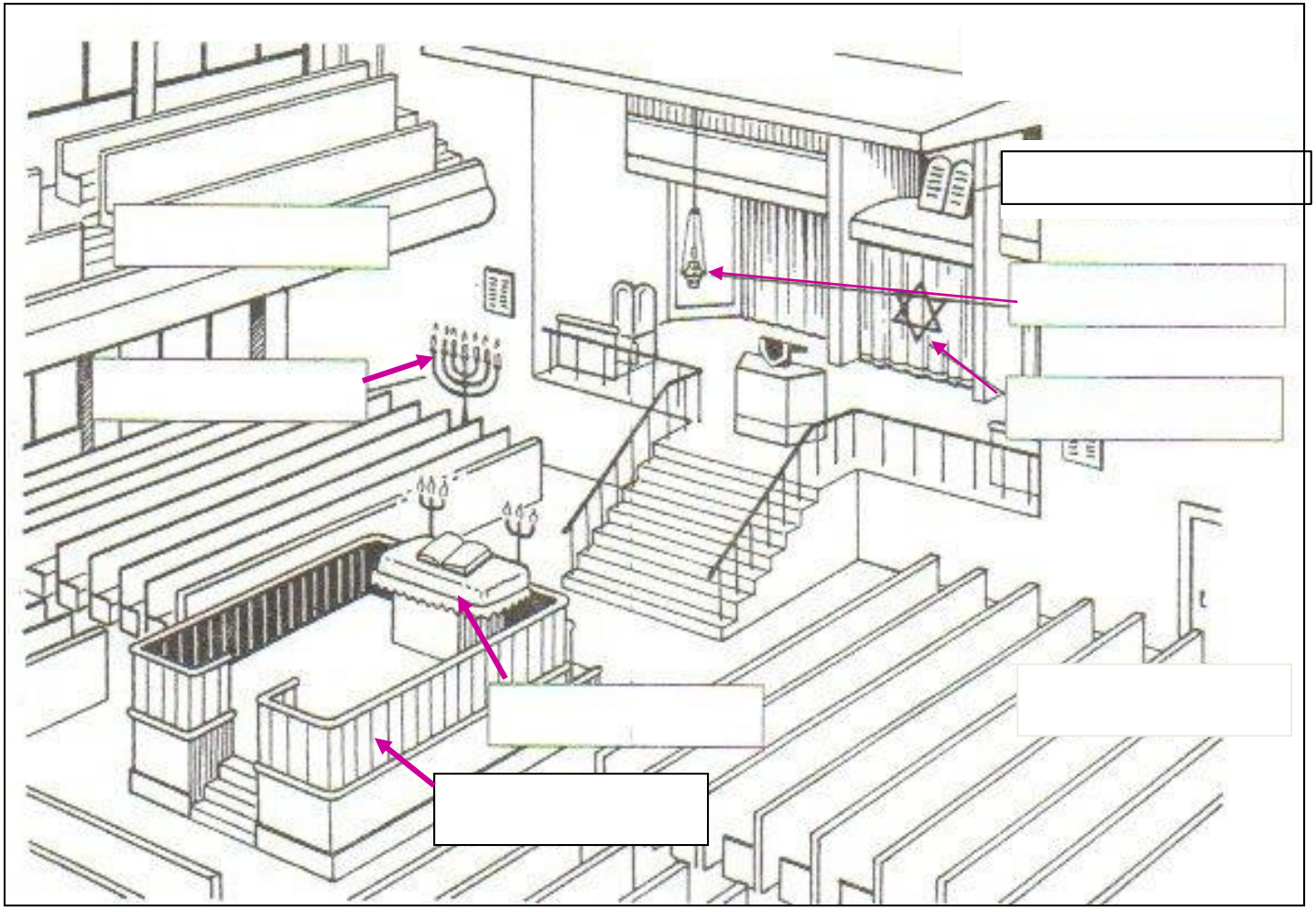
In Orthodox synagogues, ___ and women sit separately; sometimes _____ worship from a raised balcony above the sanctuary. In _____ Judaism, men and women worship together.

Features inside the synagogue	Description
Torah Scrolls 	
Ark 	
Bimah 	
Menorah 	
Ner Tamid 	

Year 7 RE: Judaism- The Synagogue



Year 7 RE: Judaism- The Synagogue



Year 7 RE: Judaism- Shabbat

Shabbat is the Jewish rest day. Observing it is a mitzvah and one of the Ten Commandments.

Shabbat begins before nightfall on Friday and lasts for 25 hours. The mother of the household (or another person over the age or bar mitzvah) lights candles to welcome in the Sabbath and create a special atmosphere.

The family share a meal, including special bread and wine.

Most Jewish people look forward to Shabbat all week. They see it as God's gift to his chosen people of a day when they take time out from everyday things to feel special.

Shabbat is a time with no television, no rushing to the demands of the telephone or a busy work schedule.

People don't think about work or other stressful things.

It's an oasis of calm, a time of stillness in life.

There are rules about what you can and what you can't do on Shabbat. These rules aren't to stop people from enjoying themselves and having fun. They are to give them the chance to relax and reflect on their life and God's love for them.

Year 7 RE: Judaism- Shabbat

Shabbat is the Jewish ____ day. Observing it is a _____ and one of the Ten _____.
Shabbat begins before nightfall on _____ and lasts for __ hours. The _____of the household (or another person over the age or bar mitzvah) lights _____ to welcome in the Sabbath and create a special _____.
The family share a ____, including special bread and _____.

Most Jewish people look forward to _____ all week. They see it as God's _____ to his chosen people of a day when they take time out from everyday things to feel _____.

Shabbat is a time with no _____, no rushing to the demands of the telephone or a busy work schedule.
People don't think about work or other _____ things.

It's an oasis of _____, a time of stillness in life.

There are _____ about what you can and what you can't do on Shabbat. These rules aren't to stop people from enjoying themselves and having fun. They are to give them the chance to _____and_____on their life and God's _____ for them.

Year 7 RE: Judaism- Shabbat

Many people tend to think of Shabbat as a day full of things they cannot do. Far from simply being a day of restrictions, a Shabbat observed at home is a day immersed in an atmosphere of rest, relaxation, and rejoicing.

In order to enjoy a Shabbat free of household chores, it is traditional to clean the house before Shabbat and prepare all meals in advance, so that the food only need be warmed up to enjoy it (rather than cooked, which would violate traditional Shabbat restrictions).

At a time when most of humanity only ate two full meals a day, Jewish tradition called for three meals on Shabbat **(between sundown on Friday and just after sundown on Saturday)** to ensure that one could relax and celebrate with a full stomach.

Shabbat afternoon is a time reserved for reading, talking, playing board games, visiting friends and family or studying Jewish texts such as the Torah, all activities that people often claim that they never have enough time to do.

Year 7 RE: Judaism- Shabbat

Many people tend to think of Shabbat as a day full of things they _____ do. Far from simply being a day of restrictions, a Shabbat observed at home is a day immersed in an atmosphere of ____, _____, and _____.

In order to enjoy a Shabbat free of household chores, it is traditional to _____ the house before Shabbat and prepare all _____ in advance, so that the food only need be warmed up to enjoy it (rather than _____, which would _____ traditional Shabbat restrictions).

At a time when most of humanity only ate two full meals a day, Jewish tradition called for _____ meals on Shabbat **(between _____ on Friday and just after sundown on _____)** to ensure that one could _____ and celebrate with a full _____.

Shabbat afternoon is a time reserved for _____, talking, playing board games, visiting friends and family or studying Jewish texts such as the _____, all activities that people often claim that they never have enough _____ to do.

Year 7 RE: Judaism- Shabbat

The first section relates to farming and includes: sowing, ploughing, reaping, binding sheaves, threshing, shearing wool, trapping, slaughtering, curing hide.

The second section relates to cooking: grinding, sifting, kneading, baking, salting meat.

The third section relates to household chores: washing wool, beating wool, dyeing wool, spinning, weaving, making two loops, weaving two threads, separating two threads, tying, untying, sewing two stitches, tearing.

The fourth section relates to work: writing two letters, erasing two letters, building, tearing a building down, hitting with a hammer, taking an object from the private domain to the public, or transporting an object in public.

The fifth section relates to light and heat: extinguishing a fire and kindling a fire are not allowed. But what does that mean?

Example: Kindling a Fire

The use of electricity is not allowed because it serves the same function as fire – to light or heat. A car is powered by an engine, which operates by burning petrol, electric and oil, a clear violation of the Torah law against kindling a fire. In addition, the movement of the car would constitute transporting an object in public, another violation of a Torah law, and in all likelihood the car would be used to travel a distance greater than that permitted. For all these reasons, and many more, the use of an vehicle on Shabbat is clearly not permitted.

Year 7 RE: Judaism- Shabbat

The first section relates to farming and includes: _____, ploughing, reaping, binding sheaves, threshing, _____ ____, trapping, _____, curing hide.

The second section relates to _____: grinding, sifting, kneading, _____, salting meat.

The third section relates to household chores: _____ wool, beating wool, dyeing wool, spinning, _____, making two loops, weaving two threads, separating two _____, tying, _____, sewing two stitches, _____.

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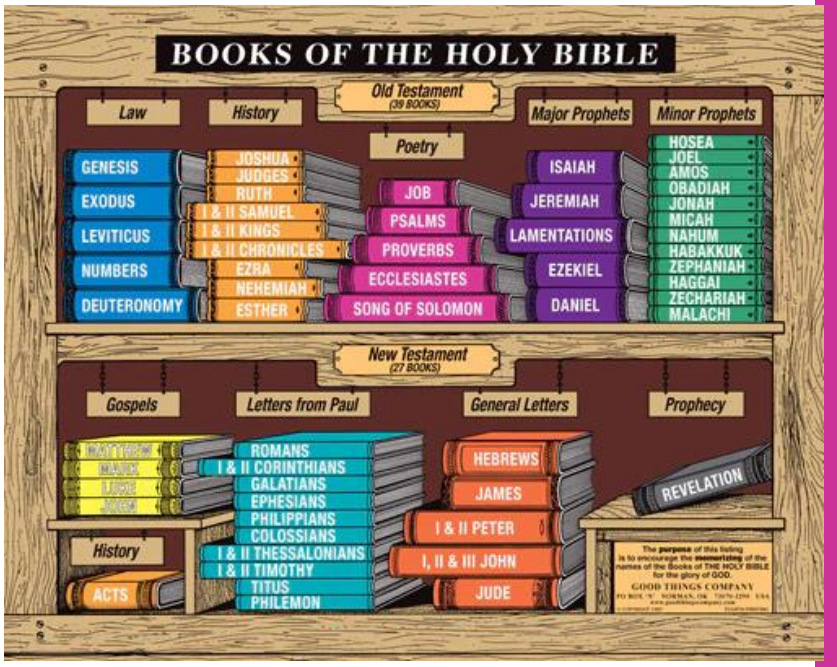
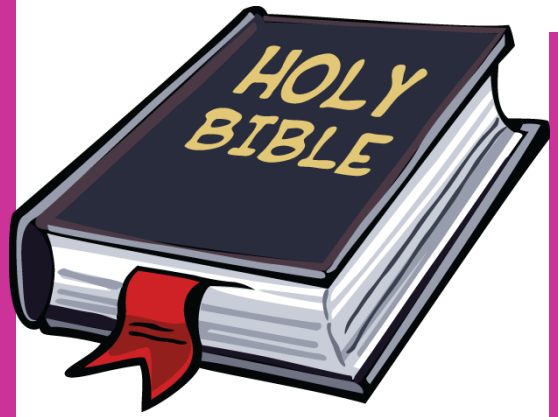
Year 7 RE: Christianity

Keywords	
Bible	The holy book of Christians
Old Testament	The first part of the Bible, before the life of Jesus.
New Testament	The second part of the Bible, starting with the birth of Jesus.
Testament	Agreement
Gospels	Meaning **'good news'.** The first four books of the New Testament.



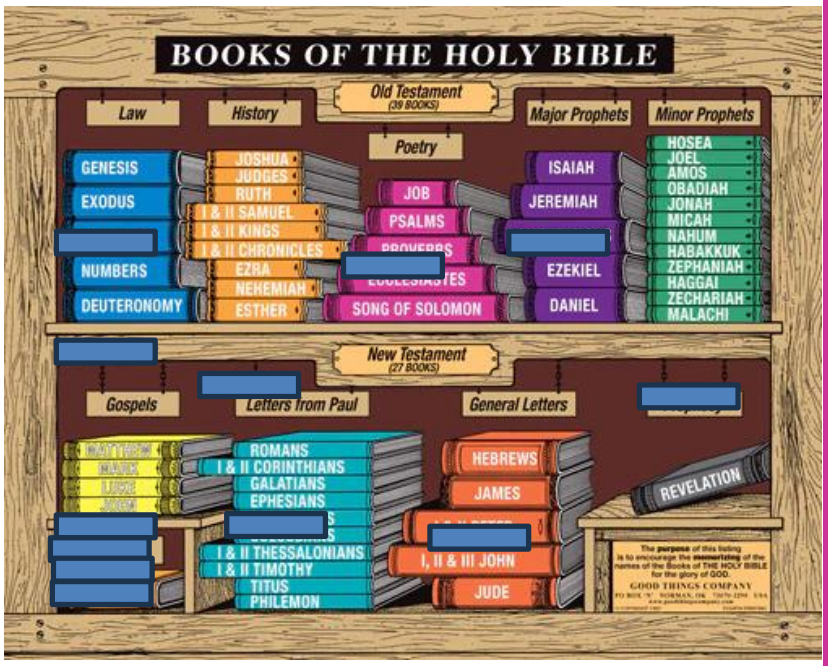


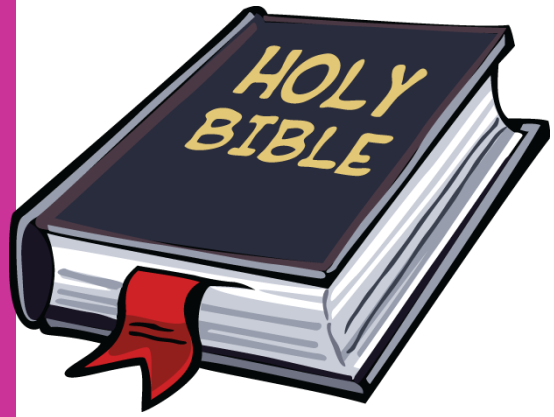
The **Bible** is the holy book of Christianity. It consists of **66** books altogether and is made up of two main parts – the **Old Testament** and the **New Testament**. The word 'testament' means '**agreement**'.

The Old Testament tells of a time before Jesus and contains many stories that are a guide of how Christians believe God wants them to live their lives.

Year 7 RE: Christianity

Keywords	
Bible	
Old Testament	
New Testament	
Testament	
Gospels	

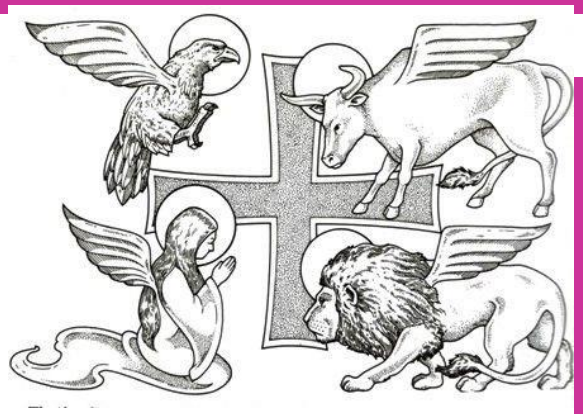




The_____is the holy book of Christianity. It consists of ____ books altogether and is made up of two main parts – the ____ **Testament** and the **New** _____. The word 'testament' means '_____'.

The Old Testament tells of a time_____Jesus and contains many stories that are a _____of how Christians believe _____ wants them to live their_____.

Year 7 RE: Christianity



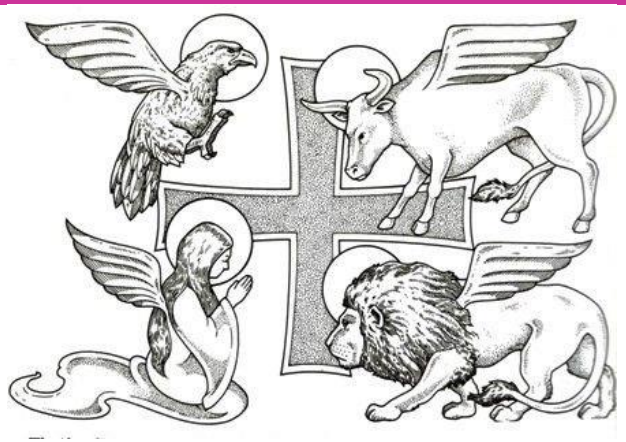
The New Testament begins with the **four Gospels**. These are called **Matthew, Mark, Luke** and **John**. They are all about the life of Jesus. Historically, people believed the Gospels were written by four of Jesus' disciples, but we now know that is very unlikely. However, it is probably true that each writer was able to get some of their information from disciples and others who actually lived during Jesus' time.

The first three Gospels are known as the **SYNOPTIC GOSPELS**, because they have similar stories and styles. All the Gospels also try to spread their own messages.

Why are the Gospels important to Christians?

1. They are accounts of the life and events of Jesus, which have been kept and respected since the first century.
2. These were the books about Jesus that were selected by the early Church when they put the Bible together.
3. They link with other historical evidence about the life and times of Jesus.
4. They are the basis of the Christian religion, recited weekly in church and read regularly by Christians across the world.

Year 7 RE: Christianity



The New Testament begins with the _____ _____. These are called _____and _____. They are all about the life of _____. Historically, people believed the Gospels were written by four of Jesus' disciples, but we now know that is very unlikely. However, it is probably true that each _____was able to get some of their information from _____and others who actually lived during Jesus' time.
The first three Gospels are known as the _____ _____, because they have _____ stories and_____. All the Gospels also try to spread their own _____.

Why are the Gospels important to Christians?

1.

2.

3.

4.

Year 7 RE: Christianity

Name of the Gospel	Content	Who was it written for?	Style of writing
Mark's Gospel (c.70CE) 	Mark writes about Jesus' life from his baptism until his Ascension to heaven, when he told the disciples to go and preach his message to all.	Ordinary people	Mark writes in a simple way, using language we know people spoke at the time.
Matthew's Gospel (70-100CE) 	Matthew writes about Jesus' birth and childhood, through to his Resurrection. He tried to show how Jesus had fulfilled the Jewish prophecies about the Messiah.	Scholars think Matthew was writing for the early Christians who had been thrown out of Judaism for their beliefs.	This was written in a high standard of Greek, showing the author was educated. He used Marks' Gospel for some information, shared another unknown source (called the Q document) with Luke and had his own unique material (known as M).

Year 7 RE: Christianity

Name of the Gospel	Content	Who was it written for?	Style of writing
Mark's Gospel (c.70CE) 			
Matthew's Gospel (70-100CE) 			

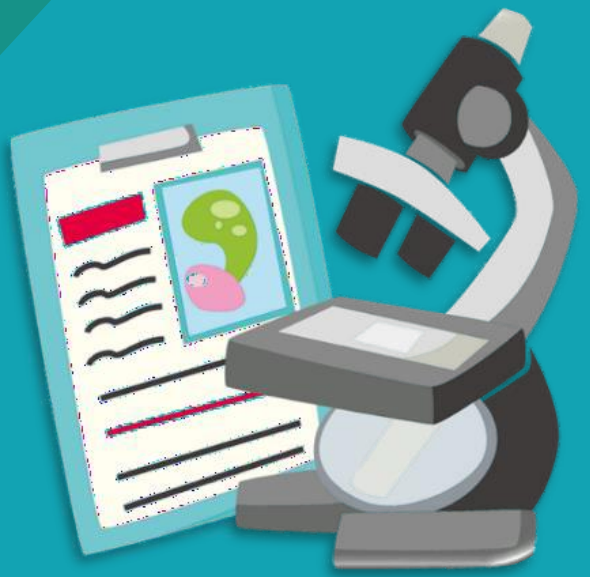
Year 7 RE: Christianity

Name of the Gospel	Content	Who was it written for?	Style of writing
Luke's Gospel (70-100CE) 	Luke starts to write before the birth of Jesus and goes on to describe his birth and life, until his Ascension to heaven. He focuses on the victims of society. Jesus is shown healing people who were looked down upon. He welcomes the rejected and speaks of God's love for those who others may think are unimportant.	Luke seems to write for those who find it hard to believe Jesus' message was for them.	This is the longest of the Gospels and was written by an educated person.
John's Gospel (90-110CE) 	The beginning of time. Jesus telling one of the disciples, called Peter, to lead the group after his resurrection.	Everyone, but also some scholars believe hie was writing for a certain community, making sure they did not confuse their beliefs.	There is some evidence John knew Mark's Gospel, but he uses a mix of sources, many unique. It includes a 'signs Gospel' about Jesus' miracles – taken as 'signs' that Jesus was divine) and one about Jesus' speeches.

Year 7 RE: Christianity

Name of the Gospel	Content	Who was it written for?	Style of writing
Luke's Gospel (70-100CE) 			
John's Gospel (90-110CE) 			

Science



Helping every person achieve things they never thought they could.

Little Lever School
be kind | work hard | take responsibility

Year 7 Science: Introducing science

Laboratory Rules

1	Do not enter the laboratory until told to by a teacher.
2	When you enter, take out all equipment and store coats and bags in a safe place.
3	Wear **SAFETY GLASSES** for all practical work.
4	Do not eat or drink in the laboratory. Never put anything in your mouth.
5	Do not run in a laboratory.
6	Follow instructions carefully.
7	Do not touch equipment, plugs, gas taps and water taps, unless you are using them.
8	If you break or spill anything, report it to your teacher **IMMEDIATELY**.
9	Long hair must be tied back, and loose clothing secured.
10	Never sit on benches, stools are provided.

Hazard Symbols

Caution

Flammable

Corrosive

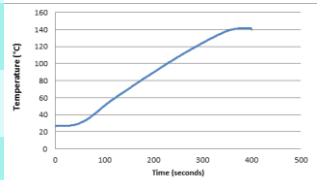
Explosive

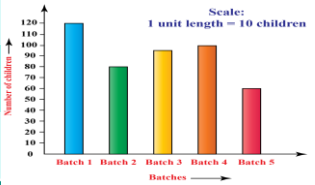
Poisonous

Irritant

Plotting graphs and charts

When we plot a graph we put the independent variable on the x-axis (the bottom axis) and the dependent variable on the y-axis (the side axis)





Common laboratory equipment

Conical flask	Used when mixing chemicals- the narrow neck prevent liquids splashing out
Beaker	Used to hold liquids which are being heated
Pipette	Used to transfer small amounts of liquid from one place to another
Thermometer	Used to measure the temperature of something.
Tripod and gauze	Used to hold beakers and other equipment off the table so they can be heated by a Bunsen burner
Bunsen burner	Bunsen burners are used to heat substances
Filter paper	Used to separate solids from liquids
Petri dish	Used to hold samples of chemicals or living things which we are studying
Clamp and retort stand	Used to hold equipment in place
Test tube	Used to look at small samples of liquids
Boiling tube	Used when heating small samples of liquids
Measuring cylinder	Used measure volumes of liquids

Variables:

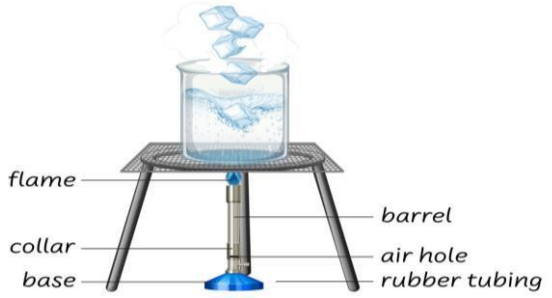
Independent – The variable that is purposely changed during an experiment

Dependent – The variable that we measure

Control – Variables that we keep the same

The Bunsen burner

The Bunsen burner is used to heat solids and liquids in a laboratory



Year 7 Science: Introducing science

Laboratory Rules- complete below:

1	Do not enter the laboratory until told to by a _____.
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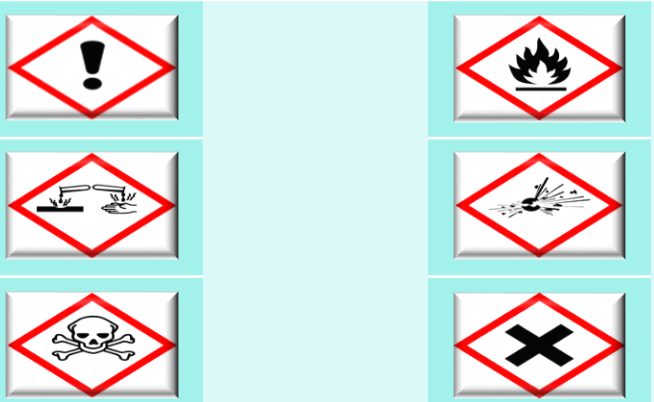
10	Never sit on benches, stools are provided.

Hazard Symbols- what do they mean?



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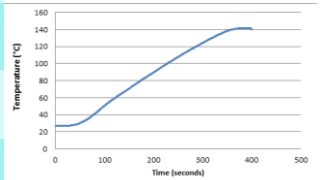

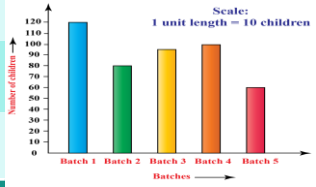

Common laboratory equipment

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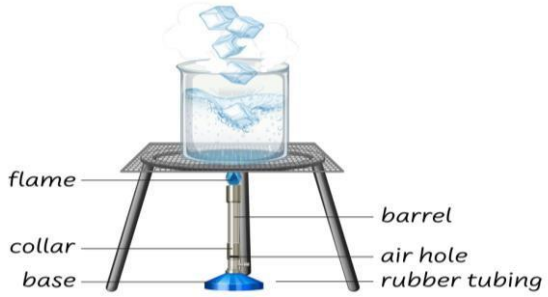
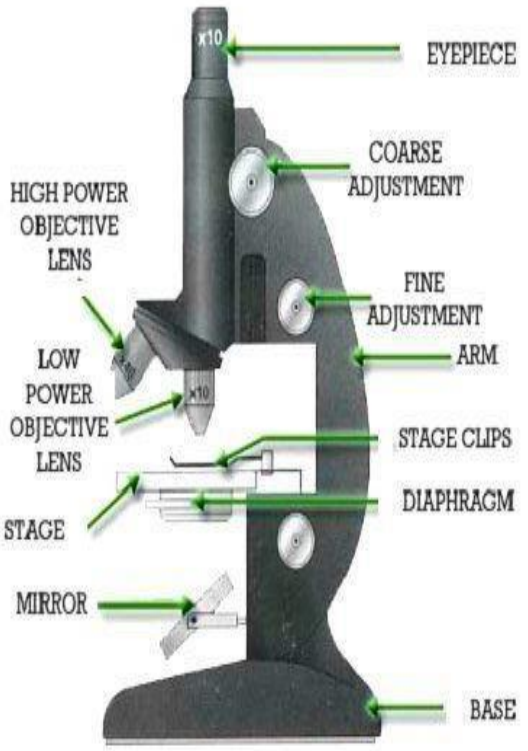


Year 7 Science: Cells and Reproduction

Key Vocabulary

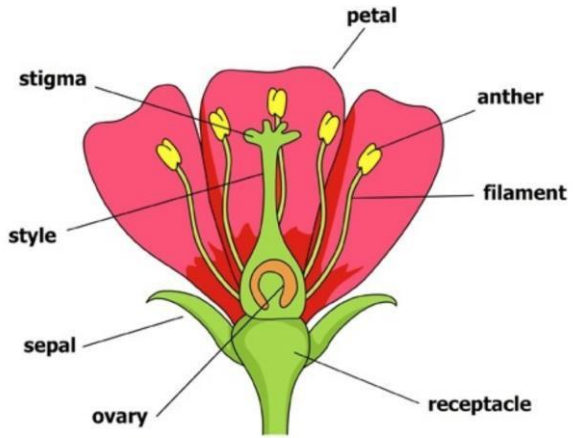
1	**Organelle**	A part of a cell such as a nucleus.
2	**Cell**	The unit of a living organism which contains parts to carry out life processes
3	**Tissue**	A group of similar types of cells working together
4	**Organ**	A group of different tissues working together to carry out a specific role
5	**Root hair cell**	Hair like projections to increase the surface area
6	**Xylem cell**	Dead cells, cell walls toughened by lignin, water flows in one direction
7	**Phloem cell**	Living cells have end plates with holes, glucose moves in both directions
8	**Sperm cell**	Streamlined with a long tail acrosome containing enzymes large number of mitochondria
9	**Muscle cell**	Contains a large number of mitochondria
10	**Nerve cell**	Long branched connections and insulating sheath

Microscope Diagram



To use a microscope to look at a specimen:

1. Clip the slide carefully onto the stage.
2. Ensure the lowest-powered objective lens is over the slide
3. Use the coarse adjustment knob to bring the stage up just below the lens
4. Look down the eyepiece and gradually move the stage downwards using the coarse adjustment knob. Stop when the image is roughly in focus.
5. To bring the image into focus, adjust the fine adjustment knob until a clear image is obtained.
6. To observe the image with a higher modification, change the objective lens to a higher power and readjust the stage using coarse and fine adjustment knobs.



Structure	Description
Sepal	Protects unopened flower
Petals	Brightly coloured in insect-pollinated flowers to attract insects
Anther	Produces and releases the male sex cell
Stigma	Top of the female part of the flower which collects pollen grains
Ovary	Produces the female sex cell (ovum)
Ovule	Contains the female sex cells (found inside the ovary)

Pollination- is the act of transferring pollen grains from the male anther of a flower to the female stigma. This then allows fertilisation to take place.

Year 7 Science: Cells and Reproduction

Key Vocabulary- complete the definitions below:

1	**Organelle**	A part of a cell such as a nucleus.
2	**Cell**	
3	**Tissue**	
4	**Organ**	
5	**Root hair cell**	
6	**Xylem cell**	
7	**Phloem cell**	
8	**Sperm cell**	
9	**Muscle cell**	
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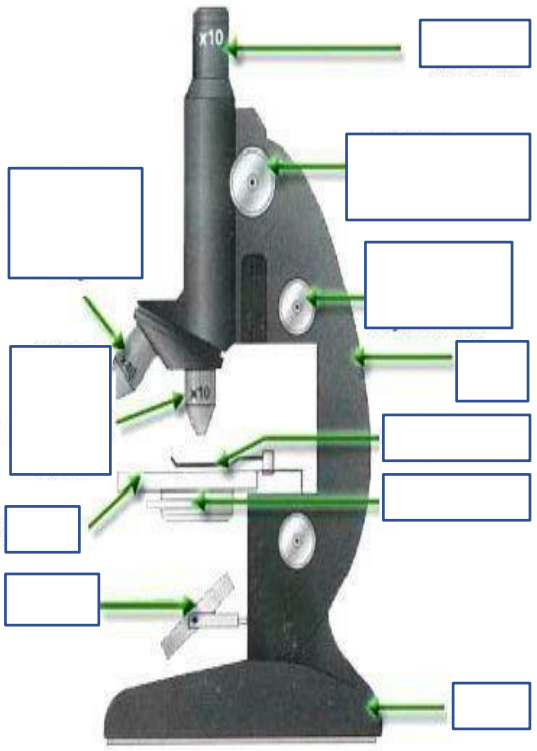
Microscope Diagram



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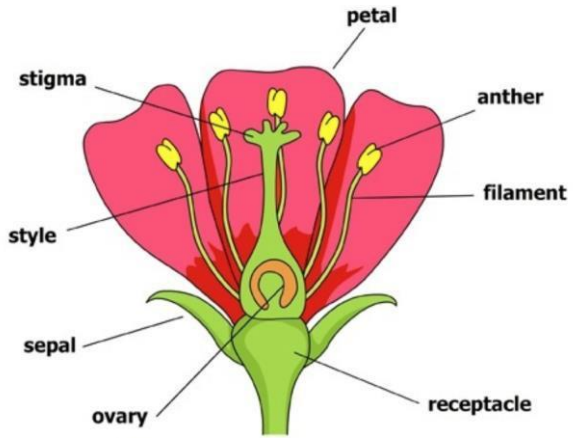


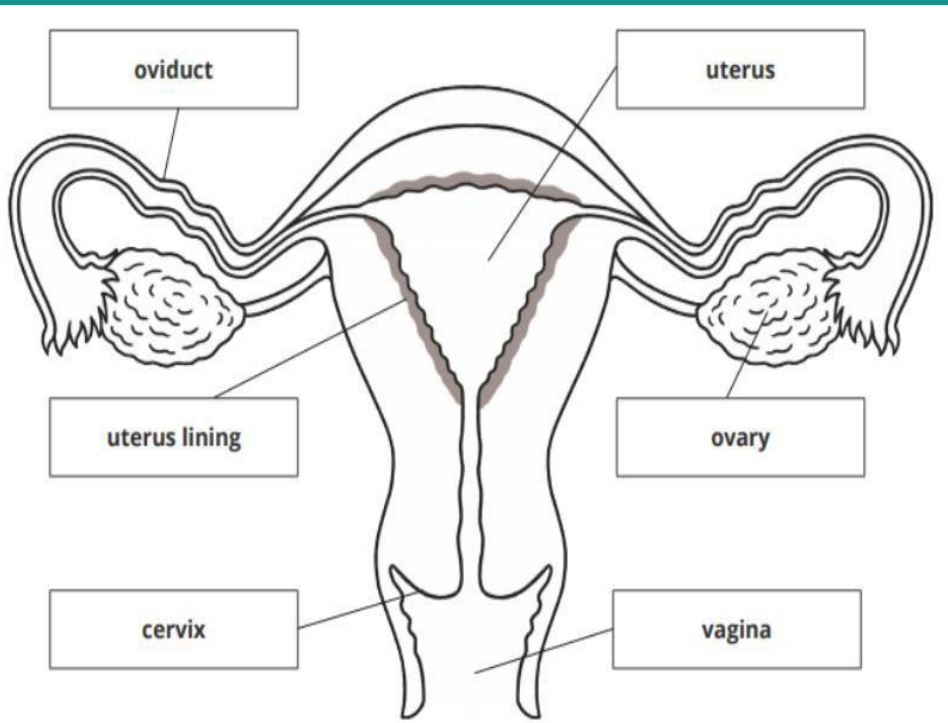
Structure	Description- complete below:
Sepal	
Petals	
Anther	
Stigma	
Ovary	
Ovule	

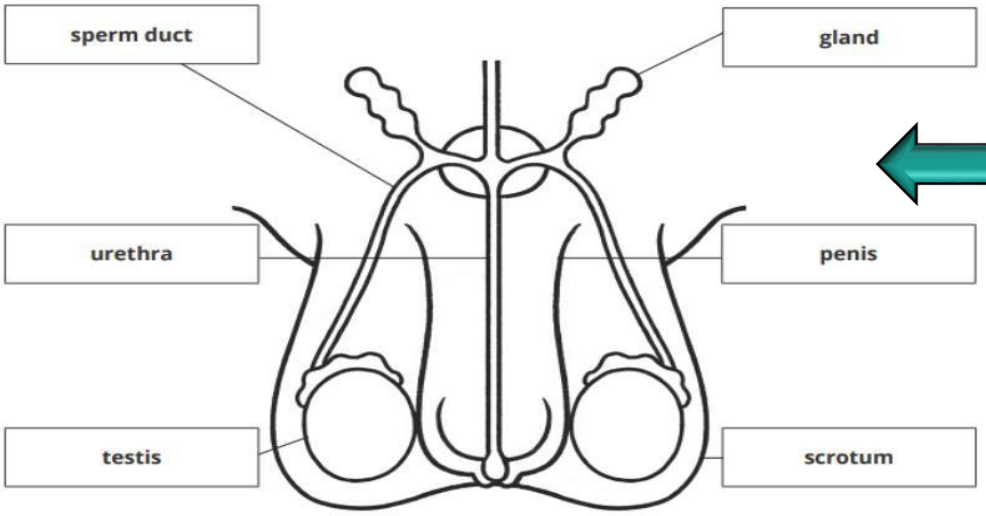
Pollination- is the act of _____ pollen grains from the male anther of a flower to the female stigma. This then allows _____to take place.

Year 7 Science: Cells and Reproduction

Female Reproductive Organs

1	**Ovary**	Contains thousands of undeveloped egg cells. Every month, after puberty, an egg cell matures and is released.
2	**Oviduct or fallopian tube**	Carries egg cells from the ovaries to the uterus and is where fertilisation occurs
3	**Uterus, or womb**	Where the baby develops during pregnancy
4	**Uterus lining**	A blood-rich layer of tissue in which an embryo implants. This tissue is lost each month during menstruation
5	**Vagina**	A muscular tube that leads from the cervix to the outside of the body.
6	**Cervix**	A ring of muscle at the lower end of the uterus. This keeps the baby in place during pregnancy





Male Reproductive Organs

1	**Testes**	Produces sperm cells and releases the male sex hormone testosterone
2	**Penis**	Allows urine and semen to pass out of the man's body
3	**Scrotum**	A bag of skin that contains the testes.
4	**Gland**	Produces fluids that mix with sperm cells to make semen.
5	**Sperm Duct**	Carries sperm cells from the testes to the urethra.
6	**Urethra**	A tube that carries urine and semen. It has a ring of muscle to keep these separate

Year 7 Science: Cells and Reproduction

Female Reproductive Organs- what is the name of each part?

1		Contains thousands of undeveloped egg cells. Every month, after puberty, an egg cell matures and is released.
2		Carries egg cells from the ovaries to the uterus and is where fertilisation occurs
3		Where the baby develops during pregnancy
4		A blood-rich layer of tissue in which an embryo implants. This tissue is lost each month during menstruation
5		A muscular tube that leads from the cervix to the outside of the body.
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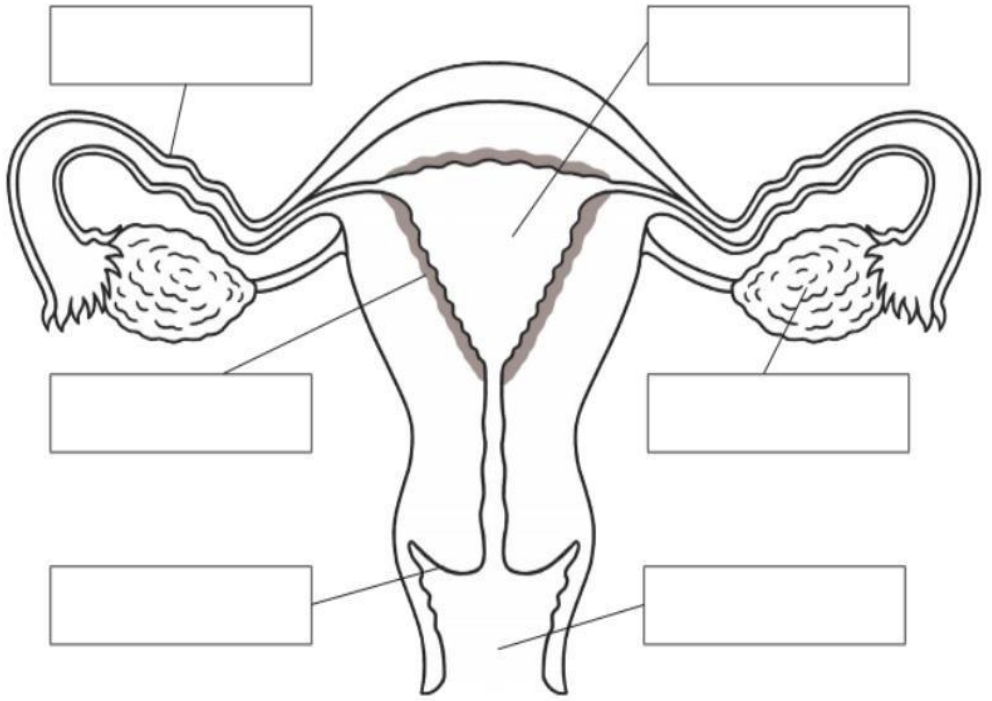
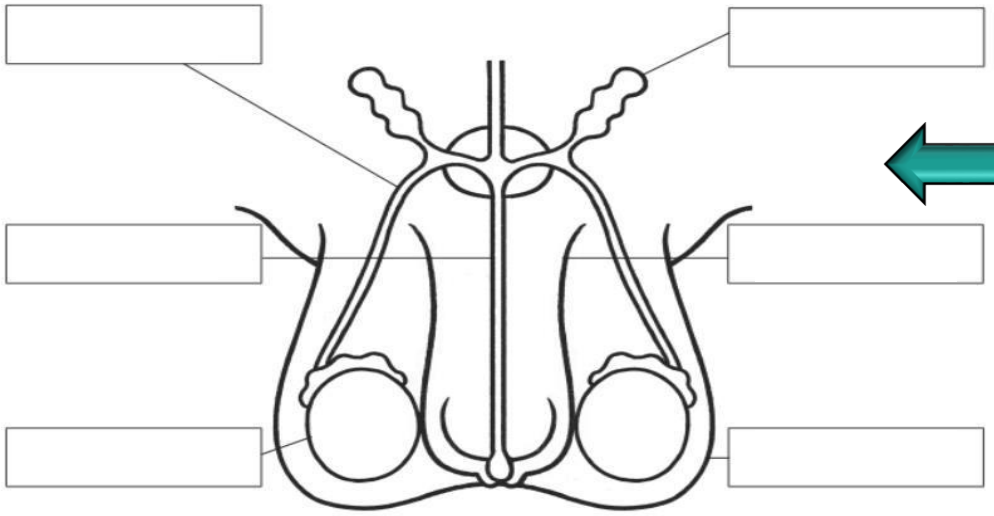




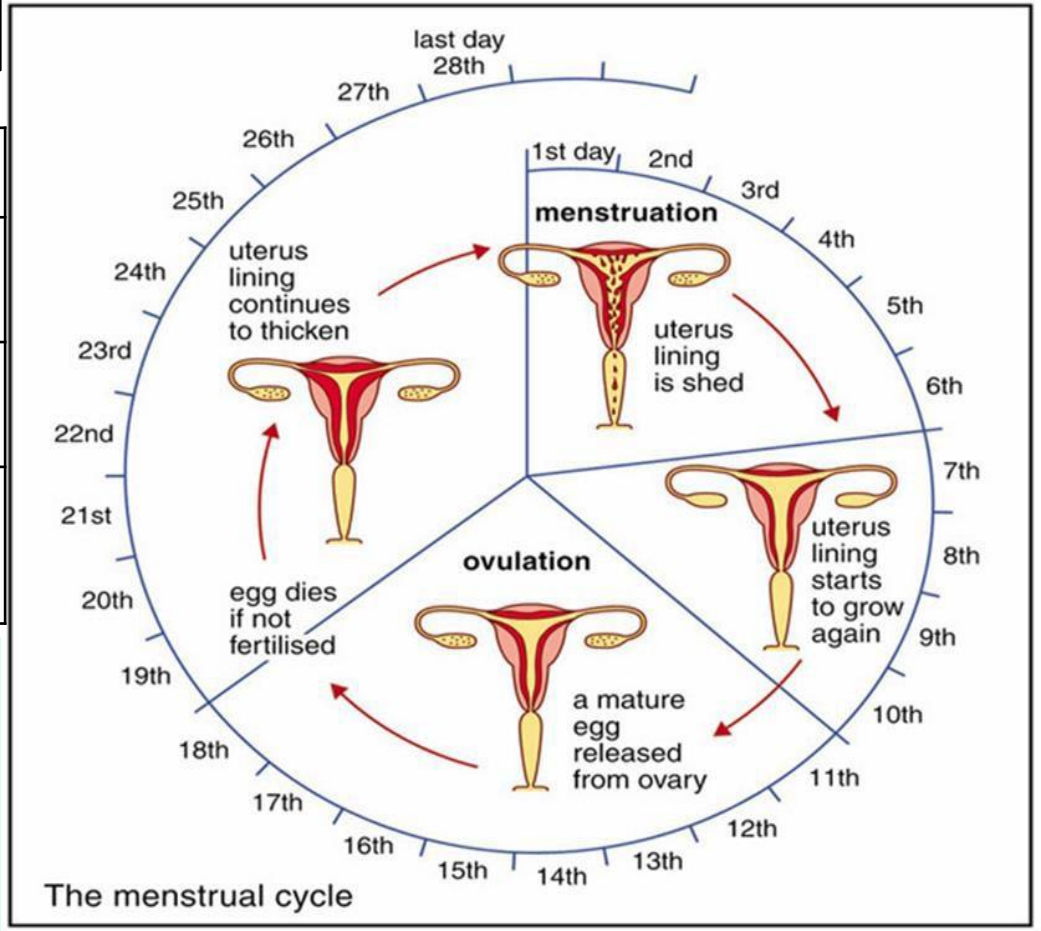
Male Reproductive Organs- complete the descriptions below:

1	**Testes**	
2	**Penis**	
3	**Scrotum**	
4	**Gland**	
5	**Sperm Duct**	
6	**Urethra**	

Year 7 Science: Cells and Reproduction

The menstrual cycle

Day 1	Bleeding starts as the lining of the uterus breaks down and passes out of the vagina- this is what's known as a period.
Day 4	The lining of the uterus starts to build up again. It thickens into a spongy layer full of blood vessels ready for implantation.
Day 14	An egg is release from the ovaries of the female so this is the MOST LIKELY time in which a female may become pregnant, whilst the egg travels along the oviduct
Day 28	The wall remains thick, awaiting the arrival of a fertilised egg. If this doesn't happen then this lining breaks down passing out of the vagina, then the whole cycle starts again.



The menstrual cycle

Fertilisation:

The male **gametes** (sex cells) are contained in the pollen grains produced in the anther.

The female gametes (egg cells or ovum) are produced in the ovule found in the ovary.

In plants, fertilisation occurs **when the pollen grain nucleus fuses with the ovum** (egg cell) nucleus.

To reach the egg cell, **the pollen grain grows a pollen tube down the style, towards the ovary**.

After fertilisation, the ovule (that contains the fertilised egg cell) develops into the seed.

The parts of the flower surrounding the ovule (mainly the ovary walls) develop into the fruit, which contains the seeds.

Variation

Some variation is from characteristics that people have inherited from their parents, such as their eye colour. This is known as **inherited variation.**

Variation caused by your surroundings and what happens to you is called **environmental variation.**

Year 7 Science: Cells and Reproduction

The menstrual cycle- complete below:

Day 1	
Day 4	
Day 14	
Day 28	

Fertilisation:

The male _____(sex cells) are contained in the pollen grains produced in the _____.

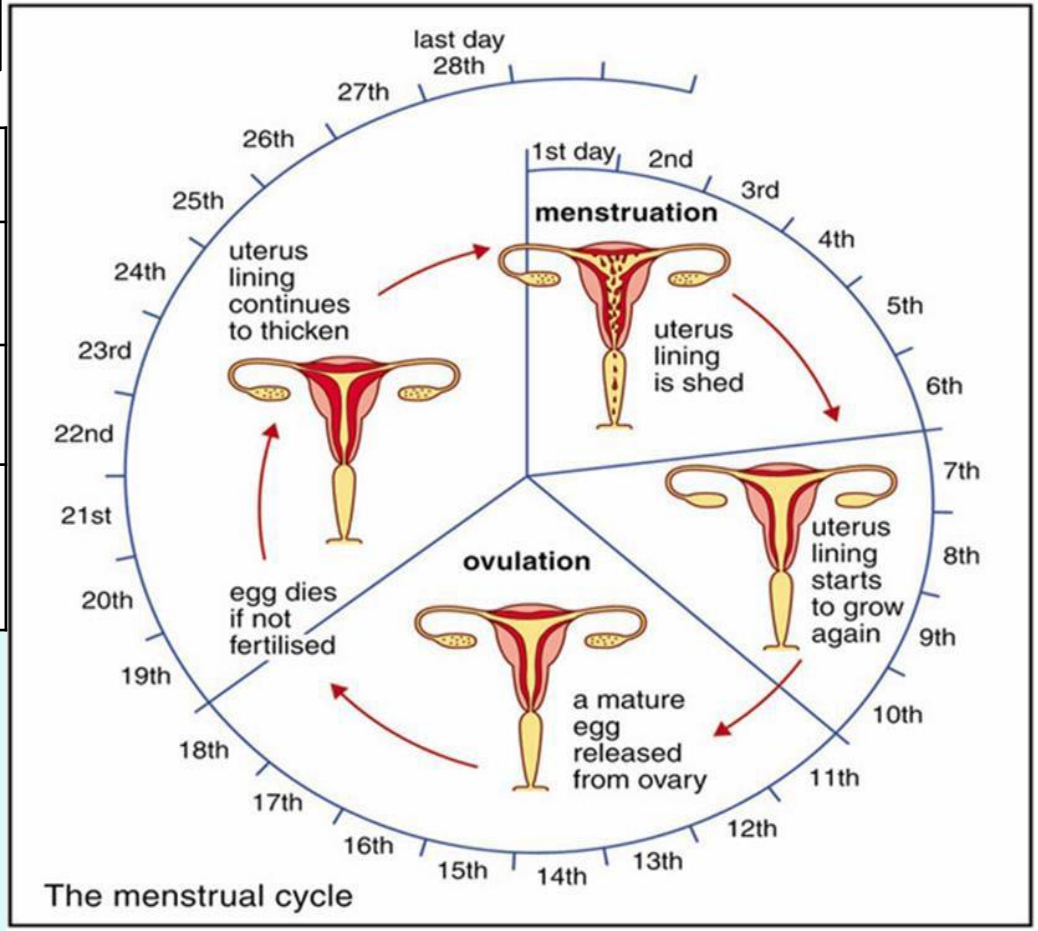
The female gametes (egg cells or _____) are produced in the ovule found in the _____.

In plants, fertilisation occurs **when the _____grain nucleus fuses with the ovum** (egg cell) nucleus.

To reach the egg cell, **the pollen grain grows a pollen tube down the _____, towards the ovary**.

After fertilisation, the ovule (that contains the fertilised egg cell) develops into the _____.

The parts of the flower surrounding the ovule (mainly the ovary walls) develop into the ___, which contains the seeds.



The menstrual cycle

Variation

Some variation is from _____that people have inherited from their parents, such as their _____colour. This is known as _____.

Variation caused by your _____and what happens to you is called _____.

Year 7 Science: Structure of matter and Particles & changes

Kinetic theory of gases

Temperature of gas is linked to the average kinetic energy of the particles.

If kinetic energy increases so does the temperature of gas.

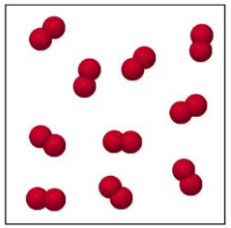
No kinetic energy is lost when gas particles collide with each other or the container.

Gas particles are in a constant state of random motion.

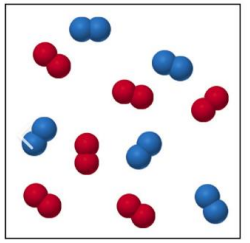
State	Particle arrangement	Properties
Solid	Packed in a regular structure. Strong forces hold in place so cannot move.	Has a constant shape.
Liquid	Close together, forces keep contact but are able to move around..	Can change shape but difficult to compress.
Gas	Separated by large distances. Weak forces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

Diffusion *No* energy required	***Movement of particles in a solution or gas from a higher to a lower concentration***	E.g. O_2 and CO_2 in gas exchange, urea in kidneys. Factors that affect the rate are concentration, temperature and surface area.

Gas	Test	Positive result
Hydrogen	***Burning splint***	'Pop' sound.
Oxygen	***Glowing splint***	Re-lights the splint.
Chlorine	***Litmus paper (damp)***	Bleaches the paper white.
Carbon dioxide	***Limewater***	Turns cloudy (as a solid calcium carbonate forms).



Pure substances	Impure substances
A substance made from only 1 element or 1 compound e.g pure water	A substance made from 2 or more elements or compounds e.g. salt water



Year 7 Science: Structure of matter and Particles & changes

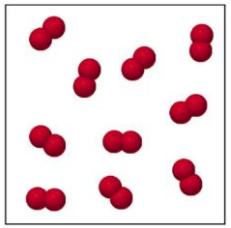
Kinetic theory of gases

State	Particle arrangement	Properties
Solid		
Liquid		
Gas		

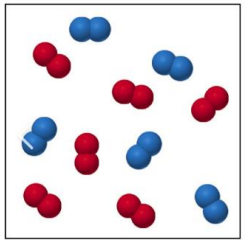
.

Gas	Test	Positive result
Hydrogen		
Oxygen		
Chlorine		
Carbon dioxide		

Diffusion		E.g. O_2 and CO_2 in gas exchange, urea in kidneys. Factors that affect the rate are concentration, temperature and surface area.



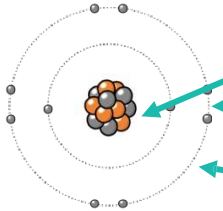
Pure substances	Impure substances



Year 7 Science: Structure of matter and Particles & changes

Atoms, elements and compounds

Atom	***The smallest part of an element that can exist***	Have a radius of around 0.1 nanometres and have no charge (0).
Element	***Contains only one type of atom***	Around 100 different elements each one is represented by a symbol e.g. O, Na, Br.
Compound	***Two or more elements chemically combined***	Compounds can only be separated into elements by chemical reactions.



Central nucleus	**Contains protons and neutrons**
Electron shells	**Contains electrons**

Name of Particle	Relative Charge	Relative Mass
Proton	+1	1
Neutron	0	1
Electron	-1	Very small

Relative electrical charges of subatomic particles

Electronic shell	Max number of electrons
1	2
2	8
3	8
4	8

Electronic structures

7 Li 3

Mass number	The sum of the protons and neutrons in the nucleus	
Atomic number	The number of protons in the atom	Number of electrons = number of protons

Mixtures

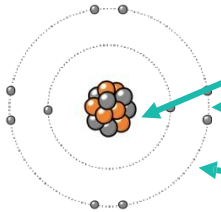
Mixtures	**Two or more elements or compounds not chemically combined together**	Can be separated by physical processes.

Method	Description	Example
Filtration	Separating an insoluble solid from a liquid	To get sand from a mixture of sand, salt and water.
Crystallisation	To separate a solid from a solution	To obtain pure crystals of sodium chloride from salt water.
Simple distillation	To separate a solvent from a solution	To get pure water from salt water.
Fractional distillation	Separating a mixture of liquids each with different boiling points	To separate the different compounds in crude oil.
Chromatography	Separating substances that move by different amounts (due to solubility) through a medium	To separate out the dyes in food colouring.

Year 7 Science: Structure of matter and Particles & changes

Atoms, elements and compounds

Atom	*The smallest part of an element that can exist*	
Element	*Contains only one type of atom*	
Compound	*Two or more elements chemically combined*	



Central nucleus	
Electron shells	

Name of Particle	Relative Charge	Relative Mass
Proton		
Neutron		
Electron		

Relative electrical charges of subatomic particles

Electronic shell	Max number of electrons
1	
2	
3	
4	

Electronic structures

7 Li 3

Mass number		
Atomic number		

Mixtures	Two or more elements or compounds not chemically combined together	

Method	Description	Example
Filtration		
Crystallisation		
Simple distillation		
Fractional distillation		
Chromatography		

Year 7 Science: Forces and movement

Unit	***Newton (N)***	1N
Kilo	***Kilonewton (KN) = 1000***	1X 10^3
Mega	***Meganewton (MN) = 1000,000***	1 X 10^6

Weight = mass X gravitational field strength

Each Kg has a gravitational pull of 9.8N.

W = m X g

Gravitational field strength	***Gravity exerted around an object.***	Earth's gfs = 9.8N/kg

Gravity

Weight	***Force acting upon an object due to gravity***	Newton (N)
Mass	***How much matter***	Kilograms (Kg)

Area	***Metres squares (m^2)***
Weight	***Newton (N)***
Mass	***Kilograms (kg)***
Gravitational field strength	***Newton per kilogram (N/Kg)***
Force	***Newton (N)***
Work done	***Joules (J)***
Distance	***Metres (m)***
Moment	***Newton-metres (Nm)***

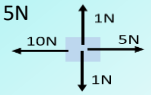
Resultant force	***The overall effect of all of the forces acting upon an object***	Two forces acting in the same direction are added.
		Two forces acting in the opposite direction are taken away.

The component forces combined have the same effect.

Contact and Resultant forces

Free body diagram	***Show magnitude and direction of all forces upon an object***

Object moves left with a force of 5N

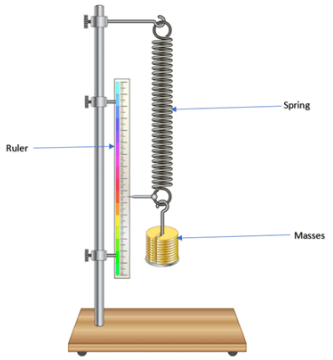


Forces and elasticity

Work done and energy transfer

Work done	***When work is done, energy is transferred***	Work done = force X distance moved W = F X s
	1J of work is done when 1N of force moves an object through a distance of 1m, in the direction of the force.	

One force	***The object changes speed or direction***
More than one force	***The object can change shape***



Elastic deformation	***The object has been stretched but returns to its original length***
Inelastic deformation	***The object has been stretched but does not return to its original length***
Extension	***The difference between stretched and unstretched lengths***

Force	***Newton (N)***
Spring constant	***Newton per metre (N/m)***
Extension	***Metres (m)***
EPE	***Joules (J)***

Stretching a spring	Force = spring constant X extension, F = k X e
	EPE = ½ X spring constant X (extension)^2, EPE = ½ ke^2

Elastic Potential energy (EPE)	***Energy stored in a stretched spring***

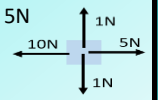
Year 7 Science: Forces and movement

Unit		1N
Kilo		$1X\ 10^3$
Mega		$1\ X\ 10^6$

Resultant force

Contact and Resultant forces

Object moves left with a force of 5N



Free body diagram

W = m X g

Gravitational field strength

Gravity exerted around an object.

Gravity

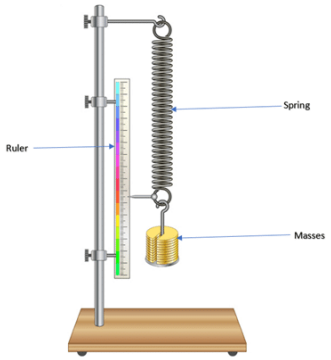
Weight		
Mass		

Forces and elasticity

Work done and energy transfer

Work done

Area	
Weight	
Mass	
Gravitational field strength	
Force	
Work done	
Distance	
Moment	



Elastic deformation	
Inelastic deformation	
Extension	

One force	
More than one force	

Force	
Spring constant	
Extension	
EPE	

Stretching a spring

Elastic Potential energy (EPE)

Year 7 science: Energy

Kinetic energy	***Energy stored by a moving object***	½ X mass X (speed)^2 ½ mv^2
Elastic Potential energy	***Energy stored in a stretched spring, elastic band***	½ X spring constant X (extension)^2 ½ ke^2 (Assuming the limit of proportionality has not been exceeded)
Gravitational Potential energy	***Energy gained by an object raised above the ground***	Mass X gravitational field strength X height mgh

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

Power	***The rate of energy transfer***	1 Joule of energy per second = 1 watt of power	Power = energy transfer ÷ time P = E ÷ t

The Energy stores
Kinetic energy
Elastic potential energy
Gravitational potential energy
Chemical energy
Thermal energy
Electrostatic energy
Magnetic energy
Nuclear energy

	Units
Energy (KE, EPE, GPE, thermal)	***Joules (J)***
Velocity	***Metres per second (m/s)***
Spring constant	***Newton per metre (N/m)***
Extension	***Metres (m)***
Mass	***Kilogram (Kg)***
Gravitational field strength	***Newton per kilogram (N/Kg)***
Height	***Metres (m)***

Energy pathways

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

Energy Conservation and Dissipation

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

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

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

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

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

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

Closed system	***No change in total energy in system***
Open system	***Energy can dissipate***

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

Year 7 science: Energy

Kinetic energy		
Elastic Potential energy		
Gravitational Potential energy		

System		
Energy stores		
Ways to transfer energy		
Unit	***Joules (J)***	

Power			

The Energy stores

	Units
Energy (KE, EPE, GPE, thermal)	
Velocity	
Spring constant	
Extension	
Mass	
Gravitational field strength	
Height	

Energy pathways

Mechanical	
Electrical	
Heat	
Radiation	

Energy Conservation and Dissipation

Useful energy	
Wasted energy	

Principle of conservation of energy		

Ways to reduce 'wasted' energy	***Energy transferred usefully***	

Efficiency	

Efficiency = <u>Useful power output</u>
Total power input

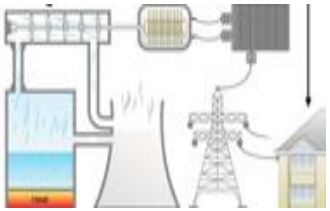
Efficiency =

Closed system		
Open system		

Dissipate		

Year 7 science: Energy

Non-renewable energy resource	***These will run out. It is a finite reserve. It cannot be replenished.***	e.g. Fossil fuels (coal, oil and gas) and nuclear fuels.
Renewable energy resource	***These will never run out. It is an infinite reserve. It can be replenished.***	e.g. Solar, Tides, Waves, Wind, Geothermal, Biomass, Hydroelectric

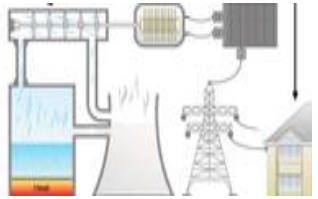


Power station	***Generates electricity***	Fuel burnt releasing thermal energy →	Water boils into steam →	Steam turns turbine →	Turbine turns generator →	Generator induces voltage
National Grid	***Transports electricity across UK***	Power station →	Step-up transformer →	Pylons →	Step-down transformer →	House, factory

Energy resource	***How it works***	Uses	Positive	Negative
Fossil Fuels (coal, oil and gas)	***Burnt to release thermal energy used to turn water into steam to turn turbines***	Generating electricity, heating and transport	Large reserves. Cheap to extract. Used in transport, heating and making electricity. Easy to transport.	Non-renewable. Burning coal and oil releases sulfur dioxide. When mixed with rain makes acid rain. Acid rain damages building and kills plants. Burning fossil fuels releases carbon dioxide which contributes to global warming. Serious environmental damage if oil spilt.
Nuclear	***Nuclear fission process***	Generating electricity	Lots of energy produced from small amounts of fuel.	Non-renewable. Dangers of radioactive materials being released into air or water. Nuclear sites need high levels of security. Start up costs and decommission costs very expensive. Toxic waste needs careful storing.
Biofuel	***Plant matter burnt to release thermal energy***	Transport and generating electricity	Renewable. As plants grow, they remove carbon dioxide. They are 'carbon neutral'.	Large areas of land needed to grow fuel crops. Habitats destroyed and food not grown. Emits carbon dioxide when burnt thus adding to greenhouse gases and global warming.
Tides	***Every day tides rise and fall, so generation of electricity can be predicted***	Generating electricity	Renewable. Predictable due to consistency of tides. No greenhouse gases produced.	Expensive to set up. A dam like structure is built across an estuary, altering habitats and causing problems for ships and boats.
Waves	***Up and down motion turns turbines***	Generating electricity	Renewable. No waste products.	Can be unreliable depends on wave output as large waves can stop the pistons working.
Hydroelectric	***Falling water spins a turbine***	Generating electricity	Renewable. No waste products.	Habitats destroyed when dam is built.
Wind	***Movement causes turbine to spin which turns a generator***	Generating electricity	Renewable. No waste products.	Unreliable – wind varies. Visual and noise pollution. Dangerous to migrating birds.
Solar	***Directly heats objects in solar panels or sunlight captured in photovoltaic cells***	Generating electricity and some heating	Renewable. No waste products.	Making and installing solar panels expensive. Unreliable due to light intensity.
Geothermal	***Hot rocks under the ground heats water to produce steam to turn turbine***	Generating electricity and heating	Renewable. Clean. No greenhouse gases produced.	Limited to a small number of countries. Geothermal power stations can cause earthquake tremors.

Year 7 science: Energy

Non-renewable energy resource		
Renewable energy resource		

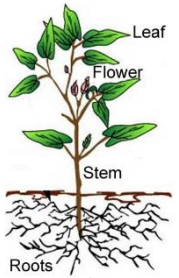


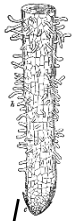
Power station		→	→	→	→	
National Grid		→	→	→	→	

Energy resource	***How it works***	Uses	Positive	Negative
Fossil Fuels (coal, oil and gas)				
Nuclear				
Biofuel				
Tides				
Waves				
Hydroelectric				
Wind				
Solar				
Geothermal				

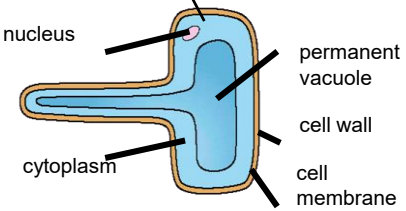
Year 7 science: The natural world and interdependence

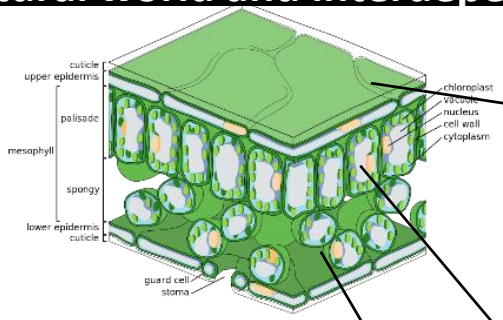
Plant organ systems

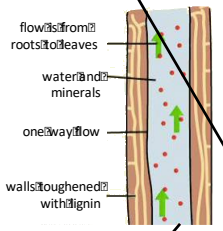




The roots, stem and leaves form a plant organ system for transport of substances around the plant

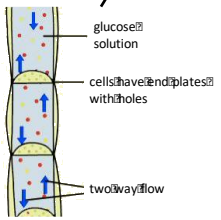






xylem

phloem

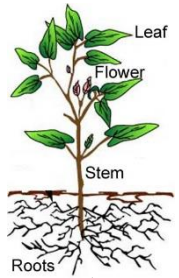


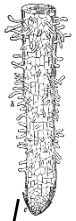
Plant tissues

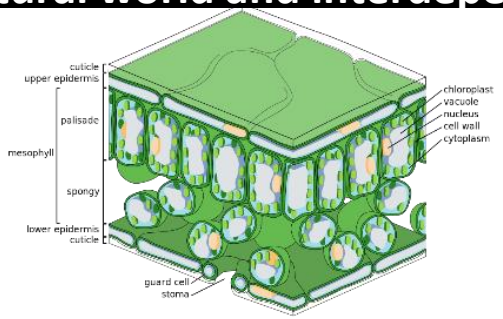
Epidermal tissues	***Waxy cuticle (top layer of the leaf)***	Reduces water loss from the leaf
	Guard cells and stomata	Guard cells open and close the stomata to control water loss and allow for gas exchange (oxygen and carbon dioxide).
Palisade mesophyll	***Palisade cells***	Cells near the top surface of the leaf that are packed with chloroplasts that contain chlorophyll. Both adaptations maximize photosynthesis.
Spongy mesophyll	***Air spaces in the leaf between cells***	Increased surface area for gas exchange so that carbon dioxide can diffuse into photosynthesising cells.
xylem	***Hollow tubes strengthened by lignin adapted for the transportation of water in the transpiration stream***	Allows transport of water and mineral ions from the roots to the stem and the leaves.
phloem	***Cell sap moves from one phloem cell to the next through pores in the end walls***	Transports dissolved sugars from the leaves to the rest of the plant for immediate use or storage (translocation).
Meristem tissue	***New cells (roots and shoot tips) are made here including root hair cells***	Root hair cells have an increased surface area for the uptake of water by osmosis, and mineral ions by active transport.

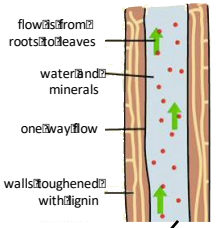
Year 7 science: The natural world and interdependence

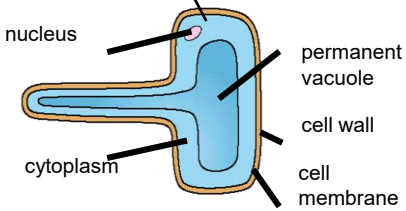
Plant organ systems

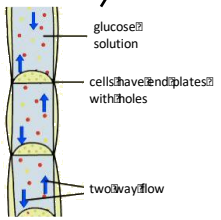












Plant tissues

Epidermal tissues		
Palisade mesophyll		
Spongy mesophyll		.
xylem		
phloem		
Meristem tissue		

Year 7 science: The natural world and interdependence

Photosynthesis

Plants make use of light energy from the environment (ENDOTHERMIC) to make food (glucose)

Carbon dioxide + Water $\xrightarrow{\text{light}}$ Oxygen + Glucose

$CO_2 + H_2O \xrightarrow{\text{light}} O_2 + C_6H_{12}O_6$

Plants use the glucose produced in photosynthesis in a variety of ways

Respiration, stored as insoluble starch, fats or oils for storage, cellulose for cell walls, combine with nitrates from the soil to form amino acids for protein synthesis

The plant manufactures glucose from carbon dioxide and water using energy transferred from the environment to the chloroplasts by light

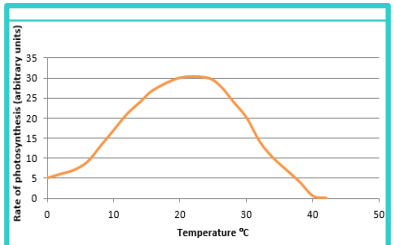
Control conditions in greenhouses to reduce limiting factors can improve crop yields

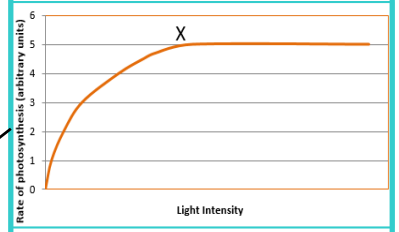
Heating	Used to provide optimum temperatures for maximum plant growth.
Artificial lighting	Enhances the natural sunlight especially overnight and on cloudy days.
Extra carbon dioxide	Gas can be pumped into the air inside the greenhouse.

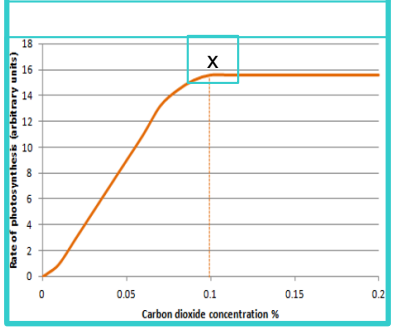
Growers must balance the economics of additional costs of controlling the conditions to maximise photosynthesis with making a profit.

Factors affecting the rate of photosynthesis

Factor	How the rate is affected	Limiting factors (why the rate stops going up)
Temperature	***As the temperature of the environment the plant is in increases rate of photosynthesis increases (up to a point) as there is more energy for the chemical reaction.***	Photosynthesis is an enzyme controlled reaction. If the temperature increases too much, then the enzymes become denatured and the rate of reaction will decrease and stop
Light intensity	***Light intensity increases as the distance between the plant and the light sources increases. As light intensity increases so does the rate of photosynthesis (up to a point) as more energy is available for the chemical reaction.***	At point X another factor is limiting the rate of photosynthesis. This could be carbon dioxide concentration, temperature or the amount of chlorophyll
Carbon dioxide concentration	***Carbon dioxide is needed for plants to make glucose. The rate of photosynthesis will increase when a plant is given higher concentrations of carbon dioxide (up to a point).***	At point X another factor is limiting the rate of photosynthesis. This could be light intensity, temperature or the amount of chlorophyll
Amount of chlorophyll	***Chlorophyll is a photosynthetic pigment that absorbs light and allows the reaction between water and carbon dioxide to occur (photosynthesis)***	Another factor could limit the rate of photosynthesis. This could be light intensity, temperature or the carbon dioxide concentration







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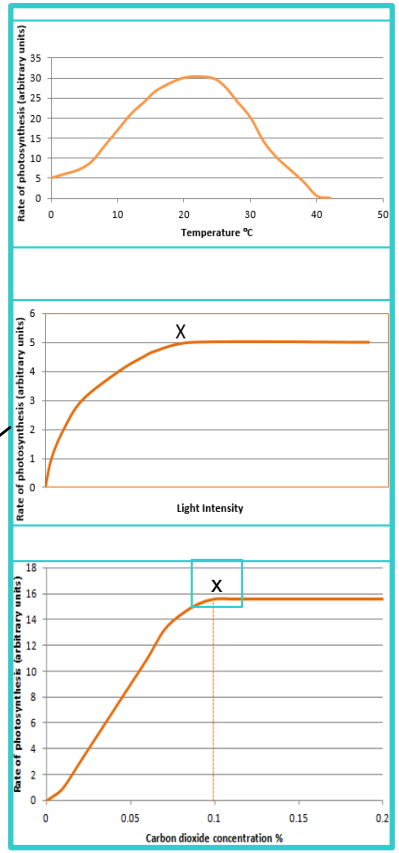
Photosynthesis		
		light →
		light →

Control conditions in greenhouses to reduce limiting factors can improve crop yields		
	Heating	
	Extra carbon dioxide	

Factors affecting the rate of photosynthesis	Factor	How the rate is affected	Limiting factors (why the rate stops going up)
	Temperature		
	Light intensity		
	Carbon dioxide concentration		
	Amount of chlorophyll		



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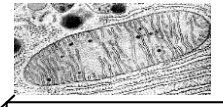
Respiration

Cellular respiration is an exothermic reaction which is continuously occurring in all living cells



Electron micrograph of a mitochondrion

An organism will receive all the energy it needs for living processes as a result of the energy transferred from respiration	***For movement***	To enable muscles to contract in animals.
	For keeping warm	To keep a steady body temperature in a cold environment.
	For chemical reactions	To build larger molecules from smaller one.

During exercise the human body reacts to increased demand for energy	***Heart rate increases***	Top pump oxygenated blood faster to the muscle tissues and cells.
	Breathing rate and breath volume increase	This increases the amount of oxygen entering the blood stream.

Response to exercise

During long periods of vigorous activity muscles become fatigued and stop contracting efficiently

Anaerobic respiration

Respiration when oxygen is in short supply. Occurs during intensive exercise

During hard exercise, muscle cells are respiring so fast that blood cannot transport enough oxygen to meet their needs.

Glucose is partially oxidised to produce lactic acid which builds up in muscle tissue causing them to become painful and fatigued.

glucose → lactic acid

Anaerobic respiration releases a much smaller amount of energy than aerobic respiration.

The incomplete oxidation of glucose causes a build up of lactic acid and creates an oxygen debt

Aerobic respiration

Respiration with oxygen. Occurs inside the mitochondria continuously

Glucose is oxidised by oxygen to transfer the energy the organism needs to perform it's functions.

$C_6H_{12}O_6 + O_2 \rightarrow CO_2 + H_2O$

glucose + oxygen → carbon dioxide + water

Aerobic respiration releases a large amount of energy from each glucose molecule

Anaerobic respiration in plant and yeast cells

The end products are ethanol and carbon dioxide. Anaerobic respiration in yeast cells is called fermentation

glucose → ethanol + carbon dioxide

This process is economically important in the manufacture of alcoholic drinks and bread.

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Respiration

Electron micrograph of a mitochondrion

During exercise the human body reacts to increased demand for energy		

Response to exercise

Anaerobic respiration

Aerobic respiration

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Ecosystem

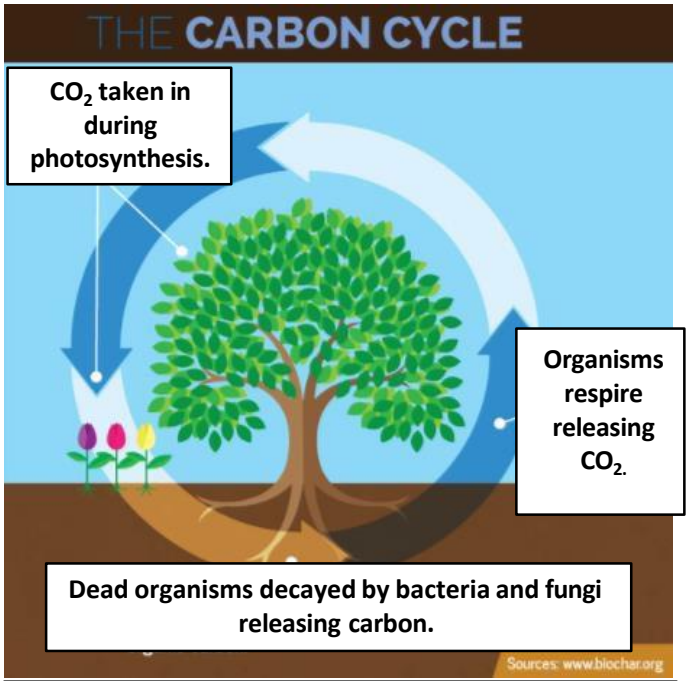
Environment	The conditions surrounding an organism; abiotic and biotic.
Habitat	Place where organisms live e.g. woodland, lake.
Population	Individuals of a species living in a habitat at the same time.
Community	Populations of different species living in a habitat at the same time.

Organisms require a supply of materials from their surroundings and from the other living organisms.

Bacteria respire when breaking down dead organisms releasing CO_2.

Surviving and reproducing

Competition	Plants in a community or habitat compete with each other for light, space, water and mineral ions.
	Animals compete with each other for food, mates and territory.
Interdependence	Species depend on each other for food, shelter, pollination, seed dispersal etc. Removing a species can affect the whole community

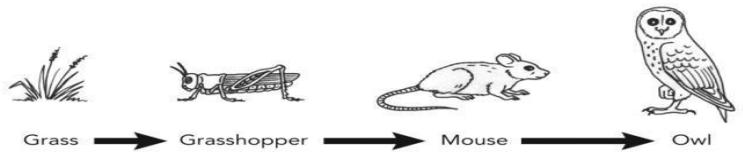


Materials are recycled to provide the building blocks for future organisms

Food chains

Feeding relationships in a community

Producer	Primary consumer	Secondary consumer	Tertiary consumer



All food chains begin with a producer e.g. grass that is usually a green plant or photosynthetic algae.

Consumers that kill and eat other animals are predators and those eaten are prey.

Breakdown of dead organisms releases mineral ions can into the soil.

Photosynthetic organisms are the producers of biomass for life on Earth

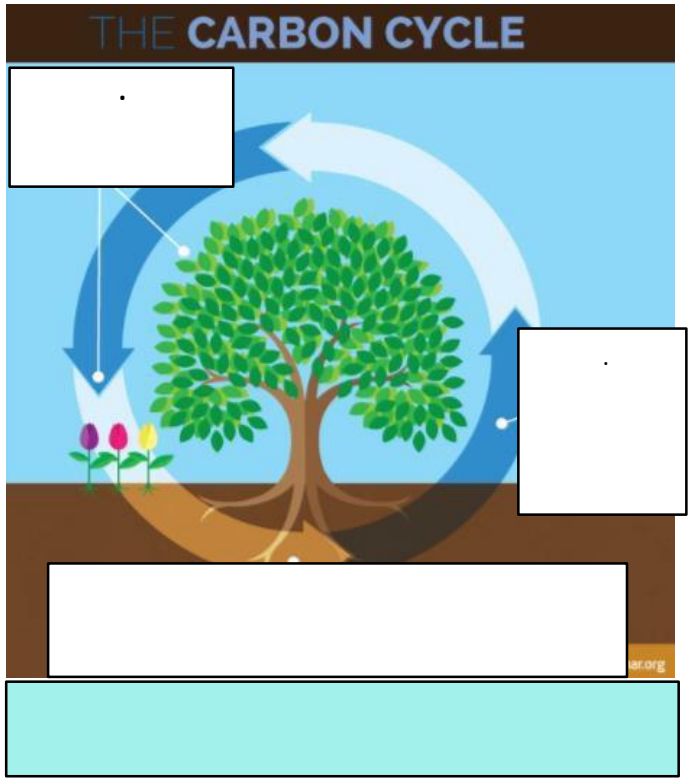
Year 7 science: The natural world and interdependence

Ecosystem

Environment	
Habitat	
Population	
Community	

Surviving and reproducing

Competition	
Interdependence	



Food chains

Feeding relationships in a community