



# Westhoughton High School

## Year 8 – Spring Term - Knowledge Organisers

Name: ..... Form Tutor: ..... Form Group .....



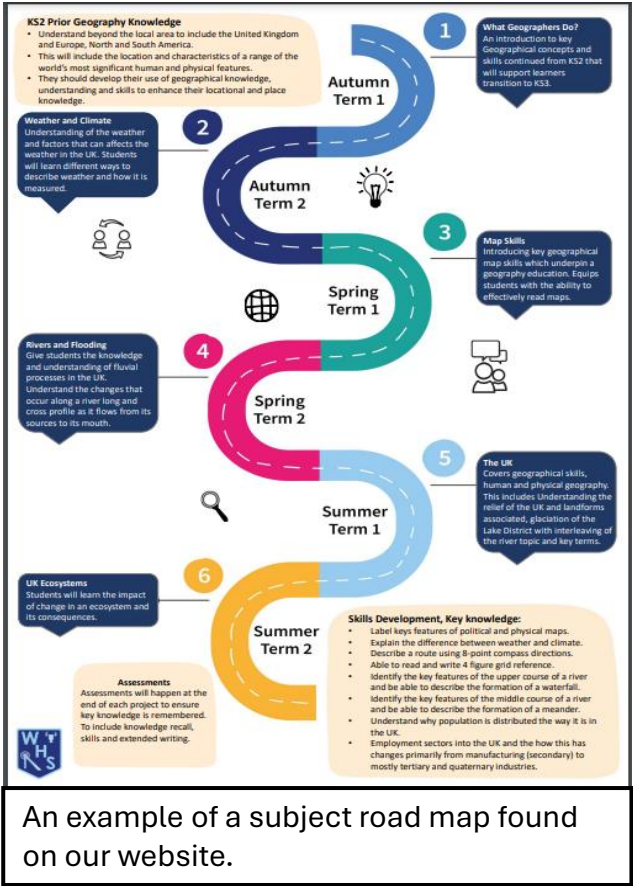


# Introduction

The curriculum in each of your subjects at WHS has been carefully planned to help you learn new things, building upon what you know and preparing you for learning in the future. This is mapped out as a learning journey which each teacher will share with you, so you understand how your learning fits together as a whole. Each subject's roadmap is here:

<https://www.westhoughton-high.org/subjects/>.

Topic	Page
Introduction to Knowledge Organisers (KOs)	2
Learning Techniques to use with KOs	3
How to make learning stick ...	4
Literacy Symbols	5
Art	6 - 7
Computing	8-11
Design and Technology	12 - 14
Drama (Performing Arts)	15
English	16 - 19
Food Technology	20 - 22
French	23- 24
Geography	25 - 28
History	29 - 33
Maths	34 - 48
Music	49 - 50
PE	51 - 58
PSHE	59
RS	60 - 65
Science	66 - 70
Spanish	71 - 72
Textiles	73 - 75













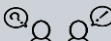




This booklet contains knowledge organisers for all the topics you will study in each subject this term. These give an overview of the essential knowledge that you **MUST** remember to be as successful as possible in Year 7 and as you move through each year of school. **You must bring your booklet to school every day and keep it safe at the end of each term as you will continue to use it to support ongoing revision.**



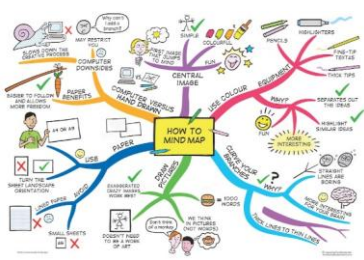





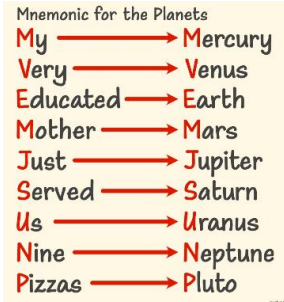

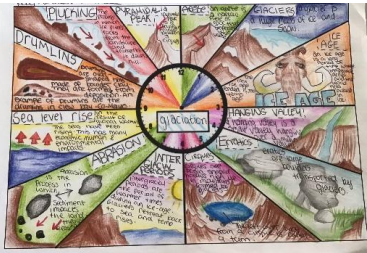

## Learning Techniques to use with KOs

using them regularly is vital to make knowledge stick in your long-term memory (remember you need to revisit information at least 10 times before it is embedded in your memory). Try using these ideas, choose different techniques to learn small sections of knowledge each day.

	Look, Say, Cover, Write, Check	Key Word Definitions	Flash Cards	Self Quizzing	Mind Maps	Paired Retrieval
STEP 1	<p>Look at and read aloud a specific area of your KO.</p> 	<p>Write down the key words and definitions in two columns.</p>	<p>Use your KO to condense and write down key facts or information onto flash cards.</p> 	<p>Use your KO to create a mini quiz. Write down your questions relating to the information.</p> 	<p>Create a mind map with the information on your KO.</p> 	<p>Ask a partner, friend or family to use the KO or your flash cards.</p> 
STEP 2	<p>Cover or flip the KO over and write down everything you remember.</p> 	<p>Repeat the above but don't look at your KO</p> 	<p>Add pictures that might help you remember. Then self-quiz using the flash-cards.</p> 	<p>Answer the questions, remember to use full sentences.</p> 	<p>Check your KO to make sure there are no mistakes on your mind map.</p> 	<p>Make sure they test you on different sections of the KO and also on previous topics.</p>
STEP 3	<p>Check what you have written down. Correct any mistakes and add anything you missed in green pen.</p> 	<p>Use a green pen to check and correct your work</p> 	<p>Ask a friend or family member to quiz you on your knowledge.</p> 	<p>Ask a friend or family member to quiz you using the questions.</p> 	<p>Try to make more connections, link the information together where you can.</p>	<p>Repeat this regularly so that you are frequently looking at KOs past and present.</p> 



How to make learning stick...

Mind Mapping	Flash Cards	Look, Say, Cover, Write, Check	Key Word Mnemonics	Revision Clocks
<div></div> <p>Mind mapping is a great way of representing key information from a topic in a visual way. Use colour and images to represent the knowledge you need to learn. Keep writing to a minimum; use only keywords/phrases. Watch the clip for more tips and advice.</p> <div></div>	<div></div> <p>Make flash cards using your KO. Write a question on one side and the answer on the other or record key-words and definitions. Test yourself frequently. For more advice scan the code.</p> <div></div>	<div></div> <p>This technique is one that has been well used from primary school upwards. It is useful for rehearsing keywords, definitions and spellings. Look at the information, read it aloud, cover it up, write it down and then check it is correct.</p> <div></div>	<div></div> <p>A mnemonic is a sentence you make up where each word begins with the same letter as the word you want to remember. It is a useful technique for remembering a group of facts/words in a certain order.</p> <div></div>	<div></div> <p>Draw a basic clock and break your KO down into 12 chunks. Make notes on each chunk in the 12 clock sections, use colour and images to make it memorable. Revise each section for 5 minutes, turn over and test how much you can recall. Watch the clip for more tips and advice.</p> <div></div>



## How will your work be marked?

These are the marking literacy symbols that teachers will use to mark your work and cover the basics of good literacy skills.

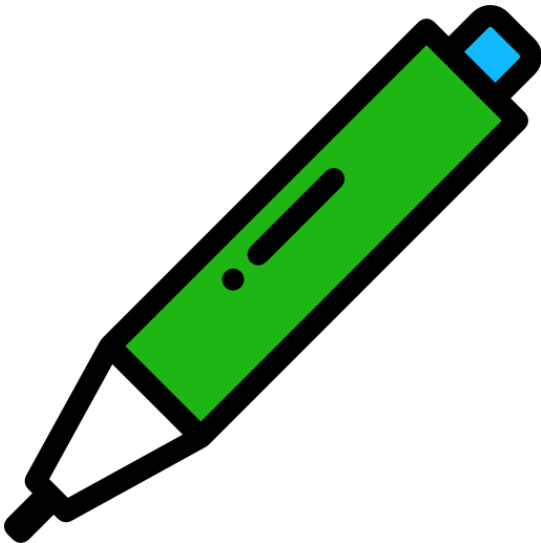
It is important that when you receive a piece of assessed work you do not just look at the score but also look at what literacy mistakes you made.

Teachers will also correct your work during a lesson.

Action you need to take:

When your teacher has highlighted a mistake, you need to correct these in **green pen**. For spelling mistakes you need to re-write the correct spelling 3 times.

Ultimately, improving your literacy skills falls on you, take the feedback from your teachers, amend them and improve your skills.



Literacy Marking Symbols	
Cl	Capital letter error
Sp	Spelling mistake
P	Punctuation error
Exp	Expression is unsuitable or could be improved
ww	Wrong word used
//	Start a new paragraph

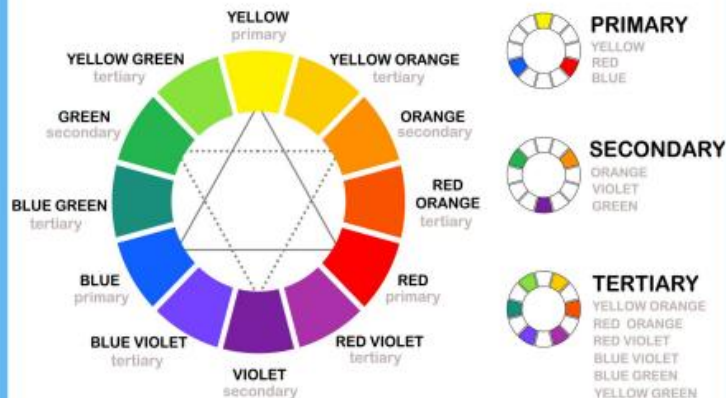


# Year 8 Art Knowledge Organiser -Term 2

## The Colour Theory

## Colour application

### Color Wheel



**Observational Drawing** is exactly that: drawing what you see.

**Imaginative Drawing** the act of drawing images that you think of in your head.

**Complementary Colours** are opposite on the colour wheel.

**Mark Making** describes the different lines, dots, marks, patterns and textures we create in an artwork.

**Expressions** a look on someone's face that conveys an emotion 'a sad expression'

**Characterisation** the creation or construction of a fictional character.

**Stance** the way someone stands especially when deliberately adopted (a person's posture).

**Personality** the enduring characteristics and behaviour that comprise a persons life. E.g. Traits, drives, interests, ability.

## FORMAL ELEMENTS

LINE

tone

TEXTURE

SHAPE

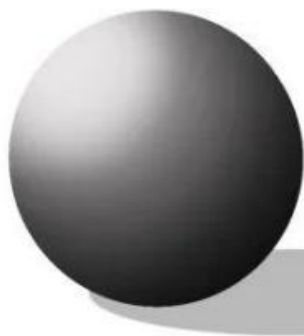
PATTERN

COLOUR

## Character stances



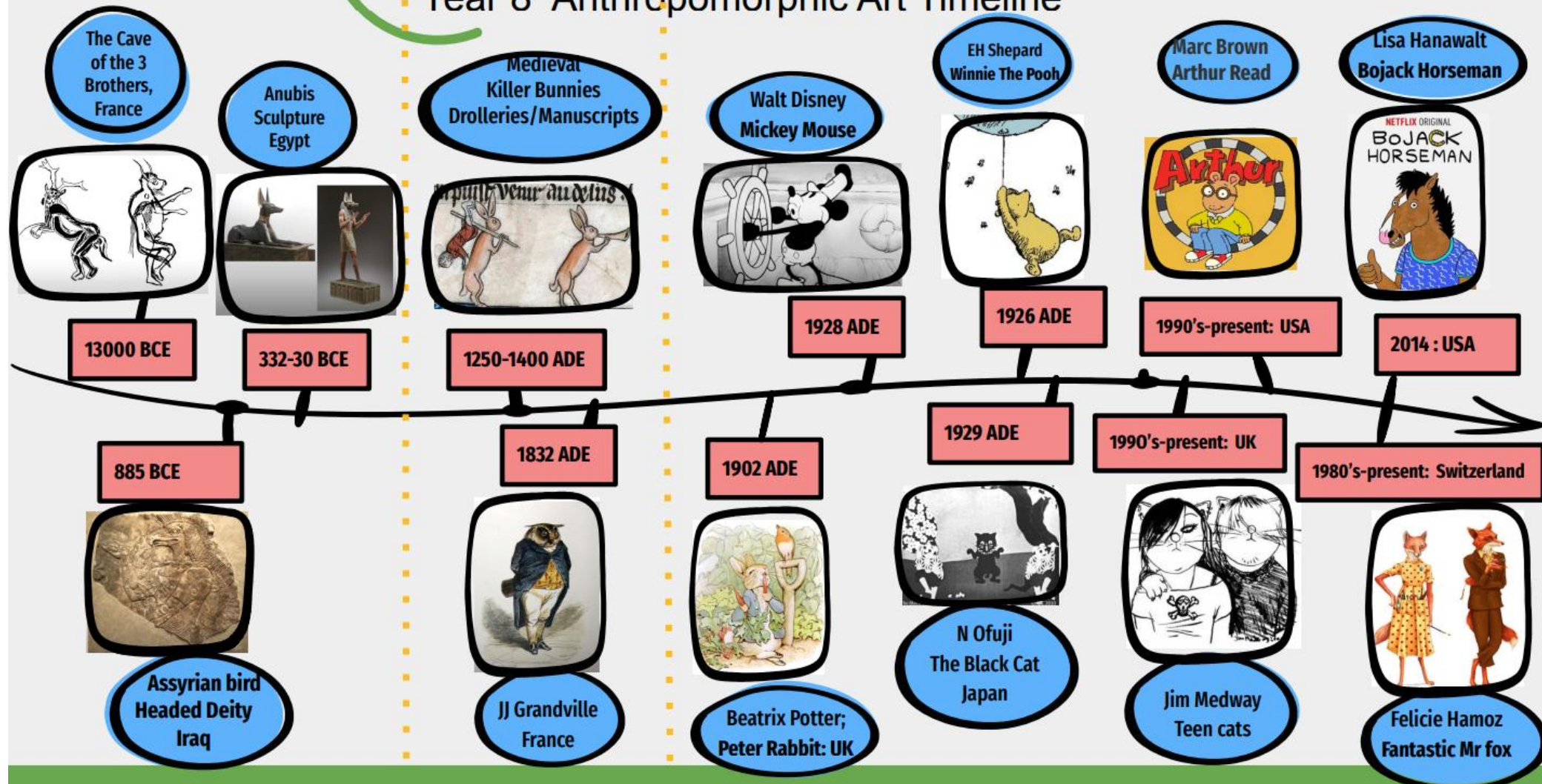
Highlight



Shadow



# Year 8 Anthropomorphic Art Timeline



Prehistoric - Egyptian - Medieval - Victorian illustration - 20th Century animation - 21st Century illustration - Contemporary Animation



# Computing: Podcasts

## Key Terms:

**Podcast:** A digital audio file made available on the Internet for downloading to a computer or mobile device, typically available as a series, new instalments of which can be received by subscribers automatically.

**Audio:** Sound

**Voiceover:** A piece of narration

**Special effects:** A sound that is created to represent something real (such as an explosion) or imaginary (such as a monster)

**Purpose:** The reason for which something is done or created or for which something exists. e.g. "...the purpose of the interview is to appoint a new Manager"

**Download:** the transmission of a file or data from one computer to another over a network

Audience Examples:

- Young children (4-10)
- Children (8-12)
- Teenagers (13-19)
- Young Adults (19-25)
- Adults (25-65)
- Retired People (65+)
- Non-english speakers
- People with additional needs

## Different purposes of podcasts

Re-assure



Entertain



Inspire

Warn

Persuade

Educate

Instruct

Associate



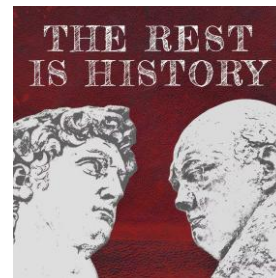
## What is the main purpose of a business?

Make money (profit)

## How would a podcasting business make money?

Through followers, sponsorship, popularity & advertising

## Some podcasts have more than one purpose





# Computing - EduBlocks

**Coding** <https://edublocks.org/>

Program: A human instructing the computer what to do. – computers require clear instructions to work correctly.

<b>EduBlocks</b>	A visual block-based programming tool that helps to introduce text-based programming languages.
<b>Python</b>	A text-based programming language.
<b>Programming Code</b>	The process of writing computer programs. The instructions that you write to program a computer.
<b>Algorithm</b>	A set of rules/instructions.

## Logical Thinking – Comparative Operators

==	Equal to (compare 2 values)
!=	Not equal to
<	Left value is less than the right value.
>	Left value is greater than the right value.
>=	Left value is greater than or equal to right value.
<=	Left value is less than or equal to right value.

## Arithmetic Operators

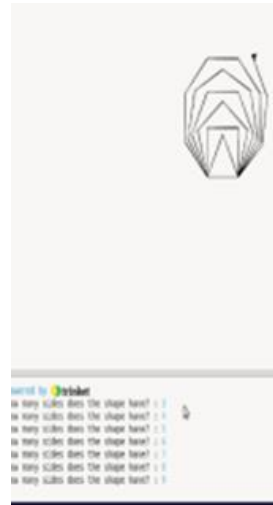
+	Addition	//	Integer division
-	Subtraction	%	Remainder
*	Multiplication	**	Exponent
/	Division		

<b>Execute</b>	When you carry out the program.
<b>Condition</b>	When something must happen for the program to work.
<b>Sequence</b>	Parts of the code that run in order and the instructions for our code.
<b>Selection</b>	Using logical tests to change the flow of the sequence .
<b>Iteration</b>	Using loops to repeat sequences of code Code is repeated (looped) while something is true or for a number of times
<b>Variable</b>	A value that can be changed e.g. speed, lives, score.
<b>Constant</b>	Something that’s stays the same in a program.
<b>Data Type: String</b>	A sequence of characters that can include letters, numbers, symbols.
<b>Data Type: Integer</b>	Whole numbers with no decimal point.
<b>Data Type: Float</b>	Decimal Numbers
<b>Input</b>	Something that is entered into the program.
<b>Output</b>	Something that comes out of a program.
<b>Loop</b>	A way of repeating code (iteration). They are limited to certain data types..
<b>While Loop</b>	A "While" Loop is used to repeat a specific block of code an unknown number of times, until a condition is met.
<b>For Loop</b>	For loop is a programming language conditional iterative statement, which is used to check for certain conditions and then repeatedly execute a block of code as long as those conditions are met.
<b>IF, Else, Elif</b>	The if/else statement executes a block of code if a specified condition is true. If the condition is false, another block of code can be executed.



# Computing - EduBlocks

<b>Functions</b>	A function is a command which contains the steps needed to perform a task.
<b>Subroutines</b>	A set of instructions designed to perform a frequently used operation within a program.
<b>Pattern</b>	Repeating sequences of code.
<b>RGB</b>	Colours: red, green and blue.
<b>Function</b>	Inbuilt code is a command which contains the steps needed that performs a specific task.
<b>Drawing Patterns</b>	Patterns are repeating sequences of code.



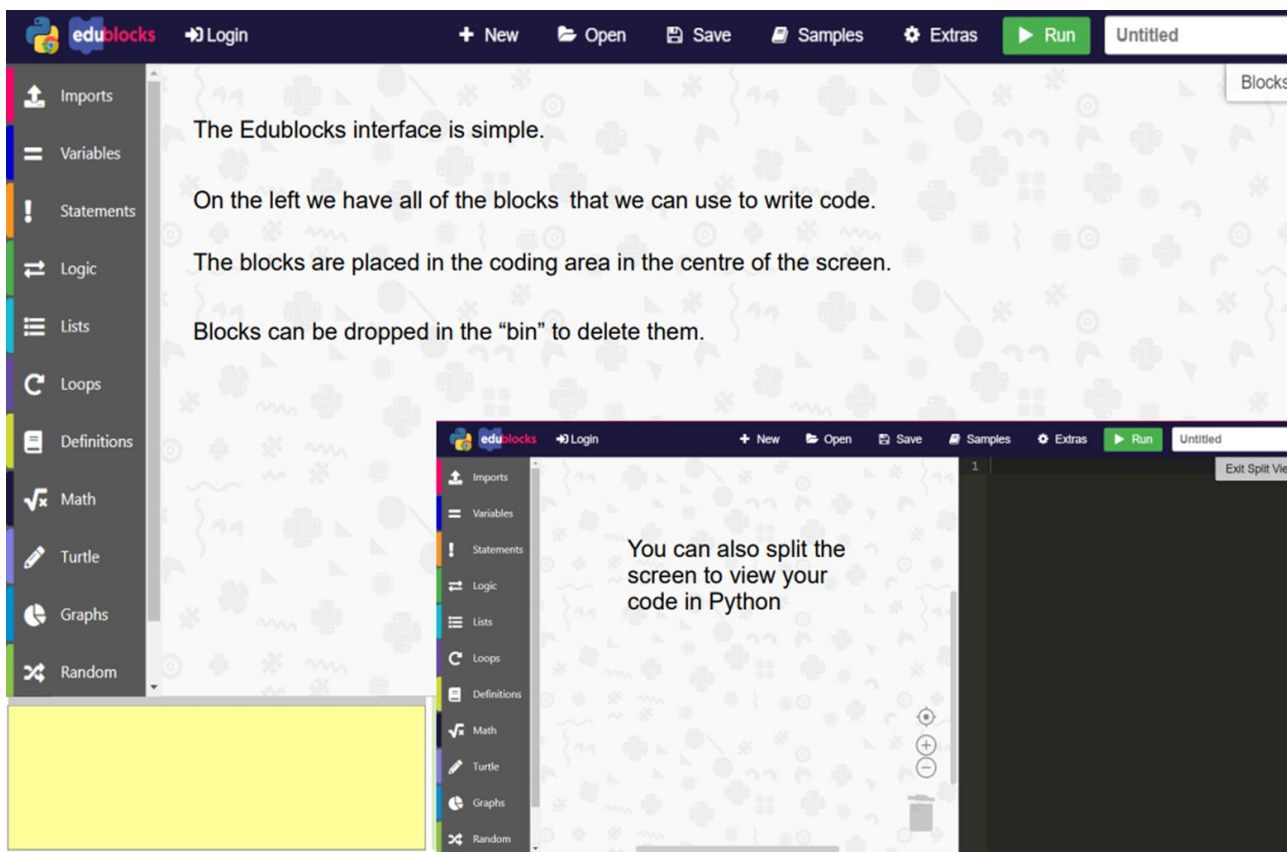
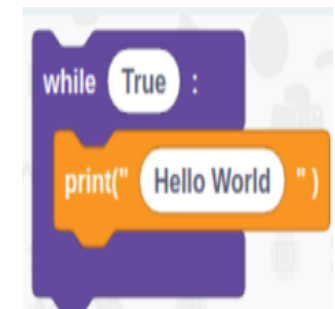
## Why are Functions Useful

- Functions are powerful tools. They are subroutines, small sequences of code inside the main code.
- We can call the function, and come out of the main code, do the function then go back to the code.
- They enable us to reuse sections of code.
- They keep the code tidy and with fewer lines to write.
- In our code we can draw any shape using one section of code.

## Variable Names







- Above is a variable called circles-Circles is the name of the variable.
- The data type is integer.
- **Loops** -Some loops run forever like this one (indefinite iteration). It will print Hello World.





## Computing-Scratch

## KEY TERMS

Word	Definition	Image
Sprite	The name of a <b>character</b> in Scratch	
Scratch	The name of the <b>programming language</b> we are learning	
Turn ## degrees	How far to the left or right you want to move your sprite. # is replaced with the number	
Block	A single instruction in our algorithm	

## Algorithms









- An **algorithm** is a **sequence** of step-by-step **instructions** to solve a problem.
- Algorithms can be written in code, or be a **sequence** of BLOCKS

We can use algorithmic prediction to guess what will happen. My Sprite is going to get bigger!

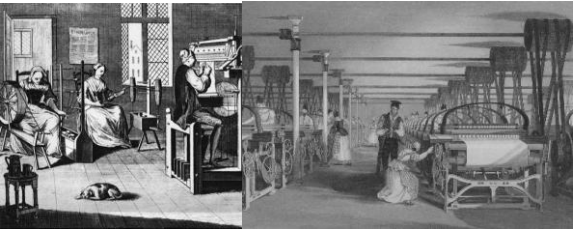
The repeat loop in this example, will move ten times. This is more efficient than writing out ten commands.

The turn # degrees block will turn my sprite. This algorithm will turn my sprite.



	 Variables	 Motion	 Looks	 Sound	 Events	 Control	 Sensing	 Operators
Instructions	Detailed information about how something should be done or operated.							
Execute	When you create a program for a computer, you give it a set of commands to execute.							
Sequence	The order the instructions need to be in .							
Selection	Making choices.							
Iteration	Doing the same thing more than once <b>Iteration in computing is the process of repeatedly executing instructions.</b>							
Repeat	The block that makes an instruction happen more than once.							
Variables	<b>A variable is a name that refers to data being stored by the computer, which can change.</b>							
Subroutines	In computer <b>programming</b> , a <b>subroutine</b> is a sequence of program instructions that performs a specific task,							
If block	Allows us to check a <b>condition</b> and perform an operation if the condition <b>evaluates</b> to 'true'.							
Debugging	Finding errors in our code.							
Abstraction	Taking away all the information that isn't needed.							
Decomposition	Breaking down a problem.							
count-controlled	Count-controlled iteration will execute the commands a set number of times .							
condition-controlled	Condition-controlled will execute the commands until the condition you set is no longer being met .							





**Industry is:** The economic activity concerned with the processing of raw materials and manufacture of goods in factories.  
After the industrial revolution there were lots of changes to the laws, such as the abolition of the slave trade in 1833. There were Factory reforms (1833) to support the working conditions of employees which included:

- Banned children under 9 from textile factories.
- Limited work to 48 hrs/week (9-13 yrs) & 69 hrs/week (13-18 yrs).
- Established the first system of paid, government factory inspectors to enforce laws.

Key Terminology
Industry
Factory
Consumerism
Health and Safety

Throughout time we have developed the technology to design and manufacture using newer materials, that have the properties we want them to have. This includes Smart Materials, Modern Materials And Composite Materials.

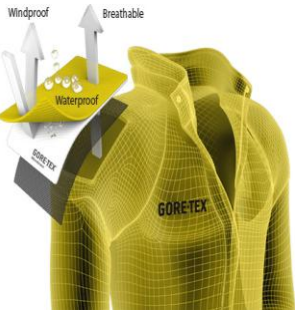


**Polymorph is an example of a Smart Material**



Smart Materials Examples	Modern Materials Examples	Composite Materials Examples
<ul style="list-style-type: none"><li>Thermochromic pigments</li><li>Photochromic pigments</li><li>Photochromic particles</li><li>Shape memory alloys</li><li>Polymorph</li><li>Quantum tunnelling composite</li><li>Piezoelectric material</li><li>Litmus paper</li></ul>	<ul style="list-style-type: none"><li>Corn starch polymers</li><li>Flexible MDF</li><li>Titanium</li><li>Fibre optics</li><li>Graphene</li><li>Liquid crystal display (LCD)</li><li>Nanomaterials</li><li>Metal foams</li></ul>	<ul style="list-style-type: none"><li>Glass reinforced plastic</li><li>Carbon fibre reinforced plastic</li><li>Gore-Tex®</li><li>Kevlar®</li><li>Conductive fabrics</li><li>Microfibres &amp; microencapsulation</li><li>Fire resistant fabrics</li></ul>

**Gore-Tex is a waterproof, breathable fabric membrane and registered trademark of W. L. Gore and Associates.**



**Corn Starch Polymers - Corn plastic is made from polylactic acid (PLA), which is a plastic substitute, made from fermented plant starch.**

**It is becoming a popular alternative to traditional plastic. The different uses of polylactic acid could be a way of how to reduce a carbon footprint that is left by fossil fuel plastics.**



What is a carbon footprint?

A carbon footprint is the total amount of greenhouse gases (including carbon dioxide and methane) that are generated by our actions.



Environmentally Friendly Manufacturing Methods

- Environmentally friendly manufacturing methods aim to reduce the environmental impact of manufacturing processes and products.
- Sustainable manufacturing involves using renewable resources, reducing waste, and minimizing pollution.
- Green manufacturing aims to minimize the environmental impact of products by using sustainable materials and processes.
- Lean manufacturing is a production process that focuses on minimizing waste and maximizing efficiency.
- Life cycle assessment is a method of evaluating the environmental impact of a product from the extraction of raw materials to the disposal of waste.
- Carbon footprint refers to the total amount of greenhouse gas emissions produced by a product or process.
- Energy efficiency involves using energy in the most efficient way possible to reduce waste and save resources.

The Green Dot

Signifies the packaging producer has made contribution towards packaging recycling. Doesn't necessarily mean the packaging itself is recyclable.



The 6 R's

The 6 R's are a set of principles aimed at promoting sustainability and reducing waste. Each of the R's represents a different action that individuals and organisations can take to minimize waste and preserve natural resources.

- 1. Reduce:** This means reducing the amount of waste that is generated in the first place. For example, reducing the amount of packaging used for a product or reducing the amount of energy consumed by turning off lights when they are not in use.
- 2. Reuse:** This means using products or materials more than once before discarding them. For example, reusing plastic bags or containers instead of throwing them away after one use.
- 3. Recycle:** This means converting waste materials into new products. For example, recycling paper or glass bottles into new products instead of sending them to a landfill.
- 4. Repair:** This means fixing broken products instead of throwing them away and buying new ones. For example, repairing a pair of shoes instead of throwing them away and buying a new pair.
- 5. Rethink:** This means considering new ways of doing things that are more sustainable and create less waste. For example, rethinking the way we use resources in manufacturing processes to reduce waste and pollution.
- 6. Refuse:** This means refusing to buy or use products that are not environmentally friendly or are designed to be disposable. For example, refusing to buy products with excessive packaging or single-use plastics.

By following these 6 R's, individuals and organisations can reduce waste, save resources, and promote sustainability.

Key Terminology
Sustainability
Renewable materials
Non-renewable
Recycle
Reduce
Reuse
Repair
Rethink
Refuse
Sustainable manufacturing
Life cycle assessment
Carbon footprint
Energy efficiency
Waste reduction



### **What is CAD/CAM?**

- CAD stands for Computer-Aided Design
- CAM stands for Computer-Aided Manufacturing
- CAD/CAM is the use of computer software to design and manufacture products

### **Uses of CAD/CAM in Design and Technology:**

- Designing 2D and 3D models of products
- Creating and modifying product designs quickly and easily
- Simulating and testing product performance
- Automating the manufacturing process
- Controlling CNC machines to produce products accurately and efficiently

### **CAD Software:**

- Examples of CAD software include AutoCAD, SolidWorks, and SketchUp
- CAD software allows designers to create and modify 2D and 3D models of products

### **CAM Software:**

- Examples of CAM software include Mastercam and Fusion 360
- CAM software allows manufacturers to create toolpaths for CNC machines to cut and shape products

### **CNC Machines:**

- CNC stands for Computer Numerical Control
- CNC machines use CAM software to control the movement of cutting tools to shape products
- Types of CNC machines include mills, lathes, routers, and plasma cutters

### **Advantages of CAD/CAM:**

- Increased design accuracy and precision
- Faster product design and development
- Improved product quality and consistency
- Increased manufacturing efficiency and productivity
- Ability to create complex shapes and geometries

### **Disadvantages of CAD/CAM:**

- Expensive software and hardware costs
- Steep learning curve for users
- Dependence on technology for the design and manufacturing process
- Limited flexibility for customisation during the manufacturing process

### **Automation:** Where does Automation take place?

- Manufacturing and production lines
- Warehouses and logistics
- Transportation and delivery systems
- Agriculture and farming
- Healthcare and medical devices



### **Key areas of Automation**

- 1. Automation:** The use of technology to perform tasks without human intervention.
- 2. Robotics:** The design, construction, and use of robots to perform tasks.
- 3. Sensors:** Devices that detect changes in the environment and provide a corresponding output signal.
- 4. Control systems:** Systems that manage and regulate the operation of machines or devices.

### **Key Terminology**

**CAD (Computer-Aided Design):** The use of computer software to create, modify, and optimize designs.

**CAM (Computer-Aided Manufacturing):** The use of computer software to control and automate manufacturing processes.

**3D Printing:** A manufacturing process that creates three-dimensional objects by depositing layers of material, typically plastic or metal.

**Laser Cutting:** A manufacturing process that uses a high-powered laser to cut and shape materials such as wood, plastic, and metal.

**Product Design:** The process of designing products from concept to production, including the creation of sketches, prototypes, and technical drawings.



# Commedia Dell'arte

## Commedia

You will be exploring an Italian style of theatre from the 1500s which has continued to influence drama today. You will be focusing on body language, use of gesture and learning how to perform wearing a mask.

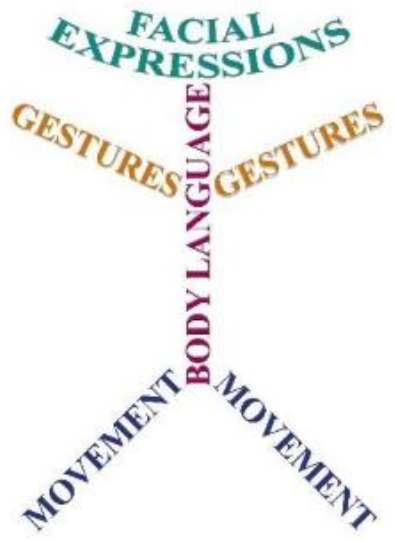
### Tasks for this topic:

- Applying exaggerated body language to a piece
- Learn the illusion rules for masked performance
- Learn to stances for and perform as the set Commedia Dell'arte characters



Performance Techniques	
Lazzo	Scripted routine
Illusion rules	Rules to follow to create effective masked performance work
Stock character	Character archetype
Pantomime	A comedy style of staged production which encourages audience participation

## PERFORMANCE SKILLS



# Melodrama

## Melodrama

You will be exploring a Victorian style of performance, Melodrama. You will perform as stock characters using melodramatic storylines.

### Tasks for this topic:

- Performing as a stock character
- Explore using exaggerated facial expressions
- Learn the elements of a piece of melodrama



Performance Techniques	
Stock Character	A recognisable, stereotypical character
Exaggeration	Amplified action
Stereotype	Generalised belief about a group of people



Stanza

A group of lines in a poem

Rhyme scheme

The pattern of rhyming words at the end of each line.

This poem follows ABAB.

The Crocodile by Lewis Carroll

How doth the little crocodile  
Improve his shining tail,  
And pour the waters of the Nile  
On every golden scale!

How cheerfully he seems to grin,  
How neatly spreads his claws,  
And welcomes little fishes in,  
With gently smiling jaws!

Rhythm

The amount of syllables (beats) in a line.

In this poem, there are 8 syllables followed by 6 syllables in two consecutive lines.

'WORLD' – OUR PERSUASIVE WRITING STRUCTURE	
Part	Key Features
INTRODUCTION: A HELLISH WORLD 	<ul style="list-style-type: none"><li>Your introduction begins your persuasive piece</li><li>Use an 'imagine' sentence to put your reader in a hellish world</li><li>Include pathos: emotive language and rhetorical questions</li><li>Finish with your opinion on the topic</li></ul>
MAIN BODY: OUR REALITY 	<ul style="list-style-type: none"><li>Your main paragraphs should include a problem, example and a solution</li><li>You are aiming for three main paragraphs</li><li>Begin with a topic sentence to establish the problem</li><li>Include ethos, logos and pathos</li><li>Use real-world examples</li><li>End with a concluding sentence that gives a solution</li></ul>
CONCLUSION: A HEAVENLY WORLD 	<ul style="list-style-type: none"><li>Your conclusion ends your persuasive piece</li><li>Use a 'now imagine' sentence to put your reader into a heavenly world</li><li>Include pathos</li><li>Finish with your final opinion on the topic</li></ul>

Greeting  
e.g. Good afternoon, ladies and gentlemen,

Introduction: A Hellish World

Main Body: our reality  
Paragraph One










Main Body: our reality  
Paragraph Two






Main Body: our reality  
Paragraph Three

Conclusion: A Heavenly World

Closing remarks to the audience  
e.g. Thank you for listening.












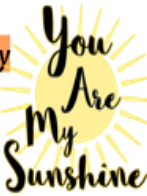






Universal Themes		
<b>Compassion</b> 	<b>Suffering</b> 	<b>Hope</b> 
Big Ideas		
<b>Alienation</b> Feeling withdrawn or separated from others or from society as a whole. 	<b>Social Responsibility</b> Working together for the benefit of a community or environment. 	
<b>Inclusivity</b> Providing equal access to opportunities and resources for everyone, especially those who might be excluded. 	<b>Identity</b> The fact of being who a person is / what they are made up of (background, culture, family). 	
<b>Tolerance</b> Willing to accept other people's behaviour and opinions even if you do not agree with them. 	<b>Social Division</b> Divisions in society associated with social groupings, often causing conflict, inequality and disadvantage. 	

Context – We must understand the influences of the world we live in when examining texts.	
<b>Climate change</b>  Climate change refers to the long-term shifts in temperatures and weather patterns. While some of these shifts may be natural, since the 1800s, human activities have been the main driver of climate change. This has been primarily due to the burning of fossil fuels (like coal, oil and gas), which cause world temperatures to rise, more intense heatwaves and rising sea-levels. Although conditions are likely to worsen in the coming decades, scientists argue urgent action can still limit the worst effects of climate change. 	
<b>Environment Activist: Greta Thunberg</b> Environmental and political activist, Greta Thunberg is known for challenging world leaders to take immediate action to ease the effects of human-caused climate change. Thunberg began her activism at 15 years old and continues to be a prominent voice in the climate movement. 	<b>Political Activist and Footballer: Marcus Rashford</b> Marcus Rashford is a famous footballer, who was brought up in a single-parent household and relied on food banks and free school meals. Rashford became an activist for child poverty and homelessness, advocating to end child food poverty. He created the 'Marcus Rashford Book Club', which has given away over 100,000 free books. 
<b>Poet: Simon Armitage</b> Simon Armitage, the current Poet Laureate, is an English poet, playwright, musician, novelist and Professor of poetry at the University of Leeds. He used to work with people who struggled to fit into society. His poem, 'Give', is about homelessness and urges the reader to show compassion and fight for change. 	<b>Author: Chimamanda Ngozi Adichie</b> Chimamanda Ngozi Adichie is a Nigerian writer and public speaker. Her work explores themes of immigration, gender, and culture. She has famously explored her own experiences with being labelled a 'refugee'. 



ENGLISH: OURSELVES - POETRY AND NON-FICTION

Device / Feature				
<b>Direct Address</b> Speaking directly to the audience / reader 'you' 	<b>Inclusive Address</b> Including yourself with the audience / reader 'we', 'us' 	<b>Rhetorical question</b> A question that does not require an answer 	<b>Alliteration</b> Words beginning with the same sound 	<b>Triple</b> Three related words or phrases e.g. I came, I saw, I conquered 
<b>Quote</b> A quote from a reputable person or source 	<b>Emotive Language</b> Words chosen to evoke an emotional response in the reader 	<b>Fact</b> Something that is proven to be true 	<b>Statistics</b> Numerical data e.g. percentages or fractions 	<b>Imperative</b> A command 
<b>Simile</b> Comparing something to something else: 'as', 'like' 	<b>Metaphor</b> Describing something by stating it is something else 	<b>Personification</b> Giving living qualities to something non-human 	<b>Symbolism</b> Objects, colours, sounds, places 	<b>Juxtaposition</b> Contrasting ideas / images 



# Ethos

Trust, credibility, experience  
e.g. Quotes, anecdotes









Aristotle's Rhetoric Triad










# Logos

Logic, proof and reason  
e.g. Facts, statistics

# Pathos












Empathy and values  
e.g. Emotive language, similes, metaphors



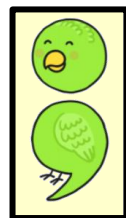



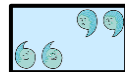
Word Classes					
<b>Adjective</b> Describes a noun or pronoun. Blue / young / powerful 	<b>Adverb</b> How, when or where something happens. Furiously / yesterday / here 	<b>Preposition</b> Where something is; the time, direction or cause of something. On / under / above 	<b>Pronoun</b> Words that replace nouns or noun phrases. She / he / they 	<b>Noun</b> Person, place, thing, idea or state of being. Manchester / cat / love 	<b>Verb</b> An action or state of being. Jump / write / be 

Common Homophones		
 There	 They're	 There
Your 	 You're	
Its 	 It's	
Which 	Witch 	



# ENGLISH: OURSELVES - POETRY AND NON-FICTION

Sentences are created by using different types of clauses		Punctuation		
<p><b>Main clause</b></p> <p>A main clause contains one subject and one verb. It has one main idea and it forms a complete sentence (it makes sense on its own).</p> 	<p><b>Subordinate clause</b></p> <p>A subordinate clause adds extra information to a sentence and does not function as a complete sentence (it does not make sense on its own). It depends on the main clause to make sense and is usually separated by a comma.</p> 	<p><b>Capital Letters</b></p> <ul style="list-style-type: none"><li>- Start of a sentence</li><li>- Proper nouns: names of places, people or things</li><li>- The pronoun 'I'</li><li>- Months and days of the week</li></ul> 		<p><b>Commas</b></p> <ul style="list-style-type: none"><li>- Separate three or more items in a list</li><li>- After a fronted adverbial</li><li>- Before and after a subordinate clause (like brackets)</li><li>- After subordinate clauses and phrases that begin a sentence</li><li>- Separate question tags</li><li>- Separate direct speech from non-speech</li></ul> 
Sentence Structure		Example		
Simple sentence: one main clause 	The prisoner escaped.			
Compound sentence: two main clauses linked with a connective / conjunction  	The prisoner escaped and he never returned.			
Complex sentence: one or two main clauses with embedded dependent / subordinate clauses  	The prisoner escaped despite the elaborate security system.			
2V/3V: use two or three verbs	The prisoner anxiously sprinted, jumped and climbed over any barrier.			
2A/3A: use two or three adjectives 	The road was long, empty and bewildering.			
Fronted adverbial: begin your sentence with an adverb 	Quickly, he leapt over the wall.			
As / When / Although: use any of these words at the beginning of your sentence to introduce a subordinate clause	Although sweat trickled down her face, she continued to climb.			

<p><b>Apostrophes</b></p> <ul style="list-style-type: none"><li>- To show that letters are missing in a word</li><li>- To show possession</li></ul> 		<p><b>Full Stops</b></p> <ul style="list-style-type: none"><li>- To end a sentence</li></ul> 	
<p><b>Semicolons</b></p> <ul style="list-style-type: none"><li>- Separate two main clauses that are closely connected to each other but could stand alone as two separate sentences</li><li>- To replace a coordinating conjunction</li><li>- To break up a list using longer phrases to signal which items are together</li></ul> 		<p><b>Colons</b></p> <ul style="list-style-type: none"><li>- At the end of a clause to elaborate / give more details</li><li>- At the end of a clause to give an explanation</li><li>- At the end of a clause to show an answer</li></ul> 	
<p><b>Exclamation Mark</b></p> <ul style="list-style-type: none"><li>- To show strong feelings</li><li>- To show a raised voice</li></ul> 	<p><b>Question Mark</b></p> <ul style="list-style-type: none"><li>- After a direct question</li></ul> 	<p><b>Speech Marks</b></p> <ul style="list-style-type: none"><li>- Around direct speech (after the punctuation)</li></ul> 	



## A balanced diet

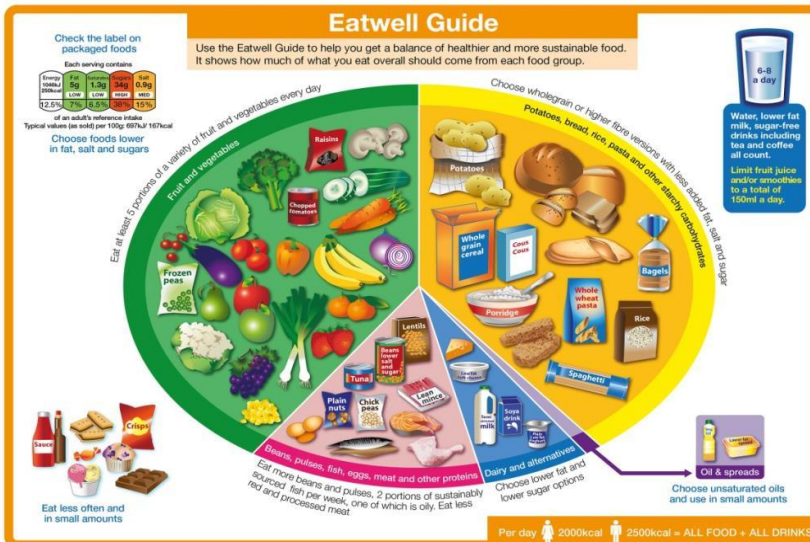
A balanced diet is based on the Eatwell Guide. An unbalanced diet can lead to dietary related disease.

## Diet and health

**There is a link between a poor diet, and the risk of developing some diseases.**

**This includes the risk of:**

- cancer;
- coronary heart disease (CHD);
- bone health;
- anaemia.



Source: Public Health England in association with the Welsh government, Food Standards Scotland and the Food Standards Agency in Northern Ireland

© Crown copyright 2018

## Energy from food

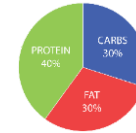
- Energy intake is measured in joules (J) or kilojoules (kJ), but many people are more familiar with Calories (kcal).
- Different macronutrients, and alcohol, provide different amounts of energy.

There are two different types of nutrients:

- macronutrients;
- micronutrients.

There are three **macronutrients** that are essential for health:

- carbohydrate;
- protein;
- fat.



There are two types of **micronutrients**:

- vitamins;
- minerals.

## Energy balance

To maintain body weight it is necessary to balance energy intake (from food and drink) with energy expenditure (from activity).

## Obesity

People who are obese are more likely to suffer from CHD, type 2 diabetes, gall stones, arthritis, high blood pressure and some types of cancers, i.e. colon, breast, kidney and stomach.

## Inactivity

It is also important that the amount of time being sedentary is reduced. Over time, sedentary behavior can lead to weight gain and obesity, which can increase the risk of developing chronic diseases in adulthood.



## Key Terminology







**Energy:** The power the body requires to stay alive and function.

**Digestion:** The process by which food is broken down in the digestive tract to release nutrients for absorption.

**Macronutrients:** Nutrients needed to provide energy and as the building blocks for growth and maintenance of the body.

**Micronutrients:** Nutrients which are needed in the diet in very small amounts.



Nutrient	Function	Source
Vitamin A	Keeps the eyes and skin healthy	
Vitamin B group	Releases energy from food	
Vitamin C	Keeps connective tissue healthy. Helps the body absorb iron	
Vitamin D	Helps the body absorb calcium for strong bones and teeth	
Iron	Keeps red blood cells healthy	
Calcium	Builds strong bones and teeth	

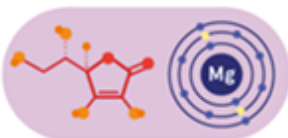
Key terminology	
Salmonella	Food Poisoning bacteria commonly found in raw chicken
Campylobacter	Food Poisoning bacteria commonly found in
Coagulation	The process when a protein sets through the application of heat (from a liquid to a solid)
Fermentation	The process in which yeast produces the gas carbon dioxide
Macronutrient	Nutrients needed by the body in large amounts
Micronutrient	Nutrients needed by the body in smaller amounts
Deficiency	A lack of a particular nutrient

Macronutrient	Why we need it
Carbohydrate	Main energy source
Protein	Growth, repair and maintenance of tissue, muscle and cells and energy
Fat	Keeps the body warm, protects vital organs, provides fat-soluble vitamins and energy

## macronutrients



## micronutrients



### Raising Agents

**Biological**- Example: Yeast. The yeast uses the flour, sugar and water to ferment and to produce carbon dioxide and alcohol.

**Chemical**- produce the gas carbon dioxide when heated examples include: Baking powder, bicarbonate of soda

**Mechanical**- Air bubbles become trapped in the mixture. When heated the mixture sets and stops the bubbles from escaping. Examples include: whisking and creaming

*Raising agents are added to mixtures to make them rise. When heat is applied to a mixture that contains a raising agent, the gas within it expands and rises. Some gas escapes and some is trapped in the mixture. The gas sets when it cooks and then cools.*



## Subject: Food Technology

Food is sourced, processed and sold in different ways. Geography, seasonality, weather and climate influence the availability of food and drink.

### Seasonality

Fruit and vegetables naturally grow in cycles and ripen during a certain season each year. Some meat and fish can also be seasonal. Advantages of buying food in season include:

- it is fresh; flavour, colour and texture;
- optimal nutritional value;
- best supports local growers;
- lower cost;
- reduced energy needed to transport.

### Food provenance

Food provenance is about where food is grown, caught or reared, and how it was produced. Food certification and assurance schemes guarantee defined standards of food safety or animal welfare. There are many in the UK, including



### Food security

Food security exists when everyone has access to enough affordable, safe and nutritious food to keep them healthy, in ways the planet can sustain in the future.



## Topic: Food Provenance

### All food must be grown, reared or caught

In the past food was grown, prepared and cooked at home or sold by small-scale producers or merchants.

Some people still grow food at home or on allotments. Food can also be bought from a wide range of sources, including:

- cafes/coffee shops
- convenience stores
- farmers markets
- farm shops
- markets

### Farming systems

**Intensive** – a system of production using large amounts of labour and money (high input/high output)

**Organic** – where artificial fertilisers and pesticides are not used.

• **Free-range** – a system where animals, for at least part of the day, can roam freely outdoors.

**Map showing key growing areas in the UK** – some parts of the UK have excellent soil for crops, while others are used for cattle, sheep, pigs and poultry.

In the north-west of England, Wales and Scotland, farmers keep cattle and sheep. Sheep can survive the cold winters on the hills and moors.

Cattle, sheep, pigs and dairy are the largest commodity sectors in Northern Ireland.

In the south-west of England, the rich grass is ideal for feeding dairy cows.

Many plant crops are grown in the UK, including:

- wheat, barley & oats;
- oil seed rape;
- potatoes;
- sugar beet;
- fruit & vegetables.

In the east of England, wheat, barley and vegetables grow in large fields.

In the south-east of England and the lowlands of Scotland, grain, potatoes and sugar beet are grown. Most UK cauliflowers are grown in the south-east.





## Year 8 Topic 2 Part 1: Où habites-tu? – Where do you live?

### At the weekend

Tu vas où le week-end?

- Where do you go on the weekend?

Je vais... - I go...

...au café - ...to the café

...au centre commercial - ... to the shopping centre

...au centre de loisirs - ...to the leisure centre

...au château - ...to the castle

...au cinéma - ...to the cinema

...au marché - ...to the market

...au parc - ...to the park

...au restaurant - ...to the restaurant

...au stade - ...to the stadium

...à l'hôtel - ...to the hotel

...à la piscine - ...to the swimming pool

...aux magasins - ...to the shops

...aux musées - ...to the museums

pour voir un match – see a match

pour regarder un film – to watch a film

pour faire du patin à glace – to do ice-skating

pour nager – to swim

pour voir les choses historique

– to see historic things

Avant d'aller (au cinéma), je vais...

– Before going to the cinema, I go...

### Key ideas

In my town

At the

weekend

Making plans



### Where we live

J'habite à... – I live in...

C'est un grand / petit village

– It's a big / small village

C'est une grande / petite ville

– It's a big / small town

J'y habite depuis (deux) ans

– I've lived there for (two) years

J'y habite depuis toujours

- I've always lived there

J'aime habiter ici – I like to live here

J'aime y habiter – I like living there

J'aime habiter là-bas – I like living there

Je suis très content(e) d'habiter ici

- I am very happy to live here

Je voudrais habiter à... I would like to live in...

### Making plans

Tu veux...(aller au stade)?

Do you want... (to go to the stadium)?

...aller au concert - ...to go to the concert

...aller au cinéma - ...to go to the cinema

...aller au parc - ...to go to the park

...aller au centre de loisirs - ...to go to the leisure centre

...aller à la piscine - ...to go to the pool

...aller à la plage - ...to go to the beach

...aller aux magasins - ...to go to the shops

...faire du vélo - ...to do cycling

...manger au restaurant / café - ...to eat at a restaurant / cafe

...visiter les jardins / les musées - ...to visit gardens / museums

### In town

Qu'est-ce qu'il y a dans ta ville?

- What is there in your town/city?

Dans ma ville... - In my town...

Ici... - Here...

Là-bas... - Over there...

il y a... - there is...

...un café -...a café

...un centre commercial - ...a shopping centre

...un centre de loisirs - ...a leisure centre

...un château - ...a castle

...un cinéma - ...a cinema

...un hôtel - ...a hotel

...un marché - ...a market

...un parc - ...a park

...un restaurant - ...a restaurant

...un stade - ...a stadium

...une piscine - ...a swimming pool

...des magasins - ...some shops

...des musées - ... museums

Il n'y pas de (café) - There isn't a café

Il n'y a pas d' (hôtel) - There isn't a hotel

D'accord - OK

Oui, je veux (bien) - Yes, I (really) want to

Oui, bonne idée – Yes, good idea

Non, je n'ai pas envie - No, I don't want to

Si tu veux - If you want

Non merci - No thank you



## Year 8 Topic 2 Part 1: Transferable language

### **Habiter – to live**

**J’habite – I live**

**Tu habites – You live (singular / informal)**

**Il habite – he lives**

**Elle habite – she lives**

**On habite – we live**

**Nous habitons – we live**

**Vous habitez – you live (plural / polite)**

**Ils habitent – they live (m / m+f)**

**Elles habitent – they live (f)**

### **Aller – to go**

**Je vais – I go**

**Tu vas – you go (singular / informal)**

**Il va – he goes**

**Elle va – she goes**

**On va – we go**

**Nous allons – we go**

**Vous allez – you go (plural / polite)**

**Ils vont – they go (m / m+f)**

**Elles vont – they go (f)**

### **Vouloir – to want**

**Je veux – I want**

**Tu veux – you want (singular / informal)**

**Il veut – he wants**

**Elle veut – she wants**

**On veut – we want**

**Nous voulons – we want**

**Vous voulez – you want (plural / polite)**

**Ils veulent – they want (m / m+f)**

**Elles veulent – they want (f)**

### **To The**



**à = to**

**au – to the (masc. = à + le = au)**

**à la – to the (fem. = à + la = à la)**

**à l’ – to the (vowel sound = à + l’ = à l’)**

**aux – to the (plural = à + les = aux)**

### **Key verbs in the present tense**

#### **Time expressions**

**Quelquefois – Sometimes**

**Normalement – Normally**

**D’habitude – Usually**

**Tous les week-ends – Every weekend**

**En ce moment – At the moment**

**Souvent – Often**

**Tous les jours – Every day**

**Tous le soirs – Every evening**

**Tout le temps – All the time**

**De temps en temps – From time to time**

**Une fois par mois – Once a month**

**Deux fois par semaine – Twice a week**

**Ce matin / Cet après-midi / Ce soir**

**This morning / afternoon / evening**

**Ce week-end – This weekend**

**Aujourd’hui – Today**

### **Definite Article – The**

**Le – masculine**

**La – feminine**

**Les – plural**

**L’ – starts with a vowel sound**

### **Intensifiers**

**très – very**

**assez – quite**

**vraiment – truly**

**réellement – really**

**un peu – a bit**

**peu – little**

**trop – too**

**extrêmement –**

**extremely**

**tellement – so**

### **Connectives**

**et – and**

**mais – but**

**aussi – also**

**parce que – because**

**car – because**

**puisque – since**

**cependant – however**

**malheureusement –**

**unfortunately**

### **Indefinite Article – A / An / Some**

**Un – a / an (masculine)**

**Une – a / an (feminine)**

**Des – some (plural)**

**Je pense que – I think that**

**Je crois que – I believe that**

**Je dirais que – I would say that**

**À mon avis – In my opinion**

**c’est – it is**

**ce n’est pas – it isn’t**

**Je trouve ça – I find that**

**important(e) – important**

**génial(e) – great**

**agréable – pleasant**

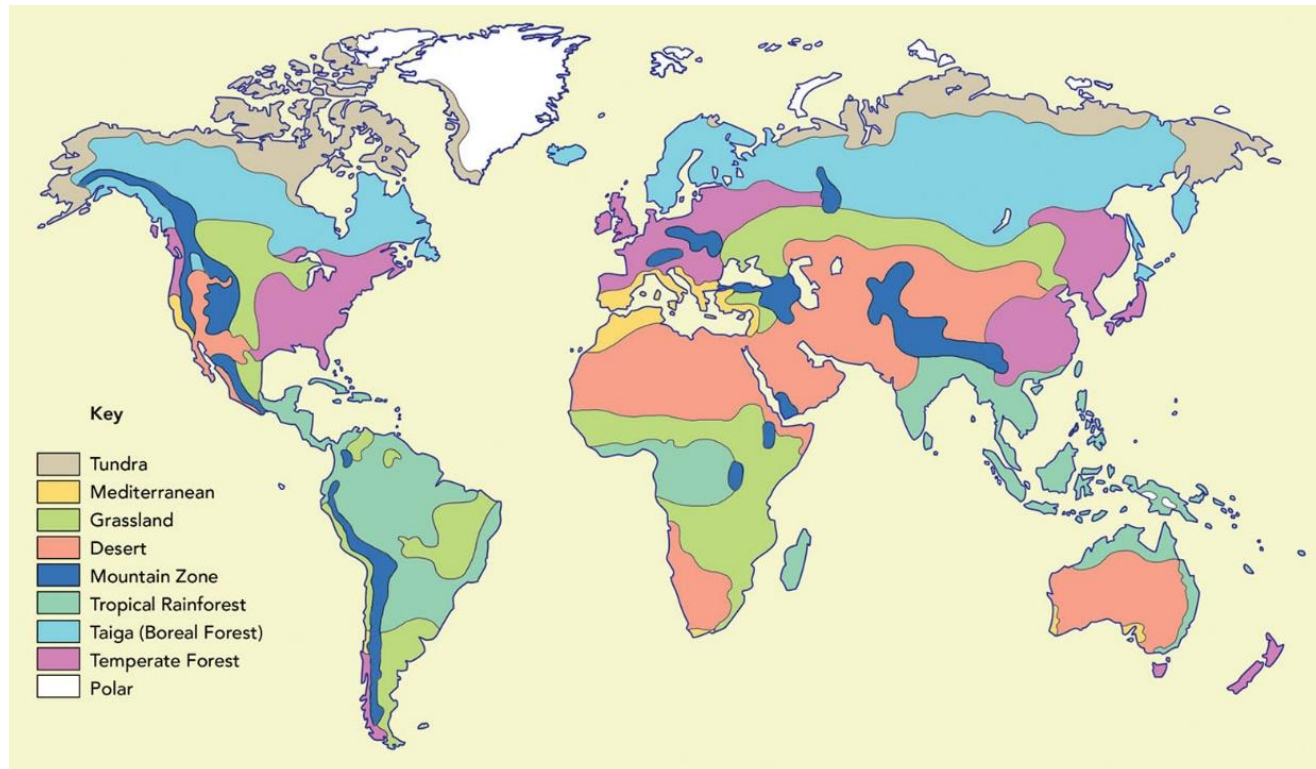
**joli(e) – pretty**

**moche – ugly**

**Using a range of language improves the quality of our speaking and writing and allows us to access more challenging texts!**



## Geography: Biomes and Rainforests



Climate is important because it determines the types of plants and animals—the ecosystem—that can survive in a biome.

### Location of the Amazon Rainforest



### Characteristics of some of the world's biomes

Tropical **rainforests** are **hot** and **wet** all year round. They are home to **half** of all the different types of **plants** and **animals** on the planet.

**Deserts** are **hot** and **dry** all year round. The only things that grow are **cacti** and small **shrubs** because the soil is shallow and rocky. Animals come out at **dusk** when it is **cooler**.

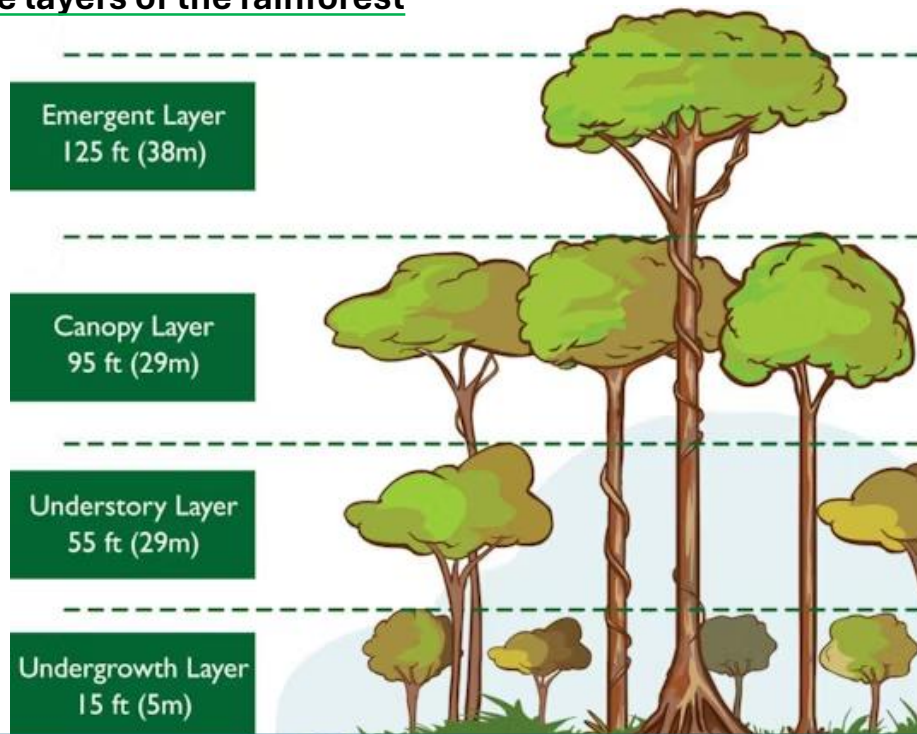
The **savannah** is **hot** all year round with a long, **dry season**. Only **grasses** and **shrubs** grow here but it is home to lots of different types of animals such as **elephants, zebras and wildebeest**.

The **tundra** is a **cold biome**. There is very little **rain** or **snow** and the temperatures are **freezing**. Winters are **long** and summers are **short**. Part of the soil is **frozen** all year round, although the top part **defrosts** in summer and plants such as **mosses** can grow.

The Amazon Rainforest is located in the continent of South America. The ocean to the east is the Atlantic Ocean. The Amazon Rainforest also includes the world's second longest river which is called the Amazon River. The Amazon Rainforest has an annual average temperature of 27 degrees Celsius and an annual rainfall of 2104 millimetres.



## The layers of the rainforest



- **Emergent Layer** - The consists of the tallest trees in the rainforest and they can grow up to 60 metres. They are higher because they are able to trap more sunlight to help them make more food to grow.
- The **canopy** is the continuous layer of tree tops that is more sheltered. The trees are normally 20 to 40 metres tall. This leafy location with fruit all year round is the habitat for most wildlife including insects, birds and howler monkeys.
- The **understory** (tree trunks) is shady and cool as most light is blocked by the canopy. Here you find vines wrapped around the tree trunks and smaller plants with huge leaves to try and get sunlight.
- The **forest floor** is dark as trees block out most of the sunlight and covered in a thick blanket of dead and decaying roots and leaves.

## The climate in the Tropical Rainforest

Is very wet (receives more than twice the rainfall Manchester does) and the temperature is always warm as it is near the equator making it humid.

### **Plant and animal adaptations**

Plants and animals have changed over time to live in the harsh rainforest environment. For example:

- Leaves have drip tips to allow water to run off them quickly without breaking them.
- Emergent trees have buttress roots which stick out the ground to support their massive trunks.
- The spider monkey has very long arms and legs to reach between branches in the canopy and a prehensile tail which it can use like an extra arm for balance.



### **Rainforest Threats**

Deforestation (chopping down trees to use the land for other uses) is a threat to the forests.

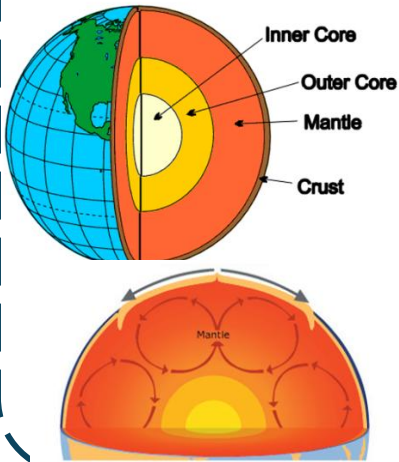
- In the Amazon large areas of forest have been lost due to the land being cleared to raise and sell cattle for profit. A lot of this illegally.
- Additionally illegal logging is the chopping down of trees to sell to be made into furniture as hardwood trees can be very valuable.

Brazil has tried to combat deforestation and has the rainforest police (Ibama) but it is hard for them to stop deforestation as the rainforest is so big.

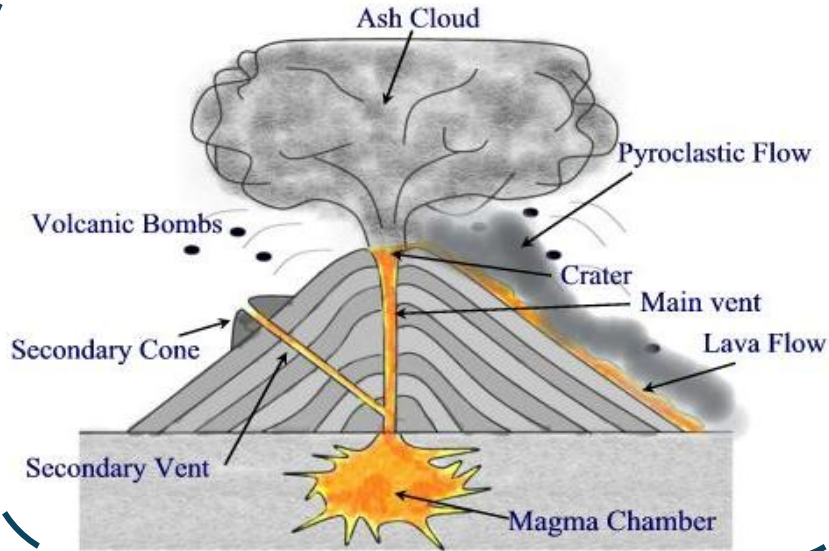


# Geography: Tectonics

## Structure of the Earth



## Features of a volcano



## Why live near a volcano?



Fertile soil – because of all the minerals its good for growing crops



Geothermal Energy – using heat from the ground to generate electricity



Prediction – scientists monitor and put warning systems in place



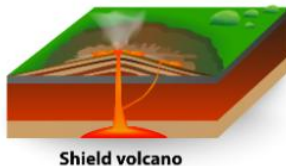
Tourism – generates money and jobs for locals

## Types of volcanoes

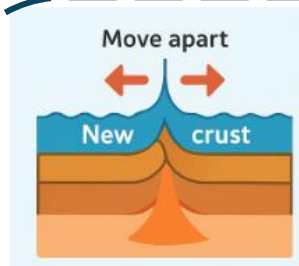
Composite volcanoes are **steep sided and cone shaped** made up of **layers of lava and ash**, containing **sticky lava** that doesn't flow very fast.



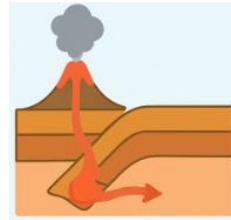
Shield Volcanoes have **gently sloping sides** and **runny lava** that covers a **wide area**.



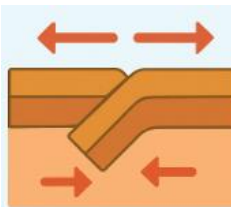
## Features of a volcano



**Constructive Plate Margin** - Here, two plates move apart). Magma rises from the mantle to fill the gap, creating new crust. This causes volcanoes because the magma erupts onto the surface. Earthquakes happen too, but they are usually small because the plates pull apart gently.



**Destructive Plate Margin** - an oceanic plate slides under a continental plate (subduction). The oceanic plate melts in the mantle, and the molten rock can form explosive volcanoes. Earthquakes occur when the plates get stuck and then suddenly move, releasing lots of energy.



**Conservative Plate Margin** - two plates slide past each other (like the San Andreas Fault). No crust is made or destroyed, so no volcanoes form. But when the plates stick and then jerk forward, it causes powerful earthquakes.



### Fuego Eruption

Erupted 3/6/2018  
Pyroclastic flow covered 10Km buried many villages under ash

#### Effects

165 killed  
1000s homeless  
1400 spent night in makeshift shelters in schools

Airport closed meaning aid could not arrive  
Vital crops destroyed – corn, beans and coffee

#### Responses

No prior warning given  
Monitoring equipment out of date  
Oxfam raised money and sent aid

### Nepal Earthquake

7.8 magnitude struck on 25/4/2015 with 105 aftershocks  
Effects  
5000 killed  
10000 injured  
1.6 million homeless  
90% of people lost their homes and livestock and have no way of getting food.

#### Responses

Government declared state of emergency and asked for international help  
Oxfam flew in tents, blankets, medical supplies and fresh food and water.

### What is an earthquake ?

Sudden release of energy in the Earth's crust causing the ground to shake

Focus – the start inside the earth

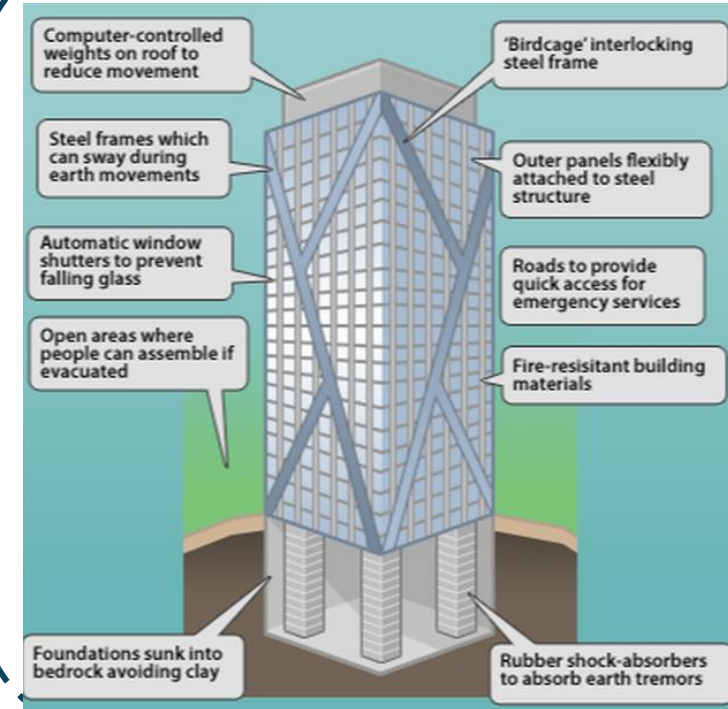
Epicentre the point above the focus on the Earth's surface.

=====  
**Moment magnitude scale (MMS). Is how earthquakes are measured.**

This measures the magnitude (strength) of the shaking caused by the earthquake

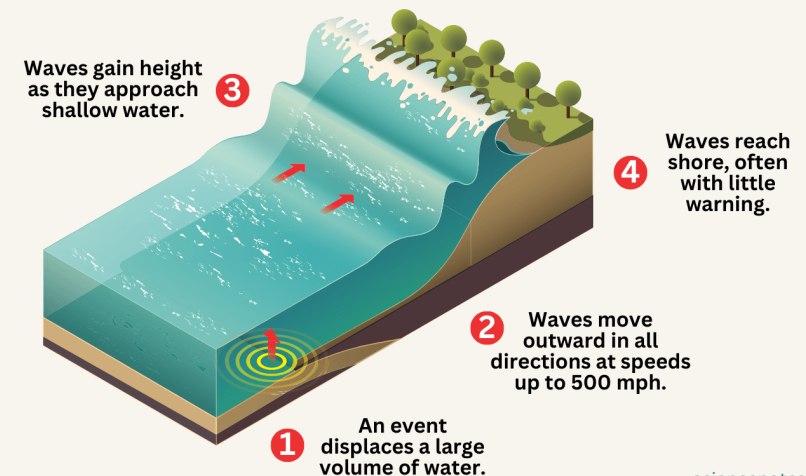
1 is the lowest and 10 is the strongest.

### Earthquake proof buildings



### **Tsunami**

A tsunami is a giant wave caused by an earthquake or other event that displaces a lot of water.



### The Three P's

**PREDICT:** There may be many pre-shocks before an earthquake that can be measured on a seismograph.

**PROTECT:** All buildings must comply with strict earthquake planning regulations

**PLAN:** Prepare disaster plans. Organise and prepare hospitals and evacuation centres.

Organise emergency supplies



## Y8 - Knowledge Organiser - Industrial Revolution - Who had the biggest impact on public health during the 19th century?

<b>What do I need to know?</b> Why were towns and cities so filthy? How important was John Snow's discovery about the cause of cholera?		How important was Florence Nightingale's work for improvements in hospital care? Who had the biggest impact on improving public health?
<b>Why were towns so filthy?</b>		<b>John Snow and Cholera</b>
<p><b>Waste</b> - There would be privies connected to cesspits (big underground pools of waste) and sewers which whole streets shared. The sewer systems would be old and would leak into the water supply making people ill.</p> <p><b>Food</b> - It was difficult to get fresh fruit and vegetables, diets usually consisted of bread and potatoes. There was little food regulation therefore sellers added things to products to make them go further, such as adding chalk to milk. This caused malnutrition and illness.</p> <p><b>Water</b> - All water was unsafe throughout the 19th century. This was because the water companies took water from the rivers, which were contaminated by human waste and pollution from industry. Even rainwater might be unsafe as it had fallen through the smoke from factories.</p> <p><b>Back-to-back housing</b> - Landlords and builders took advantage of the lack of building regulations. They packed as many houses as they could onto small plots of land. Some better-off working-class people rented 'through' houses, which had their own outside spaces. Many people lived in shared accommodation with 8/9 people per room.</p>		<p><b>Who is he?</b> - John Snow was a prominent 19th-century Doctor and considered one of the founding figures in researching epidemics. His work changed our understanding of disease transmission.</p> <p><b>Why is he important?</b> - Cholera Investigation (1854): John Snow gained recognition for his investigation during the Broad Street cholera outbreak in London. He created a map of the affected area, in Soho, London, marking the locations of cholera cases. This helped him identify a contaminated public water pump on Broad Street as the likely source of the outbreak.</p> <p><b>Did he have a big impact?</b> His discoveries helped save people in the area. He also advised the government, showing the importance of clean water and sanitation in preventing infectious diseases. The government did not act straight away</p>
<b>Key vocabulary</b>		<b>Florence Nightingale and hospital improvements</b>
<p><b>Disease</b> An illness or sickness that affects a person.</p> <p><b>Public health</b> The health of the population as a whole.</p> <p><b>Epidemic</b> An outbreak of disease that affects people of the same area.</p> <p><b>Hygiene</b> Conditions or practices used to maintain health and prevent disease.</p>		<p><b>Who is she?</b> Florence Nightingale, born in 1820, is celebrated as the founder of modern nursing and a pioneer in healthcare reform. Her dedication to patient care and advocacy for sanitation transformed nursing practices and hospital care</p> <p><b>Why is she important?</b> She gained prominence during the Crimean War, where she and a team of nurses cared for wounded soldiers. Her emphasis on hygiene, cleanliness, and proper nutrition reduced the death rate among soldiers. She then established the first nursing school at St Thomas' Hospital in London in 1860.</p> <p><b>Did she have a big impact?</b> Nightingale's emphasis on education and training improved the quality of nurses and made nursing a respected profession. Also, her work influenced the design of future hospitals.</p>





## What do I need to know?

- Why was working in a coal mine so dangerous?
- What happened at the Pretoria Pit in 1910?

### Key vocabulary

<b>Colliery</b>	A place where coal mining takes place.
<b>Fire Damp</b>	Methane, especially as forming an explosive mixture with air in coal mines.
<b>Choke damp</b>	A suffocating gas, typically carbon dioxide, that is found in mines.
<b>Trapper</b>	Someone who would open and close the wooden doors (trap doors) that allowed fresh air to flow through the mine
<b>Drawer</b>	A child or woman employed by a collier to transport the coal that they had mined

### What happened at the Pretoria Pit in 1910?

#### Why was the Pretoria Pit important to Westhoughton?

Located around 3 miles from Westhoughton high street, 55% of all men in Westhoughton were mineworkers. The Hulton Colliery employed 2,400 men and produced 2,400 tons of coal per day. The cage pulleys could be seen from every angle of the town. Pretoria Pit was one of the newest pits in England.

#### What happened?

On the morning of the 21st December, the local mine workers went into the Pretoria pit. At 7.50am there was a loud explosion heard from the mine. It could be heard miles away. Many in the town rushed towards the pit fearing that the mine had suffered from a firedamp explosion. They were worried about their relatives who were working in the mine. There had been a build-up of gas and an explosion collapsing shaft number 3. All three of the seams and killing 344 men and boys.

#### Why is it important?

Over 80% of the people that worked in the Pretoria pit were aged 21-15. 158 victims were from the Westhoughton area, this is around half the total victims. Westhoughton at the time had a population of 15,046, this means around 1% of the total population of Westhoughton died in the mining explosion.

### Why was working in a coal mine so dangerous?



**Flooding** - Coal was dug out from underground layers called seams by coal miners. To reach and dig out these seams, miners worked in long tunnels. These could be hundreds of metres under the ground. The risk of flooding was a constant threat because water would collect in the confined spaces of the tunnels. The water could cause the wooden support props to collapse, leading to the tunnels caving-ins – in some cases with the miners still trapped inside.

**Ventilation** - The lack of ventilation would be dangerous because miners would not get enough clean air to breathe. Miners could die if there was too much carbon dioxide present (known as choke damp).

**Explosions** - Gas explosions were another hazard as methane gas from the coal seams would mix with stale air. This mix, called firedamp, could ignite causing fires in the pits. This problem was made worse when miners used candles for light, or sparks were caused by hitting the rocks. A candle flame could ignite the gas and cause an explosion.

**Mine accidents** - As wooden structures were used to support mine tunnels, they were sometimes prone to collapsing. This was made especially worse through explosions and flooding.



## Y8 - Knowledge Organiser - Industrial Revolution - Why was there so much protest in England during the Industrial Revolution?

### What do I need to know?

- Why was there so much protest in England during the Industrial Revolution?
- Why did the Luddites destroy machines?
- What was the Peterloo massacre?

### Key vocabulary

<b>Protest</b>	An action showing you are against something that is happening.
<b>Suffrage</b>	The right to vote in elections
<b>Democracy</b>	A system that allows people to vote for who should be in the government
<b>Reform</b>	Making changes in order to improve something.
<b>Yeomanry</b>	a volunteer cavalry force, sometimes used as an early form of the police.

### Why was there so much protest in England?

There was a revolution in France in 1789 which spread the idea of equal rights. Many working-class people saw that real change was possible through the use of violent revolution and protest.

There were no official limits on working hours. The working conditions in factories were very poor and people were becoming increasingly frustrated at the conditions they were expected to work in. Also, the pay was very low this and new machines meant that less people had to work. As people were already in poverty people started to grow angry at the political system



Houses were overcrowded, full of damp and shared outside toilets. Many people were living in relative poverty, with many being unable to afford basic needs. This poverty also helped the spread of disease people lived close to each other and there was no proper waste removal.

Manchester had a population of 85,000 but no MPs in 1815. Many believed this was not fair as people did not have proper representation.

### Why did the Luddites protest?

The Luddites were backward-looking victims of modernisation. They were actually concerned with labour rights and the free-market. Most were textile artisans resentful of the use of machinery to suppress wages and employ fewer workers. The Industrial Revolution threatened a 'race to the bottom', using less skilled labour. Organising collectively for their rights, they represent a big moment in the rise of a British labour movement.

### Who was to blame for Peterloo?

#### Why did people protest?

The working people were not allowed to vote for the Members of Parliament (MPs), in fact at the time less than 2% of the population had the right to vote. Moreover, all the MPs were farmers and landowners, and they were not interested in helping poor workers to improve their living and working conditions.

#### What were the events of the Peterloo massacre?

Manchester, August 16th, 1819 - St. Peter's Field 60,000 gathered to hear speeches by Henry Hunt on voting rights and poor living conditions. The atmosphere, initially charged with anticipation, quickly turned chaotic. The local magistrates called on the Yeomanry to arrest the speakers. The Yeomanry then charged into the crowd on horseback. As the cavalry attempted to disperse the crowd there was a violent clash, knocking a woman down and killing a child. Tragically, numerous lives were lost in the ensuing chaos, with many more injured.



#### What were the consequences?

The government crackdown on the parliamentary reform movement led to the imprisonment of every significant figure in the movement and introduced a law that banned reformist meetings and slapped an unaffordable tax on newspapers sympathetic to the cause. However, the growing public outrage over Peterloo led to the 1832 Great Reform Act. This finally saw Manchester finally getting its very first members of parliament.



**What do I need to know?**

- Why was Whitechapel difficult to police?

- What were the lives of women like in the 1800s?
- What was it like to live in Whitechapel?

**Why was Whitechapel difficult to police?**

- **Witness Statements**

The police got lots of witness statements at the time from people around Whitechapel, however many of these statements were contradictory or untrustworthy and therefore disregarded.

- **Lack of forensic science and evidence**

The absence of scientific forensic techniques hampered investigations. There was no DNA analysis, fingerprinting or advanced forensic analysis. The police needed to rely on eyewitness accounts, which were generally unreliable.

- **Failure of Co-operation**

Multiple police forces would work together on crimes; however, this did not always lead to successful outcomes. It would lead to co-ordination issues and conflicts of jurisdiction. IT would also lead to rivalry between police departments.

- **Public**

Public confidence within the police force was low at the time. People would usually only come forward if a reward was offered. Many saw the police as incompetent and corrupt.

**What was it like to live in Whitechapel in the 1800s?**

- **Pollution and sewage**

The smoke and stinking gas fumes from the coal created smog, which was so thick you could not see. In Whitechapel, sanitation was very poor. There was little healthy drinking water and Sewers ran into the streets.

- **Overcrowded housing and lodging housing**

The majority of housing was in overcrowded slum areas known for dirt, disease and crime. There could be up to 30 people in one apartment, sharing beds so tightly it was difficult to move about. Accommodation was also offered in lodging houses that offered little more than a bed in dirty conditions. Some lodging houses had three eight-hour sleeping shifts a day, so beds could be used by the maximum number of people.

- **Jobs**

Sweatshops were small, cramped and dusty, with little natural light. Hours were long (some sweatshop workers worked 20 hours a day and slept onsite) and wages were low.

- **Workhouses**

Workhouses offered food and shelter to those too poor to survive in the general community. 'Inmates' included the old, sick, disabled, orphans and unmarried mothers.

**What were the lives of Women like in the 1800s?****At home**

- Victorians believed that a woman's role in life was as a wife and a mother. As a wife, her duty was to obey her husband.
- If the parents separated, the children stayed with him.
- Until 1870, if a woman had a job and earned money, her husband could take her wages.

**In society**

- In 1880 it was made compulsory for all children between the ages of five and ten to attend. By 1900, 97% of all children could read and write.
- All the Members of Parliament were men, only men could vote in elections and men had all the important jobs.
- Before 1857 wives could not divorce husbands even if they were violent or committed adultery.

**Key vocabulary****Smog**

A combination of smoke and fog often known as a 'peasouper' because of its greenish colour

**Unemployment**

When a person does not have a job

**Domestic Service**

A person who works in their employer's home. Jobs include cooking and cleaning

**Immigrant**

A person who comes to live permanently in a foreign country



## What do I need to know?

- Who were the 5?

- Why did evidence make it difficult to catch a killer?
- What were the problems with the police investigation into the murder?

Mary Ann Nichols  
murdered  
Friday 31st  
August 1888

Annie Chapman  
murdered  
Saturday 8th  
September 1888

Elizabeth Stride was murder  
ed in the early morning  
hours of Sunday 30th  
September 1888

Catherine Eddowes was  
murdered in the early  
morning hours of  
Sunday 30th  
September 1888

Mary Jane Kelly was  
murdered on Friday 9th  
November 1888

## Why does evidence make it difficult to catch a killer?

### Witness statements

- The witness statements were varied between people. Usually, the police would not be able to create an accurate description of murderers as people gave different descriptions. This was due to the conditions around Whitechapel, it was very smoggy and therefore hard to see. Also, as many people were drunk, they also gave incoherent witness statements.



### Evidence

- In the late 1880s, the police had no scientific methods of collecting evidence. It was still thought that that you could see the killer in the victims' eyes! Also, sometimes murderers sometimes tried to mess with the police with one murderer sending letters to the police and local papers to tease the police and confuse the investigation.



## Key vocabulary

<b>Modus Operandi</b>	A particular way or method of doing something.
<b>Evidence</b>	Clues that can help the police to catch criminals
<b>Witness</b>	A person who sees a crime taking place.

## What were the problems with police investigations at the time?



### Media involvement

- Murder usually sparked a lot of public interest, and newspapers and magazines published lots of articles and cartoons on the topic. This caused an issue because lots of the information is not true and there is no proof of what they are saying such as the media reporting that many murderers were Jewish.

### Co-operation in the police

- Co-operation within different police units was not always smooth. Police units would be very territorial over their areas they were policing. Indeed, the lack of cooperation resulted in evidence being damaged. It is argued after one murder some officers ordered graffiti to be washed off: 'The Juwes are the men that will not be blamed for nothing'. Apparently, they feared this would cause a riot against Jewish people, but others think he wanted to stop a different police force from finding the killer as this fell in their boundaries.

### Police technique

- The police had almost no scientific methods to help them in their investigations. It would be almost 12 years or so before fingerprinting was used to detect criminals. DNA evidence only began to be used in the later part of the 20th century. There was also no technology to help solve crimes such as CCTV.

### The Whitechapel Vigilance Committee

- A group of local people are getting annoyed that the police have not caught the killer they have formed their own group, The Whitechapel Vigilance Committee. They patrolled the streets to look for the killer and protected the community. They also hired two private detectives to investigate the case.





# Co-ordinates

## Component Knowledge

- Recognise the different axis on a graph
- To be able to plot a coordinate in positive and negative quadrants

## Key Vocabulary

Horizontal	Going side-to-side, like the horizon. This is the $x$ axis
Vertical	In an up-down direction or position. This is the $y$ axis
Co-ordinates	A set of values that show an exact position. On graphs it is usually a pair of numbers

## Co-ordinates:

Coordinates are a set of instructions to get to a location from the origin (0, 0).

The first number ( $x$ ) tells us how far we go 'along the corridor' HORIZONTAL

The second number ( $y$ ) tells us how far we go 'up (or down) the stairs'. VERTICAL

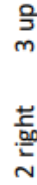
$$(x, y)$$

## Co-ordinates example

(2, 3)



2 right



3 up

"2 along the corridor and  
3 up the stairs"

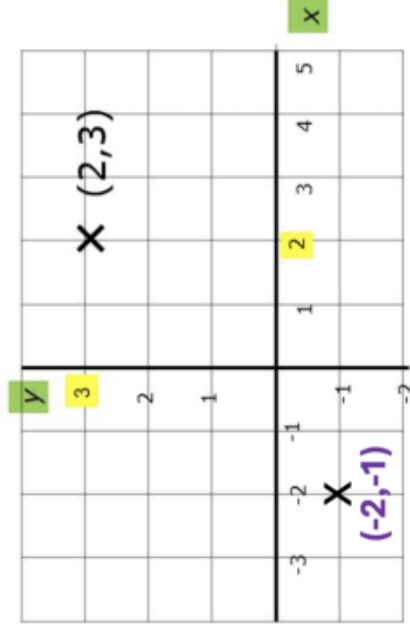
(-2, -1)



2 left



1 down





# Straight line



## graphs

### Component Knowledge

- Recognise and sketch horizontal and vertical graphs
- Complete a table of values
- Plot straight line graphs
- Identify gradients/intercepts from a graph
- Identify gradients/intercepts from an equation

### Key Vocabulary

Axis	A fixed reference line a grid to help show the position of coordinates
Gradient	How steep a graph is at any point
Y intercept	Where the graph cuts through the y axis
Coordinate	A set of values that show an exact position
Quadrant	Any of the 4 areas made when we divide up a plane by an x and y axis
Vertical	In an up and down position. The y axis is the vertical axis
Horizontal	Going side to side. The x axis is the horizontal axis
Graph	A diagram showing the relationship between two quantities

### Completing a table of values and plotting a graph

To plot a straight line graph, you may be given a table or you may need to draw one.

Example: Plot the graph of  $y = 4x - 2$  for the values of  $x$  from -3 to 3.

- 1) Draw a table of values if you have not been given one.

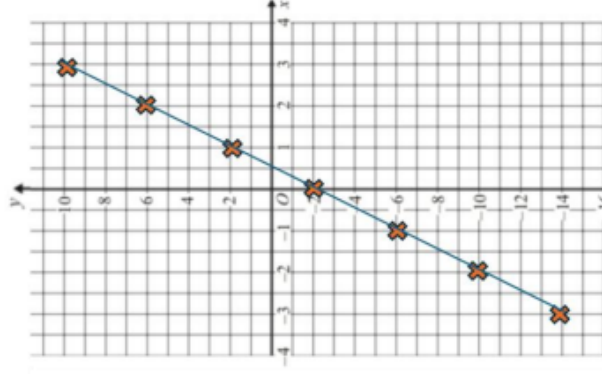
x	-3	-2	-1	0	1	2	3
y							

- 2) Substitute in your x values to  $y = 4x - 2$ , this will give the corresponding y values.

x	-3	-2	-1	0	1	2	3
y	-14	-10	-6	-2	2	6	10

- 3) Plot the points on the graph.

E.g. (-3, -14), (-2, -10), (-1, -6), (0, -2), .... etc



- 4) Join up with a straight line.



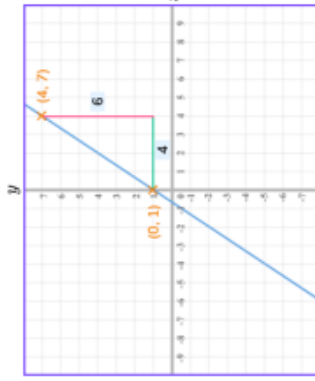
The equations of all straight lines can be written in the form:

$$y = mx + c$$

**Gradient** – The number in front of the  $x$ .  
This tells us how steep the line is.

**Intercept** – The number on its own.  
Shows where the line cuts the  $y$  axis.

The gradient of a line tells us how steep the line is,  
the greater the gradient the steeper the line.



You can find the gradient using the graph by picking 2 points on the line and using

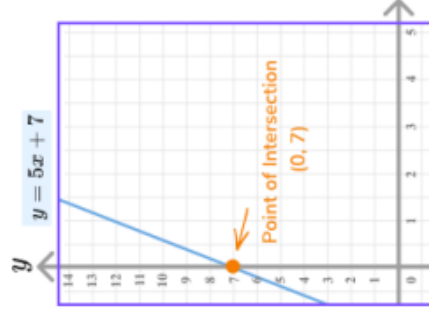
$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

The change in  $y$  is equal to  $y_2 - y_1 = 7 - 1 = 6$

The change in  $x$  is equal to  $x_2 - x_1 = 4 - 0 = 4$

$$m = \frac{6}{4}$$

The  $y$  intercept is where the line crosses the  $y$  axis



You can find the  $y$  intercept from the equation by putting  $x$  equal to 0

The gradient and intercept of a straight line can also be identified from the formula.

Example: Find the gradient and intercept of the following lines.

1)  $y = 5x - 2$

2)  $2y = 4x + 5$

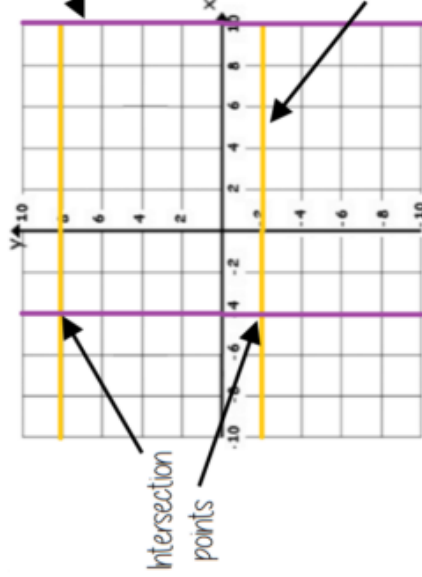
3)  $x + y = 10$

**Gradient = 5**      **Intercept = -2**  
**Gradient = 2**      **Intercept = 2.5**  
**Gradient = -1**      **Intercept = 10**

Rearrange all equations so they are in the form  $y = mx + c$  (the  $y$  must be isolated)

## Lines parallel to the axis (Horizontal and Vertical lines)

All the points on this line have a  $x$  coordinate of 10



Lines parallel to the  $y$  axis take the form  $x = a$  and are **vertical**

Lines parallel to the  $x$  axis take the form  $y = a$  and are **horizontal**

All the points on this line have a  $y$  coordinate of -2

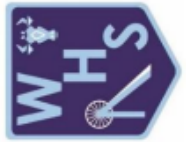
e.g. (3, -2) (7, -2) (-2, -2) all lay on this line because the  $y$  coordinate is -2

'a' can be ANY positive or negative value including 0

Online clips

M797, M932, M544, M888





# Angles

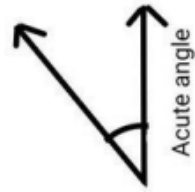
## Component Knowledge

- To be able to identify the different types of angles
- To be able to use a protractor to measure angles
- To draw angles accurately

## Key Vocabulary

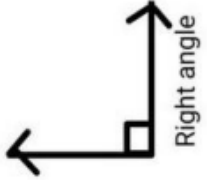
Angle	The amount of turn between two lines and their common point.
Vertex	The corner of the angle where the lines meet.
Arms	The lines used to create the angle.
Protractor	Tool used to measure or draw angles in degrees.

## Types of angles



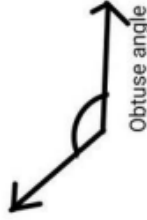
Acute angle

Less than  $90^\circ$



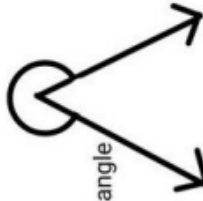
Right angle

$90^\circ$  angle



Obtuse angle

greater than  $90^\circ$   
and less than  $180^\circ$



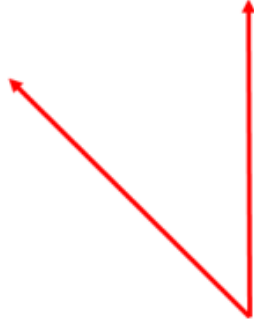
Reflex angle

greater than  $180^\circ$   
and less than  $360^\circ$

## Measuring angles

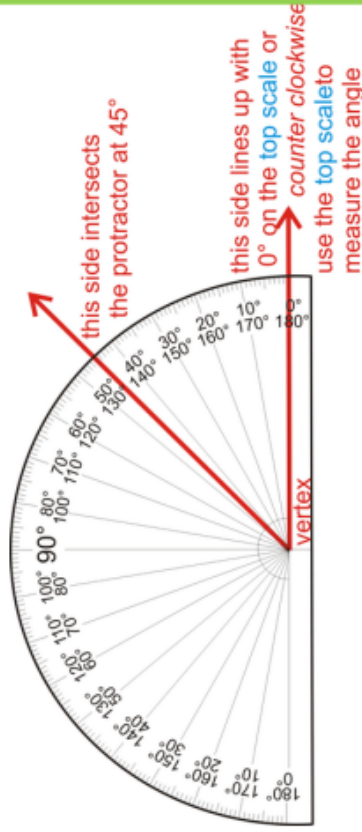
Before we measure an angle accurately, we can estimate it's size using the types of angle above.

Measure this angle:



We know it is less than a right angle so it must be acute (**Less than  $90^\circ$** ).

We now place the protractor over the angle and measure it, using the scale on the protractor.



The centre of the protractor sits directly over the vertex of the angle.

The protractor is lined up with one arm of the angle at  $0^\circ$ .

We use the scale where the protractor starts at  $0^\circ$ , NOT  $180^\circ$ .



### Drawing angles

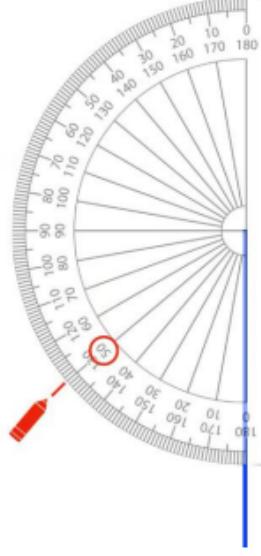
Before we draw an angle accurately, we can estimate it's size using the types of angle above.

Draw a 50° angle:

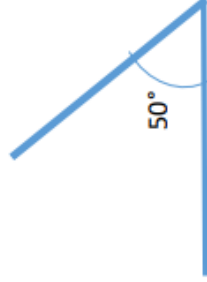
- 1) Draw a line (usually horizontally) of any length.



- 2) Choose one of the ends to be the vertex of the angle and line up your protractor as you would do to measure an angle and mark a point at 50°. **Remember to use the scale that starts at 0°!**



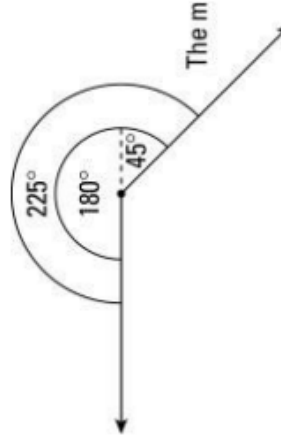
- 3) Now join up the point marked and the end of the line to create the angle. Mark the angle drawn.



### Drawing angles - greater than 180°

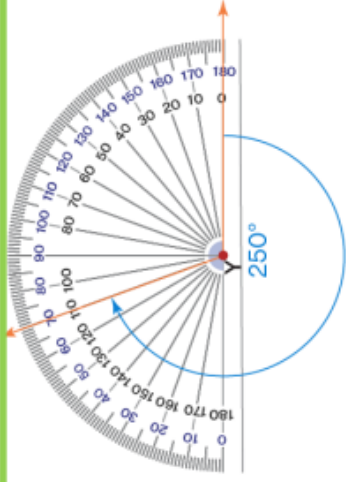
As most protractors only measure up to 180°, we have to be creative when drawing angles greater than 180°. We can choose to:

Split the angle into 2 parts- 180° and whatever is left over from 180°  
e.g  $225^\circ = 180^\circ + 45^\circ$ . We would draw a 180° and then the 45° after it.



A whole turn = 360°. We can subtract the angle from 360° and draw the related acute/obtuse angle. We can then identify the reflex angle by drawing in its arc.

e.g. Draw 250°. So,  $360^\circ - 250^\circ = 110^\circ$ . We draw 110° and then place the arc around the outside of this angle to create 250°.







# Angles

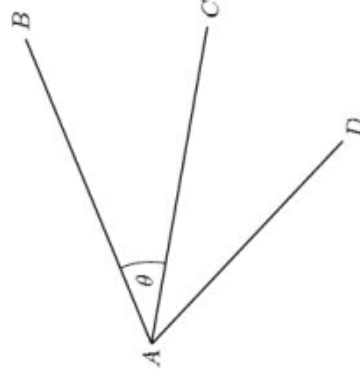
## Component Knowledge

- To be able to identify the different types of angles
- To be able to calculate missing angles on a straight line
- To be able to calculate missing angles around a point
- To be able to calculate missing angles in a triangle
- To recognise vertically opposite angles

## Key Vocabulary

Angle	The amount of turn between two lines and their common point.
Vertically Opposite	Angles formed when two or more straight lines cross at a point.
Notation	The mathematical way of writing something.

## Angle Notation



We can show an unknown angle as  $\theta$  (Greek symbol theta)

The shown angle,  $\theta$ , can also be described using letters.

$\hat{B}AC$ ,  $\angle BAC$ , angle  $BAC$

The outer letters refer to the arms and the middle letter is the vertex.

## Angles on a straight line

Angles on a straight line add up to  $180^\circ$



$$a + b = 180^\circ$$

### Example:

Find the value of  $x$



This is a right angle worth  $90^\circ$

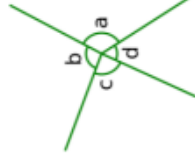
$$90 + 55 = 145^\circ$$

$$180 - 145 = 35^\circ$$

$$x = 35^\circ$$

## Angles around a point

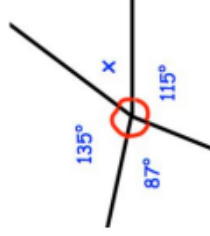
Angles around a point add up to  $360^\circ$



$$a + b + c + d = 360^\circ$$

### Example:

Find the value of  $x$



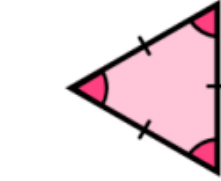
$$87 + 135 + 115 = 337^\circ$$

$$360 - 337 = 23^\circ$$

$$x = 23^\circ$$

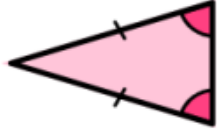


## Types of triangle



**Equilateral Triangle**

All sides and angles are equal



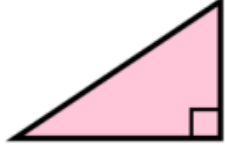
**Isosceles Triangle**

Two sides and base angles are equal



**Scalene Triangle**

No sides or angle are equal



**Right Angle Triangle**

Has a 90° angle inside



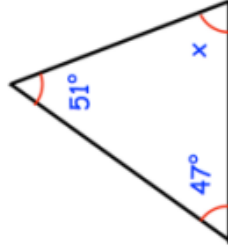
**Right Angle Isosceles Triangle**

Has a 90° angle inside and 2 equal sides

## Angles in a triangle

Angles in a triangle add up to 180°

### Examples



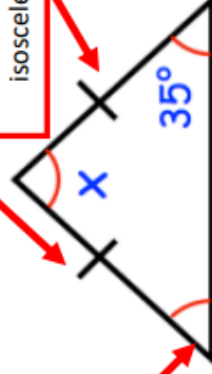
This is a scalene triangle so all the angles are different

$$47 + 51 = 98^\circ$$

$$180 - 98 = 82^\circ$$

$$x = 82^\circ$$

These indicators tell us the sides are equal so it must be an isosceles triangle



So this base angle must also be 35°

This is an isosceles triangle so the 2 base angles are equal

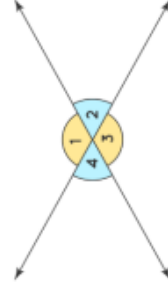
$$35 + 35 = 70^\circ$$

$$180 - 70 = 110^\circ$$

$$x = 110^\circ$$

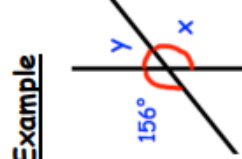
## Vertically opposite angles

Vertically opposite angles are equal



Angle 1 = Angle 3

Angle 2 = Angle 4



### Example

$x$  is vertically opposite 156°

So therefore  $x = 156^\circ$  as well.

Then we can use angles around a point add up to 360°

$$360 - 156 - 156 = 48^\circ$$

$$48^\circ \div 2 = 24^\circ$$

$$y = 24^\circ$$

## Online clips

M818, M163,

M351, M319





# Standard

## Ruler

# Constructions

### Component Knowledge

- To be able to use a ruler accurately to draw/measure straight lines.
- To use a compass to draw an arc with an accurate radius
- To construct triangles accurately given lengths and/or angles.

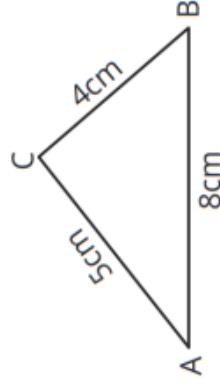
### Key Vocabulary

Accurate	Exact measurement from given information.
Arc	A part of the circumference of a circle.
Construct	Accurately draw a line, angle or shape.
Intersection	The points at which 2 or more lines meet/cross.

### Constructing a Triangle- all 3 sides SSS

Construct the triangle ABC where  $AB = 8\text{cm}$ ,  $BC = 4\text{cm}$  and  $AC = 5\text{cm}$ .

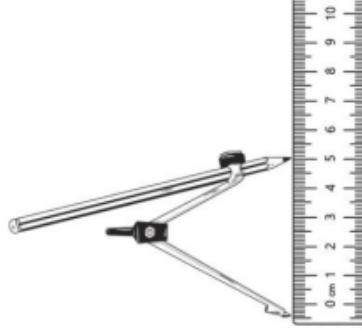
1. First of all, sketch and label a triangle so you know, roughly, what's needed. It doesn't matter which line you make the base line.



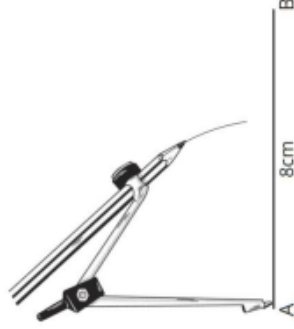
2. Measure out and draw the base line using a ruler and label the end points.



3. You are told that the length from A to C is 5cm. Open the pair of compasses and, using your ruler, set them to 5cm.



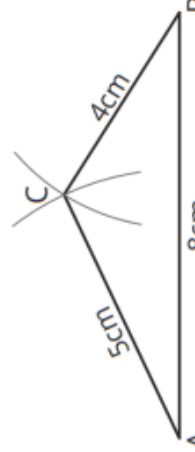
4. Place the point of the compasses on point A and draw an arc.



5. For the line BC, set the compasses to 4cm, place the point on B and draw an arc.



6. The point where the arcs cross is point C. Draw in the lines using a ruler. It's important that you leave the arcs on the diagram - do not erase them. These are your construction lines and are something that an examiner must see. Don't forget that to finish the construction, you should label the triangle.

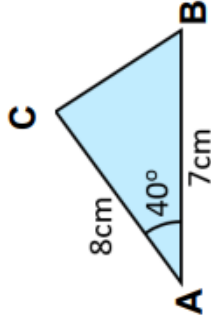




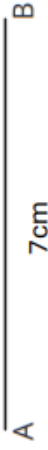
## Constructing a Triangle- 2 sides and the angle between them SAS

Construct the triangle ABC where  $AB=7\text{cm}$ ,  $AC=8\text{cm}$  and angle  $BAC=40^\circ$

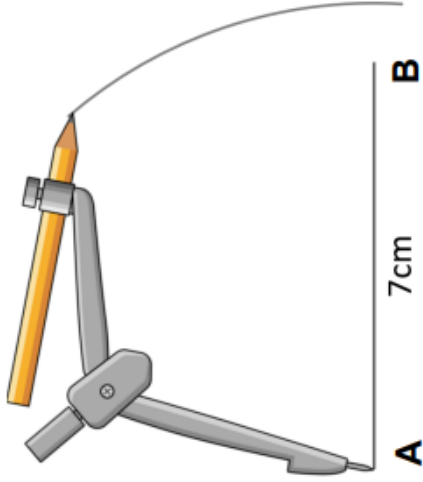
1. Roughly draw the triangle, if a sketch is not already given.



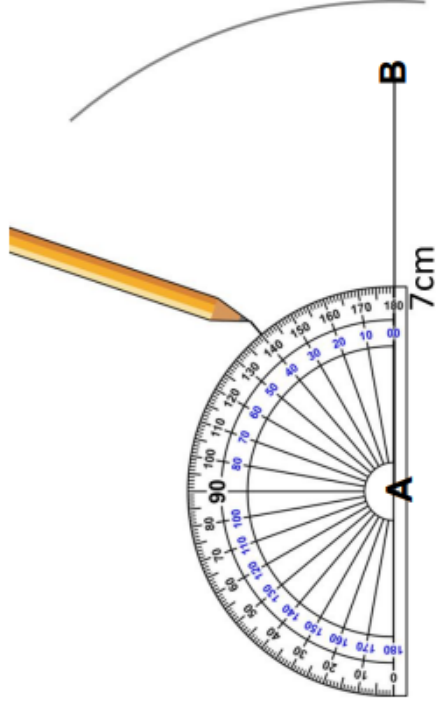
2. Draw a 7cm line using a ruler. Label it AB.



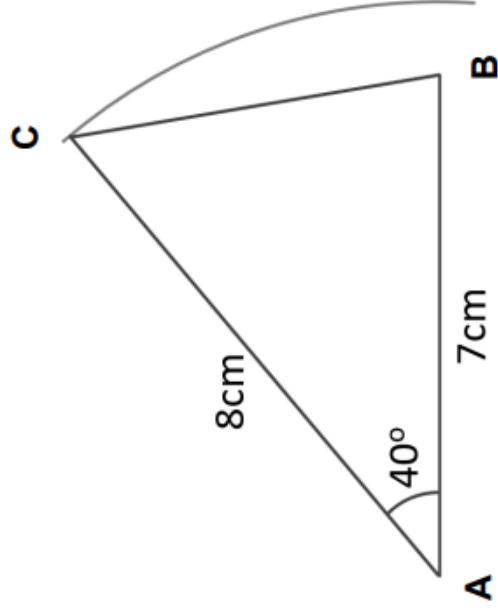
3. You are told that the length from A to C is 8cm. Open the pair of compasses and, using your ruler, set them to 8cm. Place the point of the compasses on point A and draw an arc.



4. Measure the angle of  $40^\circ$  using a protractor from point A. Remember to use the scale that starts from  $0^\circ$ .



5. Draw a line through the angle to the arc. This will be point C. Join C to B to create the final side. Do not erase your construction lines!

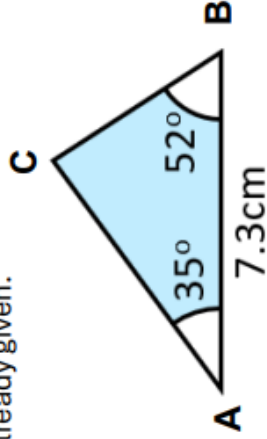




## Constructing a Triangle - 2 angles and the side between them ASA

Construct the triangle ABC where  $AB=7\text{cm}$ ,  $AC=8\text{cm}$  and angle  $BAC=40^\circ$

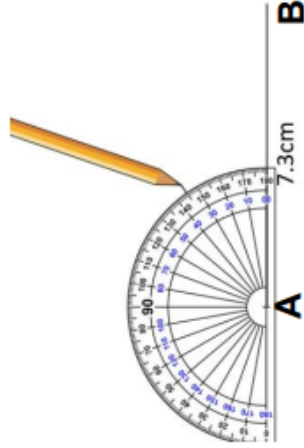
1. Roughly draw the triangle, if a sketch is not already given.



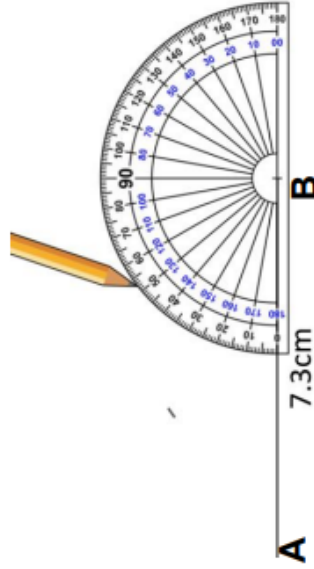
2. Draw a 7.3cm line using a ruler. Label it AB.



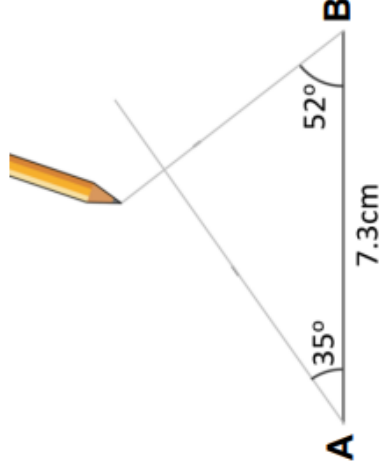
3. Measure the angle of  $35^\circ$  using a protractor from point A. Remember to use the scale that starts from  $0^\circ$ .



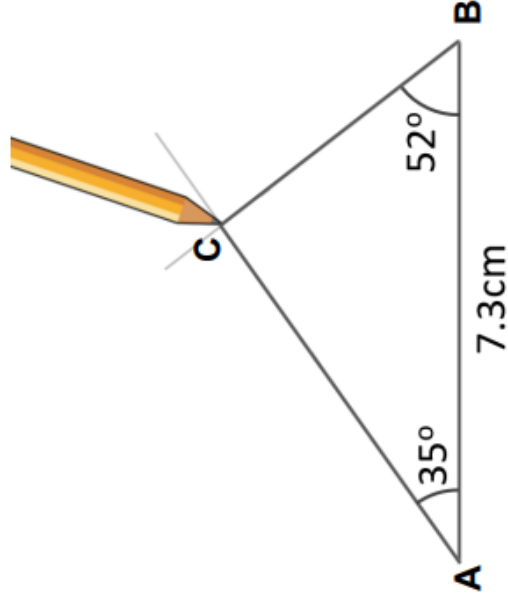
4. Measure the angle of  $52^\circ$  using a protractor from point B. Remember to use the scale that starts from  $0^\circ$ .



5. Draw a faint line through the angles drawn in 3) and 4).



6. Draw a solid line over each faint line up to the intersection. Label the triangle to complete it.







# Bisections

## Component Knowledge

- To be able to construct the perpendicular bisector of a straight line.
- To be able to construct an angle bisector.

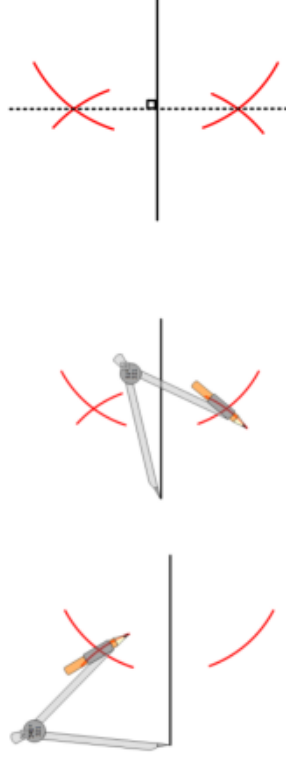
## Key Vocabulary

Compass	An instrument for drawing circles and arcs.
Arc	A part of a curve, (part of the circumference of a circle) can be drawn using a compass.
Bisector	A line which divides something into two parts.
Perpendicular	Two lines that intersect at right angles.
Equidistant	Equal distances from two points or lines.
Vertex	A point where two straight lines meet.

## Perpendicular Bisector

This cuts a line in half at right angles.

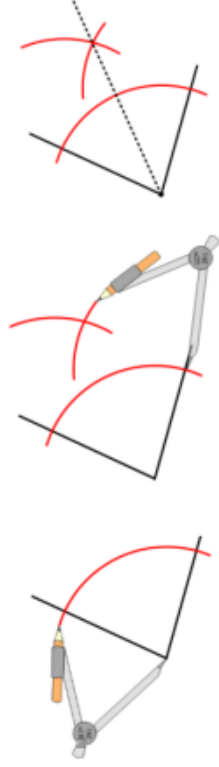
1. Put a sharp point of a pair of compasses on one of the end points.
2. Open the compass over half-way on the line.
3. Draw an arc above and below the line.
4. Without changing the compass, repeat from the second end point.
5. Draw a straight line through the two intersecting arcs.



## Angle Bisector

This cuts an angle exactly in half.

1. Place the sharp end of a compass on the vertex.
2. Draw an arc, marking a point on each line.
3. Without changing the compass put the compass on each point and mark a centre point where two arcs cross over.
4. Use a ruler to draw a line through the vertex and centre point.



Online clips

M239, M232





# Frequency Tables

## Component Knowledge

- Read and interpret frequency tables.
- Construct frequency tables for discrete and continuous data.

## Key Vocabulary

Frequency	The rate at which something occurs
Table	A logical way of displaying facts and figures
Tally	A way of displaying values using lines and dashes
Data	A collection of facts and figures
Inequality	An expression where the sides are not equal.
Discrete	Data that can only be set values e.g. you cannot have half of a person so counting people would be discrete data
Continuous	Data that can be any value e.g. height and time.
Mode	The value that occurs most frequently in a set of data
Modal Class	A set of values that occur most frequently in a set of data.

When we are dealing with a large amount of data, it is sometime impractical to display the data as a simple list. Frequency tables are a logical way of displaying large amounts of data which makes the data easier to analyse.

## Frequency Tables

Below some data on eye colour for a class of students is shown:

Brown, Blue, Blue, Grey, Green, Hazel, Hazel, Brown, Brown, Blue, Green, Green, Grey, Grey, Hazel, Blue, Blue, Grey, Hazel, Brown, Brown, Blue, Brown, Blue, Blue.

**Having a large list of data like this can be hard to read. For situations like this it is better to display the data in a frequency table as shown below.**

Tally marks are used to help count things. Each vertical line represents one unit. The fifth tally mark goes down across the first four to make it easier to count. The frequency column is completed after all the data has been collected.

You must represent  
5 like this.

Eye Colour	Tally	Frequency
brown		6
blue		8
green		3
grey		4
hazel		5



### Grouped Frequency Tables

20 students took a science test.

Place the data shown below in the grouped frequency table.

What is the modal class for the data?

25	32	31	52	45
27	55	28	42	44
46	23	51	48	26
20	51	49	33	41

When we have a large range of values like this it is better to group the data so the table is easier to read.

**Note: You must ensure there is no overlap in the groupings.**

Marks, $m$	Tally	Total
20-29		6
30-39		3
40-49		7
50-59		4

The values with the highest frequency show the modal class for the data. E.g. The modal class is 40-49.

### Frequency Tables with Inequalities

The data below shows the average time taken, in seconds, to run the 100m at last years sports day:

11.2, 12.6, 13.1, 12.9, 13.2, 12.2, 11.8, 12.9, 13.7, 14.2, 15.1, 11.1, 12.5, 13.5, 14.5  
Display this in the frequency table below:

Time (seconds)	Tally	Total
$11 < t \leq 12$		3
$12 < t \leq 13$		5
$13 < t \leq 14$		4
$13 < t \leq 15$		2
$15 < t \leq 16$		1

When we are dealing with continuous data, such as times like shown above, we must use inequalities to define the groups to ensure every decimal value is included.

Online clips

M945, M899, M441





# Frequency

## Component Knowledge

- To be able to construct a frequency polygon.
- To be able to read and interpret frequency polygons.

# Polygons

## Key Vocabulary

Frequency	The number of times something occurs over a particular period of time or in a given sample.
Frequency polygon	A frequency polygon is a type of line graph that displays grouped data.
Midpoint	The middle point in a group of data or a line.

## Frequency Polygons- constructing

A Frequency Polygon allows us to represent the shape of a data set's distribution.

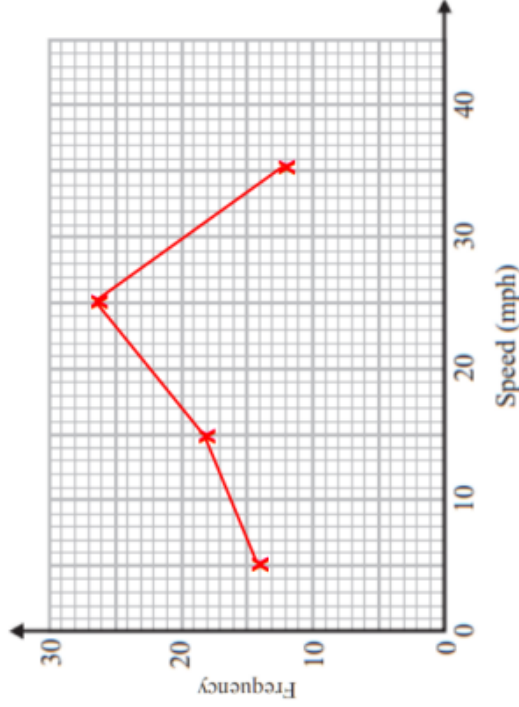
- Frequency is plotted on the vertical axis
- The data is grouped so plot the midpoint on the horizontal axis.
- The horizontal axis should be a linear scale and the vertical axis should start from 0.

We need a frequency table to help us to construct the frequency polygons.

E.g. This table gives information about the speeds of 70 cars.

Speed (s mph)	Frequency ( $f$ )	Midpoint
$0 < L \leq 10$	14	5
$10 < L \leq 20$	18	15
$20 < L \leq 30$	26	25
$30 < L \leq 40$	12	35

a) Draw a frequency polygon for this information.



- Step 1 – Find the midpoint of each class interval
- Step 2 – Label your axes and choose an appropriate scale
- Step 3 – Plot each point at the midpoint for that interval
- Step 4 – Connect each point with a straight line

Do not extend the line beyond the points you have



### Frequency Polygons - interpreting

To interpret frequency polygons, we look at the graph to identify the overall pattern shown by the graph.

In the question above, we can see that the most common speed is between 20 and 30 mph and no cars travelled above 40mph. We can infer the cars are travelling on a suburban road rather than a motorway, for example.

### Online clip

U840



# Year 8 – Reggae Music

## ELEMENTS OF MUSIC:

**MELODY** - The tune, whether the PITCH goes up or down.

**ARTICULATION** - How a note is articulated - short and spiky or smooth.

**DYNAMICS** - The VOLUME of the music.

**TEXTURE** - How many layers of sound – thick/thin.

**STRUCTURE** - How the music is organised.

**HARMONY** When more than one pitch is heard at once.

**INSTRUMENTATION** - The type of sound heard (also called TIMBRE)

**RHYTHM** - A pattern of long and short notes.

**TIME SIGNATURE** - The amount, and type, of beats in each bar.

## MUSICAL VOCABULARY:

**RIFF** – a catchy repeated musical phrase.

**BASS RIFF** – a RIFF that is played by the bass.

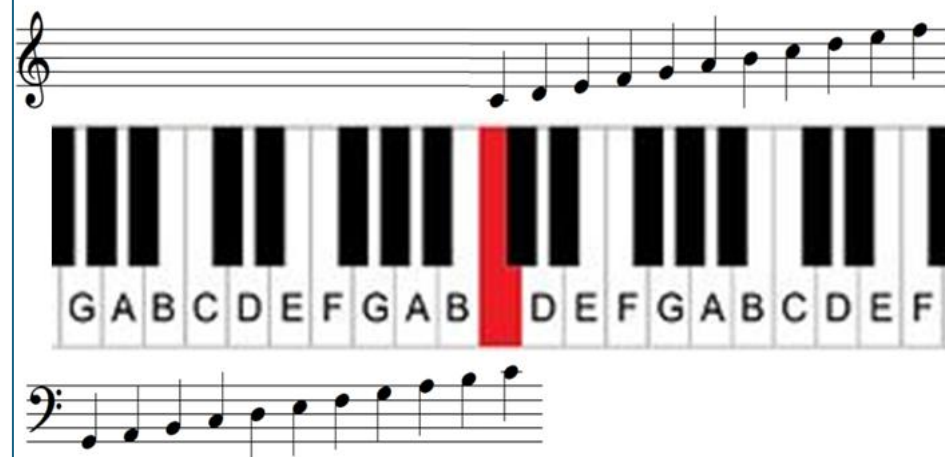
**BEAT** – A steady pulse that continues throughout the music.

**OFF BEAT (SYNCOPIATION)** – Playing on the weak beats.

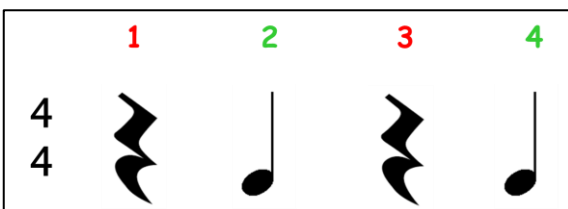
**CHORD** – two or more notes played at the same time.

**TRIAD CHORD** – A chord containing 3 notes (1<sup>st</sup>, 3<sup>rd</sup> and 5<sup>th</sup> in a scale)

## Notes for Treble clef (right hand) and bass clef (left hand)



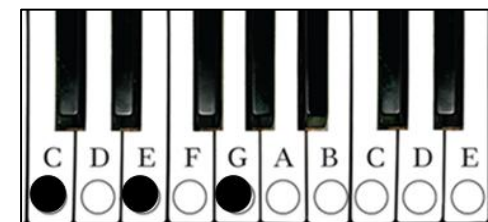
One of the most important features of Reggae music is that it played on the **off beat** (the weak beats in the bar).



## Background information:

- **REGGAE** is one of the traditional musical styles from **JAMAICA**.
- The lyrics of Reggae songs are often political including themes such as love, brotherhood, peace, poverty, anti-racism, optimism and freedom.
- **BOB MARLEY** was a famous reggae singer, songwriter, and musician who first became famous in his band The Wailers, and later as a solo artist

A triad chord is made from the 1<sup>st</sup>, 3<sup>rd</sup> and 5<sup>th</sup> notes of a scale – all three notes are sounded at once.





# Year 8 – 4 Chord Songs

## ELEMENTS OF MUSIC:

MELODY - The tune, whether the PITCH goes up or down.

ARTICULATION - How a note is articulated - short and spiky or smooth.

DYNAMICS - The VOLUME of the music.

TEXTURE - How many layers of sound – thick/thin.

STRUCTURE - How the music is organised.

HARMONY When more than one pitch is heard at once.

INSTRUMENTATION - The type of sound heard (also called TIMBRE)

RHYTHM - A pattern of long and short notes.

TIME SIGNATURE - The amount, and type, of beats in each bar.

## MUSICAL VOCABULARY:

RIFF – a catchy repeated musical phrase.

HOOK – the ‘catchy’ bit of the song.

INTRO – The opening of the song – sets the scene.

VERSE – same melody but different lyrics each time.

CHORUS – occurs several times in a song and usually contains the main hook or riff..

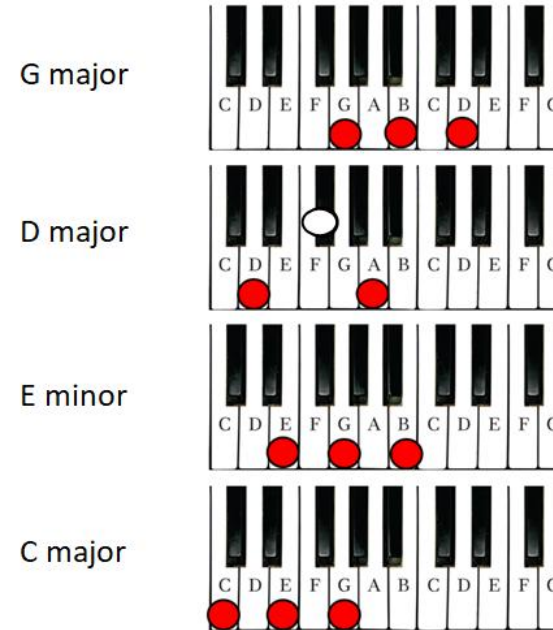
BRIDGE – an extra section to link the chorus back to the verse – sometimes has a solo.

LYRICS – the words to a song.

LEAD SHEET – contains the notes, lyrics and chords to a song.

COVER – A new performance of an existing song.

Most pop songs only use about four chords; these often play in a repeated pattern - this is called a **chord sequence**. This a popular 4-chord sequence that is used in lots of songs:



**Broken chords** use the notes from a chord but play them separately.

**Inverted chords** use exactly the same notes as normal chords but the notes are played in a different order. This can make the chord sequence sound smoother or can make it easier to move between one chord and the next.

Pop music usually features a chordal instrument like **keyboard** or **guitar**, a **bass guitar**, **vocals** and **drum kit**. Many songs will often use a **brass** or **string section** too.





# KS3 PE KNOWLEDGE ORGANISER – ACTIVITY: BADMINTON

## Skills and Techniques:

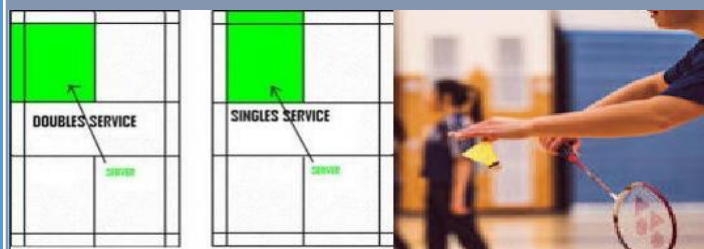
- **Clear:** Shot played high to the back of the opponent's court, a defensive shot.
- **Drop shot:** Delicate shot played just over the net into the space. Gets your opposition out of position to attempts a smash or clear.
- **Grip:** V shape down the handle. (Shake its hand)
- **Smash:** Most attacking shot. Hitting the shuttle cock at its highest point with power, trying to get the shuttlecock to hit the floor on the opponent's side as quickly as possible
- **Flick Serve:** Short serve which is played typically in doubles. Aim is to get the shuttlecock to stay low over the net and land just over the service line.
- **Underarm serve:** Serve typically played in singles. Aim is to get the shuttles as high as you can towards the backline. Gets you opposition to the back of the court

## Scoring:

- Serve Diagonal and land across the service line.
- Play to 21 points (2 clear points to win).
- Whoever wins the point, their team serve.
- Serve on the right when the score is even, on the left when it is odd.
- Long and thin for doubles, short and fat for singles.
- You cannot touch the net  
Serve must be at waist height or below.

## Rules:

- The aim of badminton is to hit the shuttle with your racket so that it passes over the net and lands inside your opponent's half of the court.
- Whenever you do this, you have won a rally; win enough rallies, and you win the match. Your opponent has the same goal.
- They will try to reach the shuttle and send it back into your half of the court. You can also win rallies from your opponent's mistakes: if they hit the shuttle into or under the net, or out of court, then you win the rally.
- If you think your opponent's shot is going to land out, then you should let it fall to the floor. If you hit the shuttle instead, then the rally continues. Once the shuttle touches the ground, the rally is over.



## Key Words:

Ready position  
Forehand and backhand serve.  
Defensive clears Forehand drop shot  
Basic backhand Outwitting opponents Leadership skills  
Scoring system  
Rules and regulation Court lines dimensions  
Equipment familiarisation  
Movement

## Tactics:

- Doubles – front/back or side to side.
- Hitting into space.
- Targeting opponents' weakness-Shot selection.



# ACTIVITY: RUGBY

## Passing:

- Hold the ball in two hands with your fingers spread across the seam, with your chest facing forward.
- Draw the ball back across one hip, keeping your elbows slightly bent, as you turn your chest away from the target.
- Sweep the ball off your hip as you swing your hands through an arc, keeping your elbows close to your body.
- Release the ball with a flick of the wrists and fingers.
- Follow through with your fingers pointing to the target - chest high in front of the receiver.

## Catching

- Call for the ball
- Keep eyes on the ball
- Hands up and make W shape
- Reach over the side of the body
- Catch with ten points of contact (both hands)
- Continue running with ball in both hands

## Tackling

- Position your body to the opponent's right-hand side (safe side).
- Position your left foot forward into a slight opposition.
- Make contact by putting your right shoulder into the opponent's mid-right thigh.
- Make sure your head is on the other side of the ball carrier so their body is between your shoulder and head.
- Bring your arms up and wrap them around the ball carrier, just above their knees (
- Squeeze your arms and pull the ball carrier into your body.
- Push your shoulder into the ball carrier, as though you are trying to push him away with your head.
- Continue pushing until both you and the ball carrier fall to the ground.

## Playing the Ball (Rugby League)

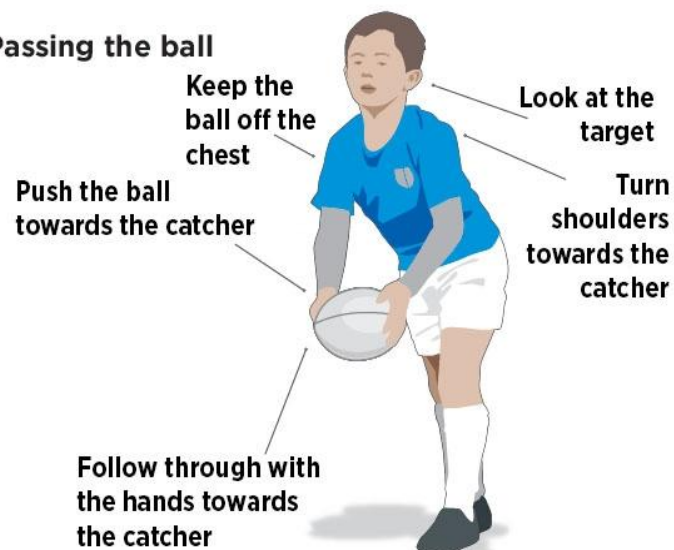
- After the tackle, lift the ball clear of the ground, face their opponent's goal line and roll it under their foot to the player behind them, the acting half back.
- The ball has to always travel backwards.
- A player can play the ball to themselves by heeling it backwards, stepping over the ball and then picking it up to run with it or to pass to another player.

## Presenting the ball (Rugby Union)

- 'Eyes up' to keep head and neck inline
- Enter the ruck from behind the player (through the gate)
- Keep head and shoulders above hips at all times
- Make contact by binding on a player using the whole arm



### Passing the ball





Rugby League

Rules

- Game starts and restarts with a kick off.
- Three officials- Referee and two touch judges.
- Passing from the hand must travel level or backwards to the receiver.
- Tackling must be below shoulder
- If a player knocks on (drops the ball forward) the opposing side will gain possession via a scrum.
- When referee calls that the tackle is complete you must stand up and play ball between your legs to a player behind
- You must be behind the kicker when the ball is kicked to be onside

Positions

- 1 Full back
- 2 Right wing
- 3 Right centre
- 4 Left centre
- 5 Left wing
- 6 Stand-off half
- 7 Half-back
- 8 Prop
- 9 Hooker
- 10 Prop
- 11 Second Row
- 12 Second Row
- 13 Loose Forward

Points System:

- 4 points = TRY
- 2 Points = Penalty/Conversion
- 1 Point = Drop goal



Tactics in possession:

- 6 tackles (or chances to score), kick on 5th.
- If the ball goes out of play after such a kick, play restarts with a six-player scrum.

Rugby Union

Positions

- 1 Loosehead Prop
- 2 Hooker
- 3 Tighthead Prop
- 4 Second Row
- 5 Second Row
- 6 Blindside Flanker
- 7 Openside Flanker
- 8 Number 8
- 9 Scrum Half
- 10 Fly Half
- 11 Left Wing
- 12 Inside Centre
- 13 Outside Centre
- 14 Right Wing
- 15 Fullback

Points System:

- 5 points = TRY
- 3 Points = Penalty and Drop goal
- 2 Point = Conversion

Tactics in possession:

- Unlimited tackles
- Attacking side continue until they lose ball or concede penalty
- If the ball is kicked out of play restarted with a lineout
- Scrum used for knock-ons, forward pass restarts

Rules

- Game starts and restarts with a kick off.
- Three officials- Referee and two touch judges.
- Passing from the hand must travel level or backwards to the receiver.
- Tackling must be below waist (sternum)
- If a player knocks on (drops the ball forward) the opposing side will gain possession via a scrum.
- You may not tackle a player in the air. You must enter a ruck from the back foot of your side of the ruck.
- Any player in front of a player kicking must wait for the kicker to pass or they will be offside.

Key Words:

- Pass
- Run
- Tackle
- Ruck
- Maul
- Scrum
- Penalty
- Free-kick Knock-on
- Forward pass
- High tackle
- Defensive line
- Scissor
- Loop



## KS3 PE KNOWLEDGE ORGANISER – ACTIVITY: SWIMMING

<p>Skills and techniques: back crawl</p> <p>Body position - horizontal streamlined head still</p> <p>Eyes looking upward hips close to surface</p> <p>Leg action - Continuous up and down motion legs close together Relaxed ankles</p> <p>Arm action - Thumbs leave the water first little finger entry</p>	<p>Skills and techniques: front crawl</p> <p>Body position - Flat and streamlined</p> <p>Eyes looking forwards and downwards</p> <p>Leg action - Continuous and alternating starts from the hip. Ankles relaxed</p> <p>Arm action - Thumb enter the water first enter between the head line and shoulder line Elbow exits first</p> <p>Breathing - Head rolls to the side to breath bilateral breathing</p>	<p>Skills and techniques: breaststroke</p> <p>Body position - As horizontal as possible shoulders horizontal</p> <p>Leg action - Starts in glide position heels drawn towards the seat. Feet turned out kick backwards with a circular whipping action</p> <p>Arm action - From glide position, hands turn outwards. Pull downwards and outwards to inline with shoulders</p> <p>Arms meet in the centre of the body and drive out to glide position</p>	<p>Skills and techniques: butterfly</p> <p>Body position horizontal, with a wave like movement from head to toe shoulders kept level</p> <p>Leg action - Legs close together ankles relaxed toes pointed action starts from the hips. Kick up and down with a bend at the knee</p> <p>Arm action - Thumb first entry entry shoulder width apart</p> <p>Pull downwards, with bent elbows hands leave the water little finger first arms clear the water just above the surface</p> <p>Breathing - Lift head and push chin forwards head lowered quickly but smoothly</p>
--	---	--	---

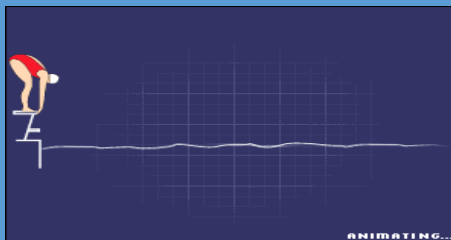




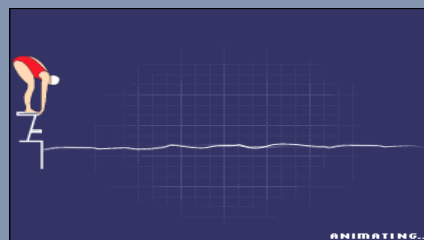
## Start: Back



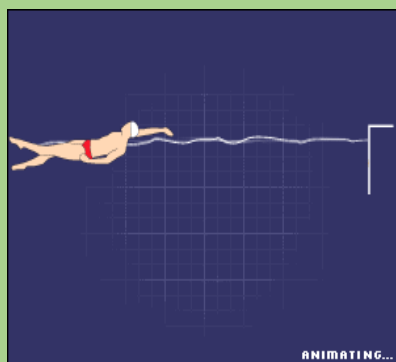
## Start: Racing Dive



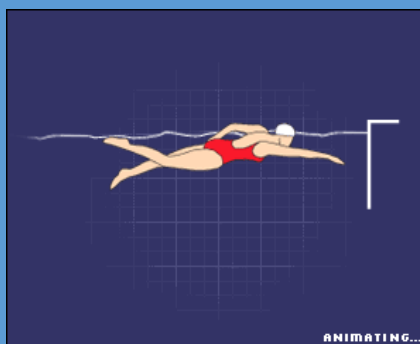
## Start: Racing Dive



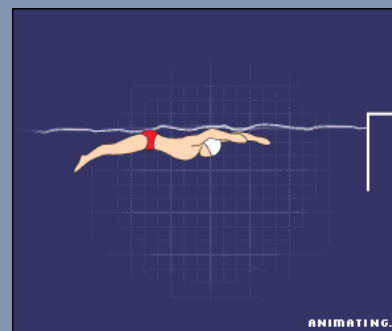
## Turn: Tumble



## Turn: Tumble



## Turn: Two Handed



## Tumble turns

### Stage one

- Swim toward the turning wall.
- Ensure you breathe on the last stroke before turning.
- On the last stroke, bring both arms down and next to the hips.
- Keeping the body straight, hold feet approximately 20 cm under the water surface.

### Stage two

- Bring the arms up and swing over the head whilst brushing the upper arms against the ears.
- Tuck chin into chest and begin rotating body forward.
- On complete rotation, push against the wall with the balls of the feet and kick a minimum of four times to generate pace.
- Complete one full stroke before returning to breathing

## Racing start-Front crawl, breaststroke and butterfly

- 1: Chin and chest
- 2: Arm above head, squeeze ears
- 3: Tip forward
- 4: Hips high
- 5: Stretch out

## Scoring

Success in swimming is judged on times and places.

### Start of the race

Races are started with electronic pistols and are only sounded again if an athlete makes a false start.

### Finish the race

In all races swimmers must strike a pressure pad at the end of their lane to stop the clock.

## Key words

Splits, Pacing,  
Negative split, positive  
split, Even split, False start,  
Technical official,



KS3 PE KNOWLEDGE ORGANISER – ACTIVITY: TABLE TENNIS

Serve:

- **Serve:** The first shot to begin a rally. The serve is alternated between the two players, after two serves the service goes to the opposite player regardless of the winning shot.
- There are different types of serving.
- Forehand and Backhand serves
- Short and Long serves.
- Topspin and Backspin serves
- When serving in Table Tennis, if the ball hits the net but still bounces on the opponents side of the table, the point is a let (which means it needs to be replayed).

Backhand Push:

- **Backhand push:** The ball is played on the backhand side, with a flat bat face to push the ball over the net.
- The Backhand push shot is a controlled shot.
- Step into the shot with your strongest foot with the paddle facing towards where you want to ball to be placed.

Forehand Push:

- **Forehand push:** The ball is played on the forehand side, with a flat bat face to push the ball over the net.
- The Forehand push shot is a controlled shot.
- Step into the shot with your weakest foot with the paddle facing towards where you want to ball to be placed.
- Make sure our body is opened to make the shot.



Forehand and Backhand Chop:

Start the paddle from the top of your body and move across your body to get that chopping position. Forehand, move from right to left, in an upwards and downwards movement. Backhand chop, move from left to right, in an upwards and downwards movement.

Forehand and Backhand Drive:

**Forehand/Backhand drive:** A shot played on the forehand side, contact cuts on an angle (closed bat position) to the ball to make it move differently,

**Key Words:**

- Table
- Ball
- Bat
- Open/Closed/Neutral Grip
- Position
- Service
- Drives
- Push
- Smash
- Lob
- Block
- Net



## USER GROUPS in Sport/Fitness

- Young children
- Teenagers
- People with disabilities
- Parents (singles or couples)
- People who work
- Unemployed/economically disadvantaged people
- Gender
- People from different ethnic groups
- Retired people/people over 60
- Families with children
- Carers
- People with family commitments

### Barriers faced by user groups

- ☐ Employment and unemployment
- ☐ Family commitments
- ☐ Lack of disposable income
- ☐ Lack of transport
- ☐ Lack of positive sporting role models
- ☐ Lack of positive family role models or family support
- ☐ Lack of appropriate activity provision
- ☐ Lack of awareness of appropriate activity provision
- ☐ The lack of equal coverage in media in terms of gender and ethnicity by the media

## WATER SAFETY

**1.Floating:** The ability to float on your back helps conserve energy and breathe more easily while waiting for rescue.

**2.Treading Water:** This skill involves moving your arms and legs to keep your head above water, allowing you to stay in one place without sinking.

**3.Swimming for Distance:** Knowing how to swim at least 25 meters can help you reach safety or a shore if needed.

**4.Controlled Breathing:** Practicing proper breath control allows you to stay calm, conserve energy, and avoid panic in emergency situations.

### **Year 8 Term 2: Health Knowledge Organiser**

### Swimming rules

- No running:
- Supervise children:
- No diving in shallow water:
- Shower before entering:

### Hydration

Hydration is essential in a balanced diet because water supports nearly every bodily function, including digestion, nutrient absorption, temperature regulation, and waste elimination. Staying properly hydrated helps maintain energy levels, promotes healthy skin, lubricates joints, and ensures that cells function optimally.



### TRAINING METHODS:

- 1.Circuit Training:** A form of exercise where participants cycle through a series of exercises, targeting different muscle groups, with minimal rest between each station.
- 2.Continuous Training:** Involves sustained, steady-state activity, like running or cycling, for an extended period without rest, designed to build cardiovascular endurance.
- 3.Weight Training:** A form of strength training using weights (dumbbells, barbells, or machines) to build muscle strength and endurance.
- 4.Fartlek Training:** A type of running workout that blends continuous and interval training by varying pace and intensity over different terrains or set times.
- 5.Interval Training:** Alternates between periods of high-intensity effort and low-intensity recovery, improving speed and cardiovascular fitness.
- 6.Plyometric Training:** Focuses on explosive movements, like jumps or bounds, to increase power and strength in muscles, particularly useful for athletes.

### HEART RATES:

#### Self check: take your own pulse



Find your pulse



Count your heartbeat  
for 30 seconds



Double it

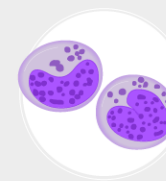
### DIFFERENCE BETWEEN RBC AND WBC

BYJU'S  
The Learning App



(a) Red blood cells

Vs.



(b) White blood cells

### Blood Cells- What do they do?

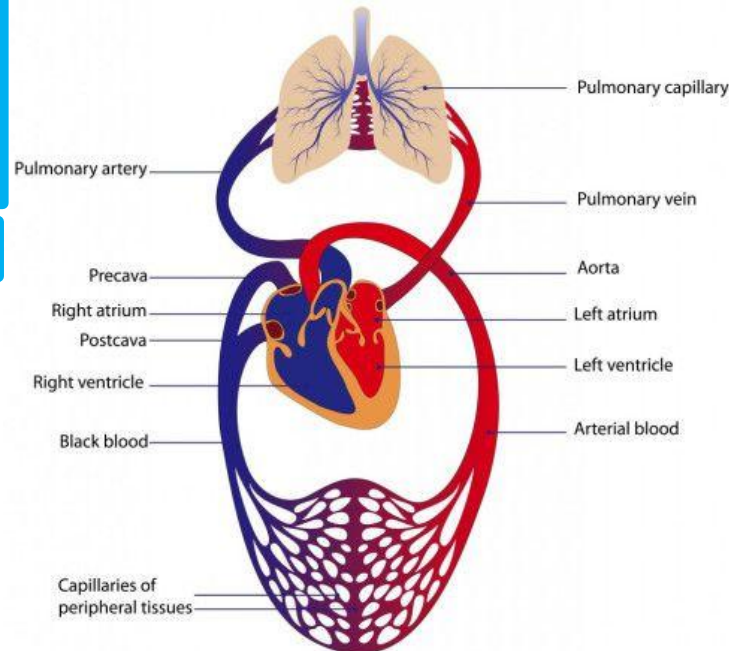
#### Red blood cells

**(RBCs)** Carry oxygen from the lungs to the rest of the body and return carbon dioxide back to the lungs for exhalation. They contain hemoglobin, a protein that binds to oxygen, enabling this vital gas exchange.

#### White blood cells

**(WBCs)** Are part of the immune system and help the body fight infections and other diseases. They identify and attack pathogens like bacteria, viruses, and harmful invaders to protect the body from illness.

### Circulation








### CARDIOVASCULAR SYSTEM

**Veins** are blood vessels that return deoxygenated blood from various parts of the body back to the heart, where it can be reoxygenated.

**Arteries** are blood vessels that carry oxygen-rich blood away from the heart to tissues and organs throughout the body, ensuring they receive the oxygen and nutrients needed for proper function.



## Life Lessons – Summer Term KS3 – Sex and Relationships

Who can help?	How can they help?
<p><b>Westhoughton High School</b></p> 	<ul style="list-style-type: none"> <li>• Speak to <b>your trusted adult</b> in school if you have any questions or concerns relating to any of the topics we discuss in Life Skills.</li> <li>• Our <b>school nurse</b> is called Alison Clarke. You can speak to her if you have any <u>health related</u> concerns. You can contact her on 01204 463307.</li> </ul>
	<p><b>Childline:</b></p> <ul style="list-style-type: none"> <li>• <a href="http://www.childline.org.uk">www.childline.org.uk</a></li> <li>• 0800 1111</li> <li>• Childline provides a <b>free, confidential helpline</b> for children and young people under 19 in the UK to talk about any issue they are facing, such as mental and emotional health, bullying, self-harm, or family problems. It offers support 24/7 via phone, 1-2-1 chat, and email, and its trained counsellors listen, provide advice, and help children make positive changes.</li> </ul>
	<p><b>Brook:</b></p> <ul style="list-style-type: none"> <li>• <a href="http://www.brook.org.uk">www.brook.org.uk</a></li> <li>• Provides a variety of support for teenagers, including free and confidential <b>sexual health services</b>, advice on sexual health and relationships, and 1-2-1 targeted support for those needing more personalized help with topics like consent and emotional wellbeing.</li> </ul>
	<p><b>Health for teens:</b></p> <ul style="list-style-type: none"> <li>• <a href="http://www.healthforteens.co.uk">www.healthforteens.co.uk</a></li> <li>• bite-sized health information and quizzes for teens on topics including <b>physical health, emotional wellbeing, and lifestyle</b>. It covers a wide range of subjects like sexual health, anxiety, nutrition, and online safety.</li> </ul>
	<p><b>Fortalice:</b></p> <ul style="list-style-type: none"> <li>• Fortalice is a charity based in Bolton, UK, that provides support and services for people affected by <b>domestic abuse and violence</b>. It offers frontline services including refuge accommodation, crisis support, counselling, and group work for women, children, and young people</li> </ul>





### 1. What are rituals and why are they so important?

- A ritual is a ceremony consisting of a series of actions performed to a set order.
- We come across rituals in every-day life, they help to give us a strong sense of belonging in our many communities.
- A strong sense of belonging is important because strong, positive communities help us to develop the tools we need for life's journey and support us when we hit obstacles.
- Rituals bring communities together by helping them to:
  - **Connect** - eg Sunday Roast as a family
  - **Commit** - eg. Wedding ceremony
  - **Celebrate** - eg. Birthday party
  - **Commemorate** - eg. Remembrance Day

### 2. What is Judaism?

- Judaism is an ancient religion that can be traced back to 1500 CE. Jews believe in one eternal God who created the universe and declared a set of rules they should live by.
- These were delivered to Moses and were written down in the Torah, the first part of the Jewish scriptures.
- Jews believe they have a special agreement with God called a Covenant where they will follow these rules and in return, they will be God's specially chosen people.
- There are many different types of Jewish people, such as more traditional Orthodox Jews and more Liberal or Reform Jews.
- Orthodox Jews read the Jewish scriptures more literally and are more cautious of change.
- Reform Jews read the scriptures more liberally and are more willing to allow their faith to adapt.
- When Jews go to the synagogue they are more likely to feel closer to God and each other.

### 3. What is God's Covenant with Abraham and why is it significant?

- Abraham is considered, the founder of Judaism because he made a covenant with God.
- A covenant is an agreement between two parties typically marked with a sign.
- The story of Abraham and the everlasting promise made with God can be read in the book of Genesis which is the first book of both the Jewish and Christian scriptures.
- Moses was promised by God:
  - That he would be given a huge family and millions of descendants
  - That he and his descendants would be God's special people and he would be their God
  - That he would be given the land of Canaan as their homeland
- This agreement was marked by Abraham, all the men in his household and all male Jews today with the sign of circumcision which is the removal of the foreskin from the penis.
- This takes place in a special service called a 'Brit Milah' (Covenant of circumcision) shortly after birth and it is an important reminder to the whole Jewish community that they are the children of the covenant, they are God's chosen people, and he is their God.





#### 4. What is the story of Moses and the Exodus?

**Summary:** Moses was a Hebrew prophet who led the Israelites out of slavery in Egypt in the Book of Exodus. He received the Ten Commandments from God at Mount Sinai, establishing the basis for Jewish law. After fleeing Egypt, Moses led his people through the Red Sea and into the desert, where they wandered for 40 years before entering the Promised Land of Canaan.

- **Early Life:** Moses was born into a Hebrew family during a time of oppression by the Pharaoh of Egypt. He was saved from an order to kill all male Hebrew children by being placed in a basket on the Nile River and found by the Pharaoh's daughter, who raised him as a Prince of Egypt.
- **Fleeing Egypt:** Moses witnessed the mistreatment of Hebrews and, after killing an Egyptian guard who was abusing a Hebrew slave, he fled to Midian after his identity was exposed. There he settled, married Zipporah, had children and tended the herds of his father in law, Jethro.
- **The Burning Bush:** In Midian, God appeared to Moses in a burning bush that was not consumed by the fire, commanding him to return to Egypt and free the Israelites.
- **The Ten Plagues:** Moses and his brother Aaron demanded the Pharaoh release the Israelites, and when he refused, God inflicted ten plagues upon Egypt, each increasing in severity and impact on the Egyptians their crops and their animals: (1) Water turning to blood (2) Frogs (3) Lice (4) Flies (5) Livestock pestilence (6) Boils (7) Hail (8) Locusts (9) Darkness (10) Death of the firstborn
- **The Exodus:** After the final plague, the Pharaoh finally released the Israelites, and Moses led them through the Red Sea, which God miraculously parted, allowing the Israelites to escape. The Israelites would spend the next 40 years wandering the wilderness to the Promised land.
- **Mount Sinai:** After crossing the Red Sea, the Israelites settled at Mount Sinai, where Moses received the Ten Commandments from God. This established the basis for the Jewish law. Moses asked Aaron to build an Ark for the tablets of stone upon which the 10 commandments were written to be stored in and this was always kept in a special tent called the Tabernacle.
- **The Promised Land:** Moses was able to see the Promised Land before he eventually died but it was only after Moses and all the original slaves who had left Egypt had died that Joshua would lead their descendants across the River Jordan into Canaan, the Promised Land.

#### 5. Why is the story of Moses so important to Jews?

- **Liberation from Slavery:** Moses's leadership in the Exodus, the Israelites' escape from slavery in Egypt, is a major historical and religious event for Jews.
- **The Covenant at Mount Sinai:** Moses's ascent to Mount Sinai and his receipt of the Torah (including the Ten Commandments) from God are believed to have established a further covenant between God and the Jewish people that builds upon the Abrahamic covenant. This covenant, involving a set of laws and commandments, forms the basis of Jewish law.
- **Prophetic Role and leadership:** Moses is revered as the greatest prophet in Judaism, and his role as God's messenger and teacher is central to Jewish belief. Moses's leadership, courage, and unwavering faith serve as an example for Jews to emulate, especially in face of adversity.
- **Chosen People:** The covenant with Moses, and the subsequent Jewish people's adherence to the Torah, reinforces the belief in Judaism as a chosen people with a special relationship with God. Many Jews believe that God was teaching his people how to live as his chosen people through the 40 year exodus (journey) out of Egypt to the promised land.





**6. How is the story of Moses celebrated at Passover?**

- The story of Moses and the Exodus is still very important to Jews today and is remembered annually during Passover or in Hebrew, Pesach, a holiday commemorating this pivotal event.
- The name Passover relates directly to the final plague, the death of the firstborn in each home. God told Moses that if he the Israelites mark their homes with Lamb's blood they would be spared, and death would pass-over their homes which is why this festival is called the Passover.
- Everything needs to be ready for Passover Seder, a special meal on the first night.
- Each specific piece of food on the Seder plate reminds Jews what it was like for the Hebrew Slaves in Egypt so that Jews today can experience the exodus all over again each year. For example, the charoset is a paste made from sugar, cinnamon, apple, wine and nuts which represents the mortar used by the slaves when building the pyramids. The egg and meat, reminds Jews of the offerings made to God in the holy temple in Jerusalem. Bitter herbs like horseradish help Jews to remember the bitter suffering of the slaves. Finally, the vegetable karpas (Parsley) is dipped in salt water to remember the tears of the Hebrew slaves.

**Significance of observing this holy day:**

**Observing this holy day and participating in this ritual helps Jews to connect with God and each other as part of a faith community. It enables them to commemorate the suffering of their ancestors in Egypt but also celebrate God delivering his people from slavery and providing for them as his children of the covenant, his chosen people.**

**7. What is a Bar/Bat Mitzvah and why is it important?**

- The Bat Mitzvah for a boy and Bat Mitzvah for a boy takes place at either the age of 12 or 13 depending on what Jewish tradition you follow. Mitzvah is a Hebrew word meaning commandment from God, so becoming a Bat Mitzvah means becoming a daughter of the commandment and promising to follow God's rules.
- Therefore, this ritual is a coming- of-age ceremony where the Jewish community recognises and celebrates a boy or girl as now being a Jewish adult.
- Young Jews know that they won't become an adult by the laws of the land until they are 18, but they would be able to take on more adult roles and responsibilities in the Jewish community such as at the Synagogue.
- After the ceremony Jews will have a big party with their friends and family to celebrate their coming of age.
- Many Jews feel closer to the Jewish community after this celebration because it is where they make their own personal commitment to their faith community.
- This ceremony has similarities with the Christian Church through the idea of Confirmation (Church of England) or First Holy Communion (Roman Catholic church).

**Significance of observing this holy day:**

**Observing this holy day and participating in this ritual helps young Jews to connect with and show their own commitment to God and their Jewish faith by celebrating coming of age as a member of the Jewish community and taking on greater responsibilities within it.**





### **8. What is Shabbat and why is it important?**

- The first story in the Jewish and Christian scriptures is the creation story which says God created the world and everything in it in 6 days and on the 7th day God rested.
- Consequently, Jews have a day of rest where they stop their very busy everyday life.
- This is called the Sabbath or in Hebrew, Shabbat.
- Shabbat starts at sunset on Friday and lasts 25 hours into Saturday evening.
- Every week Jewish families make sure all the work is done to prepare for Shabbat so that they can enjoy it together, as a day of rest, connecting with God, their family and faith community
- During Shabbat, several prayers are given over the bread and wine and then a meal is enjoyed together as a family and traditional Hebrew songs are sung. Coming together and sharing meals as a family is a big part of being Jewish.
- A Jew, might feel that they can make a fresh start each week after celebrating Shabbat.
- Orthodox and Reform Jews celebrate Shabbat with varying degrees of strictness:
  - More traditional Orthodox Jews generally adhere to stricter interpretations of the Sabbath including restrictions on work and the use of technology. For example, most Orthodox Jews would have their ovens and lights on timers, and they wouldn't turn on the TV, phone or a console as all these examples would be considered 'work'
  - More liberal Reform Jews are more flexible in their interpretations of the Torah and Sabbath law, often allowing activities like driving and using technology but still value and uphold the underlying principle that Sabbath is a day of rest to connect with their God, their family and their faith community

### **Significance of observing this holy day:**

**Observing Shabbat is a weekly opportunity for a Jew to rest and recover at the end of a busy week but also re-set and realign their commitment to God ahead of a new week.**

**By doing this together with their family and faith community they also strengthen their connection to each other and to God which will help them to feel closer as a community. It is also a weekly reminder to Jews to celebrate what God has given through his creation and by observing it they keep God's commandments, given to Moses. A weekly day of rest is not just important to a Jewish person's faith but their health, wellbeing, and relationships.**



## Year 8 Religion & Society - How Do We Live a Good Life?

### Unit 3: How do Abrahamic faiths view Jesus differently?

#### Lesson 1. Anthropology of Jesus

##### Is there any evidence for the existence of Jesus?

1. Many historians agree that there is evidence of Jesus as a historical figure.
2. Evidence for Jesus as a historical figure includes the New Testament and writings from non-Christian scholars.
3. Sources of authority tell us that Jesus was a Jewish man, born in Bethlehem.
4. The writings of non-Christians on the existence of Jesus may be considered more reliable.
5. Jesus has had significant historical as well as religious influence.

**Anthropology** - relating to the study of humankind

**Figure** - a person who is important or distinctive in some way

**Theologian** - a person who studies religion, religious texts and religious beliefs

#### Lesson 2. Messianic Prophecy in Judaism

##### What different ideas exist about the Messiah?

1. The word 'Messiah' comes from the Hebrew meaning 'anointed one'.
2. Messianic prophecies are found in the Jewish Tanakh.
3. There are different theological interpretations of these texts, which lead to different understandings of the Messiah.
4. These interpretations of the texts mean that many Orthodox and Reform Jews hold different beliefs about the Messiah.
5. Most Jews reject Jesus as the Messiah, but a small number of Jews, known as Messianic Jews, regard Jesus as the Messiah.

**Age** - a distinct period of time

**Descendant** - your children and any further generations of children that begin from them

**Messiah** - 'anointed one'; chosen by God to bring a new age of peace

**Messianic** - relating to the Messiah

**Prophecy** - a prediction of what will happen in the future

##### **Common misconception - All Jews reject Jesus as the Messiah**

There is a very small number of Jews, known as Messianic Jews, who regard Jesus as the Messiah.

#### Lesson 3. Jesus of the Gospels

##### How is Jesus portrayed in the Gospels?

1. The Gospels are found in the New Testament and tell the story of Jesus and the New covenant.
2. The Gospels are named after the authors that they are attributed to.
3. The Gospels contain beliefs central to Christianity, but each places emphasis on different qualities of Jesus.
4. The Gospels portray Jesus as the Messiah and suffering servant prophesied in the Old Testament.
5. The Gospels portray Jesus as the saviour and the Son of God.

**Old Testament** - the first part of the Bible containing law, history, prophecy, and the wisdom of the people of Israel

**Saviour** - in Christianity, this refers to Jesus saving humanity from sin and its consequences

**The Gospels** - four Biblical narratives found in the New Testament that cover the life, death and resurrection of Jesus

##### **Common misconception - The Gospels present exactly the same stories about Jesus, just in slightly different ways**

Whilst there are many similarities across the Gospel books, there are also many differences. Some of the Gospels contain stories that others do not. For example, Jesus' birth is only recorded in Matthew and Luke.



## Year 8 Religion & Society - How Do We Live a Good Life?

### Unit 3: How do Abrahamic faiths view Jesus differently?

#### 4. Jesus the Incarnation: What do Christians believe about Jesus as the Son of God?

1. Incarnation means to be 'made flesh' and most Christians believe that Jesus is the incarnation of God.
2. Most Christians believe that Jesus is both fully human and fully divine, and a person of the Trinity.
3. Most Christians interpret Isaiah's Old Testament prophecy as predicting the arrival of Jesus as the incarnation.
4. The New Testament shows Jesus as fully human through his humble birth and his ability to feel emotion and pain.
5. The New Testament shows Jesus as fully divine through his mother, the Virgin Mary, and his miracles and resurrection.

**Common misconception - All Christians believe in the incarnation** There are a small number of Christians who do not believe that Jesus was God. Jehovah's Witnesses do not believe in the incarnation.

**Divine** - of or like God, or a god/goddess

**Humble** - ordinary; not special or very important

**Incarnation** - to be 'made flesh'; God or a god/goddess in human form

**Miracle** - extraordinary acts or events that defy the laws of nature

**Prophesied** - when a prediction about the future has been made

#### 5. Jesus the Teacher: How do the teachings of Jesus influence Christians today?

1. The Sermon on the Mount is considered to be one of Jesus' most famous teaching moments.
2. The Sermon on the Mount includes the Beatitudes and Jesus' fulfilment of Old Testament law.
3. Jesus taught using parables to convey challenging ideas about God, the afterlife, society and morality.
4. Following the teachings of Jesus is central to many Christians' lives.
5. These teachings are interpreted differently by different Christians.

**Common misconception - The Old Testament is not relevant to Jesus' teachings.** Jesus developed many teachings from the Old Testament.

**The Beatitudes** - blessings given by Jesus during the Sermon on the Mount

**Old Testament** - the first part of the Bible containing law, history, prophecy and wisdom.

**Parable** - a simple story used to illustrate a moral or spiritual lesson

**Sermon** - a talk on a religious subject

#### Lesson 6. Jesus: Islamic Interpretations

##### What are Islamic interpretations of Jesus (Prophet Isa)?

1. Many Muslims refer to Jesus as 'Isa', which is the Arabic form of the name 'Jesus'.
2. In Islam, Isa is a prophet but not the son of God, and the holy text (the Qur'an) says that no-one is equal to Allah.
3. Many Muslims believe that Allah revealed the Injil, one of the four Islamic holy texts revealed by Allah, to Isa.
4. Many Muslims share the belief that Isa was born to a virgin and that Allah allowed Isa to perform miracles.
5. Many Muslims reject the crucifixion and resurrection and instead believe that Allah raised Isa to heaven.

**Common Misconception - Jesus is not important within Islam.** Jesus is highly regarded within Islam as one of the greatest prophets.

**Isa** - the Arabic form of the name 'Jesus'

**Injil** - the Arabic term for the Gospel; it was revealed to Isa and is one of the four holy books in Islam

**Miracle** - extraordinary acts or events that defy the laws of nature

**Prophet** - a person regarded as an inspired leader who shares the will of God



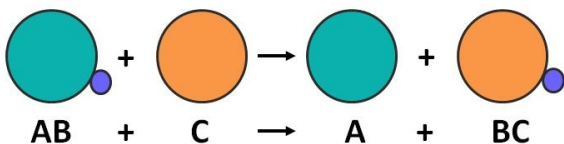
## KS3 Metal reactions

- Rocks which contain a significant amount of metal atoms are called ores.
- The metal atoms in ores are usually found attached to oxygen atoms or carbonate compounds.
- We can use chemical reactions to extract and purify these metal atoms for use later..
- Very low-reactivity metals can be found native in the crust of the Earth so may not need extracting.
- Metals below Hydrogen can be displaced by Hydrogen
- Metals below Carbon can be displaced by Carbon
- Metals above Carbon can be extracted by Electrolysis

The reactivity series shows which metal is more reactive than another metal by its position in the series.

The higher a metal in the series, the more reactive it is, and the bigger its reaction will be with oxygen or acid.

A more reactive metal can 'push' a less reactive metal from its compound by a process called **displacement**.



### Reactivity series

REACTIVE  
Potassium  
Sodium  
Lithium  
Calcium  
Magnesium  
Aluminium  
**Carbon**  
Zinc  
Iron  
Lead  
**Hydrogen**  
Copper  
Silver  
Gold  
UNREACTIVE

Metals react with **Oxygen** in the air in the following way:



E.g. Calcium + Oxygen → Calcium Oxide

Metals also react with **Water** in the following way:



E.g. Sodium + Water → Sodium Hydroxide + Hydrogen

Metals will react as above, but more quickly with **steam**

Metals also react with **Acids** in the following way:



E.g. Magnesium + Hydrochloric acid → Magnesium Chloride + Hydrogen

There are a few different signs that a chemical reaction has taken place. One or more will be obvious in a reaction:

1. The reaction effervesces (bubbles)
2. The reaction changes colour (from its starting colour)
3. The reaction changes temperature (gives out heat or takes heat in)

During electrolysis, large amounts of energy are used to melt a metal compound. Electric current is then used to separate the useful metal from other substances in the mixture.

### Keywords

- Acid
- Corrosion
- Displace
- Effervesce
- Electrolysis
- Extract
- Hydrogen
- Metal
- Native
- Neutralise
- Ore
- Oxidation
- pH
- Reactivity series
- Reduction
- Salt



# KS3 Biology: Muscular and Skeletal System

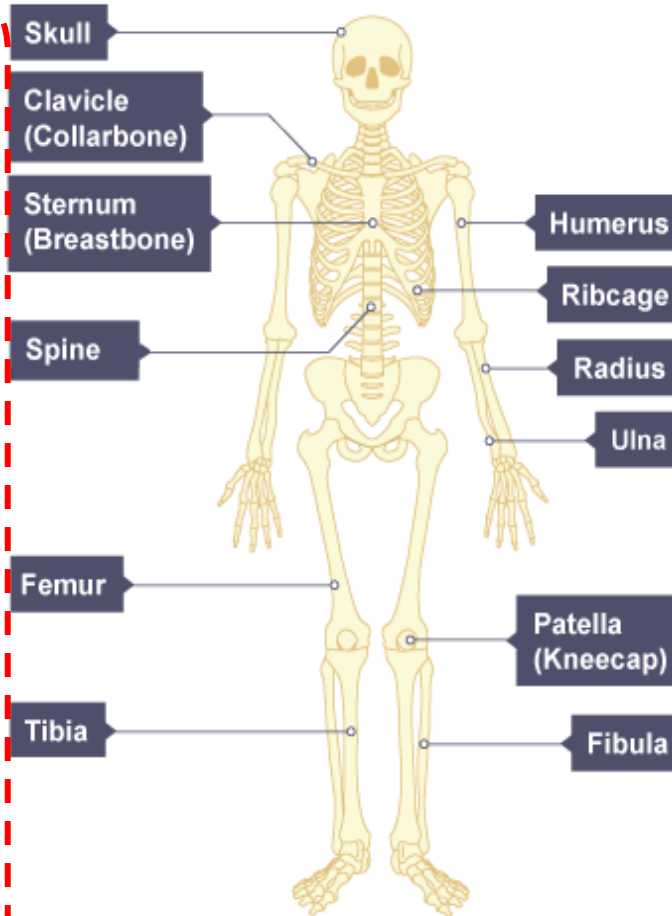
The human skeleton supports the body, protects vital organs, enables movement, and producing blood cells.

Bones come in different shapes and sizes because they all have different function (job). Bones are living tissue with a blood supply. Long bones like the femur and humerus are designed for leverage and movement.

Their elongated shape and hollow structure make them strong yet lightweight, ideal for supporting weight and allowing movement.

Short bones such as those in the wrist and ankle, are for support and stability.

Flat bones like the skull and ribs are thin and broad, providing protection for vital organs and serving as attachment points for muscles. Irregular bones, like vertebrae, have complex shapes that are suited to their specific roles in protecting delicate structures and allowing movement.



Some organs contain muscle tissue because it allows them to perform essential functions like moving substances through the body, pumping blood, or digestion. Muscles contract and relax, enabling organs to change shape and carry out these tasks.



## Keywords

- Bone
- Joints
- Bone marrow
- Cartilage
- Antagonistic muscle pairs
- Calcium
- Contract
- Relax
- Ligaments
- Tendons

There are three main types of muscle tissue: Cardiac muscle cells contract and relax to pump blood around our bodies. Smooth muscle cells make up thin sheets of muscle, such as the stomach lining. Skeletal muscle is joined to bones. Its cells contract to make bones move and joints bend. Some examples of skeletal muscles are:

**Biceps:** Located in the upper arm, they help bend the elbow.

**Triceps:** Located in the upper arm, they help straighten the elbow.

**Quadriceps:** Located on the front of the thigh, they help extend the leg.

**Hamstrings:** Located on the back of the thigh, they help bend the leg at the knee.

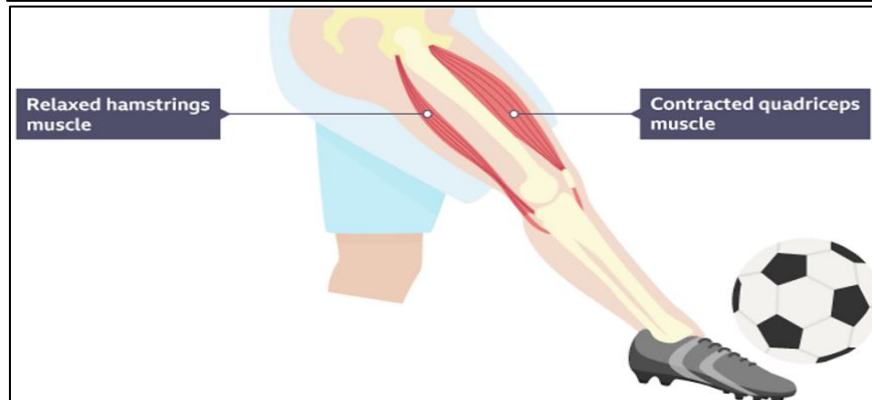
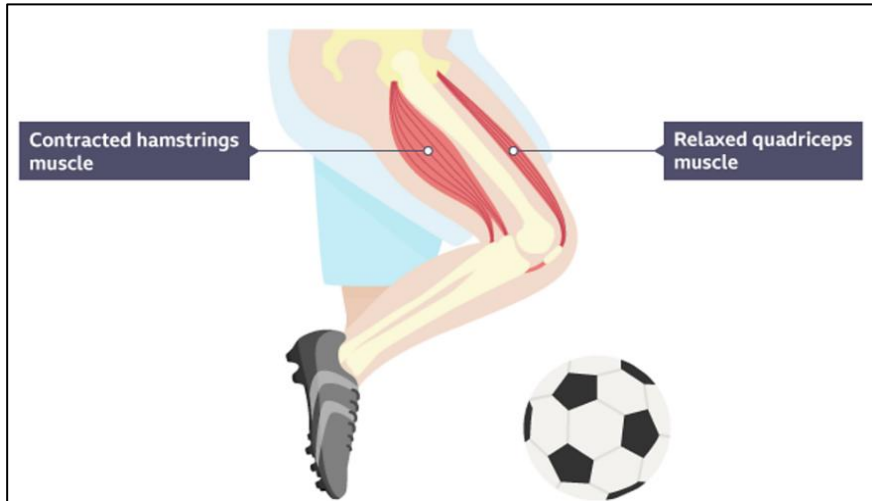
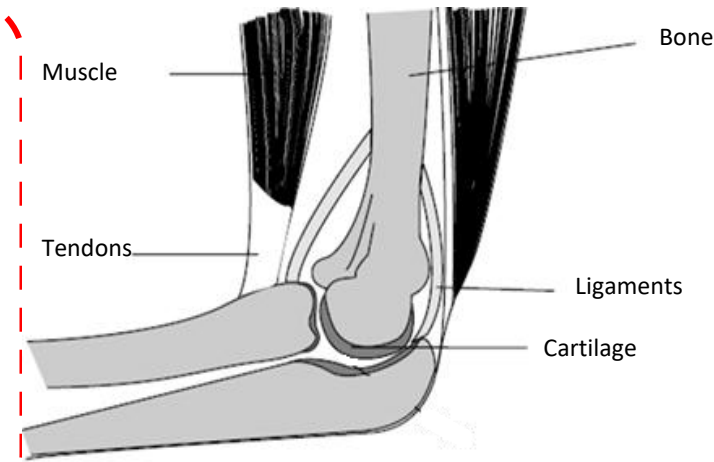


# KS3 Biology: Muscular and Skeletal System

Skeletal muscles move our body parts by transferring force to the bones through tendons, but skeletal muscles can only exert force by pulling, they cannot push, so moving a joint back and forth requires an antagonistic pair.

Antagonistic muscles work in pairs around a joint to produce movement. One muscle contracts (shortens) to move a body part, while the other muscle relaxes (lengthens) to allow that movement. This allows for controlled and coordinated motion, as muscles can only pull, not push.

**A joint is a place where bones meet. Ligaments connect bones in joints. Tendons connect muscles to bones. Cartilage is smooth tissue found at the end of bones, which reduces friction between them.**



- There are several different types of joint. The difference between the different types being the amount of movement and the type of movement they allow the bones in the joint to make.
- Hinge joints work like a lever and allow movement of  $180^\circ$ .
- Ball and socket joints allow the joint to rotate in  $360^\circ$  allowing a lot of flexibility.
- Fixed joints form between two bits of bone, and they do not move.
- Pivot joints allow bones to rotate around each other by  $360^\circ$ .
- The reason our neck does not rotate  $360^\circ$  fully is because muscles limit how far it will rotate!

- You can use moments to measure the force that a muscle is exerting to lift an object.
- The turning effect of a force is called a moment. Moments are calculated by multiplying the force applied by the distance from the pivot. An anticlockwise moment = clockwise moment.
- The elbow is a pivot. We can investigate how much force your bicep is exerting on your forearm to keep your arm still at different distances from your elbow (the pivot).



# KS3 Electromagnetism: Magnetism

## Bar magnets

Magnets attract and repel other objects by a non-contact force.

A bar magnet is a permanent magnet. This means it always causes a force to be exerted on other magnetic materials. There are four magnetic materials.



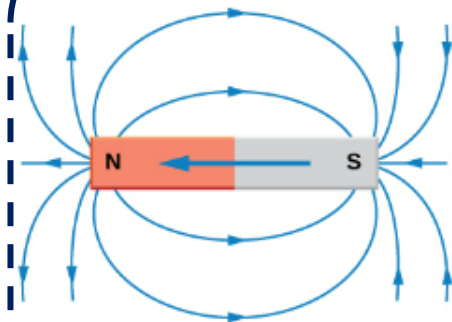
## Earth's Magnetic Field

- Due to the Earth's core spinning, a magnetic field exists around the Earth. This is part of the Magnetosphere.
- The Earth's Geographic North Pole is the magnetic South pole.
- It protects Earth from harmful cosmic radiation from the Sun.
- Humans use a compass that aligns with the magnetic South pole for navigation. Compasses always point North when free to move.

## Keywords

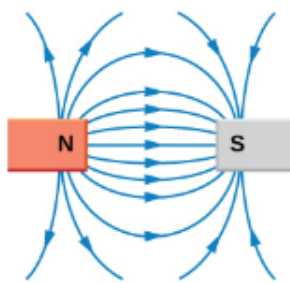
- Permanent magnet
- Pole
- Attraction
- Repulsion
- Magnetic Field
- Magnetosphere
- Compass
- Molten
- Electromagnet
- Solenoid
- Motor effect
- Direct Current

## Attraction and Repulsion



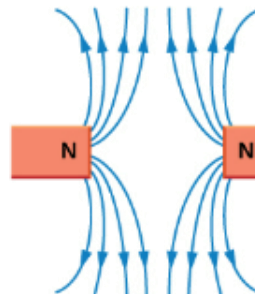
Magnetic field lines of a bar magnet

(a)



Magnetic field lines between unlike poles

(b)



Magnetic field lines between like poles

(c)

A magnetic field is a region around a magnet where other magnetic objects experience a force.

A magnetic field lines:

- never cross
- run North to South (arrowheads)
- are continuous

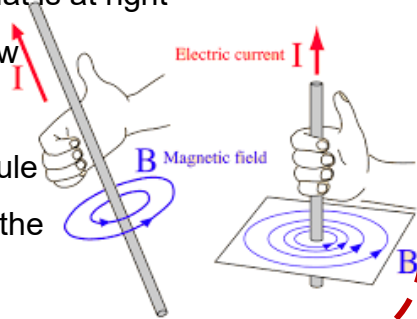
- A uniform field exists in attraction
- A space between magnets appears in repulsion



# KS3 Electromagnetism: Magnetism

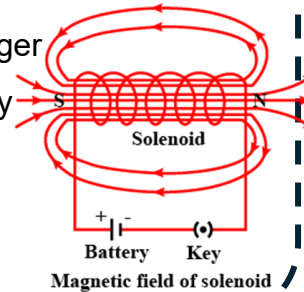
## Magnetic field and Current

Current is a flow of negative charges.  
As these charges move, they induce a magnetic field that is at right angles to the flow of charges.  
The right hand rule is used to show the magnetic field.



## Solenoids

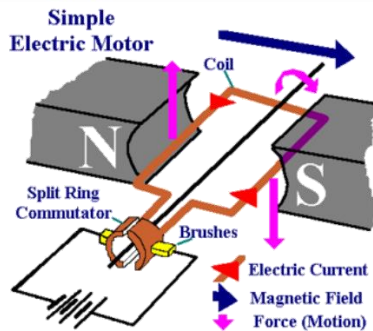
If current is sent through a coil of wire the magnetic field becomes stronger  
And the field lines appear like they do in a bar magnet.



## Keywords

- Permanent magnet
- Pole
- Attraction
- Repulsion
- Magnetic Field
- Magnetosphere
- Compass
- Molten
- Electromagnet
- Solenoid
- Motor effect
- Direct Current

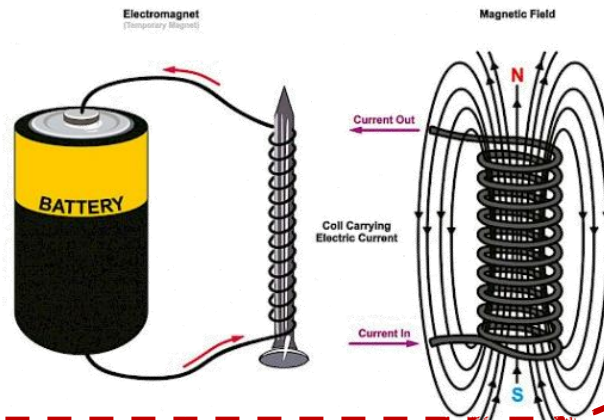
## The Motor Effect



A simple Direct Current motor using the idea of a current breaking a magnetic field to forces a conductor (wire) to move.  
A motor has a split ring commutator to allow the current to change direction, allowing the coil to spin around.

## Electromagnets

If a magnetic core is added to the solenoid and a current is switched on, the magnetic field becomes even stronger (field lines move closer).  
Electromagnets are temporary magnets that can be switched off when the current is stopped.



To make electromagnet stronger:

- Increase number of coils
- Increase the current flow



### Physical descriptions

De qué color tienes el pelo?

– What colour is your hair?

Tengo el pelo rubio – I have blonde hair

Tengo el pelo castaño – I have brown hair

Tengo el pelo negro – I have black hair

Soy pelirrojo – I have ginger hair

Tengo el pelo largo – I have long hair

Tengo el pelo corto – I have short hair

¿De qué color tienes los ojos? – What colour are your eyes?

Tengo los ojos verdes – I have green eyes

Tengo los ojos azules – I have blue eyes

¿Cómo eres? – What are you like?

Soy alto / alta – I am tall

Soy bajo / baja – I am short

Soy de talla mediana – I am of average height

### Family

¿Tienes hermanos? – Do you have siblings?

Tengo un hermano – I have a brother

Tengo dos hermanos – I have two brothers

Tengo una hermana – I have a sister

Tengo tres hermanos – I have three sisters

Tengo un hermanastro – I have a stepbrother

Tengo una hermanastra – I have a stepsister

No tengo hermanos

– I don't have any brothers / siblings

No tengo hermanas – I don't have any sisters

Soy hijo único / Soy hija única

– I am an only child

En mi familia hay ... personas

– In my family there are ... people

mi madre – my mum

mi madrastra – my stepmum

mi padre – my dad

mi padrastro – my stedad

y yo – and me

### Personality

¿Cómo es tu personalidad?

– What is your personality like?

Pienso que – I think that

En mi opinión – in my opinion

Mis amigos dicen que – my friends say that

soy responsable – I am responsible

soy paciente – I am patient

soy inteligente – I am intelligent

soy listo / list – I am clever

soy divertido / divertida – I am fun

soy tímido / tímida – I am shy

soy estricto / estricta – I am strict

soy serio / seria – I am serious

soy tranquilo / tranquila – I am calm

soy simpático / simpática – I am nice

soy hablador / habladora – I am chatty

soy trabajador / trabajadora – I am hard-working

soy un poco... – I am a little bit

soy muy... – I am very

soy bastante... – I am quite

soy demasiado... – I am too

no soy (tranquilo) – I am not (calm)

Antes era – Before I was

En el pasado era – In the past I was

Ahora soy – Now I am



### Pets

¿Tienes animales/mascotas?

– Do you have pets?

Tengo... – I have...

un pájaro – a bird

un conejo – a rabbit

un pez – a fish

un perro – a dog

un gato – a cat

un caballo – a horse

No tengo animales – I don't have pets

Antes tenía

– before I used to have/had

En el futuro me gustaría tener

– in the future I would like to have...

### Key ideas

Personality

Age and birthday

Family

Physical descriptions

Pets

### Age

¿Cuántos años tienes?

– How old are you?

Tengo doce años

– I am twelve years old

### Birthdays

¿Cuándo es tu cumpleaños? – When is your birthday?

Mi cumpleaños es el... de... – My birthday is on the...of...

El cumpleaños de... es el... de... – ...'s birthday is on the...of...

Su cumpleaños es el... de... – his/her birthday is on the...of...

## Year 8 Topic 2: Tu vida – Your Life



## Numbers

uno (primero) – 1(1st)	
dos – 2	
tres – 3	
cuatro – 4	
cinco – 5	
seis – 6	
siete – 7	
ocho – 8	
nueve – 9	
diez – 10	

once – 11	
doce – 12	
trece – 13	
catorce – 14	
quince – 15	
dieciséis – 16	
diecisiete – 17	
dieciocho – 18	
diecinueve – 19	
veinte – 20	

veintiuno – 21	
veintidós – 22	
veintitrés – 23	
veinticuatro – 24	
veinticinco – 25	
veintiséis – 26	
veintisiete – 27	
veintiocho – 28	
veintinueve – 29	
treinta – 30	
Treinta y uno – 31	

## Year 8 Topic 2: Transferable Knowledge

### Months

enero	- January
febrero	- February
marzo	- March
abril	- April
mayo	- May
junio	- June
julio	- July
agosto	- August
septiembre	- September
octubre	- October
noviembre	- November
diciembre	- December

### Connectives

y	- and
o	- or
también	- also
pero	- but
porque	- because
ya que	- since
dado que	- given that
sin embargo	- however
no obstante	- however

### Possessive Adjectives

Mi	- my singular
Mis	- my plural
Tu	- your singular
Tus	- your plural

### A / an / some – Indefinite Article

un	- masculine singular
una	- feminine singular
unos	- masculine plural
unas	- feminine plural

### Colours

azul	- blue
verde	- green
rojo	- red
marrón	- brown
naranja	- orange
amarillo	- yellow
rosa	- pink
gris	- grey
blanco	- white

### Adjectives

In Spanish, adjectives usually go after the noun they are describing and agree with the noun (masculine, feminine, singular, plural).

#### For example:

Un gato <i>blanco</i>	- a <i>white</i> cat
Una serpiente <i>blanca</i>	- a <i>white</i> snake
Dos gatos <i>blancos</i>	- two <i>white</i> cats
Do serpientes <i>blancas</i>	- two <i>white</i> snakes

### Key verbs in the present tense



### Tener – to have

Tengo	- I have
Tienes	- You have (singular / informal)
Tiene	- He has/ She has
Tenemos	- We have
Tenéis	- You have (plural / informal)
Tienen	- They have

### Ser – to be

Soy	- I am
Eres	- You are (singular / informal)
Es	- He is/ She is
Somos	- We are
Sois	- You are (plural / informal)
Son	- They are



## Founder's Philosophy:

I like things that give a sense of being vintage without actually being vintage. That's the philosophy behind my own designs.

## History

Lulu Guinness founded her famous brand in 1989 at the age of 29, inspired by the idea of a fashion briefcase for women. This concept eventually morphed into a new idea for vintage style rose basket bags, reflecting Lulu's instincts for fashion's edgier boundaries.

## Inspiration

Driven by her own style - vintage-inspired and ladylike, with a tongue-in-cheek twist - Lulu began creating the hand-held treasures that made her name. Her first design was a basket of red roses. One of her earliest influences was the Surrealist French designer, Elsa Schiaparelli. "She worked with emerging talents, like Picasso and Cocteau.

## Impact

Lulu Guinness is credited for the creation of the famous eye designs which is characterized by strong outlines, bright colours, and slightly exaggerated forms.

## Legacy:

One of Guinness's most recognizable works is her 'Lips' clutch bag. Never seen without her trademark red lipstick, Lulu Guinness is the personification of her brand, with the central motif, the distinctive Dali-esque lips featuring on all handbags. The Lips clutch bag remains a staple in the accessory collection, incorporating the Surrealist art movement into mainstream popular culture.

## Key Products:

A turning point came in 1993 when the Victoria & Albert Museum bought the Florist's Basket bag. "I felt I could call myself a designer. But in this business, you're only as good as your latest idea."

## Global Reach:

Accessories label **Lulu Guinness** was founded in 1989 with the original concept of a briefcase for women, which then evolved into vintage-style basket bags. Fast-forward almost 30 years and Lulu Guinness has become one of the most recognised labels worldwide thanks to its distinctive red lip design.

## Relevance Today:

She has put her name to shoes, jewellery, a Mini. "I've done it all." High-street partnerships brought her wares to a wide audience: "I've never been interested in the top tier of the market. I don't have rules. I can't stand snobbishness," says Guinness, who has a cult following in Asia where "they appreciate things that are a bit different. We've always been the alternative to the It bag."

## Lulu Guinness Design

**Contrasting Colours:**  
Lulu often uses bright and contrasting colours, such as black and white, red and blue.



**Geometric and Organic shapes:**  
Use of geometric and Organic shapes and patterns, including wavy and curved lines.





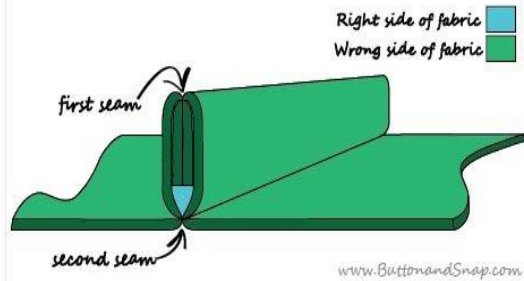
Evaluate Step	Definition	Question stems
Function	Work or operate in a proper or particular way.	Does it do the job? What is the function and purpose of the product? How well does it work? Could it be improved?
Appearance	The way that someone or something looks	Does it look like your original design? What does the product look like? What is the colour, texture, pattern and decoration of the product? Is the colour/texture of the product effective? is it what the customer wants? Does the product look good? Is it stylish? Is the style to the customers liking.?
Construction	The action of building or making something	What materials and components have been used to make the product? Why were these materials and components used? How has the product been made? What joining methods/ techniques have been used? Is the product well-constructed or will it fall apart when in use? Will it scratch easily?
End User	A person or other entity that consumes or makes use of the goods or services produced	Did the design link to the user? Who would buy the product and when would they use it? How well does the product do its job when compared to others? How marketable is it to the user?

- Statements made are backed up with evidence
- *Statements are written in sentences with comments that are relevant.*
- *Discussed the positive and negatives*
- *Clear PEE structured used*
- *Connectives used*
- *Purposeful facts - useful information identified*



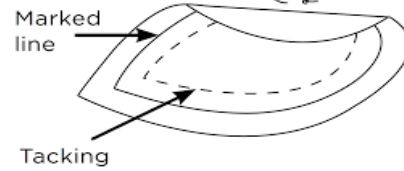
## FRENCH SEAM

### Anatomy of a French Seam

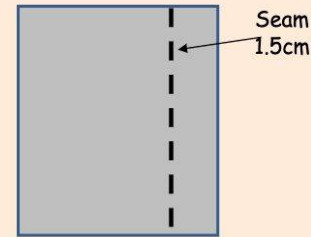


## APPLIQUE

pieces of fabric are sewn or stuck on to a larger piece to form a picture or pattern.

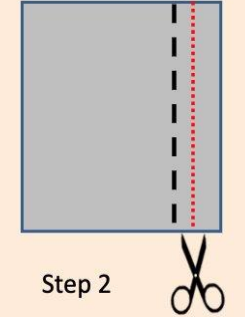


Sew wrong sides of fabric together 1.5cm seam allowance



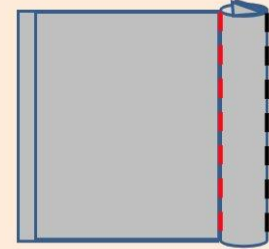
Step 1

Trim seam to measure 0.5 cm - cut along red seam line

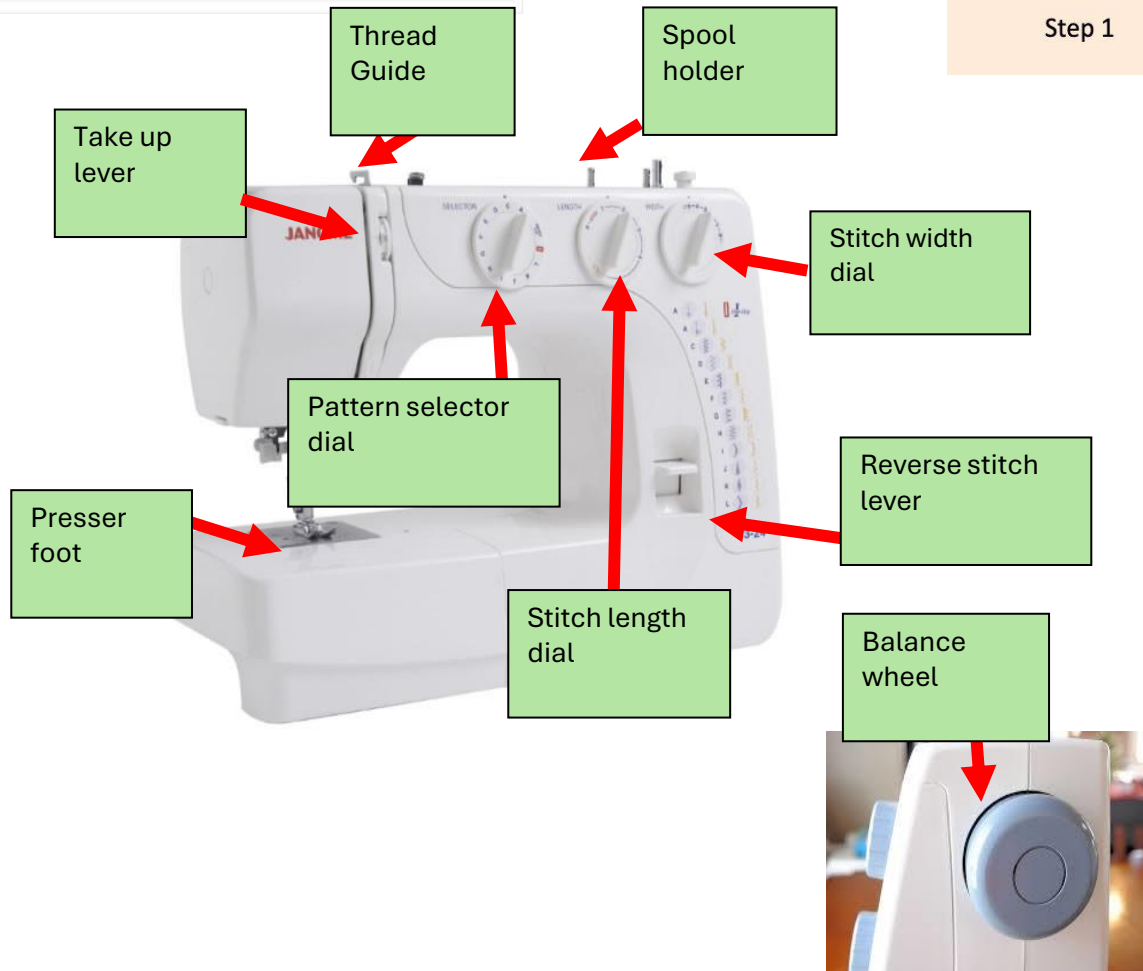


Step 2

Turn fabric so right sides are together and sew 0.5 cm from folded edge



Step 3



## Sewing Machine

1. Sharp needle
2. Take-up lever pulls the thread through the machine
3. Different types of stitch patterns
4. Used to sew lots of different types of fabrics
5. Balance wheel can move the position of the needle