

Need To Know Book Year 9 2024/2025

Name:

Form Group: _____

Be Kind.

Work Hard.

Take Responsibility.





What does the top of my mountain look like?

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Knowledge Retrieval Sheet

What are knowledge retrieval sheets?

Take Responsibility.

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



Work Hard.

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

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

Using Knowledge Retrieval Sheets- 5 Top Tips:



'Look, Cover, Say, Write, Check'- Look at a fact on your sheet, cover it up with your hand or a piece of paper. Say it out loud, write the fact down without checking and then uncover and check if you were correct.

'If this is the answer, what is the question?'- Quiz yourself by covering up facts on your sheet. For example, you could cover up the definition of key vocabulary and try to remember what the key vocabulary means.

Independent low-stakes quizzing- Use the questions on the back of each sheet to test yourself. You should write the answers on a separate sheet of paper so that you can use the question sheet again in future.

Paired low-stakes quizzing- Give your book or a sheet to someone else. (Could be a friend, teacher or family). They can ask you the questions on the back of any sheet and use the facts on the front to check if you are correct.

Flashcard Revision- Make flashcards using your knowledge sheets. Can you summarise the essential knowledge into your own words to put onto a pocket-sized revision card?









Year 9 Art: The Formal Elements

The Formal Elements of Art

					AN		
	A line is an identifiable path created by a point moving in space . It is one-dimensional and can vary in width, direction, and length. Lines can be horizontal,						
		vertical, or diagonal, straight or curved, thick or thin.	Contour Lines	Descriptive Lines		Expressive Lines	
	Tone	T one refers to the relative lightness or darkness of a colour. One colour can have an almost infinite number of different tones .	Lines that are used to	Descriptive line more about a sul	es tell us oject. They	The way lines are	
	Colour	Made up of three properties: hue, value, and intensity. Red, yellow and blue are primary colours, which means they can't be mixed using any other colours. Two primary colours mixed make a secondary colour. A primary and a secondary colour mixed make a tertiary colour	define the shape or form of an object or to show key details are called outlines or contour lines.	define the shape or form of an object or to show key details are called outlines or contour lines. help make a shape look more like a three- dimensional object by showing light, shade and texture.		created can be used to express emotions and to create mood.	
	Shape	A shape is an area enclosed by a line. It could be just an outline or it could be shaded in. Shapes can be either geometric, like a circle, square or	Jason Scarpace		1.81		
		triangie, or irregular.	Jason Scarpace was born in 1972 in New York and is best known for his abstract fish			11 as	
	Texture	Texture refers to the surface quality in a work of art . We associate textures with the way that things look or	art.	e created in			
(1)		feel.	Scarpace's fish paintings are				
	Pattern	Pattern is created by repeating lines, shapes, tones or colours. The design used to create a pattern is often referred to as a motif. Motifs can be simple shapes or	variety of other media on canvas, board and paper.				
		complex arrangements.	Widely regarded as colourfu original, and whimsical, the	ul, completely works of Jason			
	Form	Form is a three-dimensional shape, such as a cube, sphere or cone. Sculpture and 3D design are about creating forms.	Scarpace represent in his own words, "a personal journey through the use of basic art elements: line, shape and colour."				

Year 9 Art: The Formal Elements		son As	8	
The Formal Elements of Art		N. C. C.		A CARACTER AND A CARA
What do you know				
about me.		What are contour lines?	What are descriptive lines?	What are expressive lines?
What do you know about tone?				
What do you know about colour?				
What do you know about shape ?		Jason Scarpace		
		Jason Scarpace was born ir	n:	Chi an
What do you know about texture ?		Scarpace's fish paintings a	re created in	HAN
What do you know about pattern ?		Widely regarded as colourful, completely		
What do you know about form ?		Scarpace represent in his c	own words	

Year 9 Art: The Formal Elements



Natural Forms

Natural form is an object in nature in its original form.

For example: leaves, flowers, pinecones, seaweed, shells, bones, insects, stones, fossils, crystals, feathers, birds, fish, animals – in fact, anything you can find in nature – complete or part of it.



Mark Making

Mark making describes the different lines, dots, marks, patterns, and textures we create in an artwork. It can be loose and gestural or controlled and neat.

It can apply to any material used on any surface: paint on canvas, ink or pencil on paper, a scratched mark on plaster, a digital paint tool on a screen... Artists can also use mark-making to express feelings and emotions.



Implied Texture

Rather than accurately copying the appearance of their subject, many artists use texture to show their technique and to express emotion. Vincent Van Gogh created many heavily textured artworks. using thick application of oil paint in an expressive manner.

This creates an artwork that has a rough texture as well as a raised surface. Applying thick areas of paint on a canvas like this is known as impasto. This layered, thick paint creates a visual effect that allows you to see the individual brushstrokes the artist has used.

Actual Texture

Actual texture, or physical texture, means the actual physical surface of an artwork or design. It describes the tactile feeling you would get if you were able to run your hand over an artwork.

This feeling can vary depending on the materials the artist used to create the piece of work. It could be smooth, bumpy, coarse, rough or many other textures.

Actual texture is the result of the materials used and the artist or designer's technique.



Year 9 Art: The Formal Elements



Natural Forms

Natural form is _____

For example: leaves, flowers, pinecones, seaweed, shells, bones, insects, stones, fossils, crystals, feathers, birds, fish, animals – in fact, anything you can find in nature – complete or part of it.



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Actual texture is the result of the_____

Mark Making

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Georgia O'Keeffe

The American artist Georgia O'Keeffe is best known for her close-up, or large-scale flower paintings, which she painted from the mid-1920s through the 1950s. O'Keeffe experimented with depicting flowers in her high school art class. Her teacher explained how important it was to examine the flower before drawing it. So, O'Keeffe held it in different ways, capturing different perspectives of the flowers, and also created studies of only a portion of the flower. During this process she also drew the flower simpler with each iteration. This process is also known as abstraction.



Watercolour Techniques

Wet on wet

Applying fresh paint on to a wet surface or on to paint that is still wet. Dampen your paper with water before adding paint.



Dry brush

Painting with a dry brush. Make sure your paint is not too wet and dab the excess on a paper towel for the best effect.



Flat wash

One of the simplest techniques. Simply paint a large, even patch of one colour to create a base.



Gradated

Start by loading the brush with lots of colour. Each time use a little less colour so that the colour fades and creates a smooth gradient.



Hard/soft edge

A hard edge is an edge with a distinct line separating it from the background. A soft edge is one that blends out gradually.



Georgia O'Keeffe



Watercolour Techniques

Wet on wet	Dry brush	Flat wash	Gradated	Hard/soft edge
-				
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Catering



Year 9 Catering

What are seasonal foods?

Fruit and vegetables naturally grow in cycles, and ripen during a certain season each year. When they are in season they are harvested.

We mostly think of fruit and vegetables as seasonal however, some fish and meat can also be seasonal.

Advantages to using seasonal foods:

- Food is very fresh
- Food has the best flavour, texture and colour
- Nutrients have not been lost over time
- Food is cheaper than importing from other countries
- More support for local producers
- Food travels less distance

What are Food Miles?

Food miles are a way of attempting to measure how far food has travelled before it reaches the consumer.

It is a good way of looking at the environmental impact of foods and their ingredients.

It includes getting foods to you, but also getting waste foods away from you, and to the landfill!

Disadvantages of using seasonal foods:

- Less choice at different times of the year
- Favourite products are not always available
- Reduced trade to other countries



Fairtrade:

Ensuring that farmers in less economically developed countries get a fair deal;

Local foods:

Buying locally supports local business and farmers and some believe that food produced locally is more sustainable;

Genetically modified (GM) food:

Scientific intervention is used to change a plant, animal or micro-organism's genes or to insert one gene from another organism

Effects of Heat on Food

- Proteins coagulate they 'set' and become firm e.g. an egg setting when fried
- Starches **gelatinise** this helps to thicken foods e.g. flour in a cheese sauce
- Sugars caramelise they become sweet and brown e.g. sugar melted on the top of a crème brulée
- Water **evaporates** this explains why foods become dry when they cook e.g. bread toasted
- Fats **melt** e.g. the fat that comes out of sausages when you grill them
- Surfaces **brown** e.g. the surface of a piece of meat or the crust of a loaf of bread

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

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

To boil is the cooking of food by immersion in water that has been heated to near its boiling point

To reduce a liquid means to simmer it until some of the water in it has evaporated, which intensifies the flavours and thickens the liquid

Why do we cook food?

- To make it nicer to eat e.g. add flavour, improve texture, enhance colour
- To make it safe to eat by destroying food poisoning bacteria
- To destroy bacteria which cause food spoil (go off)
- To make food easier to digest



Year 9 Catering		What is Fairtrade?	To sauté a dish means to cook it in a
What are seasonal foods?		What are local foods and what are the benefits?	To simmer means
What are the advantages to using seasonal foods? • •	What are the disadvantages of using seasonal foods? •	What is genetically modified (GM) food?	To boil is the cooking of food by To reduce a liquid means to
•	•	What are the different effects of heat on food?	
• • •		•	Why do we cook food? •
What are Food Miles?		•	

Year 9 Catering

Convection

Convection is used in many situations, for example boiling eggs in a pan.

The water molecules closest to the bottom of the pan will gain kinetic (movement) energy and spread out.

This area of water will become less dense and rise.

Cooler water at the top of the pan moves down to take its place.

This causes a convection current, the boiled water circulates around the food, cooking it.

Conduction

During conduction heat energy is passed to the food from the heat source by **direct contact** e.g. frying bacon.

Heat energy is **transferred** from the hob to the outside of the pan and pass on this energy to any other molecules they are in contact with.

Food that comes into contact with the inside of the pan will also gain this energy.

Food preservation

Known "as the science which deals with the process of prevention of decay or spoilage of food thus allowing it to be stored in a fit condition for future use".

Convenience foods

A food, typically a complete meal, that has been pre-prepared commercially and so requires minimum further preparation by the consumer

Conduction

Radiation

All warm objects give off infra-red radiation that travels as waves.

Food that is cooked by grilling or toasting is cooked by radiation.

The infra-red radiation which is absorbed by the food increasing its temperature.

Microwaves

Microwaves use a different type radiation to cook food. The radiation is high-energy radio waves given the name microwaves.

The microwaves penetrate the food and are absorbed by the water in the food, causing the molecules to vibrate, increasing its temperature.

This heat energy cooks the food.



Heat Transfer



Computing





You and Your Data

Data is raw facts and figures. E.g.: John: 28, Claire: 49

Information is created when that data has been processed and becomes meaningful: John needs to resit the test.

The following **personal data** may be collected about you: Name, date of birth, address

All organisations and people using and storing personal data must abide by the following **Data Protection Act** principles.

Data must be:



Social Engineering

- **Social enginee**ring is a set of methods used by cybercriminals to deceive individuals into handing over information that they can use for fraudulent purposes.
- **Phishing** A phishing attack is an attack in which the victim receives an email disguised to look as if it has come from a reputable source, in order to trick them into giving up valuable data.
- **Blagging** Blagging (also known as pretexting) is an attack in which the attacker invents a scenario in order to convince the victim to give them data or money.
- Name generator attacks These are attacks in which the victim is asked in an app or a social media post to combine a few pieces of information or complete a short quiz to produce a name. Attackers do this to find out key pieces of information that can help them to answer the security questions that protect people's other accounts.

Shouldering - Shouldering (also known as shoulder surfing) is an attack designed to steal a victim's password or other sensitive data. It involves the attacker watching the victim while they provide sensitive information, for example, over their shoulder.



What is 'hacking'? Gaining unauthorised access to or control of a computer system.

Why might people want to hack?

- To steal data
- To disrupt services
- For financial gain
- For political reasons (espionage and activism)
- For fun (planting the flag)
- For ethical reasons

What are 'penetration testers'?

People who are paid to legally hack into computer systems with the sole purpose of helping a company identify weaknesses in their system.

What is the difference between a 'denial of service DoS' attack and a 'distributed denial of service DDoS' attack?

A DoS is a cyberattack in which the criminal makes a network resource unavailable to its intended users. This is done by flooding the targeted machine or website with lots of requests in an attempt to overload the system. A DDoS is the same as DoS attack, only this time multiple computers are making attacks at the same time.

What is a 'brute force' attack?

This is a form of attack that makes multiple attempts to discover something (such as a password).

You and Your Data

Data is

Information is

The following **personal data** may be collected about you:

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Social Engineering

• Social engineering is

• Phishing -

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What is 'hacking'?

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What are 'penetration testers'?

What is the difference between a 'denial of service DoS' attack and a 'distributed denial of service DDoS' attack?

What is a 'brute force' attack?

What is Malware?

Malware (malicious software) is software that is designed to gain access to your computer with malicious intent.

What is a virus?

Viruses are a malicious form of self-replicating software. Once on a computer or network, a virus will replicate itself by maliciously modifying other computer programs and inserting code.

What is a 'worm'?

Worms replicate (copy) themselves but do not attach themselves to files as a virus does. Instead, worms spread through the network and use the system's resources. Most worms cause problems by slowing down the network significantly.

What is a 'Trojan'?

A Trojan is a piece of software that appears to perform a useful function (such as a game) but unbeknown to the user it also performs malicious actions. For example, it might open a 'back door' to give an attacker remote access to your computer.

Methods to protect networks from cyber attacks:

- Secure passwords (password managers)
- A maximum number of attempts to log in before an account is locked
- CAPTCHA
- Biometrics
- Two-factor authentication (2FA)
- User permissions
- Firewall
- Anti malware
- Auto updates

Keyword Definition		Context/Key Term
Viruses	Malicious software that replicates.	Can cause many problems for the user e.g. slowing their computer down.
Worm	Self-replicating malware spreading across networks.	Spreads without user intervention
Trojan	Malware disguised as legitimate software.	Tricks users into installation
Spyware	Software that secretly monitors user activities.	Personal information can be stolen.
Ransomware	Malware encrypting user's files, demanding payment.	Financial loss for the user.
Adware	Unwanted software displaying advertisements.	Can be annoying or malicious.
Internet Bots	Automated programs performing tasks on the internet.	Can be used for good or malicious.
Malware	Malicious software including viruses, worms, etc.	Poses a threat to computer systems.



What is Malware?

What is a virus?		
What is a 'worm'?		

What is a 'Trojan'?

Methods to protect networks from cyber attacks:

- •
- •
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Spyware		
Ransomware		
Adware		
Internet Bots	Automated programs performing tasks on the internet.	
Malware		Poses a threat to computer systems.



Year 9 Computing: Cybersecurity prevention methods

Computer Misuse Act:

This law covers an individuals use of computers.

It covers:

- Unauthorised access to computer material
- Unauthorised access with intent to commit or facilitate the commission of further offences
- Unauthorised acts with intent to impair, or with recklessness as to impairing, the operation of a computer

Firewall

A firewall checks incoming and outgoing network traffic. It scans the data to make sure it doesn't contain anything malicious and that it follows the rules set by the network.

Anti-Malware

Anti-malware is software that scans any file that is able to execute code. If antimalware spots anything suspicious in the code, the files are quarantined.



Auto Updates

Auto-updates refers to software that automatically checks for available updates for the software you have on your computer. Once it finds an update, the software can be set either to alert the user or to install it automatically.

User Authentication

Only authorised users identified with the correct username and password will be allowed access. Different users will have access to different parts of the network.

Two factor Authentication

User authentication that provides an extra layer of security of online accounts. In addition to a username and password, a one time passcode or a PIN number may be sent to the user to input.



Captcha

A type of user authentication that proves the user is a real person, not a computer.

Match the characters in the picture Help					
To continue, type the characters you see in the picture. Why?					
The picture contains 8 characters.					
Characters:					
Continue					

Year 9 Computing: Cybersecurity prevention methods

Computer Misuse Act:

It covers:

- •
- •
- •

Firewall

Anti-Malware

User Authentication

Two factor Authentication



Captcha





Auto Updates

Year 9 Computing: Introduction to Python

Getting started with Python

We use an IDE to write our code in Python, there are lots of different types available, the main ones you will use are **Thonny** and **Replit.** Thonny is installed on the computers, Replit is online.

Key Term	Description	Example
Print function	Used to <i>display</i> text on the screen.	print("Hello World")
Escape sequences	Special characters that are used to control the formatting of text that is printed by the print function. E.g \n causes the print function to print a newline character	print("Hello, \n World")
Data types	Are used to <i>store and organise</i> data in Python. When we use numbers in python we use integers and floats.	age = int(input("What is your age?") temp = float(input("What is today's temperature?")
Integers	A data type that stores whole numbers i.e. 1,2,3, 10, 100, 1000	If a number used isn't whole then an error will be displayed
Floats	A data type that stores numbers that have decimal points i.e. 3.14	If a number used does not have a decimal place an error will be displayed
Variable	Is a place in memory where you can <i>store</i> a value. You can use variables to store numbers (and other data types) .	My_number = 5

What is Python?

Python is a *high-level*, general-purpose programming language; this means that it is written in a way that looks a lot like English so can be read by lots of people, and it is a great choice for solving lots of different problems.

	Programming Key Words
Abstraction	Identify the important aspects to start with
Algorithm	Precise sequence of instructions
Computational thinking	Solving problems with or without a computer
Debugging	Looking at where a program might have errors or can be improved
Decomposition	Breaking down a problem into smaller parts
Execute	A computer precisely runs through the instructions
Iteration	Doing the same thing more than once
Selection	Making choices
Sequence	Running instructions in order
Syntax errors	Syntax errors occur when the rules of the programming language are not followed, e.g. a command word is misspelled
Logic errors	Occur when there is a flaw in the design of a program, which does not prevent it from running but it causes it to produce an incorrect or unexpected result.
Run-time errors	Occur during program execution when the processor is asked to perform an impossible operation, e.g. to divide by zero, or open a non-existent file.

Year 9 Computing: Introduction to Python

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	Programming Key Words
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Run-time errors	

What is Python?

Year 9 Computing: Data Types and Variables

Data types

Data Type	Description	Example	Advantages and disadvantages
Integers	Whole numbers, such as 1, 2, 3, etc.	5	Efficient for whole numbers, cannot store decimal points.
Floats	Numbers with decimal points, e.g., 3.14, 2.718	3.14	More flexible than integers but take up more memory.
Strings	Text, such as "Hello, world!"	"Hello, world!"	Useful for text but can be difficult to work with if very long.
Booleans	True or false values	True	Simple to use but cannot store much information.
Lists	Ordered collections of data	[1, 2, 3]	Useful for ordered collections but may be slow if very large.
Dictionaries	Unordered collections of data	{"name": "John", "age": 30}	Useful for unordered collections but can be complex to work with.

Data Type Considerations:

When choosing a data type, consider the type of data and usage. For instance:

- •Use a list for storing a list of numbers.
- •Use a dictionary for storing a name and age.

Operators

Operators are used to perform *mathematical* and *logical operations* on *values* in Python. There are many different types of operators in Python, but we will focus mainly on **arithmetic operators, comparison operators,** and **logical operators**.

Category	Operators	Example
Arithmetic Operators	Addition (+) Subtraction (-) Multiplication (*) Division (/)	5 + 5 = 10 10 - 5 = 5 2 * 2 = 4 5 / 2 = 2.5
Comparison Operators	Greater Than (>) Less Than (<) Equal To (==) Not Equal To (!=)	5 > 3 5 < 7 5 == 5 5 != 6
Logical Operators	And (and) Or (or) Not (not)	5 and 5 5 or 6 not 5



Year 9 Computing: Data Types and Variables

Data types

Data Type	Description	Example	Advantages and disadvantages
Integers		5	
Floats			
Strings			
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Lists			
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Year 9 Computing: Loops and Statements

<u>Loops</u>

A loop is a *programming construct* that allows you to repeat a block of code a specified number of times. In Python, there are three types of loops: **for loops**, **while loops**, and **nested loops**.

For loops are used to **iterate** over a sequence of items, such as a list or a range of numbers. The *syntax* for a for loop is as follows:

for <variable> in <sequence>:
 <block of code>

The variable <variable> will be assigned each item in the sequence <sequence>, one at a time. The block of code will be executed for each item in the sequence. For example, the following code will print the numbers from 1 to 10:

for i in range(1, 11):
 print(i)

While loops are used to repeat a block of code as long as a condition is true. The syntax for a while loop is as follows:

while <condition>: <block of code>

The block of code will be executed as long as the condition is true. For example, the following code will print the numbers from 1 to 10, but it will only print the numbers that are divisible by 2:

i = 1
while i <= 10:
 if i % 2 == 0:
 print(i)
 i += 1
 Nested loops are loops that are inside of other
 loops.</pre>

Statements

Statements are instructions that tell the computer what to do. They are the building blocks of Python programs. There are many different types of statements in Python, but some of the most common are:

Category	Description	Exam	ple
Assignment Statements	Assign values to variables.	Exam the va	ple: x = 5 assigns the value 5 to ariable x.
Expression Statements	Evaluate expressions and return a value.	Example: 5 + 5 evaluates the expression 5 + 5 and returns the value 10.	
Control Flow Statements	Control the flow of execution in a program.	Exam execu than !	ple: if x > 5: will only be ited if the value of x is greater 5.
Function Statements	Define functions, which are reusable blocks of code. Functions can be called from anywhere in a program.	def my_function():	
Here is an example of a simple Python program that uses some of the statements described above:		t	In this code, the if
<pre>x = 15 y = 10 if x < y: print(x, "is less than ", y) else: print(y, "is less than ", x)</pre>			less than y. Since x is greater than y, the code inside the else block is executed, which prints the following message to the screen- 10 is less than 15

Year 9 Computing: Loops and Statements

Loops		Statements		
A loop is a		Statements are		
For loops are used to				
		Category	Description	Example
for <variable> in <sequ <block code="" of=""></block></sequ </variable>	ence>:	Assignment Statements		Example: x = 5 assigns the value 5 to the variable x.
The variable <variable></variable>		Expression Statements		
<pre>for i in range(1, 11):</pre>		Control Flow Statements		
<pre>print(i)</pre>			Define functions, which are	
While loops are used to		Function Statements	reusable blocks of code. Functions can be called from anywhere in a program.	
				·
while <condition>: <block code="" of=""></block></condition>		Here is an example of a simple Python program that uses some of the statements described above:		at In this code, the if
The block of code will be executed as long as the condition is true. For example, the following code will print the numbers from 1 to 10, but it will only print the numbers that are divisible by 2:		x = 15 y = 10 x = 15 y = 10		
i = 1 while i <= 10:	This code will print the following to the screen:	<pre>if x < y: print(x, "is less than ", y) else: print(y, "is less than ", x) else the screen- 10 is less the screen- 10 is less</pre>		executed, which prints the following message to the screen- 10 is less
if i % 2 == 0: print(i) i += 1	Nested loops are			than 15

Year 9 Computing: Python Turtle

It is possible to draw using the turtle in Python. We can use loops (FOR Loops) to create intricate patterns.

A turtle will travel along a path that your algorithm defines, it will leave a pen mark behind.



The program below draws a square:

1	<pre>import turtle</pre>		
2	myTurtle - turtle Turtle()		
4	myrurcie – curcie.rurcie()	>	
5	<pre>myTurtle.forward(100)</pre>		
6	myTurtle.right(90)		
7	<pre>myTurtle.forward(100)</pre>		
8	myTurtle.right(90)		
9	<pre>myTurtle.forward(100)</pre>		
10	<pre>myTurtle.right(90)</pre>		
11	<pre>myTurtle.forward(100)</pre>		
12	<pre>myTurtle.right(90)</pre>		
13	<pre>myTurtle.home()</pre>		

Function	Description
<turtle>.back(<steps>)</steps></turtle>	Moves backward (opposite-facing direction) for number of steps.
<turtle>.begin_fill()</turtle>	Call just before drawing a shape to be filled.
<turtle>.end_fill()</turtle>	Call just after drawing the shape to be filled. You must call <turtle>.begin_fill() before drawing.</turtle>
<turtle>.fillcolor(<colour>)</colour></turtle>	Set the colour used to fill. The input argument can be a string or an RGB colour. Examples: "red", "#551A8B", (0,35,102).
<turtle>.forward(<steps>)</steps></turtle>	Moves forward (facing direction) for number of steps.
<turtle>.hideturtle()</turtle>	Makes the turtle invisible.
<turtle>.home()</turtle>	Moves to canvas origin (0, 0).
<turtle>.left(<degrees>)</degrees></turtle>	Turns anticlockwise the number of degrees.
<turtle>.pencolor(<colour>)</colour></turtle>	Set the colour of the pen. The input argument can be a string or an RGB colour. Examples: "red", "#551A8B", (0,35,102)
<turtle>.pendown()</turtle>	Puts the pen down.
<turtle>.pensize(<width>)</width></turtle>	Makes the pen the size of width (positive number).
<turtle>.penup()</turtle>	Lifts the pen.
<turtle>.reset()</turtle>	Clears the drawing canvas, sends the turtle home, and resets variables to default values.
<turtle>.right(<degrees>)</degrees></turtle>	Turns clockwise the number of degrees.
<turtle>.setheading(<degrees>)</degrees></turtle>	Sets the orientation to <degrees>.</degrees>
<turtle>.setpos(<x>, <y>)</y></x></turtle>	Positions the turtle at coordinates (<x>, <y>).</y></x>
<turtle>.showturtle()</turtle>	Makes the turtle visible.
turtle.Turtle()	Creates a new turtle with the variable name <turtle>.</turtle>

Year 9 Computing: Python Turtle

It is possible to draw using the turtle in Python. We can use loops (FOR Loops) to create intricate patterns.

A turtle will travel along a path that your algorithm defines, it will leave a pen mark behind.



The program below draws a square:



Function	Description
<turtle>.back(<steps>)</steps></turtle>	
<turtle>.begin_fill()</turtle>	
<turtle>.end_fill()</turtle>	
	Set the colour used to fill. The input argument can be a string or an RGB colour. Examples: "red", "#551A8B", (0,35,102).
	Moves forward (facing direction) for number of steps.
	Makes the turtle invisible.
<turtle>.home()</turtle>	
<turtle>.left(<degrees>)</degrees></turtle>	
<turtle>.pencolor(<colour>)</colour></turtle>	
<turtle>.pendown()</turtle>	
<turtle>.pensize(<width>)</width></turtle>	
<turtle>.penup()</turtle>	
<turtle>.reset()</turtle>	
<turtle>.right(<degrees>)</degrees></turtle>	
<turtle>.setheading(<degrees>)</degrees></turtle>	
<turtle>.setpos(<x>, <y>)</y></x></turtle>	
	Makes the turtle visible.
	Creates a new turtle with the variable name <turtle>.</turtle>
Year 9 Computing: Artificial Intelligence

What is artificial intelligence?

The ability of a computer to perform tasks that humans are capable of e.g. understanding language and learning. Currently this is only possible for specific tasks which is known as **weak artificial intelligence**.

What is machine learning?

A sub-field of artificial intelligence where computer models are programmed to **learn** from experience.

Types of A.I. that you may have heard of:

- Recommendation systems used in online stores (e.g. Amazon).
- Fraud detection in financial institutions.
- Driverless / pilotless vehicles.
- Chatbots (e.g. Chat GPT) and online customer service bots.
- Image and facial recognition in security systems.
- Medical diagnosis and healthcare systems

Classification is the process of assigning data to a class by applying labels.

A classification model is trained with **pre-labelled** data.

The model can then be used to **predict** a label for any new data.

There are different types of AI model that can be created using machine learning.

When choosing a type of model, you should consider:

- The type of data
- The problem you are trying to solve
- The need for explainability



A decision tree

Decision trees are a type of model that are created using supervised learning and can be used to classify data.

Decision trees are made up of nodes.

The top node of a decision tree is called the **root**.



Leaf nodes will usually represent a single class.

When data is evaluated using a decision tree, the leaf you end on provides the predicted label for that data. E.g. Banana

This decision tree above classifies animals.

The data set used to create a decision tree contains features.

Some features are either **True or False**, such as 'hair', 'airborne', or 'aquatic'. Other features are **numeric**, such as 'number of legs'.

Decision trees will only work with numeric or categorical data (like True/False).

They do not work with complex data like images, audio, video, or long text data.

Year 9 Computing: Artificial Intelligence

What is artificial intelligence?

What is machine learning?

Types of A.I. that you may have heard of:

A decision tree

Decision trees are

Decision trees are made up of _____

The top node of a decision tree is called the _____.



Leaf nodes will

When data is evaluated using a decision tree, the leaf you end on provides the predicted **label** for that data. E.g. Banana This decision tree above classifies animals.

The data set used to create a decision tree contains ______.

Some features are either _____, such as 'hair', 'airborne', or 'aquatic'. Other features are _____, such as 'number of legs'.

Decision trees will only work with ______.

They do not work with ______.

Classification is

A classification model is

The model can then be used to



There are different **types** of AI model that can be created using machine learning.

When choosing a type of model, you should consider:

- •
- •
- •

Year 9 Computing: Artificial Intelligence Project life Cycle

How to solve problems with machine learning:



Stage 1: Define the problem (know what you want to predict or decide)

- Define the problem.
- Consider who will benefit from the solution
- Justify why an AI solution is suitable for solving this problem

Example: creating a model to accurately classify organic and inorganic waste to support recycling centres.

Stage 2: prepare the data

- Gather the data together that will be used to train the model.
- The data should be checked for errors (clean).

Example: images of a wide variety of common organic and inorganic waste.

Stage 3: Training the model (teach the model using the data)

Before you do this, consider how much data you will use to **train** the model and how much you need to set aside to **test** the model later.

Factors to consider:

- Using too little **training data** can mean the model is likely to make less accurate predictions.
- Using too much **training data** means you have less test data to use to help understand how accurate the model's predictions are.

Stage 4: Test the Model: Check if the model can predict correctly with new data.

• Give the model new, unseen test data and check that the model is accurately classifying it.

Example: Use unseen images of organic and inorganic waste to test the model.

Stage 5: Evaluate the Model: Measure the model's accuracy and understand its mistakes.

- Accuracy: check what percentage of predictions were correct.
- Errors: look for mistakes and understand why they happened.

Stage 6: Explain the Model: Know how and why the model makes its decisions.

• Feature importance: find out which pieces of data (features) were most important in making predictions.

• Transparency: make sure you can explain the model's decisions to others. Example: Share your model with waste and recycling companies, making sure that they are aware of how accurate the model is at classifying organic and inorganic waste.

Year 9 Computing: Artificial Intelligence Project life Cycle

How to solve problems with machine learning:



Stage 1:

- •
- •
- •

Example: creating a model to accurately classify organic and inorganic waste to support recycling centres.

Stage 2:

- •
- •

Example: images of a wide variety of common organic and inorganic waste.

Stage 3:

Factors to consider:

Stage 4:

• Give the model new, unseen test data and check that the model is accurately classifying it.

Example: Use unseen images of organic and inorganic waste to test the model.

Stage 5: Evaluate the Model: Measure the model's accuracy and understand its mistakes.

Stage 6:

•

Example: Share your model with waste and recycling companies, making sure that they are aware of how accurate the model is at classifying organic and inorganic waste.

Design and Technology



Helping every person achieve things they never thought they could.

Little Lever School be kind | work hard | take responsibility

Year 9 Design and Technology

Colours

Complementary Colours

These are the ones that are directly opposite each other on the colour wheel and provide good contrast when used together.

Analogous Colours

Colours are called analogous colours when they are very similar to each other, especially when they are next to each other on a colour wheel.



Smart materials

A 'smart material' can be defined as a material whose physical properties change in response to an input e.g. making them simpler or safer to use.

Live edge acrylic sheets have a vivid fluorescent edge which 'glows' under ambient light

QTC (quantum tunnelling composite) smart materials used as the switch becomes conductive when under pressure.

Classification of Plastics (polymers)

- Thermoforming polymers
- Can be softened with the use of heat and moulded into shapes.
- Thermosetting polymers
- Once moulded into shape, cannot be remoulded with the use of heat.

Characteristics of Polymers

- Polymers are mainly made from crude oil.
- Polymers can be produced from synthetic sources.
- Most thermoforming polymers are recyclable.
- Most thermosetting polymers are not recyclable.
- Generally, polymers have good resistance to corrosion/degradation.
- Polymers can be moulded into shape relatively easily.
- Polymers are self-coloured.
- Polymers are sold as sheets, film, bar, rod and tubes.

Joining Plastics

Tapping is the process of making an internal thread in a material.

Gluing using solvent cement. Fuse the two layers of acrylic together.





Year 9 Design and Technology	Why is it important to reduce the use of single use plastic and recycle where possible?
Explain what isometric drawing is:	
Draw your initials in isometric projection:	
	Identify the tools for shaping and finishing acrylic
	1. Saw
Explain the difference between a not countersunk and a counter sunk screw below. Draw a sketch if it helps.	File 2.
	Sand 3.
	Polish 4.
	4.





Helping every person achieve things they never thought they could.



Year 9 Drama: Blood Brothers

Characters

Mickey
ohnstone

Linda

The lower-class twin. He is honest, sincere and goodhearted. He impregnates Linda, gets laid off, is arrested for Sammy's crime and ends up in prison and addicted to antidepressants. His rage at Linda & Edward for having an affair drives the play's finale.





Opposite of Mrs J whom she employs as a cleaner. She adopts Edward as her own child. IsMrs Lyonshaunted by the original act of a mother giving up her child. The guilt turns into suspicion and
paranoia. She announces the affair and contributes to the murder of her adopted son.

Begins as a tomboyish young girl but both twins fancy her from an early stage. She only has eyes for Mickey as a teenager but later turns to Edward for comfort and support, which turns into an affair. Despite this, she loves both twins and is a sympathetic character.



SammyWhen they are younger, Mickey just wants to be like Sammy. Quickly becomes a juveniledelinquent; even attempting to rob a bus as a teenager- he ends up in prison with Mickey.

Mr Lyons Married to Mrs Lyons- away so Mrs L can adopt Edward. Grows increasingly concerned about his wife's mental health and wellbeing.



Key Words	
Protagonist	the leading character or one of the major characters in a play, film, novel
Theme	An idea or subject that is repeated throughout a piece of writing or speech
Injustice	Lack of fairness
Stigmatized	Describe or regard someone or something as worthy of disgrace
Juxtaposition	Two or more contrasting ideas placed near each other.
Dramatic Irony	When the audience understands something that the characters in a play do not
Tension	A feeling of nervousness or unease before an important or difficult event
Foreshadowing	A warning or hint about a future event.
Prejudice	A preconceived opinion that is not based on reason or actual experience
Playwright	The person who writes a play
Tragedy	A genre of drama based on human suffering and, mainly, the terrible or sorrowful events that befall a main character
Vulnerable	Exposed to the possibility of being attacked or harmed, either physically or emotionally





Year 9 Drama: Blood Brothers		Key Words- what	are their definitions?
Characters	C. T.	Protagonist	
Write down 5 characteristics or facts about Mickey Johnstone :		Theme	
Write down 5 characteristics or facts about Edward Lyo ns:		Injustice	
	0	Stigmatized	
Nrite down 5 characteristics or facts about Mrs Johnstone:		Juxtaposition	
Nrite down 5 characteristics or facts about Mrs Lyons :		Dramatic Irony	
		Tension	
Write down 5 characteristics or facts about Linda:	Sec.	Foreshadowing	
Mrite down E characteristics or facts about the parrater :	1 Acod	Prejudice	
		Playwright	
Nrite down 2 characteristics or facts about Sammy :		Tragedy	
Nrite down 2 characteristics or facts about Mr Lyons :	X	Vulnerable	

Year 9 Drama: Blood Brothers

Key Terms	Definitions	
Brief Biography	Willy Russell was born in 1947 into a working-class family near Liverpool. He left school at the age of 15 without academic qualifications and became a hairdresser. By the age of 20, he felt the need to return to education and after leaving university, he became a teacher in his home city.	 "Don't yo "Y'know t "A debt is
Social	There was a large gap between working and middle class in Britain during this time. The Johnstones and Lyons families are class stereotypes. Many working class families struggled financially and to find work. There was also a class divide in education; this is shown when Mickey goes to secondary school and Edward attends a private boarding school.	 "How connothin?" "A mothen heart"
Margaret Thatcher	The first female Prime Minister in power during that time. She was responsible for lots of working-class people losing their jobs. During her time in power, unemployment rates were raised higher than ever before. She believed everyone can be successful if they work hard.	 "If either shall both "You've g
Marilyn Monroe	A famous Hollywood movie star from the 1950s who Mrs J is compared to. She is known for being glamorous, but also struggled with depression which led her to commit suicide (by painkillers).	made./ N being paid

Themes

Superstition: The audience is constantly reminded of this. The narrator asks us if superstition is to blame for boys' fate.

Class: Russell shows us the injustice of the class divide with the Johnstones and Lyons, as well as M and E. Related to education, opportunity and power.

Nature vs. Nurture: Splitting up the twins shows us how the environment can have a huge impact on life chances.

Relationship: The development and change in friendship between M, E, and Linda. The interaction between Mr and Mrs L, mother and son, and Mrs J and society.

Key Quotations

- □ "Don't you know what a dictionary is?"
- Generation of the devil's got y' number"
- "A debt is a debt and must be paid"
- "How come you got everything and I got nothin'?"
- "A mother, so cruel,/ There's a stone in place of her heart"
- "If either twin learns that he was once a pair, they shall both immediately die"
- "You've got to have an ending, if a start's been made./ No-one gets off without the price being paid"
- "I could have been him"
- "Do we blame superstition for what came to pass/ Or could it be what we, the English, have come to know as class?"
- "She's cooing and cuddling as if she were his mother. It's a, it's a thingy, innit?"
- "That's what's going to happen if I have anymore trouble from one of yours. I warned you last time"
- "It was more of a prank, really, Mr Lyons. I'd just dock his pocket mor ey if I was you"

Year 9 Drama: I	Blood Brothers	Key Quotations- fill in the missing word:
Key Terms	Definitions	"Don't you know what a is?"
List 4 facts about Willy Russell		 "Y'know the devil's got y'" "A debt is a and must be paid"
Where do we see a social class divide in the play?		 "How come you got and I got nothin'?" "A mother, so cruel,/ There's a in place of her heart"
List 4 facts about Margaret Thatcher		 "If either twin learns that he was once a, they shall both immediately die" "You've get to have an if a start's heen
List 4 facts about Marilyn Monroe		 a "Tod ve got to have all, if a start's been made./ No-one gets off without the price being paid" a "I could have been"
Themes		• "Do we blamefor what came to
Where do we see th	e theme of superstition in the play?	to know as class?"
Where do we see th	e theme of <mark>nature vs. nurture</mark> in the play?	 "She's cooing andas if she were his mother. It's a, it's a thingy, innit?" "That's what's going to happen if I have anymore trouble from one of yours. I you last time" "It was more of a, really, Mr Lyons. I'd just dock his pocket money if I was you"

Year 9 Drama: Blood Brothers	Plot	
Act 1: before birth	Act 1- 7 years old	Act 2- 14 years old
The play starts with the narrator talking about a 'story about the Johnstone twins' and two men laid dead on the stage.	Mickey and Eddie meet for the first time at the park and become 'blood brothers' when they find out they share the same birthday.	Both boys have become interested in girls but feel awkward.
We go back in time where we learn Mrs Johnstone's husband has just left her; she is very poor and already has 7 children.	When Mrs J realises the two have met, she is horrified.	Edward attends boarding school.
She starts a new job cleaning Mrs Lyons' house and finds out she's expecting twins.	Mrs L reacts more violently and slaps Edward when he swears at her. She even contemplates uprooting her entire family in order to escape.	Mickey and Linda have romantic feelings for each other but Mickey's lack of confidence is getting in the way.
She strikes up a deal with Mrs L as she can't afford to keep both so Mrs L convinces Mrs J to give her one of the babies as her husband is currently away on business and she can't have a child of her own.	Despite their mothers' disapproval, the boys continue to see each other and play with their friend, Linda. They play various pranks and end up getting caught by the police.	Mickey and Eddie both struggle at school- Mickey insults a teacher and Edward refuses to take off the locket. When Mrs L finds out, she's appalled but is more upset when she sees the content of the locket.
	Mrs L decides they should move.	Mickey and Edward meet, by circumstance again- Mickey takes Edward back to his but they are not aware that Mrs L is following
The babies are born and Mrs J begrudgingly hands one of the babies over for Mrs L to later fire the babies over for Mrs L to l	Before Edward leaves Mrs J gives him a locket with a picture of herself and Mickey. The Johnstones also find out they are being relocated.	Once the boys leave the house, Mrs L attacks Mrs J with a knife and curses her, calling her a witch.
		sequence follows as the trio age from 14 to 18.

Year 9 Drama: Blood Brothers	Plot	
Act 1: before birth	Act 1- 7 years old	Act 2- 14 years old
1. Who is first to appear on the stage?	6. Where do Mickey and Edward meet for the first time?	13. What are both boys interested in at the beginning of this act?
2. How many children does Mrs Johnstone have at the beginning of the play?	7. How does Mrs Johnstone feel when she finds out the boys have met?	14. What kind of school does Edward attend?
	8. How does Mrs Lyons react when she finds out the boys have met each other?	15. What gets in the way of Mickey and Linda's relationship?
3. What job does Mrs Johnstone begin?		
	9. Who is Mickey and Edward's friend?	16. How do both Mickey and Edward individually struggle at school?
4. What deal does Mrs Johnstone make with Mrs Lyons and why?	10. What dramatic decision does Mrs Lyons make for her family?	17. When Mickey and Edward meet again, what are they not aware of?
5. What does Mrs Lyons do to Mrs Johnstone at the end of the act?	11. What does Mrs Johnstone give Edward before he leaves?	
	12. What do the Johnstone family find out at the end of the act?	18. What does Mrs Lyons call Mrs Johnstone?19. Who do Mickey and Edward spend the summer with?

Year 9 Drama: Blood Brothers	Plot
Act 2- 18 years old	Act 2- the end
At 18 in the sequence, the narrator warns that soon, both their joy and childhood will end.	Mickey continues to take the pills despite Mrs J & Linda's pleas.
Edward has developed feelings for Linda and is at university whilst Mickey works in a factory.	Linda, desperate, asks Edward, now a city councilman, to find them an apartment and getting Mickey a job.
Edward self-sacrifices his feelings and encourages Mickey to ask Linda to be his girlfriend and she accepts.	Mickey is angry about this and a devastated Linda seeks comfort with Edward and begins an affair with him.
In October, Mickey tells his mum that Linda is pregnant and the two will be	The affair continues and Mickey stops taking his pills for Linda's sake.
getting married. Their wedding coincides with a huge economic downturn resulting in Mickey getting paid off.	Mrs Lyons reveals Linda and Edward's affair to Mickey. Enraged, he takes Sammy's gun out of the floorboards and confronts Edward, with a distraught Mrs J and Linda trying to get him to stop.
When Edward returns from Christmas, Mickey is downtrodden and claims 'blood brothers' is childish.	
Edward confesses his love to Linda but she tells him she is married and	Mickey finds and confronts Edward at the town hall about the affair, as well as whether Mickey's daughter is actually his. Edward denies fathering Mickey's child.
pregnant.	
A desperate Mickey participates in a burglary with Sammy that goes wrong resulting in Sammy killing a man.	The police surround the area and Mrs J bursts in and tells the boys they are twins separated at birth. Mickey asks why he couldn't have been Edward and then accidentally pulls the trigger of the gun, shooting and immediately killing Edward, the police then shoot Mickey.
They are both sentenced to prison and Mickey becomes depressed and is prescribed antidepressants which he becomes addicted to, even after he's been released.	The play ends with the boys led on the stage and the narrator wonders what really killed the twins: superstition or the class system?

Year 9 Drama: Blood Brothers	Plot	
Act 2- 18 years old	Act 2- the end	
20. What does the narrator warn at the beginning of the act?	28. What does Mickey do against Linda's wishes?	
21. Where does Mickey work?	29. What help does Linda ask Edward for?	
22. What does Edward encourage Mickey to do?	30. What happens next between Edward and Linda?	
23. What is happening at the same time as Mickey and Linda getting married?	31. What who tells Mickey about the new relationship and what does Mickey do when he finds out?	
24. How is Mickey feeling when Edward returns from university?		
25. What does Edward tell Linda when he returns?	32. Why does Mickey find Edward?	
26. What happens when Sammy and Mickey complete a burglary?	33. How do each of the brothers die?	
27. What happens to Mickey in prison?		Ø
	34. What is the narrator's question at the end of the play?	

Abstract Theatre	Abstract theatre is centred around the concept of representing situations and emotions, as opposed to acting them out in a realistic way.
Physical Theatre	A style of theatre where the actor uses their body as the primary tool for performance.
Spontaneous Improvisation	Improvising a scene where there has been no previous discussion or planning before acting.
Prepared Improvisation	Improvising a scene where there has been some discussion and planning before acting.
Cross-cutting	Freezing the action on one side of the stage in one location, whilst we see a snippet from another location on the other side. Cross-cutting between both scenes.
Split scene	Two scenes happening at once on stage. (Good for miming so we don't have talking over each other).
Multi-Rolling	Multi-rolling is when an actor plays more than one character onstage. The differences in character are marked by changing voice, movement, gesture and body language but the audience can clearly see that the same actor has taken on more than one role.
Split Role	This is where more than one actor plays the same character. For instance, the actor playing the main character might rotate from scene to scene. This keeps that character representational and inhibits emotional involvement and attachment on the part of the audience.
Mime	A form of drama that uses gestures, actions and facial expressions to tell the story without words.
Direct Address	Speaking directly to the audience, this breaks the fourth wall and destroys any illusion of reality.
Thought Tracking	A thought-track is when a character steps out of a scene to address the audience about how they're feeling.
Placards	Signs were held up to tell the audience the title of the scene and even what was going to happen in them, this was to take away suspense and emotion and allow the audience to think about the scene instead.
Representational Costume	The actors would simply put on one item of clothing, or an accessory such as a hat or glasses to represent that they were a particular character –they didn't try to 'become' the character.

Bertolt Brecht 1898 – 1956

Brecht was born in Augsburg, Germany. He served as a medical orderly in World War 1 and he was appalled by what he saw during the war. The turmoil at the time of the war gave Brecht a very strong political voice which carried into his work.

Bertolt Brecht is one of the most important figures in Drama history. His methods and techniques are still used today across the world. His most acclaimed piece was *Mother Courage and Her Children*.

Epic Theatre

- Brecht focused on the idea of <u>objectivity</u> (being fact based and not focused on personal beliefs or feelings) in theatre. Using this, he developed a concept of theatre that's called Epic theatre.
- Brecht used techniques that remind the audience that the play is a representation of reality and not reality itself. Brecht thought that openly showing how the play was constructed, this would communicate that the audience's reality was equally 'constructed', and as such, was changeable.





Abstract Theatre	
Physical Theatre	
Spontaneous Improvisation	
Prepared Improvisation	
Cross-cutting	
Split scene	
Multi-Rolling	
Split Role	
Mime	
Direct Address	
Thought Tracking	
Placards	
Representational Costume	

Bertolt Brecht 1898 – 1956

Brecht was born in _____, Germany. He served as a medical orderly in World War 1 and he was appalled by what he saw during the war. The ______ at the time of the war gave Brecht a very strong political ______ which ______ into his work.

Bertolt Brecht is one of the most important ______ in Drama history. His ______ and techniques are still used today across the world. His most acclaimed _____ was *Mother Courage and Her*

• Epic Theatre

- Brecht focused on the _____ of _____ (being fact based and not focused on personal beliefs or feelings) in theatre. Using this, he developed a _____ of _____ that's called _____ theatre.
- Brecht used techniques that remind the audience that the play is a representation of ______ and not reality itself. _____ thought that openly showing how the _____ was constructed, this would communicate that the audience's reality was equally '______', and as such, was changeable.





<u>Musical Theatre</u>

Musicals are usually performed in theatres, most famously on Broadway and in the West End of London. Broadway is also used as a general term to refer to American musicals.

Musicals set out to entertain through a combination of:

- o catchy music in a popular style.
- \circ solo songs, duets, choruses and ensembles.
- $\circ\,$ orchestra or band accompaniment.
- o spoken dialogue.
- \circ dance sequences, stage spectacles and magnificent costumes.

Shrek - The Synopsis

Shrek the Musical is a one-of-a-kind, hilarious fairy tale in which curses are reversed, monsters get the girls, donkeys and dragons find love, and princesses are beautiful in all shapes and sizes. Grumpy, gruff, green ogre Shrek lives alone in his swamp. The world is fearful and mocking of him, and he is more than happy to leave the world to itself, in turn. Suddenly, his hermit existence is thrown open, when a group of homeless fairy tale characters — Pinocchio, the Gingerbread Man, the Three Little Pigs, and more — burst upon his swamp, seeking refuge from the persecution of the cruel, vertically-challenged Lord Farquaad.

Shrek seeks out Farquaad, who offers him a deal: if Shrek rescues the Princess Fiona (whom Farquaad wishes to marry for her crown), then Farquaad will ensure the return of Shrek's swamp by returning the fairy tale creatures to their homes. In a desperate attempt to regain his swamp's hermetic piece, Shrek enters the world for the first time in his life. He travels to Princess Fiona's prison, rescues her from a fire-breathing dragon, and then - scariest of all - is forced to get to know the princess as he tries to bring her back to evil Farquaad.

To the determinedly unsocial ogre's dismay, Fiona is very different from what he expected a princess to be. She may even provoke Shrek's most novel experience yet: Love.

Terminology (Physical Skills)

- Gesture an action of the body i.e. pointing a finger or tilting the head.
- Mannerism a habitual movement i.e. twitching the nose, licking the lips.
- Body Language non verbal communication of the body to show emotion.
- Facial Expressions how the face conveys emotion i.e. an angry face shows furrowed eyebrows, pursed lips, squinted eyes, scrunched nose and forehead.
- **Proxemics** how the stage space is used effectively to show something (i.e. relationships between characters).
- **Gait** how a character moves i.e. the Villain took big strides across the stage on tip toes lunging with his knees.
- Energy low level or high level.
- **Posture** how a person carries themselves sitting or standing *i.e.* shoulder back, chest out, chin up, feet together.
- Eye Contact & Focus the state in which two people are aware of looking directly into one another's eyes. Or where the eyes are focused.
- Relationship how the character interacts with others on stage.



Terminology (Vocal Skills)

- Accent shows where the character is from.
- Volume How loudly or softly you speak.
- Diction informal / slang the way in which you pronounce words clearly.
- Tone how the voice conveys emotion.
- **Pitch** High or low voice.
- Pace Speed of delivering dialogue.
- Pause used for effect.
- Intonation where the pitch goes up at the end of a sentence i.e. a question.
- Timing considered carefully for effect.
- Emphasis where a word or sound is exaggerated for effect.

<u>Musical Theatre</u>

Musicals are usually ______ in theatres, most famously on Broadway and in the West End of London. ______ is also used as a general term to refer to ______ musicals. Musicals set out to entertain through a combination of:

- o catchy
- \circ solo
- o orchestra
- o spoken
- o dance

<u>Shrek - The Synopsis</u>

Can you write a brief synopsis of the story?

Terminology (Physical Skills)

- Gesture -
- Mannerism -
- Body Language -
- Facial Expressions -
- Proxemics -
- Gait -
- Energy -
- Posture -
- Eye Contact & Focus -



Terminology (Vocal Skills)

- Accent -
- Volume -
- Diction -
- Tone -
- Pitch -
- Pace -
- Pause -
- Intonation .
- Timing -
- Emphasis .

English



Helping every person achieve things they never thought they could.





Logos – Your reasons and arguments make logical sense (explained, proved and factual)
 Pathos – Provoke an emotional reaction in your audience (emotive language, exaggeration, adjectives)
 Ethos – Prove you are credible, trustworthy and you know your stuff! (use statistics , research and evidence)



that you must include three types of persuasion in your writing/speech to effectively convince an audience.



What is logos? What is pathos? What is ethos?



Year 9 English:

rear 9 Eligiisti.									Punctuation A
v	ocabulary		Def	inition			Example		
1. In	trigue	Make	someone curious and in	terested to find someth	ning out.	The opening of a narrative must intrigue the reader.			\sim
2. Tension		Where a writer builds an expectation that something frightening or dramatic is going to happen.			The horror film built tension as the characters walked through the graveyard.			17. Dashes	
3. P	owerless	Somet	thing has no power.			The flowers were powerless in the wind.			Add extra information to a sentence
4. E	quality	Fair rights and opportunities for everyone.			The rules created equality for all people.			forever - in just a matter of seconds	
5. Aspiration		An ain	n or ambition for the fut	ure.		It is my aspiration to travel the world.			
6. To	one	The at	titude or emotion behir	nd a piece of speech or v	writing.	She spoke with a sarcastic tone.			
7. R	esponsibility	Having a duty to perform a task or take care of something, because you have power and control over it.			It is everyone's responsibility to care for the environment.			Brackets ()	
8. In	ner Conflict	A char right c	racter has a mental strug or wrong.	ggle over a decision or v	what is	Dante suffered an inner conflict as he couldn't decide what to do for the best.			(extra information) to a sentence
9. Id	lentity	The pa backg	arts of your character, po round that make a perso	ersonality, interests, cul on who they are.	lture and	His family traditions were an important part of his identity.			
10. ⁻	Гһете	A subj	ect or topic that occurs	throughout a text.		The theme of family is central to the novel 'Boys Don't Cry'.		$\langle \uparrow \uparrow$	
Grammar	11. Main Clau A phrase that sense on its own has a subject and Dante loved his	makes n, as it a verb	12. Subordinate clause A phrase that doesn't make sense on its own. It adds information to the main clause. In the middle of the night,	13. <u>Parenthesis</u> Extra explanations added into sentences The novel is set in America.	Fronted An advert phrase, beginning of to suggest where hap Yesterday change	14. Adverbial used at the of the sentence how, when or something opened. ,, Dante's life ed forever.	15. <u>Prepositional</u> <u>phrase</u> A phrase that tells you when or where something is in relation to something else. <i>On, at, in next to,</i> yesterday, after, during, hafara cometimes	16. <u>Minor Sentence</u> A sentence that does not make grammatical sense on it's own (as it doesn't have both a subject and verb) but is used as a sentence Oh no!	19. Comma , Add extra information to a sentence Dante's life changed forever, in just a matter of seconds.

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Year 9 English:

							C punctuation	
	Vocabulary		Definition		Exa	ample		
1. D	efine <i>intrigue</i>				The opening of a narrative	e must intrigue the reader.	\sim	
2. D	efine <i>tension</i>				The horror film built tensi through the graveyard.	The horror film built tension as the characters walked through the graveyard.		
3. D	efine powerless				The flowers were powerle	ess in the wind.	dashes do?	
4. C	efine equality				The rules created equality	for all people.		
5. D	efine <i>aspiration</i>				It is my aspiration to trave	el the world.		
6. D	efine <i>tone</i>	She spoke with a sarcastic tone.						
7. D	efine <i>responsibility</i>				It is everyone's responsibil environment.	brackets		
8. D	efine <i>inner conflict</i>				Dante suffered an inner co what to do for the best.	Dante suffered an inner conflict as he couldn't decide what to do for the best.		
9. D	efine <i>identity</i>				His family traditions were identity.	His family traditions were an important part of his identity.		
10.	Define theme				The theme of family is cer Cry'.	ntral to the novel 'Boys Don't		
Grammar	11. What is a main clause?	12. What is a subordinate clause?	13. What is parenthesis?	14. What is a fronted adverbial?	15. What is a prepositional phrase?	16. What is a minor sentence?	do?	

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

English: Spelling Chal	lenge- Most commo	nly misspelled words	SP.	elling
1.	11.	21.	31.	41.
2.	12.	22.	32.	42.
3.	13.	23.	33.	43.
4.	14.	24.	34.	44.
5.	15.	25.	35.	45.
6.	16.	26.	36.	46.
7.	17.	27.	37.	47.
8.	18.	28.	38.	48.
9.	19.	29.	39.	49.
10.	20.	30.	40.	50.

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

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

Year 9 English: Protest poetry and Transactional Writing

Quotations are words and phrases from the text, that you put into your work to prove your ideas are accurate. Quotations should be embedded (blended) into your explanations.

You can blend patterns of quotations into your explanations to show similar or opposing ideas.

A poem's structure can symbolise deeper ideas in the say way language can. You can manipulate the structure of a poem

Stanza

<u>eadi</u>

<u>Z</u>

þ

MO

Section of a poem. The length of a stanza can represent a deeper meaning.

Enjambment

A sentence continues over one (or more) lines. Symbolising something being everlasting, continuous or out of control.

Caesura

Punctuation is used in the middle of a line to create a pause.





Comparing Poetry Answer the question

Evidence

Embed a quote, or pattern of quotes that juxtapose or reinforce each other

Analyse

Explain the inferences behind the quote in detail using as/so/ because/which

Ζ Zoom



Effect Ε

Explain what the writer's intention is/ what they are trying to teach the reader

Link to Context

Explain how these ideas link to the real world

Compare to second poem in detail Explain similar or different meanings, messages and methods

All people speak with an accent or dialect. Accent - The way we sound and pronounce words, influenced by the area/region you live in.

Dialect - The words, phrases and grammar we use, influenced by the area/region you live in.

Standard English - Thought to be 'correct' English. It is the dialect of English we are expected to write in.

	Text Forma ts	Features y	vou would find	in this text	
wieds	Letter	Date and sender's address	Dear Yours sincerely	Direct address	
	Article	Headlines	Facts and information	Hyperbole	
	Leaflet	Heading and subheadings	Bullet points	Advice and information	
	Speech	Direct address	Anecdotes	Hyperbole	
	Travel Writing	Headline	Description of places	Exaggerated opinions	



ideas include -The power of nature -Imagination

Romanticism and The Romantic Poets

-Revolution and rejection of absolute power

-The world of children

-People in poverty

Yea	Year 9 English: Protest poetry and Transactional Writing What is an accent?								
	What are quotations?								
Reading	quotations?	P Point Comparing Poetry		What is a	a dialect?				
	Why should you use patterns of quotations?	E Evidence	iting	What is S	tandard En	ndard English?			
	What can the structure of a poem be used for?	A Analyse	JW JQ	Text	Features you would find i		d find in		
j		Z Zoom		Format S		this text			
	What is a stanza?		lled	Letter					
	What is enjambment?		Mon	Article					
N	What can it symbolise?	L Link to Context		Leaflet					
	What is caesura?	C Compare to second poem in detail		Speech					
				Travel Writing					
	Romanticism and The Romantic Poets What is Romanticism? What ideas are included?								
Year 9 English: Protest poetry and Transactional Writing

V	/ocabulary		Definit	Example					
1. P	rotest	Showin	g that you disagree or dis	sapprove of something		The civilians demonstrated their views in the form of a protest			
2. A	llegory	A text v	vith a moral meaning or r	The poem is an allegory, teaching of the importance of a person's identity					
3. S Crit	ocial icism	A texts	that points out what is w	rong with society		The poem acts as a	a social criticism.		
4. Provoke To intentionally make a person react or behave in a certain way						The text is designed to provoke anger in the reader.			
5. Exploitation Where a person takes advantage over someone who is desperate						Blake exposes the exploitation that resulted from The Industrial Revolution			
6. P	erspective	The poi	int of view comments are	made from		The writer's perspective is biased			
7. P	atriarchal	Describ	es a society that is contro	olled by men		The poem criticises the patriarchal society			
8. ir	ntention	The rea	ison someone does some	thing	The writer's intention was to question the country's leadership				
9. P	romote	To enco	ourage or raise awarenes	s of something	The poem promotes tolerance				
10. Disc	crimination	Limiting belong	g the rights of people bas to e.g. age, race, gender,	ed on the category the disability etc.	y	The poem alludes women in the 180	to the discrimination of Os		
Grammar	11. Subject The 'thing' a set is about. It ca noun or prop The poem is writte person.	ct entence in be a noun. en in first	12. Verb An action or being word. A sentence must have a verb to be a complete sentence. The poet writes about fear.	13. <u>Subject-Verb</u> <u>Agreement</u> The number in the subject impacts the choice of verb that follows They are She is I am	(for, The	14. Conjunctions rds that connect two clauses and, nor, but, or, yet, so) poet feels annoyed by the bitudes <u>and</u> enthusiastic about change	15. <u>Compound</u> <u>sentence</u> Two main clauses joined by a connective. These are used to provide information quickly. The poem questions the government's policy yet they don't offer a solution		



Year 9 English: Protest poetry and Transactional Writing

v	ocabulary		Defini	tion			Example		\sim
1. Pı	rotest								Punctuatio
2. A	llegory								
3. So	ocial Criticism								
4. P	Provoke								(<u>16.</u> Colon
5. Ex	xploitation								\sim The poet draws on his own
6. Pe	erspective								experience: he was a soldier in Vietnam
7. Pa	atriarchal								
8. in	ntention								17. Colon
9. Pı	romote								The poets feeli ng are clear:
10. Disc	rimination								anger, frustration and resentment.
mar	11. Subjec	<u>:t</u>	12. <u>Verb</u>	13. <u>Subject-Verb</u> <u>Agreement</u>	<u>Co</u>	14. njunctions	15. <u>Compound</u> <u>sentence</u>		(18.; Semi Colon
Gramn	<u>The poem</u> is writte person.	en in first	The poet <u>writes</u> about fear.	They are She is	The poet attitua	t feels annoyed by the les <u>and</u> enthusiastic about change	The poem questions th government's policy yet don't offer a solution	ne they	The poem contains violent imagery; it is designed to shock the reader

I am..

Year 9 English: Othello and Descriptive Writing



Othello is an **allegory**. This is a text with a moral message or lesson.

A **protagonist** is the central character that the audience follows throughout a story, (often a hero)

An antagonist is a character that opposes or challenges the protagonist (often a villain)

Aside

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MOUN

Where the character speaks their mind. The characters cannot hear what is said, but the audience can.

Dramatic Irony

The audience know something the characters don't know.

Soliloguy

A long speech where the character speaks their mind to the audience, without the other character's knowing.

Writing about Literature





Evidence



Analyse

Explain the inferences behind the quote in detail using as/so/ because/which

Ζ Zoom

Explain the connotations of a powerful word or technique has and the effect of this

Effect

Ε

Explain what the writer's intention is/ what they are trying to teach the reader

Link to Context

Explain how these ideas link to the real world

Rules for Descriptive Writing

RULE 1: Show DON'T tell

Rather than telling the reader what is happening or how a character is feeling, show them by describing movement, atmosphere, sounds etc.

RULE 2: Nothing much should happen

You are describing a scene, not telling a story. Therefore, nothing should happen (imagine describing a paused scene in a film)

RULE 3: Stick to the same tense

Proof-read your work to make sure you don't move from past to present tense (without meaning to)

RULE 4: Vocabulary is more important than spelling

Interesting words and phrases are more effective that accurately spelt, boring words!

	3 ways to make a metaphor							
NN	Give an emotion a colour	Bring an object to life	Give the weather an emotion					

In all Shakespeare's tragedies, the main character is a

TRAGIC HERO.





1. Respected and admired at the beginning 2. Has a fatal flaw (hamartia) that leads to his downfall

3. Be both good and evil

Writting

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4. Die at the end of the play



Year 9 English: Othello and Descriptive Writing



Year 9 English:

Vo	cabulary	Definition			Exa	ample	
1. Tra	gedy	A genre of play, involving a downfall of a character and disastrous events F			Shakespeare's traged Hamlet and Othello.	dies include Macbeth,	
2. Dec	ception	The action	n of lying or hiding the tru	th from someone	lago's deception con downfall	tributes to Othello's	
3. Con	nflict	An argum ideas	ent, disagreement or clas	h between people or	Othello's inner confic esteem and confiden	lence (between low self- ce) leads to his downfall	
4. All	usion	A referent that the a	ce to a person, event or p udience would recognise	lace outside of the text,	Shakespeare includes Greek Mythology thr	Shakespeare includes many allusions to Greek Mythology throughout the play	
5. Patriarchy		A society where men hold the power and women are excluded from powerful positions			Jacobean England wo	as a patriarchy	
6. Pre	judice	Having opinions on people that are not based on facts			Othello faces prejudice as a black army general		
7. Hut	oris	Too much pride and arrogance			The play warns agair hubris	The play warns against the dangers of hubris	
8. Env	'Y	Jealously, wanting what other people have			lago is a symbol of el	lago is a symbol of envy	
9. Hor	nour	Being respectful and knowing what is morally right			lago has no honour	lago has no honour	
10. Ju	stice	Where people get that they deserve – both good and bad			In tragedies, justice i good often suffer and	s rarely served as the d the evil often triumph	
Grammar	11. Adver Give m informatic how or w action in a takes p Yesterday, alw slowly, fully, delightfully, n	nore on about when an sentence place. ays, usually, certainly, next month	12. Fronted Adverbial Give more information about how or when an action in a sentence takes place, at the beginning of the sentence. Yesterday, Respectfully,	13. Prepositional Phrases Phrases that tell you when or where something is in relation to something else Later that day Under the table	14. Definite Article Introduces a specific noun The Indefinite Article Introduces a noun that is not specific An/An	15. <u>Pronoun</u> A word used in place of a noun First person – includes yourself (me, I, we, our, my) Second person – the person you are addressing (you, your) Third person – Referring to people that are not present (he, she, they, them, her, him)	

Year 9 English:

Voo	abulary		Definitior	1	Exa	ample	\sim
1. Tra	gedy						Punctuation
2. Dec	eption						
3. Con	flict						Commas
4. Allu	usion						
5. Pati	riarchy						
6. Prej	judice						(18) Brackets
7. Hub	oris						
8. Env	У						
9. Hon	our						
10. Jus	stice						
mmar	11. Adver	<u>bial</u>	12. <u>Fronted</u> <u>Adverbial</u>	13. <u>Prepositional</u> <u>Phrases</u>	14. <u>Definite Article</u>	15. <u>Pronoun</u>	19. – Dashes
Gra					Indefinite Article		

Geography

Helping every person achieve things they never thought they could.



Yea	ar 9 Geography	13. Explain the formation		
		mountains.		
1	What is adaptation?	•The Indian-Australian plate moved towards the Eurasian plate		
2	What is altitude?	The height of an object or point in relation to sea level or ground level.	due to convection currents in the mantle.	
3	What is climate change?	A long-term, large-scale change in the planet's average temperatures and weather patterns	•The plates smashed into each other.	
4	What is a coral reef?	•The land crumples and mountains starts to form.		
5	What are fold mountains? Where two or more of Earth's tectonic plates are pushed together		• This continues to happen and the mountain grows.	
6	What is mitigation?	To reduce or prevent the effects of something from happening.	 Mount Everest continues to grow today 	
7	What are plate tectonics?	The Earth's crust and upper part of the mantle are broken into large pieces called tectonic plates. These are constantly moving at a few centimetres each year and are known as plate tectonics.		
8	What is a Sherpa?	A member of a Tibetan people living on the high southern slopes of the Himalayas in eastern Nepal and known for providing support for foreign trekkers and mountain climbers.		
9	What is a storm surge?	A storm surge is a change in sea level that is caused by a storm. They can lead to extensive flooding and are dangerous for people living in many coastal areas.	Connection of State	
10	What is tourism?	Tourism is when people travel away from home for pleasure.		
11	What is a tsunami?	A series of extremely long waves caused by a large and sudden displacement of the ocean, usually the result of an earthquake below or near the ocean floor.	81	
12What do we mean by vulnerable?A vulnerable landscape is an area which is at risk from natural or hum be permanent or temporary but will have a negative effect on the en- people.		A vulnerable landscape is an area which is at risk from natural or human damage. It could be permanent or temporary but will have a negative effect on the environment and its people.		

Yea	ar 9 Geography:	13. Explain the formation	
		mountains.	
1	What is adaptation?		
2	What is altitude?		
3	What is climate change?		
4	What is a coral reef?		
5	What are fold mountains?		
6	What is mitigation?		
7	What are plate tectonics?		
8	What is a Sherpa?		
9	What is a storm surge?		
10	What is tourism?		
11	What is a tsunami?		82
12	What do we mean by vulnerable?		Bar at

Year 9 Geography: Vulnerable Landscapes

How does tourism impact the Himalayas?

What is a social impact of tourism

on the Himalayas and the people

What is an environmental impact of

tourism on the Himalayas and the

who live there?

14

15

16

There have now been traffic jams of people on Mount Everest
trying to reach the summit.

What is an economic impact of
tourism on the Himalayas and the
people who live there?Tourism is a major source of income for many of the locals.

Pollution has increased as people leave unwanted items along the mountain range.

The location of the Maldives

19. What four strategies are proposed by the Maldives and UNESCO to protect the islands?

- 1. Build sea walls around the most populated islands.
- 2. Build artificial (man-made) islands that are higher than the current natural islands.
- 3. Preserve mangrove forests and coral reefs.
- 4. Build more hotels to increase tourism to earn extra money to build man-made islands.

The location of the Maldives

people who live there?

Describe the location of the Maldives



The Maldives are located in the Indian Ocean in southern Asia. India is to the north of the Maldives and Somalia is to the west. The Maldives are located just above the equator.



Why are the Maldives vulnerable?

18	What makes the Maldives a vulnerable landscape?	•	The Maldives are 1600 km from the nearest country - India. Due to the Maldives location in the Indian Ocean, there is little protection from major storms.
		•	The Maldives are very low lying islands that are expected to be submerged in the future.



Year 9 Geography: Globalisation

Key Vocabulary

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		Key Vocabulary				
1	1 What is air freight? The carriage of goods by air.					
2	What is containerisation?	A system of transportation to carry goods around the world in containers.				
3	What do we mean by de-industrialised?	The reduction of manufacturing within an economy.				
4	4 What is digital workplace? The digital workplace is a work environment which will be dominated by new communications techn It means workers will collaborate over the internet from many places around the world and some provide the internet from many places around the world and some places around the wo					
5	What is a franchise?A type of agreement that entails reproducing a successful business model across multiple locations.					
6	What is globalisation?	The increasing connections between places and people across the planet, established through trade, politics and cultural exchanges, and helped by technology and transport				
7	What do we mean by industrialised?	The transformation of economies to those that are dominated by manufacturing and services.				
8	What is Panamax?	The maximum ship size that can transit the Panama Canal.				
9	What is post-Panamax?	Ships larger than Panamax that do not fit in the original canal locks.				
10	What is a production base?	The total national industrial production capacity available for the manufacture of items to meet materiel requirements.				
11	What is a transnational corporation?	A company that is controlled from its home country but has large operations in many different countries 35				
12	What is world trade?	The purchase and sale of goods and services by companies in different countries				

Year 9 Geography: Globalisation in atte **Key Vocabulary** What is air freight? 1 2 What is containerisation? 3 What do we mean by de-industrialised? What is digital workplace? 4 What is a franchise? 5 What is globalisation? 6 What do we mean by industrialised? 7 8 What is panamax? What is post-panamax? 9 10 What is a production base? 11 What is a transnational corporation? What is world trade? 12

					la l
Yea	r 9 Geogra	aphy: Globalisation	Lose	ers of Globalisatio	n fil
Introduction to Globalisation					 Workers who are able to move to higher income countries.
13	What are the advantages of	 Life expectancy in many developing countries has risen to over 70 years old. Since 1990, the population of developing countries living in extreme poverty has halved to 21% 	16	Who are the winners of globalisation?	 Multinationals who gain from tax avoidance and outsourcing cheaper labour. Educated skilled workers who have power to gain higher wages. Families who receive remittance money from relative working in global industries e.g. shipping crews.
	globalisation ?	 We have seen the fastest reduction in poverty in human history, this coincides with rising levels of global trade and investment. 			 Land-locked countries unable to develop exporting industries. Countries who suffer from a 'brain drain' as skilled workers
What are the disadvantages of globalisation?	 1. 1.4 billion people still live in poverty, both in rural areas and slums of cities. 2. Polluting industries have moved from Europe and North America to Asia and Africa. 		Who are the losers of globalisation?	 move abroad and leave e.g. scientists, doctors, teachers. Manufacturing detector in high labour cost countries. Structural unemployment amongst former manual workers due to lack of training in tertiary jobs. 	
	-	and Africa endure hard working conditions for low pay.		bad are bananas	?
	ase studies			What do we mean by a carbon footprint?	The amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organisation, or community This is measured in CO2e or Carbon Dioxide equivalents
		Global demand for cotton means that the		TNC Case studies	
15	How does cotton production have a negative impact on the Aral Sea?	volumes of water. They have been draining the sea for 50 years and it is now around 1/5th of its original size. The fertilisers and pesticides which have washed from the farms have crystalised with the salts of the former sea creating a toxic poisoning dust which blows into the towns and villages causing lung diseases	19	What are the positives of a digital workplace?	 Lower operating costs as you need to pay for less offices, meals, hotel stays, flights etc. Increased collaboration from around the world bringing more experts together. More profits into your business meaning more tax income for governments. Better for the environment as less travel is reducing air/noise/water pollution.

					1 VA
Yea	r 9 Geogra	aphy: Globalisation	Loser	s of Globalisatio	
Intro	duction to Glob	palisation			
13	What are the advantages of globalisation?		16	Who are the winners of globalisation?	
14	What are the disadvantages of globalisation?		17	Who are the losers of globalisation?	
			How bad are bananas?		?
			18	What do we mean by a carbon	
TNC C	ase studies			footprint?	
			T	NC Case studies	
15	How does cotton production have a negative impact on the Aral Sea?		19	What are the positives of a digital workplace?	

Vear 9 Geography: Natural Hazards

hazard'?

1

IEc	ar 9 Geograpi	iy. Natural Hazarus											
	Key	/ Vocabulary	_	Plat	te Margins:				Pla	ate Tect	onics Theory:		
1	What is a volcano?	A vent at the surface of the earth, through which magma and other volcanic			Describe the plate movement at the following plate	• C pla pas	Conservative: tes move st each other	13	3	Name the earth	e four layers of the	Inne mar	er core, outer core, ntle and crust
		materials are ejected			margins: • Conservative • Destructive: • Constructive:	 Destructive: plates move towards each other and one is subducted Constructive: plates move 		14	4	What are called?	e the pieces of crust	Crus tect	st pieces are called onic plates
2	Define 'Immediate responses'	The reaction of people as the disaster happens and in the immediate aftermath	1	2				1:	Where do 15 happen?		o convection currents	Con mag circi	vection currents cause 3ma to move in ular movements
3	Define 'Long- term responses'	Later reactions that occur in the weeks, months and years after the event				aw oth	ay from each her	16	5	What do cause?	convection currents	Con tect mov	vection currents cause onic plates to ve
						-				Types o	f volcanoes		
	Define (Monitoring)	Recording physical changes to		VOIO	Describe the location of	ong of	za Tonga is in the	<u>, </u>		Des	scribe the characteristics of sh	ield vo	olcanoes and composite
4	Womtoring	natural hazard might strike			Tonga Southern hemisphere. It i			is			Lave flows		Lava flows Cinders
5	Define 'Planning'	Actions taken to respond to, and recover from, natural disasters		17	located in the Australian continent in the		e			Shield volcano Composite volcano			
6	Define 'Prediction'	Attempts to forecast when and where a natural hazard will strike	<u>-</u>			southern part the Pacific Ocean. It is		of		18 Shi	eld Volcano Very little explosive activity	- Co 	Omposite Volcano Violent eruptions Steep sides
7	What is a 'Primary effects'?	The initial impact of a natural event on people and property					and north of New Zealand.	alia		•	 Gentle, sloping sides Lava travels long distances before it cools 		 Sticky lava which doesn't travel far Alternate layers of ash and lava, also known as
	Define	Actions taken before a hazard											stratovolcanoes
8	'Protection'	strikes to reduce its impact								Living	g with risk:		
	What is a	The after-effects that occur as	_	Ma	nagement of Tect	onio	: Hazards:		_		What kind of energy car	ו be	Geothermal
9	'Secondary effect'?	indirect impacts of a natural event	:	19	How do people plan fo tectonic hazards?	or	Hazard maps show areas at risk			22	generated by volcanoes?	?	energy to power homes
1	What is 'Subduction'?	A process occurring at destructive plate margins where a heavier	:	20	How do people predic tectonic hazards?	t	Measuring sulfur f volcano Seismometers mea vibrations	rom asure		23	What might attract tour to risky areas?	ists	and industry Dramatic scenery attracts tourists
		continental plate		21	How can buildings be protected from tecton	ic	Earth embankmen divert lava	its			How is volcanic ash usef	ul?	Lava and ash
1	'Tectonic	movement of tectonic plates	21		hazards?		Earthquake resista buildings			34			valuable nutrients

for soil

Year 9 Geography: Natural Hazards

	Кеу	v Vocabulary	Pla	ate Margins:		F	late Tect	onics Theory:	
1	What is a volcano?			movement at the following plate margins:		13	Name th earth	e four layers of the	
				Conservative	onservative estructive: onstructive:	14	called?	the pieces of clust	
2	Define 'Immediate responses'		12	 Destructive: Constructive: 		15	Where d happen?	o convection currents	
3	Define 'Long- term responses'					16	What do cause?	convection currents	
			Vo	lcano case study: To	onga	1	Types o	f volcanoes	
4	Define 'Monitoring'			Describe the location of Tonga			Des vol	cribe the characteristics of sh canoes	ield volcanoes and composite
5	Define 'Planning'							Shield volcano	Composite volcano
6	Define 'Prediction'		17	17		18 Shi	eld Volcano	Composite Volcano	
7	What is a 'Primary effects'?								
	Define								
0	Protection						Living	with risk:	
9	What is a 'Secondary		19	How do people plan for	nic Hazards:		22	What kind of energy can generated by volcanoes	be
	effect'?			How do people predict					
1	What is 'Subduction'?		20	tectonic hazards?			23	What might attract touri to risky areas?	sts
1	What is a 'Tectonic		21	How can buildings be protected from tectonic hazards?			34	How is volcanic ash usef	ul?
1	hazard'?								

Year 9 Geography: Geopolitics

	Key Vocabulary					
1	What is Development?	The progress of a country as it becomes more economically and technologically advanced				
2	What is 'International trade'?	Trade between different countries				
3	What is 'Migration'?	Migration is the movement from one place to another				
4	What are natural resources?	Materials from the Earth that are used to support life and meet people's needs				
5	Define 'rural environments'	Rural environments refer to the countryside				
6	Define 'urban environments'	Urban environments refer to towns and cities				
7	What are push factors?	Something that pushes you away from a place or country				
8	What are pull factors?	Something which pulls you towards a place or country				
9	What do we mean by 'border control'?	Actions taken by a country or a group of countries to monitor the borders and regulate the cross- border movements of people, goods and animals				
10	What are refugees?	People who must leave their home area for their own safety or survival				
11	What do we mean by 'geopolitics'?	Politics that are influenced by geographical factors.				

Prisoners of geography:

The Russian conflict:

Why is geopolitical power uneven?	 Advanced countries have the wealth and strong state apparatus to control international trade and migration. Organisations such the EU have greater power. Emerging and developing countries are becoming increasingly powerful. Low income developing countries have less money, access and control and so have little power. TNCs (transnational cooperation) are increasingly important. 	13	Name one geographical reason for the conflict between Russia and Ukraine	One specific geographical reason that may have played a role in Russia's invasion of Ukraine is the Crimean Peninsula. Crimea is a strategically important region as it provides Russia with a warm-water port in the Black Sea and access to important oil and gas pipelines that run through Ukraine.
--	--	----	--	---

Build that wall:

12

Name 3 push factors and 3 pull factors causing Syrians' to migrate to Europe				
 Push Factors Civil war Unemployment due to civil war Lack of food due to civil war 	 Pull Factors Safe and secure shelter A reliable source of food Availability of public services such as education and healthcare 			

Russia:

14

Russia is probably richer in natural What resources than any other country natural in the world. It has abundant resources supplies of oil, natural gas, timber does and valuable minerals, such as Russia copper, diamonds, lead, zinc, 15 have? bauxite, nickel, tin, mercury, gold located in Siberia and the Far East. The value of Russia's resources is huge.

Global superpowers:

16	What is a geographical superpower?	A superpower is a state with a dominant position characterized by its extensive ability to exert influence or project power on a global scale . This is done through the combined means of economic, military, technological and cultural strength as well as political and soft power influence.
17	When was the word 'superpower' first used?	The word superpower was first used after the second world war to refer to the USA, the British Empire and the USSR.

Year 9 Geography: Geopolitics

Key Vocabulary				
1	What is Development?			
2	What is 'International trade'?			
3	What is 'Migration'?			
4	What are natural resources?			
5	Define 'rural environments'			
6	Define 'urban environments'			
7	What are push factors?			
8	What are pull factors?			
9	What do we mean by 'border control'?			
10	What are refugees?			
11	What do we mean by 'geopolitics'?			

Prisoners of geography:

The Russian conflict:

Why is geopolitical power uneven?	Name one geographical reason for the conflict between Russia and Ukraine	
--	--	--

Build that wall:

	Name 3 pus Syrians' to i	h factors a nigrate to	nd 3 pull factors causing Europe	
14	<u>Push Fa</u>	<u>ctors</u>	<u>Pull Factors</u>	
Rus	sia:			
15	What natural resources does Russia have?			

Global superpowers:

16	What is a geographical superpower?	
17	When was the word 'superpower' first used?	

Year 9 Geography: Rocks & Soil

Key Vocabulary

	-	
1	What is a 'fossil'?	The remains or impression of a prehistoric plant or animal embedded in rock and preserved in petrified form
2	What is a Palaeontolo gist?	Someone who studies ancient life such as dinosaurs, plants, microbes or fungi.
3	, What is erosion?	The gradual destruction or diminution of something.
4	What is a Rock?	The solid mineral material forming part of the surface of the earth
5	What does permeable mean?	Allowing liquids or gases to pass through it.
6	What does impermeabl e mean?	Not allowing liquids or gases to pass through.
7	What does rock hardness mean?	How strong a rock is and the force required to damage it.
8	What is rock durability?	How resistant a rock is to weathering.
9	What is rock density?	How tightly packed the molecules making up a rock are.
10	What is soil?	The upper layer of earth in which plants grow.
11	What is desertificati on?	the process by which fertile land becomes desert

Types of Rocks: 12 Type of Rock Formation, Properties & Examples Sedimentary -Formed by layers of sediment which settle and settle

Fos

fc in

13

hy are Fossils allow us to infer how ssils a creature evolved, how it portant? lived and what it looked like.				
ils.				
Metamorphi c		-Formed by pressure and heat causing chemical changes.-Highly resistant to erosion.-Marble		
Igneous		-Formed by magma cooling down. -Hard and often include crystals. -Obsidian		
Sedimentary		-Formed by layers of sediment which settle and are compacted. -Weak and easy to break -Sandstone or Limestone		

Why do not Fossils require certain conditions for a long time and all creatures with hard parts like creatures leave shells or skeletons have a fossils? higher chance. What are Not all fossils are complete and many animals don't leave the limitations them. And no-one can say for of fossils? certain how an animal lived if no-one ever saw it.

Mary Anning & Palaeontology:

4	Fossil Type	:	What is it?
	Trace Foss	il: V	A fossil of a footprint, trail, burrow, or other trace of an animal rather than of the animal itself.
	Body Fossi		The remains of the body parts of an ancient animal, plant, or other life form, usually of hard parts such as bones, teeth, shells, or wood
	Chemical Fossil:	ſ	Any of various organic compounds found in ancient geological strata that appear to be biological in origin and are assumed to indicate that life existed when the rocks were formed
5	Who was Mary Anning?	Ma wh dis wo she	ary Anning was a palaeontologist to made ground-breaking fossil coveries but because she was a sman she never received the credit e deserved.
.6		Wł	nat are the main components of soil?
		Ai 25	ir Water % 25% Organic
			Mineral 47%

Year 9 Geography: Rocks & Soil

	Key Vocabulary		
1	What is a 'fossil'?		
2	What is a Palaeontolo gist?		
3	, What is erosion?		
4	What is a Rock?		
5	What does permeable mean?		
6	What does impermeabl e mean?		
7	What does rock hardness mean?		
8	What is rock durability?		
9	What is rock density?		
10	What is soil?		
11	What is desertificati on?		

Ty	Types of Rocks:				14	Fossil Ty	
12	2	Type of Ro	ck	Formation, Properties & Examples			Trace Fo
		Sedimenta	ry				
							Body Fo
		Igneous					
							Chemica Fossil:
		Metamorp	hic		ŀ		
5	059	sile•				15	Who was Mary Anning?
3	W fc in	/hy are ossils nportant?	Foss a cro live	sils allow us to infer how eature evolved, how it d and what it looked like.		16	
	W al cr le fc	/hy do not l reatures rave ossils?					
	W th lin of	/hat are ne mitations f fossils?					

Mary Anning & Palaeontology:

14	Fossil Type	e: What is it?
	Trace Foss	il: •
	Body Fossi	
	Chemical Fossil:	
15	Who was Mary Anning?	
16		What are the main components of soil?

Year 9 Geography: GIS

Key Vocabulary

	· · · · · · · · · · · · · · · · · · ·	
1	What is a map?	A two-dimensional drawing of an area. Maps can show the countryside, a town, a country or even the whole world.
2	What is GIS?	a system that creates, manages, analyses, and maps all types of data
3	What is a land use map?	A map showing what land is being used for using different colours.
4	What is a political map?	A map that shows the borders of nations/regions, major cities and capitals.
5	What is a cartogram?	A map that alters the size of an area to match the data shown. Used to visualise data.
6	What is a Choropleth map?	A map that shades or colours areas based on data and show how this data changes from place to place without distorting the shape
7	What is a relief map?	Maps that show the physical or natural landscape features of the Earth.



13	Why do we use GIS?	Land management Logistics management Tracking Town planning Identifying sites for construction Mapping crime Locating and targeting customers Resource management.	
	What are the advantages a	and disadvantages of GIS technology?	
14	Advantages GIS allows geographical to be clearly displayed. It allows you to handle a amount of data. It allows you to use a wir range of data. It allows you to use a wir range of data. It makes planning more efficient and effective.	Disadvantages data GIS software is very expens GIS is complex and hard to a vast GIS requires a lot of data to effective. ide It cannot use all types of da such as qualitative data.	ive. use be ta

Future of GIS:

16	Who uses GIS?	 GIS is used by every industry: Police use GIS to map crime patterns and behaviour. Businesses use GIS to track the market and identify sites. Governments use GIS to identify areas for development & to show census data.
17	Why is GIS becoming more important?	There is now much more data being collected and capacity to share and store more. Much of this data is geographical such as the data from smart cars.

What is GIS:

12	What does GIS stand for and what is a GIS map made of?

Why do To track an

Why do	To track and understand animal
we map	movements and behaviour
flora and	
fauna?	To protect people from possibly
	dangerous wildlife.
	To protect endangered species.
	To see the effects of climate
	change on the natural
	environment and animals.
	To determine if an area can be used for development.

Year 9 Geography: G	ilS
---------------------	-----

	Key Vocabulary		
1	What is a map?		
2	What is GIS?		
3	What is a land use map?		
4	What is a political map?		
5	What is a cartogram?		
6	What is a Choropleth map?		
7	What is a relief map?		



13	Why do we use GIS?	

What are the advantages and disadvantages of GIS technology?

Disadvantages

Advantages

14

Future of GIS:

16	Who uses GIS?	
17	Why is GIS becoming more important?	

Mapping Nature:

15	Why do we map flora and fauna?	

What is GIS:

What does GIS stand for and what is a GIS map	
made of?	
	What does GIS stand for and what is a GIS map made of?





Helping every person achieve things they never thought they could.



Торіс	Que	stion	Answer	
	1	Which COUNTRIES are referred to as 'the big three?'	USA, Great Britain and USSR	
World War I	2	How did Hitler kill himself?	Hitler took poison capsules and shot himself.	
	3	Which LEADERS were in charge of the Big Three when Germany surrendered?	Roosevelt, Churchill, Stalin	
nd of	4	Why did USA begin to distrust the USSR?	USA thought USSR was spreading Communism in Europe	
E	5	Why did USSR begin to distrust USA?	They wondered why America had kept the atom bomb a secret from them.	
Var	6	What was the Cold War?	A rivalry between USA and USSR from 1945- 1990	
v blo	7	What is Capitalism?	A system where goods and property are owned privately.	
o to C	8	What is Communism?	A system where goods and property are owned by the state.	
Intro	9	What is a superpower?	A very powerful and influential country e.g. USA or USSR	
	10	What is an arms race?	Where countries compete to build up weapons.	
and Propagand	11	How many times have atom bombs been used in war?	Twice - USA attacked Hiroshima and Nagasaki in 1945	
	ი ¹²	What does M.A.D. stand for?	Mutually Assured Destruction	
	13	What is an ICBM?	A missile that can be fired from ground rather than dropped from a plane.	

Торіс	Ques	stion	Answer	A TOMB
nd of World War I	1	Which COUNTRIES are referred to as 'the big three?'		MOL
	2	How did Hitler kill himself?		
	3	Which LEADERS were in charge of the Big Three when Germany surrendered?		
	4	Why did USA begin to distrust the USSR?		
Ē	5	Why did USSR begin to distrust USA?		
ar	6	What was the Cold War?		
N Plo	7	What is Capitalism?		
o to C	8	What is Communism?		
Intro	9	What is a superpower?		
	10	What is an arms race?		
Arms Race and Propagand	11	How many times have atom bombs been used in war?		
	ი ¹²	What does M.A.D. stand for?		
	13	What is an ICBM?		

Year 9 History:	Торіс	Question		Question Answer		Answer
	d airlift	14	How were Germany and Berlin controlled after World War II	They were divided in to 4 zones each. (American, British, French and Soviet).		
		15	Who succeeded Roosevelt in becoming America President?	Harry S Truman		
	ckade an	16	Why did Stalin blockade Berlin?	He felt threatened by USA, Britain and France joining their zones.		
	erlin Blo	17	What did Stalin hope to accomplish by blockading Berlin?	Stalin hoped the allies would give him complete control of Berlin.		
	Ď	18	What did the blockade end?	The allies airlifted supplies into Berlin and Stalin did not want to start a war		
	Berlin Wall	19	Which 3 countries had joined their zones in Germany?	USA, Great Britain and France		
		20	Why was West Berlin more prosperous than the East?	America had invested lots of money in it.		
		21	Why did USSR SAY it built the Berlin Wall?	To stop Western agents entering the East		
		22	Why did USSR really build the Berlin Wall?	To stop Eastern citizens from leaving		

Year 9 History:	Торіс	Question		Answer
		14	How were Germany and Berlin controlled after World War II	
	erlin Blockade and airlift	15	Who succeeded Roosevelt in becoming America President?	
		16	Why did Stalin blockade Berlin?	
		17	What did Stalin hope to accomplish by blockading Berlin?	
	ă	18	What did the blockade end?	
	Berlin Wall	19	Which 3 countries had joined their zones in Germany?	
		20	Why was West Berlin more prosperous than the East?	
		21	Why did USSR SAY it built the Berlin Wall?	
and and and an order the first and the first		22	Why did USSR really build the Berlin Wall?	

			11	Your Piece o
Торіс	Que	stion	Answer	151014
	23	What is domino theory?	If one country was allowed to fall to communism, then c could quickly spread to neighbouring countries	ommunism
Korean War	24	Who supported North Korea's invasion of the South?	China and USSR	
	25	Who joined the war to help South Korea?	United Nations (mostly USA)	
	26	How did the Korean War end?	With Korea divided into tow countries.	
	27	What is the line that separates North and South Korea	38th Parallel	
S	28	Why was USA threatened by the island of Cuba?	Cuba had turned Communist under Fidel Castro	
e Crisi	29	Why did Cuba feel threatened by USA?	USA had unsuccessfully tried to overthrow the Communi with the Bay of Pigs fiasco.	ist regime
Missil	30	What started the Cuban Missile Crisis?	USA spy planes spotted nuclear missile sites in Cuba	
Cuban	31	What made the Cuban Missile Crisis worse?	Soviet ships were spotted carrying nuclear missiles to Cu	ıba.
	32	How did the crisis end?	USA placed a 'quarantine' around Cuba, whilst talking to	USSR in private

Торіс	Ques	stion	Answer	History
	23	What is domino theory?		
Korean War	24	Who supported North Korea's invasion of the South?		
	25	Who joined the war to help South Korea?		
	26	How did the Korean War end?		
	27	What is the line that separates North and South Korea		
10	28	Why was USA threatened by the island of Cuba?		
Crisis	29	Why did Cuba feel threatened by USA?		
Aissile	30	What started the Cuban Missile Crisis?		
Cuban N	31	What made the Cuban Missile Crisis worse?		
0	32	How did the crisis end?		

Торіс	Question		Answer
Vietnam War	33	Why did USA become involved in the Vietnam War?	To prevent the spread of Communism. (Domino Theory)
	34	Which incident led to USA sending troops to Vietnam	An American warship patrolling the North Vietnamese coast was allegedly fired on by Communist troops. (The Gulf of Tonkin Incident).
	35	Who did the USA fight in Vietnam?	The Viet Cong (Communist guerrillas)
	36	Who type of tactics did Viet Cong use?	Guerrilla tactics - ambush, traps, tunnels, snipers, hit and run.
	37	Why was the Vietnam war unpopular back in the USA	Many saw negative reports on TV, which led to anti war movements and protests.
	38	Who was appointed USSR's youngest ever leader in 1985?	Mikhail Gorbachev
d War	39	What problems did USSR face in the 1980s?	Low standard of living, no freedom of speech, high cost of war and defence, environmental and health problems.
he Col	40	What was Glasnost?	Free speech, more openness and free elections in Russia.
nd of th	41	Why is Gorbachev seen as a hero in the USA?	He is seen as ending the Cold War
Ш	42	Why was Gorbachev seen as a failure in Russia?	Rising prices, falling wages, unemployment, crime and black markets appeared. The USSR also fell apart 10

Histor	·y:
Ques	tion
33	Why did USA become involved in the Vietnam War?
34	Which incident led to USA sending troops to Vietnam
35	Who did the USA fight in Vietnam?
36	Who type of tactics did Viet Cong use?
37	Why was the Vietnam war unpopular back in the USA
38	Who was appointed USSR's youngest ever
39	What problems did USSR face in the 1980s?
40	What was Glasnost?
41	Why is Gorbachev seen as a hero in the USA?
	Histor Ques 33 (1) 34 35 36 37 38 39 40 41

Why was Gorbachev seen as a failure in Russia?

Year 9 History:			
Question	Answer	Question	Answer
What does franchise mean?	The right to vote in public elections	What does abolitionist mean?	A person who favours the abolition (ending) of a movement or practice.
Why were people unhappy with the voting system?	Only land owning men could vote. Working class people felt their needs were not being met.	What do the Suffragettes want?	For women to have the right to vote.
What does secret ballot mean?	When voting is down in secret, people do not know who you are voting for	Who was the leader of the Suffragette movement?	Emily Pankhurst
Which radical have a speech at Peterloo, Manchester	Henry Hunt	What does strike mean?	A refusal to work as a form of protest.
What is the Peterloo massacre?	At a peaceful protest, the militia killed 15 people and wounded 600	When was the General strike in Britain?	1926
Who are the Chartists?	Working class men campaigning for the right to vote	Who was the leader of the British Union of Fascists?	Oswald Mosley
What are the 1815 Corn Laws?	Law passed to keep the price of wheat high.	Define communism	State owns and controls businesses. No freedom during elections, no freedom of the press or religion.

Year 9 History

Question	Answer	Question	Answer
What does franchise mean?		What does abolitionist mean?	
Why were people unhappy with the voting system?		What do the Suffragettes want?	
What does secret ballot mean?		Who was the leader of the Suffragette movement?	
Which radical have a speech at Peterloo, Manchester		What does strike mean?	
What is the Peterloo massacre?		When was the General strike in Britain?	
Who are the Chartists?		Who was the leader of the British Union of Fascists?	
What are the 1815 Corn Laws?		Define communism	
Year 9 History:

Want:

Extreme poverty was the result for many families who could not afford the necessities of everyday life. This was the outcome of ill health and unemployment which meant the household income was very little.

Squalor:

TACKLING THE FIRST GIANT

Most of the population were living in slums and house prices exceeded the income of many families.

Sir William Beveridge, who was a senior Civil Servant. He published his findings in 1942, the Beverage report identified 5 Giant Evils in the country that needed to be addressed!

Ignorance:

The school leaving age in the 1900s was just 14. Many young people were unemployed, and the majority could not afford to pay for higher education.

Disease:

Diseases were becoming widespread and there was little help available through hospitals as they were all private and had cost implications.

Idleness:

Rvg glasss on the read of reconstruction " - T h r Brunning: Beport. Unemployment levels had become very high due to the little and poor education many people received and the very few jobs available after the war.

Year 9 History:



Year 9 History: The road to the Welfare State

WW1 brought to the forefront how bad conditions were in British society. Issues with housing, slum areas, lack of job opportunities and the education system needed improving. The wartime government were focused on the war effort, whereas the Labour Party were focused on building upon Beveridge's recommendations



There was a shock landslide election result in July 1945, when wartime prime **minister Winston Churchill lost to Labour's Clement Attlee**, who campaigned for the creation of the Welfare State.

Question	Answer
After WW1, what did David Lloyd George promised?	Homes fit for hero's- but many people could not afford these houses and continued to live in poor conditions.
What did the evacuation process of WW2 highlight?	The difference in rich and poor communities/families.
What impact did WW2 have on housing?	The Blitz destroyed many housing areas and drew attention to the poor conditions people had been living in.
Between 1945-51 how many houses did the Labour government build?	800,000
What was the 1945 New Towns Act?	Building of towns near cities.
What did the 1961 – Homes for Today and Tomorrow report set out?	Gave specific standards of housing, including adequate heating, flushing toilet, and enough space inside and outside.
Who was the Labour minister for Health?	Aneurin Bevan

Year 9 History: The road to the Welfare State

____ brought to the forefront how ____ conditions
were in British _____. Issues with housing,
_____ areas, lack of ____ opportunities and the
education system needed improving.
The _____ government were focused on the
____ effort, whereas the Labour _____ were
focused on building upon Beveridge's
recommendations



There was a _____ landslide election result in _____, when wartime prime _____ Winston Churchill lost to Labour's Clement Attlee, who campaigned for the creation of the _____ State.

Question	Answer
After WW1, what did David Lloyd George promised?	
What did the evacuation process of WW2 highlight?	
What impact did WW2 have on housing?	
Between 1945-51 how many houses did the Labour government build?	
What was the 1945 New Towns Act?	
What did the 1961 – Homes for Today and Tomorrow report set out?	
Who was the Labour minister for Health?	

Year 9 Histo	ory:	NHS	
Question		Answer	
What does NI	HS stand for?	National Health Service	
When was the	e NHS set up?	1948	
In 1947, docto prescriptions, give out in 19	ors gave out 7 million how many did they 51?	19 million	
Who was prin NHS opened?	ne minster when the	Clement Attlee (Labour party)	General Practitioner (GPs) and dent
What was the when it open	budget of the NHS ed in 1948?	£437 million	as primary ca
When did the back into pow	conservatives come ver?	1951	Figure 4.4 Th
Why did the C rid of the NHS	Conservatives not get	It was too popular	The creation
Between what number of NH	t years did the IS doctors double?	1948 and 1973	recruitment
In 1948 how of a woman and 1948?	did life expectancy for man increase from	Women has raised from 66 to 83 and for men 64 to 79	Many peopl work in the
How is the NH	IS paid for?	Through taxes	



Many people came from different counties to work in the NHS.

Year 9 History:	NHS	
Question	Answer	Hospitals, managed by
What does NHS stand for?		regional hospital boards
When was the NHS set up?		
In 1947, doctors gave out 7 million prescriptions, how many did they give out in 1951?		
Who was prime minster when the NHS opened?		of NHS
What was the budget of the NHS when it opened in 1948?		General Additional services, (GPs) and dentists, such as the
When did the conservatives come back into power?		otherwise known as primary care and health visitors
Why did the Conservatives not get rid of the NHS?		Figure 4.4 The three parts of the NHS in 1948.
Between what years did the number of NHS doctors double?		The creation of the led to a massive recruitment campaign for doctors and
In 1948 how did life expectancy for a woman and man increase from 1948?		to help it. Many came from different
How is the NHS paid for?		

Year 9 History: Immigration to Britain

Question	Answer	
Groups who come and settle to Britain from 1945-1975	Ireland, eastern Europe, Africa, the Caribbean, Hong Kong, Malaysia, Singapore and The Indian subcontinent	Immigration
Why was it difficult for an immigrant to get accommodation?	Immigrants had to live in Britain for 5 years before they could apply for council accommodation, it was usually a room in a house, cramped and expensive.	Migrant
Name the landlord in London who had over 100 properties overcrowded with immigrants?	Peter Rachman	Push factor
Give a reason why immigrants faced discrimination?	Faced accusations that they were just in Britain for the benefit system	
In 1955 transport workers in Wolverhampton, West Bromwich and Bristol went on strike to protest about what?	Increasing numbers of coloured workers (there was only ONE India bus conductor in West Bromwich)	Pull factor
Immigrants tended to stick together, name places where communities formed	Toxteth in Liverpool, Notting hill in London, Saint Pauls in Bristol, and Moss Side in Manchester became Caribbean communities with a life and culture of their own.	Nationality Windrush
Who set up the Union Movement with the 'Keep Britain white' logo?	Oswald Moseley	
What was the year of the summer of violence?	1958	EMPIRE WINDRUSK LONDON

ey Word	Definition
nmigration	Coming to live permanently in a foreign country
ligrant	A person who moves from one place to another, especially to find work or better living conditions
ush factor	something that makes people want to leave a place or escape from a particular situation
ull factor	"pull" people to a new home and include things like better opportunities.
ationality	The status of belonging to a particular nation.
'indrush	HMT Empire Windrush was a ship brining people from the Caribbean to Britain

Year 9 History: Immigration	to Britain	Key Word	Definition
Question	Answer	Immigration	
Groups who come and settle to Britain from 1945-1975			
Why was it difficult for an immigrant to get accommodation?		Migrant	
Name the landlord in London who had over 100 properties overcrowded with immigrants?		Push factor	
Give a reason why immigrants faced discrimination?			
In 1955 transport workers in Wolverhampton, West Bromwich and Bristol went on strike to protest about what?		Pull factor	
Immigrants tended to stick together, name places where communities formed		Nationality Windrush	
Who set up the Union Movement with the 'Keep Britain white' logo?			
What was the year of the summer of violence?		EMPIRE WINDRUSH	

Year 9 History: Immigration Case Study: Windrush

Question	Answer
What does Windrush mean?	HMT Empire Windrush was a ship which travelled from the Caribbean to Britain in 1948.
Why did people want to come to Britain?	Britain needed more workers to rebuild the country after World War Two.
What does voyage mean?	A long journey on a ship.
What was the 1948 Nationality Act?	Gave citizens of the United Kingdom and Colonies status and the right of settlement in the UK to everyone who was at that time a British subject by virtue of having been born in a British colony.
What does citizenship mean?	The position or status of being a citizen of a particular country
What does discrimination mean?	The unjust or prejudicial treatment of different categories of people, especially on the grounds of ethnicity, age, sex, or disability





Question	Answer
Between 1948 and 1971 how many people moved from the Caribbean to Britain?	Half a million people
How did Britain encourage people to move over?	Used adverts (propaganda)
Why did people from the Caribbean feel they were being treated differently?	Due to the colour of their skin
When did the Windrush scandal begin?	2018
What is the Windrush scandal?	People who were wrongly detained, denied legal rights, threatened with deportation, and in at least 83 cases wrongly deported from the UK by the Home Office.

Year 9 History: Immigration Case Study: Windrush

Question	Answer
What does Windrush mean?	
Why did people want to come to Britain?	
What does voyage mean?	
What was the 1948 Nationality Act?	
What does citizenship mean?	
What does discrimination mean?	



Question	Answer
Between 1948 and 1971 how many people moved from the Caribbean to Britain?	
How did Britain encourage people to move over?	
Why did people from the Caribbean feel they were being treated differently?	
When did the Windrush scandal begin?	
What is the Windrush scandal?	

Year 9 History:

The Troubles in Northern Ireland

Question	Answer
Define Nationalist	Wants independence from the United Kingdom
Define Unionist	Wants to keep the union between NI and England
What does segregation mean?	To separate- NI saw a separation between Protestants and Catholics
What is the parliament of Northern Ireland called?	Stormont
What year did the Troubles start?	1969
What does discrimination mean?	To treat someone differently/unfairly based on religion, race, gender etc.
What is the R.U.C?	Royal Ulster Constabulary (the police force)
What is a Loyalist?	Someone that wants to keep the union with England
What is a Republican?	Someone that wants a united Ireland
What does I.R.A stand for?	Irish Republican Army
What does internment mean?	Suspected terrorists could be arrested and kept in prison (interned) without trial.
What happened on Bloody Sunday 1972	13 unarmed Catholic civilians were killed
What is the Good Friday Agreement?	The peace document of 1998 that ended the Troubles







Year 9 History:

The Troubles in Northern Ireland

Question	Answer	
Define Nationalist		
Define Unionist		
What does segregation mean?		
What is the parliament of Northern Ireland called?		
What year did the Troubles start?		
What does discrimination mean?		
What is the R.U.C?		
What is a Loyalist?		
What is a Republican?		
What does I.R.A stand for?		-
What does internment mean?		
What happened on Bloody Sunday 1972		
What is the Good Friday Agreement?		







Life Chances



Helping every person achieve things they never thought they could.



Year 9 Life Chances: CEIAG (careers)

Technology is one of the biggest influences on the changing opportunities in the world of work.

- Artificial intelligence (AI) is the development of machines that can mimic human behaviours such as learning, reasoning and selfcorrection.
- **Robots** can help humans do physical tasks. Not all robots are physical robots. Robotic process automation (RPA) is software that can be configured to do specific tasks that humans do on computers.
- Automation are tasks done by machines instead of humans to • increase efficiency and reduce mistakes.

800,000 jobs have been lost but nearly 3.5 million new ones have been created due to technology.

Technology has boosted employment in knowledge-intensive sectors such as medicine, accounting and professional services.

Vour Journoy Through Education

Career or Job?

What is a job?

Your job is the role you have at your place of work. Firefighter, airline pilot, teacher, politician – these are all jobs. In a nutshell, a job is about the here and now.

A job can be something you do just to earn money. But it can also be part of something much bigger. This is called a "career".

What is a career?

A career is about more than just earning a wage. It is to do with your long-term aims and ambitions, and what you want to achieve in your life. In a career, each job you have helps you achieve this goal. This is called your career path.

00

rourjouri					
Institution	Age	Year Group	Qualification	Level	Status
Primary School	4-11 years	Reception – Year 6	SATs (In year 6)	N/A	Compulsory
Secondary School	11-16 years	Year 7 – Year 11	GCSEs (taken in year 11)	Level 2	Compulsory
Further Education (College/Sixth Form)	16+	Year 12 – Year 13	A Levels / T Levels / BTECs / Apprenticeships	Level 3	Compulsory
Higher Education (University/College)	18+	Undergraduate	Degree / Foundation degree / Degree apprenticeships	Level 4 - 6	Optional

Year 9 Life Chanc	ces: CEIAG (c	careers)		Career or	Job?	
Technology is one of the biggest influences on the changing		g	What is a j	ob?		
Artificial intelligence	(AI) is					
• Robots can						
				What is a ca	reer?	
Automation are						
800,000) jobs have been lo	ost but nearly due to techno	ology.			
Technology has booste such as,	d employment in l aı	knowledge-intensive se	ectors			6.8
Your Jour	ney Throu	gh Education.	••			
Institution	Age	Year Group		Qualification	Level	Status
	4-11 years	Reception – Year 6			N/A	
	11-16 years	Year 7 – Year 11			Level 2	
	16+	Year 12 – Year 13			Level 3	
	18+	Undergraduate			Level 4 - 6	





Year 9 Life Chances: Wellbeing	Drug	Effect 1	Effect 2	
Understanding the laws surrounding drugs.	Depressants (E.G. Alcohol or	Initial feeling of pleasure or confidence before risk of	Lowers cognitive abilities, slows reactions and risks	
Possession means that an individual is caught with a controlled drug for personal use. The person	solvents)	doses.	blackouts.	
does not have to be using it, just to have it in their possession.	Stimulants (E.g. MDMA or	Increased energy, pleasure, dilated pupils and increased	People can experience a clenched jaw and/or racing heart which increases the risk	
Possession with intent to supply means that a person is planning to give controlled drugs to	cocarrey	conndence.	of a heart attack.	
someone else. This includes selling, sharing or giving for free.	Hallucinogens (E.g. Magic	Altered perception or hallucinations.	Anxiety and panic, impaired decision making.	
Supply means that a person distributes or gives				
someone else controlled drugs. This can be selling, giving for a reward of some form, sharing or giving for free.	Dissociatives (E.g. Ketamine or nitrous oxide)	Disconnected from body, floaty or feeling numb.	Unable to move or protect self. Unpleasant feeling of being detached from own body.	
	Opioids (E.g. Heroin)	Pleasure, a sense of wellbeing and pain-relief.	Sleepiness and loss of consciousness. Risk of injury whilst feeling less pain.	
	Steroids (E.g. Anabolic steroids)	Over repeated doses, increased muscle mass and quicker recovery from exercise.	Linked to paranoia and aggressive behaviours.	
	Cannabinoids (E.g. Cannabis)	Feeling 'chilled out' or giggly.	Linked to paranoia and mood swings, also increased loss of memory.	

Year 9 Life Chances: Wellbeing	Drug	Effect 1	Effect 2
Understanding the laws surrounding drugs.	Depressants		
Possession means	or solvents)		
	Stimulants (E.g. MDMA or cocaine)		
Possession with intent to supply means			
	Hallucinogens (E.g. Magic mushrooms or		
Supply means	LSD)		
	Dissociatives (E.g. Ketamine or nitrous oxide)		
	Opioids (E.g. Heroin)		
	Steroids (E.g. Anabolic steroids)		
	Cannabinoids (E.g. Cannabis)		

Year 9 Life Chances: Further education

Going to University or College

Starting a university or college is like starting school but there are so many more people. You might be older, but it can still be a lonely and difficult experience. And yet, it can be a positive experience too.

Starting college/university

l l	U
Benefits	Drawbacks
orm bonds and friendships	Miss home and old friends
More independence	Hard to cope with independence
ew experiences and travels	Drinking and poor diet
New courses and clubs	Stress of balancing studies
Sense of Achievement	Lack of sleep

St er	arting university is exciting. You are going to joy:	Th	nere can be some downsides too. You might:
•	new experiences	•	drink too much alcohol
•	clubs, societies, sports	•	sleep poorly
•	new, more sophisticated classes	•	react badly to a change of diet
•	being more independent and confident	•	be short of money
•	forming bonds with other students	•	find that striking a balance between study, work and socialising is difficult
•	the sense of achievement at having reached university	•	miss your family and school friends
•	meeting new friends	•	find it hard to cope with independence

Year 9 Life Chances: Further education

Going to University or College

Starting a university or college is like starting school but there are so many more people. You might be older, but it can still be a lonely and difficult experience. And yet, it can be a positive experience too.

Starting college/university



Starting university is exciting. You are going to enjoy:	There can be some downsides too. You might:

Drug use

A drug is a chemical substance that affects the processes of the mind or body.

Some drugs are legal and can be bought in shops and supermarkets such as alcohol, cigarettes and mild painkillers. Others are medicines, prescribed by doctors to treat illnesses.

Illegal drugs are banned by the government.



Unhealthy lifestyle choices Nicotine

Nicotine is another legal drug that is used as a mild stimulant and is consumed in cigarettes, cigars, pipes and vaporisers.
Smoking can have very bad side effects, including:
high blood pressure, increasing the likelihood of heart attack and stroke;

- increased risk of cancers of the lungs, throat and mouth;
- lower fertility, making it difficult to conceive children;
- higher risk of miscarriage or stillbirth;
- •premature aging due to reduced blood supply to the skin.

Alcohol

Alcohol such as beer, wine and spirits are legal to buy, only if you are over 18. Drinking large amounts can have the following effects:

- increase in aggression and violence;
- depression;
- slurred speech and unsteady movement;
- headaches and stomach ache (hangover);
- •death from overdose.

Drug use

A drug is a chemical substance that affects the processes of the _____ or

Some drugs are legal and can be bought in shops and supermarkets such as _____, cigarettes and mild _____. Others are _____, prescribed by doctors to treat illnesses. Illegal drugs are banned by the



Nicotine

Nicotine is another _____ drug that is used as a mild stimulant and is consumed in cigarettes, _____, pipes and vaporisers.

Smoking can have very bad _____ effects, including:



Alcohol

Alcohol such as beer, _____ and spirits are legal to buy, only if you are over ___. Drinking large amounts can have the following effects:

Illegal Drugs

There is a huge range of illegal drugs that change the user's state of mind. Some induce euphoria and confidence, others dull pain or cause hallucinations. Some illegal drugs include cocaine, heroin and MDMA (known as 'ecstasy').



Different drugs affect your health in different ways, but there are some problems common to them all:

- more illnesses, deaths, and disabilities are caused by substance abuse than from any other preventable health condition
- drugs weaken your immune system, leaving you open to infections
- some drugs can cause nausea, vomiting, and abdominal pain
- some drugs can cause heart disease; this may be an abnormal heartbeat, but it could escalate to a heart attack
- injected drugs, such as heroin, can cause your veins to collapse and infections in your circulatory system
- seizures, strokes, and other types of brain damage can be caused by some types of drugs. This may leave you with long-term memory and cognitive problems. Others can cause mental illness such as depression or schizophrenia
- many drugs are addictive, which means that users are compelled to use the drug whether they really want to or not. This can lead to financial and social problems as the user prioritises the drug over other aspects of their life
- some drugs can kill through overdose

<u>Illegal Drugs</u> There is a huge range of drugs that change the user's state of mind.	Different drugs affect your health in different ways, but there are some problems common to them all:
Some induce and	
confidence, others	
pain or cause	
nallucinations.	
, heroin and MDMA	
(known as 'ecstasy').	
SAY NO TO DRUGS	

Definition 1

A substance people take to change the way they feel, think or behave.

United Nations Office on Drugs and Crime

Definition 2

'A medicine or other substance which has a physiological effect when ingested or otherwise introduced into the body.'



What is a controlled Drug?

A drug or other substance that is tightly controlled by the government because it may be abused or cause addiction. The control applies to the way the substance is made, used, handled, stored, and distributed.

Drugs which can be legally bought over the counter	Controlled drugs	Drugs prescribed by a healthcare professional
paracetamol	cocaine	antibiotics
alcohol	anabolic steroids	tranquilisers
cigarettes	heroin	antihistamines
Calpol	cannabis	
e-cigarettes	tranquilisers	
antihistamines	ecstasy	
	synthetic cannabinoids	

What is a controlled Drug?

Definition 1

Definition 2



United Nations Office on Drugs and Crime

Drugs which can be legally bought over the counter	Controlled drugs	Drugs prescribed by a healthcare professional

 In the UK, controlled drugs are classified based on their benefit when used in medical treatment or the harm that they can do if misused.



- Class A drugs include: heroin, cocaine, crack/cocaine, ecstasy, LSD, magic mushrooms, methadone and methamphetamine (crystal meth)
- Class B drugs include: amphetamines, barbiturates, cannabis, codeine, ketamine.
- Class C drugs include: tranquillisers, khat, nitrous oxide (laughing gas) and anabolic steroids.

Possession means that an individual is caught with a controlled drug for personal use. The person does not have to be using it, just to have it in their possession. **Possession with intent** to supply means that a person is planning to give controlled drugs to someone else. This includes selling, sharing or giving for free. **Supply** means that a person distributes or gives someone else controlled drugs. This can be selling, giving for a reward of some form, sharing or giving for free.

- In the UK, controlled drugs are classified based on their ______
 when used in ______ treatment or the harm that they can do if
- Class A drugs



- Class B drugs
- Class C drugs

Possession means that	Possession with intent to supply means that a	Supply means that a

Category	Maximum penalty for possession	Maximum penalty for supply and production
Class A	Up to 7 years in prison, an unlimited fine or both	Up to life in prison, an unlimited fine or both
Class B	Up to 5 years in prison, an unlimited fine or both	Up to 14 years in prison, an unlimited fine or both
Class C	Up to 2 years in prison, an unlimited fine or both (except anabolic steroids - it's not an offence to possess them for personal use)	Up to 14 years in prison, an unlimited fine or both
Temporary class drugs	None, but police can take away a suspected temporary class drug	Up to 14 years in prison, an unlimited fine or both

Category	Maximum penalty for possession	Maximum penalty for supply and production
Class A		
Class B		
Class C		
Temporary class drugs		





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	Year 9: All the topics that will be taught this yea	
	I opic Algebraic Notation	Sparx Clip M813
	Algebraic Terminology	M830
Simplifying Evnrassions	Collecting like terms Simulifying everyceione using index laws	M795/M531
	Changing the subject of the formula with 1 step	M242
	Changing the subject of the formula with 2 or more steps	M983
Sequences	Generate a sequence Nth Term	M381/M166 M991
	Quadratic Sequences	U206
	Plotting Straight Line Graphs	M932
Graphs	Plotting Quadratic Graphs	689U
	Interpreting Quadratic Graphs	1667 11533
	Multiplying Column Vectors by a Scalar	U564
Vectors	Adding and Subtracting Column Vectors	U903
	Identify Parallel Vectors	U660
Operations	Adding and Subtracting Fractions Adding and Subtracting Mixed Numbers	M835 M931
with Fractions	Adding and Subtracting Algebraic Fractions	M336
	Expand Single Brackets	M237
	Expand Multiple Single Brackets	M792
Brackets	Factorise into single brackets Expand Double Brackets	096W
	Factorise Quadratics a = 1	M908
	Factorise Quadratics a>1	M908
	Solving Problems using Proportional Reasoning	M478
Ratio &	Sharing Ratio	M525
Proportion	Ratio Problems with 1 Unknown More Than Viece Than Batin Problems	M801
	Note High/cess High Katto Propretts Solving 1 Step Foughtions	
:	Solving 2 Step Equations	M634/M647/M401/M387
Solving Linear	Solve Equations with Brackets	M902
rdaanons	Solve Equations with Unknowns on Both Sides	M554
	Constructing and Solving Equations	M957
	Percentage Increase & Decrease Non Calc	M476
	Reverse Percentage	M528
reitenidges	Percentage Increase & Decrease Calc	M533
	Simple Interest	U533
Compound	Compound interest Calculating Speed	U332
Measures	Calculating Density	U910
	Multiplying and Dividing by 10, 100, 1000	M113
Standard Form	Converting Standard Form Calculating Standard Form	M678/M719
Solving	Solving Quadratics when a=1	U228
Quadratics	Solving Quadratics when a>1	0960
	Area of Rectangles	M390
	Area of Parallelograms	M010 M291
	Area of Trapeziums	M705
Area,	Identify Parts of Circles	M595
Perimeter &	Circumference of Circles	M169
surtace Area	Surface Area of Cuboids	M534
	Surface Area of Prisms Surface Area of Culinder	M661
	Area of Sectors	M430
	Arc Length	M280
	Pythagoras' Theorem	M677
Pythagoras &	Understanding sin, cos and tan	U605
I rigonometry	Finding unknown sides in right-angled triangles Finding unknown angles in right-angled triangles	U203 U545
Andlee in	Angles in Triangles	M351
Polygons	Angles in Quadrilaterals	M679
Tranclations	Angles in Polygons Translation	M653
Iranslations	Angles on Straight Line and About a Point	0130 M818
Angles in	Vertically Opposity Angles	M163
	Angles on Parallel Lines	M606
Volume	Volume of Cuboids	M765
	Volume of Prisms	M722

Year 9 Maths:		Key Facts				
Key V	ocabulary Line of	 A line where one half of the image is the mirror of the other. 		9	Simplifying Ratio is to reduce ratio to its simplest form by dividing by	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
2	Rotational	• The number of time the shape fits on top of itself in a 360° rotation	e.g. a square has rotational symmetry order 4			Divide by 4 as it is the HCF of 12 and 20.
3	Reflection	 An image or shape as it would be seen in a mirror 		10	Fraction of a Ratio is the proportion of the ratio of the total amount.	Therefore $\frac{4}{9}$ of the sweets
4	Ratio	A relationship between two or more numbers.	The ratio of yellow counters to red counters in 2:3			are green. The ratio of blue sweets to green sweets is 3:2.
5	Parts	The individual numbers that make up a ratio	The ratio 5:9 is made up of 5 parts and 9 parts. The ratio 5:9 has 14 parts in total.	11	Percentage of a Ratio is the proportion of the ratio of the total amount.	Therefore $\frac{3}{5} = \frac{60}{100} = 60\%$ of the sweets are blue and
6	Unit Ratio	 The general form of a unit ratio is 1:n or n:1. 	The ratio 5:20 be written as the unit ratio 1:4.			$2^{2} = 40^{40} = 40\% \text{ of the}$ $5^{2} = 100^{40} \text{ sweets are green.}$
7	Proportion	A relationship between two numbers/quantities	If in a recipe for 4 people, 100g of flour is needed, then 200g would be needed for 8 people.	12	Sharing into a Ratio is a method of sharing an amount into a given ratio	£30 55 55 55 55 £18 £12
8	Ratio when given one quantity	 A method of finding the missing quantity when given a ratio and 1 quantity 	Some sweets are shared between Bill and Ben in the ratio 3:2. Bill gets 30 sweets, so Ben gets 20 sweets.			
Year 9 Maths:			Key Facts	Key Facts		
---------------	---	--	-----------	---	--	--
Key Voca	bulary			How do you simplify a ratio?		
1	What is a Line of symmetry?		9			
2	What is rotational symmetry?			How do you write a fraction of a ratio?		
3	What is the name for a shape that is flipped as if it is seen in a mirror?		10			
4	What is the definition of a ratio ?			How do you write a percentage of a ratio?		
5	What does the word parts mean?		11			
6	What are the two general forms of an unit ratio?			What does sharing into a ratio mean?		
7	What is the definition of the word proportion?		12			
8	Some sweets are shared between Bill and Ben in the ratio 3:5. Bill gets 24 sweets, how many sweet does Ben have?					

Year 9	Year 9 Maths:					
Key Vocab	pulary					
13	Algebraic Expression	 Contains numbers, variables and operations Does nor have an equals sign 	$\begin{array}{c} 4x + 5y \\ 2a \\ y^2 - 5y \end{array}$			
14	Variable	• A symbol, or letter representing an unknown number e.g. x, y, b, a ²	${f x}$ is the variable in ${f 3x}={f 18}$			
15	Coefficient	• The number in front of the variable	The coefficient of x in 3x is 3.			
16	Term	• A number, variable or combination of both	5x ab 9			
17	Sequence	• A set of numbers that follow a rule	3, 6, 9, 12, 15, 2, 5, 8, 11, 14, 4, 8, 16, 32, 64,			
18	Term (in a sequence)	An individual number in the sequence	For the sequence 1, 3, 5, 7, 3 is the second term			
19	Arithmetic Sequence	Has the same difference between each term	Also called a linear sequence. Example: 3, 5, 7, 9, 11,			
20	Geometric Sequence	• Where you must multiply or divide by the same number to get the next term	Example: 1, 3, 9, 27, 81,			
21	Term to Term Rule	• How to get from one number in a sequence to the next	Example: Add 4			
22	Generate	• Using the sequence rule to work out terms in the sequence.	Generate the first 3 terms of $3n + 4$: () $3 \times 1 + 4 = 7$ () $3 \times 2 + 4 = 10$ () $3 \times 3 + 4 = 13$			

Year 9 Maths:



Key Vocabulary	
13	What is an algebraic expression?
14	What is a variable?
15	What is a coefficient?
16	Write down some examples of mathematical terms .
17	What is a sequence?
18	What is a term in a sequence?
19	How do you know if a sequence is arithmetic?
20	How do you know if a sequence is geometric?
21	What does the term to term rule do ?
22	When you are asked to generate the first 5 numbers in a sequence, what does that mean?

Year 9 Maths:				5	×12 345	
Key Facts				464 +269		
23	Index law of Multiplication	$x^a \times x^b = x^{a+b}$ Add the powers			Starting with 0 and 1, add the previous two terms to	
24	Index law of Division	aw of ion Subtract the powers	27	Fibonacci Sequence	get the next one. 0, 1, 1, 2, 3, 5, 8, 13, 21, 34,	
					A linear graph is a straight line.	
25	Index Law for Powers of	$x^{a \ b} (= \lambda^{a \times b}$	28	Linear Graphs		
	Powers	Powers Subtract the powers			A U shape (or an upside down U). e.g. $y = x^2 + 2x - 1$	
26	Nth term A rule that allows you to find any term in the sequence.	Remember the "n" in nth term means position in the sequence. The first term in the sequence means n = 1, second term means n = 2.	29	Quadratic Graphs A quadratic equation is x^2		

Ye	Year 9 Maths:							
	Key Facts	4164 + 269						
	Write down the Index Law of Multiplication.	What is the Fibonacci Sequence?						
	Write down the Index Law of Division.	27						
	24	What shape is a Linear graph?						
	Write down the Index Law for Powers of Powers.	20						
		What shape is a Quadratic graph?						
	What is the nth term of a sequence? 26	29						

|--|

	Key Skill		Thinking Point WAGOLL			
1	Adding and den	Subtracting (same ominator)	 Add or subtract the numerators. Denominator stays the same. 	$\frac{3}{5} + \frac{1}{5} = \frac{4}{5}$		
2	Adding and su den	ubtracting (different ominators)	 Use equivalent fractions to find a common denominator. Add or subtract the numerators. 	$\frac{\frac{3}{5} - \frac{1}{4}}{\frac{12}{20} - \frac{5}{20}} = \frac{7}{20}$		
3 Adding and n		subtracting (mixed umbers)	 Convert to improper fractions first Use equivalent fractions to find a common denominator Add or subtract the numerators Simplify and convert to mixed number 	$2\frac{3}{4} + 3\frac{1}{5} = \frac{11}{4} + \frac{16}{5}$ $\frac{55}{20} + \frac{64}{20} = \frac{119}{20} = 5\frac{19}{20}$		
Key V	ocabulary	Definition				
Numer	rator	The top number in a fraction.				
Denom	ninator	The bottom number in a fraction	۱.			
Improp	per Fraction	A fraction in which the numerat	A fraction in which the numerator is larger than the denominator, e.g. $\frac{6}{5}$			
Mixed	Number	A number comprising a whole number and a fraction, e.g. $5\frac{1}{2}$				

Y	'ear 9	Maths:	Fraction	Arithm	etic

	Ke	ey Skill	Thinking Point	Practice
1	Adding and der	Subtracting (same nominator)	What happens to the numerators?What happens to the denominators	$\frac{3}{7} - \frac{2}{7} =$
2	Adding and s den	ubtracting (different ominators)	What must we find before we can add or subtract?	$\frac{3}{8} + \frac{5}{6}$
3	3 Adding and subtracting (mixed numbers)		 What should mixed numbers be converted to first? We should always our answers if possible, converting fractions to 	$2\frac{3}{10} - 1\frac{2}{3} =$
Key V	ocabulary	Complete the definitions		
Numer	rator			
Denom	ninator			
Improp	per Fraction			
Mixed Number				

/ea	ar 9	r 9 Maths: Algebra - Brackets					
		Key Skill	Thinking Point	WAGOLL			
	1	Expand a single bracket	Multiply every term inside the bracket by the term outside the bracket Grid method will help you	Expand $3(x + 2)$ = $3x + 6$ Expand $4x (3x - 1)$ Expand $4x (3x - 1)$ = $12x^2 - 4x$ Expand $4x (3x - 1)$ = $12x^2 - 4x$ Expand $4x (3x - 1)$ = $12x^2 - 4x$			
	2	Expand and simplif	fy • Expand each bracket 5 • Collect any like terms to simplify 5 • • •	3(x + 7) - 2(3x - 4) $3x + 21 - 6x + 8$ $= -3x + 29$ $x + 7$ $x + 7$ $3x + 7$ $x + 7$ $3x + 21$ $x + 7$ -2 $-6x + 8$			
	3	Factorise an expression	 Find the highest common factor (HCF) of all terms. This belongs outside the bracket. Use reverse grid method to find what goes in the bracket 	Factorise fully $4x + 18$ HCF of $4x$ and 18 is 2Factorise fully $18y^3 - 12y$ HCF of $18y^3$ and $-12y$ is $6y$ \times $2x$ $+9$ $4x$ $3y^2$ -2 2 $4x$ $+18$ $6y$ $18y^3$ $-12y$			
				$2(2x+9)$ $6y(3y^2-2)$			
Key Vocabulary Definition			Definition				
		Variable	A symbol or letter representing a value we do not know.				
		Coefficient	A number used to multiply a variable, e.g. in the term " $4x$ ",	, the coefficient of <i>x</i> is 4.			
		Expression	Numbers, variables and operators (+, - , x and ÷), grouped to	cogether to show the value of something. Expressions do not have an equals sign.			
		Constant	A number on its own, e.g. in the expression $5x + 8$, the const	stant is 8.			

/ear	ar 9 Maths: Algebra - Brackets							
	Key Skill	Thinking Point	Practice					
1	Expand a single bracket	What method could I use to help expand brackets?	Expand a) $4(5x + 3)$ b) $6(2x - 1)$ c) $5x (3x + 8y)$					
2	Expand and simpli	fy After expanding, I must collect in order to simplify	a) $3(2x + 1) + 4(x + 3)$ b) $7(3x + 11) - 4(5x - 2)$					
3	Factorise an expression	What does HCF stand for?	Factorise fully a) $6x + 12$ b) $9t - 3$ c) $14p^2 + 7p^3$					
Ke	ey Vocabulary	Complete the definitions						
	Variable							
	Coefficient							
	Expression							
Constant								

Cal	5 Matris. Algebra – Solving Equations			
	Key Skill	Thinking Point	WAGOLL	
1	Solve a one step equation	• Think about what has happened to the variable, and use the <i>inverse</i> operation to undo this.	$\begin{array}{c c} - & x + 6 = 16 \\ \hline 6 & x = 10 \end{array}$	- 6
2	Solve a multiple step equation	 Try to isolate the variable using inverse operations, one step at a time 	4x - 5 = 19 $4x = 24$ $x = 6$	+5 ÷4
3	Solve equations with the unknown on both sides	Eliminate the variables from one side of the equation first, remembering to keep the equation balanced.	2x + 11 = 5x + 2 $11 = 3x + 2$ $9 = 3x$ $3 = x$) - 2x -2) ÷3

Key Vocabulary	Definition
Equation	A statement showing that two expressions are equal
Variable	A symbol or letter representing a value we do not know.
Solution	The value of the variable once we have worked it out.

Ye	ear 9	Maths: Algebra – Solving Equations		
		Key Skill	Thinking Point	Practice
	1	Solve a one step equation	Use operations to solve the equation.	Solve a) $x - 7 = 5$ b) $6x = 54$ c) $\frac{x}{8} = 2$
	2	Solve a multiple step equation	Try to the, one step at a time.	Solve a) $3x - 7 = 5$ b) $6x + 12 = 54$ c) $\frac{x}{5} - 1 = 4$
	3	Solve equations with the unknown on both sides	 First you should the variable from one side of the equation. 	Solve a) $3x + 4 = 2x + 1$ b) $5x - 7 = 9x - 3$
	Key Vocabulary Complete the definitions			
	Equation			
	Varia	able		
	Solu	tion		

Year 9 Maths: Vectors		laths: Vectors		
		Key Skill	Thinking Point	WAGOLL
	1	Drawing Vectors	 The top number of a vector tells how many units to left or right we move. If it is positive we move to the right. If it is negative we move to the left. The bottom number of a vector tells how many units up or down we move. If it is positive we move upwards. If it is negative we move downwards. Add an arrow to show the direction of travel. 	Draw the vector $\begin{pmatrix} 3 \\ -2 \end{pmatrix}$ This means 3 units to right and 2 units down. We start counting from the dot.
	2	Writing Column Vectors	 Follow the direction of travel. Count the horizontal movement first, remember right is positive and left is negative. Count the vertical movement, remember up is positive and down is negative. 	Write down the vector \overrightarrow{AB} 2 units to rights 4 units up 2 right 2 units to rights 4 units up 2 right

Year 9 Maths: Vectors		laths: Vectors			
		Key Skill	Thinking Point	Practice	
	1	Drawing Vectors	 What does the top number tell us? What if it is negative? What does the bottom number tell us? What if it is negative? What do we add at the end? 	Draw the vector $\begin{pmatrix} 4 \\ -3 \end{pmatrix}$	Draw the vector $\begin{pmatrix} -3\\ 2 \end{pmatrix}$
	2	Writing Column Vectors	 Follow the direction of travel. Count the horizontal movement first, remember right is positive and left is negative. Count the vertical movement, remember up is positive and down is negative. 	Write down the vector \overrightarrow{AB}	

Year 9 Maths: Vectors

	Key Skill	Thinking Point	WAGOLL	
1	Adding and Subtracting Vectors	 Add/Subtract the top numbers together Add/Subtract the bottom numbers together 	$ \begin{pmatrix} 3\\5 \end{pmatrix} + \begin{pmatrix} -2\\4 \end{pmatrix} \\ = \begin{pmatrix} 3+-2\\5+4 \end{pmatrix} \\ = \begin{pmatrix} 3-2\\5+4 \end{pmatrix} \\ = \begin{pmatrix} 1\\9 \end{pmatrix} $	$ \begin{pmatrix} 3 \\ 5 \end{pmatrix} - \begin{pmatrix} -2 \\ 4 \end{pmatrix} \\ = \begin{pmatrix} 32 \\ 5 - 4 \end{pmatrix} \\ = \begin{pmatrix} 3 + 2 \\ 5 - 4 \end{pmatrix} \\ = \begin{pmatrix} 5 \\ 1 \end{pmatrix} $
2	Multiplying Vectors	Multiply the both numbers in the vector by the number outside the vector	$3\binom{3}{5} \\ = \binom{3 \times 3}{3 \times 5} \\ = \binom{9}{15}$	$= \begin{pmatrix} \frac{1}{2} \begin{pmatrix} -2\\4 \end{pmatrix} \\ \frac{1}{2} \times -2 \\ \frac{1}{2} \times 4 \end{pmatrix} \\ = \begin{pmatrix} -1\\2 \end{pmatrix}$
3	Composite problems with Vectors	 Follow order of operations Use the steps above Be careful with negative numbers 	$3\binom{3}{5} + \frac{1}{2}\binom{-2}{4}$ = $\binom{3 \times 3}{3 \times 5} + \binom{\frac{1}{2} \times -2}{\frac{1}{2} \times 4}$ = $\binom{9}{15} + \binom{-1}{2}$ = $\binom{9+-1}{15+2}$ = $\binom{9-1}{15+2}$ = $\binom{8}{17}$	

Year 9 Maths: Vectors

	Key Skill	Thinking Point	Practice	
1	Adding and Subtracting Vectors	 What do we do to the top numbers? What do we do to the bottom numbers? 	$\binom{2}{3} + \binom{-1}{7}$	$\binom{4}{-5} - \binom{-3}{1}$
2	Multiplying Vectors	• the both numbers in the vector by the numberthe vector	$2\binom{-3}{5}$	$-2\binom{3}{5}$
3	Composite problems with Vectors	What must we follow while doing these calculations?	$2\binom{3}{5} + 3\binom{2}{4}$	$4\binom{1}{-2} - 3\binom{-2}{3}$

Year 9 Maths: Percentag	Year 9 Maths: Percentages				
Key Skill	Thinking Point	WAGOLL			
Calculate a percentage of a quantity	• 10% is the same as $\frac{1}{10}$, so I can find 10% by dividing by 10	Find 70% of £280 50% = £280 ÷ 2 = £140 10% = £280 ÷ 10 = £28			
	• 50% is the same as $\frac{1}{2}$, so I can find 50% by dividing by 2	70% = 50% + 10% + 10% 70% = £140 + £28 + £28 = £196			
Calculate a percentage increase or decrease	 Increase, growth, extend, rise, inflate are some often used key words meaning to get bigger. 	Sam earns £25000 a year. He received a bonus of 20% last year. Calculate his total income for last year.			
	 Decrease, devalue, reduce, decline, discount are some often used key words meaning to get smaller 	10% = £25000 ÷ 10 = £2500 20% = 10% + 10% 20% = £2500 + £2500 = £5000			
Key Vocabulary	Definition				
Percentage	A proportion expressed in parts per 100				
Increase	To go up				
Decrease	To go down				
Interest	Money paid to you on savings, or an amount you pay to the bank f	or borrowing.			

Year 9 Maths: Percent	/ear 9 Maths: Percentages						
Key Skill	Thinking Point	Practise					
Calculate a percentage of a quantity	f • To calculate% I can	Find the following percentages of £380					
		a) 50% c) 30%					
	 To calculate 50%, I can divide by 	b) 10% d) 90%					
Calculate a percentage increase or decrease	Write down as many key words you can remember meaning "to go up"	a) Increase \$220 by 40% b) Reduce £45 by 20%					
Key Vocabulary Co	omplete the definitions						
Percentage							
Increase							
Decrease							
Interest							

Year 9 Maths: Area			
Key Skill	Thinking Point	WAGOLL	
Calculate the area of trapezium	• The formula is $A = \frac{a+b}{2} \times h$	Calculate the area $A = \frac{6+10}{2} \times 4$	
	• <i>a</i> and <i>b</i> are the parallel sides	$4 \text{cm} \int \frac{5 \text{cm}}{10 \text{cm}} = \frac{16}{2} \times 4$	
	• <i>h</i> is the perpendicular height	$= 8 \times 4 = 32 \text{ cm}^2$	
Calculate the area of	• The formula is πr^2	C' he area	
Circle	• <i>r</i> is the radius of the circle	$=\pi \times 36$	
		$= 36\pi \text{ cm}^2 \text{ or } 113.1 \text{ cm}^2 \text{ (1dp)}$	
Key Vocabulary	Definition		
Radius The straight line from the centre of a circle to the circumference (half the diameter)			
Diameter	The straight line through the centre of a circle, from circumference to circumference (double th radius)		
Circumference	The outer edge of a circle		

Year 9 Maths: Area		
Key Skill	Thinking Point	Practise
Calculate the area of a trapezium	• The formula is A = $\frac{a+b}{2} \times h$	Find the area b) a)
	• <i>a</i> and <i>b</i> are the	
	• <i>h</i> is the	$3 \downarrow 2 \downarrow 3 \downarrow 3 \downarrow 2 \downarrow 3 \downarrow 3 \downarrow 2 \downarrow 3 \downarrow 3 \downarrow $
Calculate the area of a circle	 The formula is πr² r is the of the circle 	 Find the area of these circles in terms of π a) Radius = 4cm b) Radius = 8cm c) Diameter = 10mm
Key Vocabulary	Complete the definitions	
Radius		
Diameter		
Circumference		

Year 9 Maths: Ratio				
Key Skill	Thinking Point	WAGOLL		
Dividing into a ratio	 Use a Bar Model diagram. Check your answer by ensuring your answers total the original amount in the question. 	$f1$ $f80$ in 5 parts means $f80 \div 5 = f16$ in each part 6 $f1$ $f1$ $f1$ $f1$ $f1$ 6 7 7 7 7 7 7 7 <		
Finding the original quantity given one pa	 Put all the information from the question onto a Bar Model diagram When we are only given one part, we only use that part of the ratio for the first step. Read the question carefully and make sure you answer it. 	Jay and Kay share some money in the ratio 3:4. Jay gets £18. How much did they share altogether? £6 £6 £6 £6 £6 £18 ÷ 3 = £6 in each part £6 £6 £6 £6 £6 3 x £6 : 4 x £6 £18 : £24 £18 + £24 = £42		
Key Vocabulary	Definition			
Ratio	A way in which quantities can be divided or shared			
Scale	The ratio of a length in a diagram or map to the length in real life			

Year 9 Maths: Ratio					
Key Skill		Practise			
Dividing into a ratio		a) Share £60 in the ratio 4:1	b) Share £48 in t	he ratio 5:3	c) Share £72 in the ratio 4:5
Finding the original quantity given one part		a) A prize is divided in the rat larger share is £225 what i share?	io 5 : 2. If the s the smaller	b) A prize is c smaller sh share?	livided in the ratio 5 : 4. If the are is £50 what is the larger
Key Vocabulary	ey Vocabulary Complete the definitions				
Ratio					
Scale					
B M	A diag	agram which is useful when solving ratio problems			

Year 9 Maths: Pythagoras' Theorem				
Key Skill	Thinking Point	WAGOLL		
Finding the Hypotenu	 se Label the hypotenuse on the diagram. The hypotenuse is always opposite the right angle Learn the formula a² + b² = h² 	$6^{2} + 10^{2} = h^{2}$ $36 + 100 = h^{2}$ $136 = h^{2}$ $\sqrt{136} = h$ $h = 11.66 (2dp)$ h		
Finding a shorter sid	 Remember to substitute correctly. If your answer is longer than the hypotenuse, you have made a mistake 	$ \begin{array}{c} 9^2 + ?^2 = 14^2 \\ 81 + ?^2 = 196 \\ ?^2 = 196 - 81 \\ ?^2 = 115 \\ ? = \sqrt{115} \\ ? = 10.72 (2dp) \end{array} $ 9cm ?		
Key Vocabulary	Definition			
Hypotenuse	The longest side in a triangle			
Square Root	A value which equals the given number when multiplied by itself, e.g. the square root of 16 is 4			

Year 9 Maths: Pythagoras' Theorem				
Key Skill	Thinking Point	Practise		
Finding the Hypotenuse	• The formula for Pythagoras' Theorem is;	Find the hypotenuse a) 6cm 6cm 5cm	b) 7cm 8cm	
Finding a shorter side	• How can I check if I have made an error?	Find the missing sides a) 7 cm 18 cm	b)	
Key Vocabulary Co	omplete the definitions			
Hypotenuse				
Square Root				

Year 9 Maths: Standard form				
Key Skill		Thinking Point	WAGOLL	
Converting to standard form		 Standard form means write in the form a × 10ⁿ a must be between 1 and 10, n must be an integer 	2 540 000 = 2.54 x 1 000 000 = 2.54 x 10 ⁶	0.00718 = 7.18 ÷ 1000 = 7.18 ÷ 10 ³ =7.18 x 10 ⁻³
Converting to an ordinary number		 To multiply by powers of 10 we move digits to the left To divide by powers of 10 we move digits to the right 	3.6 x 10 ⁵ = 3.6 x 10 000 = 36 000	4.2 x 10 ⁻⁴ = 4.2 ÷ 10 ⁴ = 4.2 ÷ 10 000 = 0.00042
Key Vocabulary	Definition			
Standard form	A method of writing large or small numbers using powers of 10			

Year 9 Maths: Standa	ard form	
Key Skill	Thinking Point	Practise
Converting to standard form	 Standard form means write in the form a × 10ⁿ a must be n must be 	Write in standard form a) 7430000 b) 4923 c) 0.095 d) 0.000018
Converting to an ordinary number	 To multiply by powers of 10 we move digits to the To divide by powers of 10 we move digits to the 	Write as an ordinary number a) 6×10^5 b) 4.8×10^8 c) 7×10^{-3} d) 1.05×10^{-6}
Key Vocabulary	Complete the definitions	
Standard form	A method of writing or	numbers using powers of 10

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Year 9 French: Irregu	lar present tense				
To have (Verb)		To go (Verb)		To be (Verb)	
Avoir	To have	Aller	To go	Être	To be
J'ai	I have	Je vais	l go	Je suis	l am
Tu as	You have	Tu vas	You go	Tu es	You are
ll a	He has	ll va	He goes	ll est	He is
Elle a	She has	Elle va	She goes	Elle est	She is
On a	One has (We have)	On va	One goes (We go)	On est	One is (We are)
Nous avons	We have	Nous allons	We go	Nous sommes	We are
Vous avez	You have (formal/plural)	Vous allez	You go (formal/plural)	Vous êtes	You are (formal/plural)
lls ont	They have (Masculine/mixed)	lls vont	They go (Masculine/mixed)	lls sont	They are (Masculine/mixed)
Elles ont	They have (feminine)	Elles vont	They go (feminine)	Elles sont	They are (feminine) 17

Year 9 French: Irregular present tense		
To have (Verb)	To go (Verb)	To be (Verb)
To have	То до	To be
I have	l go	I am
You have	You go	You are
He has	He goes	He is
She has	She goes	She is
One has (We have)	One goes (We go)	One is (We are)
We have		We are
You have (formal/plural)	You go You go (formal/plural)	You are (formal/plural)
They have (Masculine/mixed)	They go (Masculine/mixed)	They are (Masculine/mixed)
They have (feminine)	They go (feminine)	They are (feminine) 173

Grammar Explanation

Immediate Future Tense

To use the immediate future tense, take the appropriate form of the verb aller (to go) and add the infinitive verb.

For example:

Je vais + manger = je vais manger = I am going to eat. Nous allons + voyager = nous allons voyager = we are going to travel.

Below are some high frequency infinitives for you to practise with:

Aller = to go

Jouer = to play

Regarder = to watch

Visiter = to visit

Faire = to do

Manger = to eat

Avoir = to have

Être = to be

Prendre = to take



ansais The near future tense

The verb **aller** with an infinitive can be used to express the near future. This is the equivalent of saying "be going to" in English.

ALLER	• 2	INFINITIF
Je vais		manger
tu vas		travailler
		jouer
il, elle, on va		aller
nous allons		partir
vous allez		étudier
vous anez		être
ils, elles vont	-	avoir

Je vais travailler ici => l'm going to work here Nous allons partir à Paris => We are going to Paris

Forming negatives

L'école de

Negative forms	English
nepas	not
nejamais	never, not ever
neplus	not anymore, no longer
neaucun	no, not any, none
neque	only
nerien	nothing, not anything
nepersonne	no one, not anyone
nenini	neithernor

Je **ne** vais **pas** = I am not going Je **ne** vais **jamais** = I am never going

Grammar Explanation

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For example:

Je vais + manger = je vais manger = Lam going to eat.

Nous allons + voyager = nous allons voyager

= we are going to travel.

Below are some high frequency infinitives for you to practise with:

=	to	go

- = to play
- = to watch
- = to visit
- = to do
- = to eat
- = to have
- = to be

= to take



Negative forms	English
nepas	
nejamais	-
neplus	-
neaucun	
neque	-
nerien	-
nepersonne	
nenini	

= I am not going = I am never going

Forming the perfect tense (passé composé)

The perfect tense is how you say that you have done something in the past. For example, 'I have eaten' or 'I have played'.

To form the perfect tense, usually you use an auxiliary verb. To do this, take the correct form of the verb avoir (to have) and add a past participle (reference to the past).

For example, to say 'I have eaten' you use j'ai for 'I have' and add mangé for eaten. So it is j'ai 'mangé.

Mangé (ate) is the past participle of manger (to eat).

J'ai	I have
Tu as	You have (singular/informal)
ll a	He has
Elle a	She has
On a	One has(we have)
Nous avons	We have
Vous avez	You have(formal/plural)
Ils ont	They have (masculine/mixed)
Elles ont	They have (feminine)

Forming a past participle:

Regular ER verbs	Take the ER ending off, and add é. For example MANGER changes to mangé.	J'ai mangé = I have eaten
Regular IR verbs	Take the IR ending off and add i. For example, FINIR (to finish) changes to fini.	J'ai fini = I have finished
Regular RE verbs	Take the RE ending off and add u. For example RÉPONDRE (to respond) changes to répondu	J'ai répondu = I have responded

Note: there are some verbs that do not follow the above rule. These are called 'irregular verbs'. One example is BOIRE (to drink) which changes to bu. J'ai bu = I drank



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Mangé (ate) is the past participle of manger (to eat).

I have
You have (singular/informal)
He has
She has
One has(we have)
We have
You have(formal/plural)
They have (masculine/mixed)
They have (feminine)

Forming a past participle:

Regular ER verbs		
Regular IR verbs		
Regular RE verbs		
Note: there are some verbs that do not follow the above rule. These are called 'irregular verbs'.		



When forming the perfect tense for some verbs, you need to use **ÊTRE as** the auxiliary verb instead of AVOIR

Examples of verbs that take être are aller (to go), sortir (to go out). RECAP of the auxiliary verb Être = to be

Je suis	lam
Tu es	You are(singular/informal)
Il est	He is
Elle est	She is
On est	One is (we are)
Nous sommes	We are
Vous êtes	You are (formal/plural)
Ils sont	They are (masculine/mixed)
Elles sont	They are (feminine)

In French you do not say "I went" instead you say "I am gone". Je suis allé I am gone (e.g. I went)

Il est allé He is gone (e.g. he went)

To make it even trickier, the past participle agrees with the person using it.

Verb	Masculine	Feminine
ALLER (to go)	Je suis allé (I am gone) Ils sont allés (they are gone)	Je suis allée (I am gone) Elles sont allées (they are gone)
SORTIR (to go out)	Je suis sorti (I am went out)	Je suis sortie (I am went out)



Le passé composé has 3 parts: subject + auxiliary verb + past participle of verb

E.g. Je suis né en 1990 - I was born in 1990

Only two auxiliary verbs are used: AVOIR (to have) and $\hat{\mathsf{ETRE}}$ (to be), conjugated to <code>PRESENT</code> tense and <code>agrees</code> <code>w/subject</code>

Most past participle verbs use avoir as the auxiliary verb.

The verbs that use être are «motion/movement» verbs & can be remembered by the mnemonic:

DR & MRS VANDERTRAMP

	Present	Meaning	Past Participle
\mathbb{D}	Descendre	To descend	Descendu
R	Revenir	To come back	Revenu
Μ	Mourir	To die	Mort
R	Retourner	To go back	Retourné
S	Sortir	To go out	Sorti
V	Venir	To come	Venu
A	Arriver	To arrive	Arrivé
N	Naître	To be born	Né
D	Devenir	To become	Devenu
E	Entrer	To enter	Entré
R	Rentrer	To go (home)	Rentré
Т	Tomber	To fall	Tombé
R	Rester	To stay	Resté
А	Aller	To go	Allé
М	Monter	To go up	Monté
P	Partir	To leave	Parti

Note: irregular conjugated pp. endings are marked in white

By Lingual-ism! @ jeannie-languages.tumblr.com

Describe where I live.

Key Grammar

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

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

HABITER (to live) in the present tense Habiter is a regular verb that ends in ER.

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

Use the appropriate pronoun (je, tu, il, elle, etc)

Take the ER ending off to form the stem. For example, change habiter to habit

Choose the correct ending according to the pronoun you are using. For ER verbs, the present tense endings are as follows:

Pronoun	Present Tense ER verb ending
Je	е
Tu	es
II, elle, on	е
Nous	ons
Vous	ez
lls, elles	ent

See the example HABITER in the present tense below:

J'habit e	l live
Tu habites	You live (singular/informal)
II habite	He lives
Elle habite	She lives
On habite	One lives (we like)
Nous habitons	We live
Vous habitez	You live (formal/plural)
Ils habitent	They live (masculine/mixed)
Elles habitent	They live (feminine)

Infinitive Verbs

Remember that an infinitive verb is the verb in the 'to' form before it has been changed. Infinitive verbs end in ER, RE or IR Examples: Habiter = to live Aller = to go Être = to be Avoir = to have

Saying there is or isn't something in your house.

Il y a = there is For example, il y a un garage = there is a garage

Il n'y a pas de = there isn't

**When you use il n'y a pas de, you do not include un/une For example, il n'y a pas de garage = there isn't a garage

Describe where I live.

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Choose the correct ending according to the pronoun you are using. For ER verbs, the present tense endings are as follows:

Pronoun	Present Tense ER verb ending
	е
	es
	е
	ons
	ez
	ent

See the example HABITER in the present tense below:

J'habit e	l live
	You live (singular/informal)
	He lives
	She lives
	One lives (we like)
	We live
	You live (formal/plural)
	They live (masculine/mixed)
	They live (feminine)

Infinitive Verbs

Remember that an infinitive verb is the verb in the 'to' form before it has been changed. Infinitive verbs end in ER, RE or _____ Examples:

Habiter =

Aller =

Être =

Avoir =

Saying there is or isn't something in your house.

Il y a = For example, il y a un garage =

Il n'y a pas de =

**When you use il n'y a pas de, you do not include un/une For example, il n'y a pas de garage =
Describe where I live. Recap: AVOIR (to have) in the present tense

W.	
J'ai	I have
Tu as	You have (singular/informal)
ll a	He has
Elle a	She has
On a	One has(we like)
Nous avons	We have
Vous avez	You have(formal/plural)
Ils ont	They have (masculine/mixed)
Elles ont	They have (feminine)
DYDYDXIXIDDA	

RECAP of Être (to be) in the present tense

A

Je suis	lam
Tu es	You are(singular/informal)
II est	He is
Elle est	She is
On est	One is (we like)
Nous sommes	We are
Vous êtes	You are (formal/plural)
Ils sont	They are (masculine/mixed)
Elles sont	They are (feminine)

Useful Vocabulary Places to live

Une maison = a house Un appartement = a flat Une ferme = a farm Un village = a village Une ville = a town Une cité = a city Au centre-ville = in the town centre Au bord de la mer = at the seaside À la campagne = in the countryside

Rooms in the house

La cuisine = the kitchen Le salon = the living room La salle de bains = the bathroom L'entrée = the hall/the entrance La salle à manger = the dining room La salle de bains = the bathroom La chambre = the bedroom Deux chambres = two bedrooms Ma chambre = my bedroom Le jardin = the garden Le garage = the garage

Adjectives to describe your house

Adjective	Masculine	Masculine Plural	Feminine	Feminine Plural
Modern	Moderne	Modernes	Moderne	Modernes
Ugly	Laid	Laids	Laide	Laides
Big** goes before the noun	grand	grands	grande	grandes
Small** goes before the noun	petit	petits	petite	petites
Old** goes before the noun	Vieux	Vieux	Vieille	Vieilles
Pretty** goes before the noun	Joli	Jolis	Jolie	Jolies

Describe where I live. Recap: (to have) in the present tense		
**	I have	
	You have (singular/informal)	
	He has	
	She has	
	One has(we like)	
	We have	
	You have(formal/plural)	
	They have (masculine/mixed)	
	They have (feminine)	

Useful Vocabulary		
Places to live		

to live = a house

= a flat = a farm

- = a village
- = a town
- = a city
- = in the town

centre

= at the seaside = in the

countryside

Rooms in the house
La cuisine =
Le salon =
La salle de bains =
L'entrée =
La salle à manger =
La salle de bains =
La chambre =
Deux chambres =
Ma chambre =
Le jardin =
Le garage =

DXIXIXIXIX

RECAP of _____ (to be) in the present tense

lam
You are(singular/informal)
He is
She is
One is (we like)
We are
You are (formal/plural)
They are (masculine/mixed)
They are (feminine)

Adjectives to describe your house

Adjective	Masculine	Masculine Plural	Feminine	Feminine Plural

Describe my dream house.

Using the conditional tense to say where you would live in the future

The <u>conditional tense</u> is used to describe **what someone would do** or **what would happen** in the future. It can also be used to express ambitions and intentions.

The easiest way to form the conditional tense is to take the verb vouloir (to want) in the conditional tense plus an infinitive or aimer (to like) plus an infinitive:

For example: Je voudrais jouer au foot I would like to play football

J'aimerais jouer au foot

I would like to play football
However, to conjugate verbs in the conditional tense follow these simple steps.
1.Take an infinitive. Your infinitive is the stem.

(Remember infinitives end in er, re or ir.)

2.Add the conditional tense endings. Note: these are the same endings as the imperfect tense

	Stem	Conditional endings	Example	English
je	regarder	-ais	je regarderais	I would watch
tu	manger	-ais	tu mangerais	you would eat
il/elle/o n	jouer	-ait	il/elle/on jouerait	he/she/it would play
nous	finir	-ions	nous finirions	we would finish
vous	partir	-iez	vous partiriez	you would leave
ils/elles	vendr	-aient	ils/elles vendraient	they would sell



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Describe my dream house.

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The easiest way to form the conditional tense is to take the verb (to ____) in the conditional tense plus an infinitive or aimer (to like) plus an _____:

For example:

I would like to play football

I would like to play football However, to conjugate verbs in the conditional tense follow these simple steps.

1. Take an infinitive. Your infinitive is the _____.

(Remember infinitives end in er, ____ or ir.)

2.Add the conditional tense endings. Note: these are the same endings as the ______ tense

Stem	Conditional endings	Example	English



Saying what I would like to do when I'm older.

If you wanted to describe a job you would like to do, you can say 'je voudrais être' (I would like to be) or 'j'aimerais être' (I would love to be) plus the name of the job.

For example, **j'aimerais** être chanteur = I would like to be a singer.

Remember in French you do not use the article (the/a) when talking about jobs.

For example you say: "I would like to be doctor" rather than "I would like to be <u>a</u> doctor".

Vocabulary - Jobs

When talking about jobs in French you have to change the ending of the word depending on the gender of the person you are talking about.

For example:

Mon père est avocat. My Dad is a lawyer.

Ma mère est avocat**e**. My Mum is a lawyer.

Jobs - Masculine/Feminine

Avocat/avocate = lawyer ingénieur/ingénieure = engineer mécanicien/mécanicienne = mechanic Chanteur/chanteuse = singer traducteur/traductrice = translator professeur = teacher acteur/actrice = actor vendeur/vendeuse = sales assistant directeur/directrice = director électricien/électricienne = electrician médecin =doctor Dentiste = dentist



Saying what I would like to do when I'm older.

If you wanted to describe a job you would like to do, you can say 'je voudrais être' (______) or 'j'aimerais être' (I would love to be) plus the name of the job.

For example, _____ = I would like to be a singer. Remember in French you do not use the article (the/a) when talking about jobs.

For example you say: "_____ ___ __ __ __ __ __ __ __ " rather than "I would like to be <u>a</u> doctor".

Vocabulary - Jobs

When talking about jobs in French you have to change the ending of the word depending on the gender of the person you are talking about.

For example:

My Dad is a lawyer.

My Mum is a lawyer.

Jobs - Masculine/Feminine

- = lawyer
- = engineer
- = mechanic
- = singer
- = translator
- = teacher
- = actor
- = sales assistant
- = director
- = electrician
- =doctor
- = dentist



When forming the perfect tense for some verbs, you need to use **ÊTRE as** the auxiliary verb instead of AVOIR

Examples of verbs that take être are aller (to go), sortir (to go out). RECAP of the auxiliary verb Être = to be

lam
You are(singular/informal)
He is
She is
One is (we are)
We are
You are (formal/plural)
They are (masculine/mixed)
They are (feminine)

In French you do not say "I went" instead you say "I am gone". Je suis allé I am gone (e.g. I went)

Il est allé He is gone (e.g. he went)

To make it even trickier, the past participle agrees with the person using it.

Verb	Masculine	Feminine
ALLER (to go)		
SORTIR (to go out)		

Verbs: Using être in le passé composé

Le passé composé has 3 parts: subject + auxiliary verb + past participle of verb

E.g. Je suis né en 1990 - I was born in 1990

Only two auxiliary verbs are used: AVOIR (to have) and $\hat{\mathsf{ETRE}}$ (to be), conjugated to <code>PRESENT</code> tense and <code>agrees</code> <code>w/subject</code>

Most past participle verbs use avoir as the auxiliary verb.

The verbs that use être are «motion/movement» verbs & can be remembered by the mnemonic:

DR & MRS VANDERTRAMP

	Present	Meaning	Past Participle
D		To descend	
R		To come back	
Μ		To die	
R		To go back	
S		To go out	
V		To come	
A		To arrive	
N		To be born	
D		To become	
E		To enter	
R		To go (home)	
Т		To fall	
R		To stay	
A		To go	
М		To go up	
P		To leave	

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Year 9 Spa	nish:			How to form the	e immediate f	uture tense:
Tener (To l	nave) Present tense					
Tengo	l have			To say what you are imme	going to do, you c ediate future tense	an use the near e.
Tienes	You have			This is formed by using	the correct part of	the verb ir (to go),
Tiene	He/She/It has			plus the in	ifinitive of another	verb.
Tenemos	We have			V I am goi	oy a ir al cine ng to go to the cin	ema
Tenéis	You (plural) have			Va a He is a	a jugar al fútbol	all
Tienen	They have					
Ser (To	o be) Present tense	lr (To go) i	Present tense	Ir (to go)	Preposition	Infinitive
Soy	l am	Voy	l go			
Eres	You are	Vas	You go	Vov (I am going)		Jugar - to play
				Vas (you are going)		Ver - to see
Es	He/She/It is	Va	He/She/It goes	Va (he/she is going)	а	Hacer - to do
Somos	We are	Vamos	We go	Vamos (we are going)		Montar - to ride
Sois	You (plural) are	Vais	You (plural) go	Van (we are going)		Tener - to have
Son	They are	Van	They go			

_0

Year 9 Spa	nish:			How to form the	e immediate f	uture tense:
Tener (To ł	I have You have He/She/It has			To say what you are going to do, you can use the near immediate future tense. This is formed by using the correct part of the verb ir (to go), plus the infinitive of another verb.		
	We have You (plural) have They have			I am going to go to the cinema He is going to play football		
Ser (To	be) Present tense	Ir (To go) Present tense		Ir (to go)	Preposition	Infinitive
	l am You are		l go You go	(I am going)		- to play
	He/She/It is We are		He/She/It goes We go	(you are going) "he/she is going) (we are going)	а	- to do - to ride - to be
	You (plural) are They are		You (plural) go They go	(we are going)		- to have

Year 9 Spanish: Preterite tense

Grammar Explanation

- The preterite tense is used to describe **completed actions in the past**. For example:
- Fui al cine ayer (I went to the cinema yesterday).
- Viajamos en tren (We travelled by train).

The preterite tense is used if the past action had a definite beginning and definite end and is often used with phrases that give a specific time frame, eg:

•ayer (yesterday)

- anteayer (the day before yesterday)
- anoche (last night)
- el año pasado (last year)
- el mes pasado (last month)
- Ia semana pasada (last week)

There is a three-step method that will make conjugating regular Spanish verbs very easy for you.

- 1. Take the infinitive (full verb)
- 2. Cut off the -ar -er or -ir to form the stem
- 3. Add the endings

Example: I spoke = 1) hablar 2) hablar = habl 3) habl + é

= habl**é**

Regular preterite tense verb endings

English subject pronoun	Spanish subject pronoun	AR ending	hablar (to speak)
I	уо	é	hablé
you	tú	aste	hablaste
he/she	él/ella	ó	habló
we	nosotros/nosotras	amos	hablamos
you (plural)	vosotros/vosotras	asteis	hablasteis
they	ellos/ellas	aron	hablaron
English subject pronoun	Spanish subject pronoun	ER/IR ending	Comer (to eat)
English subject pronoun	Spanish subject pronoun yo	ER/IR ending í	Comer (to eat) comí
English subject pronoun I you	Spanish subject pronoun yo tú	ER/IR ending í iste	Comer (to eat) comí comiste
English subject pronoun I you he/she	Spanish subject pronoun yo tú él/ella	ER/IR ending í iste ió	Comer (to eat) comí comiste comió
English subject pronoun I you he/she we	Spanish subject pronoun yo tú él/ella nosotros/nosotras	ER/IR ending í iste ió imos	Comer (to eat) comí comiste comió comimos
English subject pronoun l you he/she we you (plural)	Spanish subject pronoun yo tú él/ella nosotros/nosotras vosotros/vosotras	ER/IR ending í iste ió imos isteis	Comer (to eat) comí comiste comió comimos comisteis
English subject pronoun l you he/she we you (plural) they	Spanish subject pronoun yo tú él/ella nosotros/nosotras vosotros/vosotras ellos/ellas	ER/IR ending í iste ió imos isteis ieron	Comer (to eat)

Grammar Explanation

The preterite tense is used to describe **completed actions in the past**. For example: *Fui al cine ayer* ().

).

Fui al cine ayer (
Viajamos en tren (

The preterite tense is used if the past action had a definite beginning and definite end and is often used with phrases that give a specific time frame, eg:

(yesterday) (the day before yesterday) (last night) (last year) (last month) (last week)

There is a three-step method that will make conjugating regular Spanish verbs very easy for you.

1.

- 2.
- 3.

5.



= habl**é**

Regular preterite tense verb endings

English subject pronoun	Spanish subject pronoun	AR ending	hablar (to speak)
I			
you			
he/she			
we			
you (plural)			
they			
English subject pronoun	Spanish subject pronoun	ER/IR ending	Comer (to eat)
I			
you			
he/she			
we			
you (plural)			
they			

Year 9 Spanish: Preterite tense

Irregular preterite tense

	Ser / Ir	Hacer	Tener	Ver
	To be / To go	To do / To make	To have	To see
(yo) (tú) (él / ella / usted) (nosotros) (vosotros) (ellos / ellas / ustedes)	fui fuiste fue fuimos fuisteis fueron	hice hiciste hizo hicimos hicisteis hicieron	tuve tuviste tuvo tuvimos tuvisteis tuvieron	vi viste vio vimos visteis vieron
	Dar	Poner	Poder	Venir
	To give	To put	To be able	To come
(yo)	di	puse	pude	vine

Π

П

	0.00	te per	10 00 0010	10 001110
(yo)	di	puse	pude	vine
(tú)	diste	pusiste	pudiste	viniste
(él / ella / usted)	dio	puso	pudo	vino
(nosotros)	dimos	pusimos	pudimos	vinimos
(vosotros)	disteis	pusisteis	pudisteis	vinisteis
(ellos / ellas /	dieron	pusieron	pudieron	vinieron
ustedes)				

Year 9 Spanish: Preterite tense

Irregular preterite tense

	Ser / Ir	Hacer	Tener	Ver
	To be / To go	To do / To make	To have	To see
(yo) (tú) (él / ella / usted) (nosotros) (vosotros) (ellos / ellas / ustedes)				

Π

П

П

П

П

	Dar	Poner	Poder	Venir
	To give	To put	To be able	To come
(yo) (tú) (él / ella / usted) (nosotros) (vosotros) (ellos / ellas / ustedes)			-	



Describe where I live.

How to conjugate regular verbs that end in IR in the present tense.

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

1.Take the IR ending off to form the **stem**. For example, change **vivir** to **viv**

2.Choose the correct ending. For IR verbs, the present tense endings are as follows:

Yo (I) - o Tú (you) - es El/Ella (he/she) - e Nosotros (we) - imos Vosotros (you plural) - ís Ellos/Ellas (they) - en Remember in Spanish the endings of verbs tell you what the tense is and the person you are talking about.

Vivir (to live) is a regular IR infinitive verb.

Spanish	English
Vivo	l live
Vives	You live
Vive	He/she/it lives
Vivimos	We live
Vivís	You (plural) live
Viven	They live

	un piso (a flat)	bonito (pretty) feo (ugly) grande (big) pequeño (small)	en un edificio antiguo (in an old building) en un edificio moderno (in a modern building) en el centro (in the centre)			
Vivo (I live) Vives (Vou live) Vive (He/she lives) Vivimos (We live) Viven (They live)	en (in)	una casa (a house)	bonita (pretty) fea (ugly) grande (big) pequeña (small)	en las afueras (on the en la costa (on the co en el campo (in the c en la montaña (in the	e outskirts) ast) ountry) e mountains)	
	ţ	una aldea (a village) un pueblo (a town) una ciudad (a city)	en el norte de (in the north of) en el este de (in the east of) en el sur de (in the south of) en el oeste de (in the west of)	Escocia (Scotland) España (Spain) Gales (Wales)	Inglaterra (England) Irlanda (ireland) Ios Estados Unidos (the USA)	



Describe where I live.

How to conjugate regular verbs that end in IR in the present tense.

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

1.Take the IR ending off to form the **stem**. For example, change _____ to ____

2.Choose the correct ending. For IR verbs, the present tense endings are as follows:

(I) -	
(you) -	
(he/she) -	
(we) -	
(you plural)	-
(they) -	

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

Vivir (_____) is a regular IR infinitive verb.

Spanish	English
	l live You live He/she/it lives
	We live You (plural) live They live



Rooms of the house

En mi casa hay = in my house there is En la casa de mis sueños habría = In my dream house there would be

Una cocina = a kitchen Un comedor = a dining room Un desván = an attic Una sala de juegos = a games room Un salón = a living room Un sótano = a basement Un dormitorio = a bedroom Un cuarto de baño = a bathroom Un garaje = a garage Un jardín = a garden



Adjectives:

acogedor/a = cosy antiguo/a = old bonito/a = beautiful/pretty luminoso/a = well lit grande = big pequeño/a = small

In Spanish adjectives usually come <u>after the noun</u>. Adjectives also change based on the **gender** of the noun:

Masculine: Un piso pequeño A small flat

Feminine: Una casa pequeña A small house

Remember in Spanish all nouns have a gender. A noun is a person, place or thing.

All nouns in Spanish have a gender. That means they are either masculine or feminine.

Although it might seem strange at first that nouns have a gender in Spanish, there are luckily lots of patterns and clues to help you to remember if a noun is masculine or feminine.

Rooms of the house

En mi casa hay = in my house there is En la casa de mis sueños habría = In my dream house there would be

- = a kitchen
- = a dining room
- = an attic
- = a games room
- = a living room
- = a basement
- = a bathroom
- = a garage
- = a garden



Adjectives:

- = cosy
- = old
- = beautiful/pretty
- = well lit
- = big
- = small

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Masculine nouns

Most nouns that end in -o are masculine.

For example:

el teléfono - telephone

el perro - dog

Male family members are always masculine.

For example:

hermano - brother

padre - father

Days of the week and months are also masculine.

For example:

lunes - Monday

diciembre - December

Feminine nouns

Most nouns that end in -a are feminine. For example: la casa - house la pierna - leg Female family members are always feminine. For example: hermana - sister madre - mother There are also some groups of endings that ar

There are also some groups of endings that are always feminine.

For example:

-ión - estación - station

-dad - universidad - university

-tad - dificultad - difficulty

Another way to tell the gender of a noun is to look at its article. The words "a" and "the" are articles in English.

Articles in Spanish

	A	The	Му
Masculine	Un	El	Mi
Feminine	Una	La	Mi
Masculine Plural	Unos	Los	Mis
Feminine Plural	Unas	Las	Mis

Describing where you live

There are two verbs for <u>'to be'</u> in Spanish, ser and estar that you can use to talk about where you live. Ser is used to give descriptions and estar is used for location.

For example:

•Ser Mi pueblo <u>es</u> grande - My town is big.

•Estar Mi pueblo <u>está</u> lejos de Mánchester - My town *is* far from Manchester.

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

Masculine nouns

Most nouns that end in -o are masculine. For example:

- telephone

- dog

Male family members are always masculine. For example:

- brother
- father

Days of the week and months are also masculine. For example:

- Monday
- December

Feminine nouns

Most nouns that end in -a are feminine. For example:

- house

- leg

Female family members are always feminine. For example:

- sister
- mother

There are also some groups of endings that are always feminine.

For example:

- station
- university
- difficulty

Another way to tell the gender of a noun is to look at its article. The words "a" and "_____" are articles in English.

Articles in Spanish

	A	The	Му
Masculine			
Feminine			
Masculine Plural			
Feminine Plural			

Describing where you live

There are two verbs for <u>'to be'</u> in Spanish, ser and estar that you can use to talk about where you live. Ser is used to give descriptions and estar is used for location.

For example:

•Ser	- My town <i>is</i> big.
•Estar	- My town <i>is</i> far from Manchester.

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

Describing location

You can give more details about where you live by using está (is).

For example:

•Vivo en una ciudad pequeña. <u>Está</u> en la costa y <u>está</u> cerca de Aberdeen - I live in a town. *It is* on the coast and *is* near to Aberdeen.

•Vivo en un pueblo en la montaña. <u>Está</u> lejos de la capital - I live in a village in the mountains. *It is* far from the capital.

Use the table below to give more detail about where you live.

Spanish	English	
está	it is	
cerca de	near to	
lejos de	far from	
en la costa	on the coast	
en la montaña	in the mountains	
en el campo	in the countryside	
en el centro	in the centre	
en el norte/sur/este/oeste	in the north/south/east/west	

Describe my dream house.

The <u>conditional tense</u> is used to describe what someone would do or what would happen in the future. It can also be used to express ambitions and intentions. For example:

Si fuera posible viviría en una casa grande y la casa tendría una piscina. If it were possible I would live in a big house and the house would have a swimming pool.

How to form the conditional tense.

To conjugate verbs in the conditional tense follow these simple steps. 1. Take an infinitive.

(Remember infinitives end in ar, er or ir.)

2.Add the conditional tense endings. The endings are the same for -ar, -er and -ir verbs.

	ending	vivir (to live)	meaning
yo (I)	ía	viviría	I would live
tú (you)	ías	vivirías	You would live
él/ella (he/she)	ía	viviría	He/she would live
nosotros (we)	íamos	viviríamos	We would live
vosotros (you plural)	íais	viviríais	You (plural) would live
ellos/ellas (they masculine / they feminine)	ían	vivirían	They would live

Some verbs like tener (to have) are irregular verbs. This means they don't always follow the same pattern as other verbs. To change tener (to have) to the conditional tense you use the irregular stem **tendr** plus the endings above. For example - I would have = **tendr**ía

Describing location

You can give more details about where you live by using está (is).

For example:

- I live in a town. *It is* on the coast and *is* near to Aberdeen.

- I live in a village in the mountains. *It is* far from the capital.

Use the table below to give more detail about where you live.

Spanish	English	
	it is	
	near to	
	far from	
	on the coast	
	in the mountains	
	in the countryside	
	in the centre	
	in the north/south/east/west	

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Saying what I would like to do when I'm older.

Vocabulary - Jobs

When talking about jobs in Spanish you have to change the ending of the word depending on the gender of the person you are talking about.

For example: Mi padre es abogado. My Dad is a lawyer.

Mi madre es abogad**a**. My Mum is a lawyer.



Masculine		Feminine		
Abogado = lawyer Cocinero = chef Enfermero = nurse Fontanero = plumber Ingeniero = engineer Mecánico = mechanic Médico = doctor Profesor = teacher Traductor = translator Intérprete = interpreter		Abogada = lawyer Cocinera = chef Enfermera = nurse Fontanera = plumber Ingeniera = engineer Mecánica = mechanic Médica = doctor Profesora = teacher Traductora = translator Intérprete = interpreter		
Si pudiera elegir, = If I were able to choose, Si tuviera la opción, = If I were to have the choice, Si fuera posible, =I f it were possible, Cuando sea mayor = When I'm older,	me gustaría= I would like quisiera = I would like quiero = I want	ser = to be	abogado/a = lawyer cocinero/a = chef enfermero/a = nurse fontanero/a = plumber ingeniero/a = engineer mecánico/a = mechanic médico/a = doctor profesor/a = teacher traductor/a = translator intérprete = interpreter	

Remember in Spanish you **do not** use the article (the/a) when talking about jobs.

For example you say: "I would like to be doctor" rather than "I would like to be a doctor".

Saying what I would like to do when I'm older.

Vocabulary - Jobs

When talking about jobs in Spanish you have to change the ending of the word depending on the ______ of the person you are talking about.

For example:

My Dad is a lawyer.

My Mum is a lawyer.



Masculine		Feminine	
 lawyer chef nurse plumber engineer mechanic doctor teacher translator interpreter 		Abogada = Cocinera = Enfermera = Fontanera = Ingeniera = Mecánica = Médica = Profesora = Traductora = Intérprete =	
= If I were able to choose, = If I were to have the choice, = I f it were possible, = = When I'm older,	= I would like like = I would like	= to be	abogado/a = cocinero/a = enfermero/a = fontanero/a = ingeniero/a = mecánico/a = médico/a = profesor/a = traductor/a = intérorete =

Remember in Spanish you **do not** use the article (the/a) when talking about jobs.

For example you say: "I would like to be doctor" rather than ______





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Year 9 Music:

1	Atonal	Music that lacks a tonal centre and tends to have an unsettling effect.
2	Cue	musical segments created specifically for moments in a film.
3	Cuesheet	A detailed listing of musical cues matching the visual action of a film so that composers can time their music accurately to match the visual images.
4	Diegetic Music	A detailed listing of musical cues matching the visual action of a film so that composers can time their music accurately to match the visual images.
5	Discordant	conflicting musical notes that clash or are harsh sounding.
6	Foley	A means of supplying additional sound effects, and matching them to visuals.
7	Imitation	This is when a melody in a polyphonic texture is repeated shortly after its first appearance in a different voice, usually at a different pitch.
8	Leitmotif	use of a musical phrase to identify with a particular character, place or idea.
9	Mickey Mousing	use of a musical phrase to identify with a particular character, place or idea.
10	Nondiegetic Music	Where the source of a sound is not visible on the screen i.ebackground music.
11	Pedal Note	A long held note, used to create tension
12	Soundtrack	The music and sound recorded on a motion picture film. The word 'soundtrack' can often mean a commercial recording of a collection of music and songs from a film sold individually as an audio CD.
13	Underscore	musical accompaniment to dialogue.



Hans Zimmer, born in Germany, is a leading film composer who has written film scores for The Lion King, Gladiator, The Batman Trilogy, Inception, The Simpsons Movie and Interstellar. He has won multiple awards for his work, including an Academy Award, Golden Globes, Grammy Awards and Classical Brit Awards.

John Williams

John Williams was born in New York, USA, in 1932. He attended the Juilliard School for drama, music and art in Manhattan, New York.

His first major success was for the film score for *Jaws* in 1975 for which he won an Oscar. Williams has composed some of the most iconic film music of all time, including for Superman, Indiana Jones, E.T., Harry Potter, Home Alone and War Horse. He has composed music for over a hundred films and is still actively composing today. His music features in the latest Star Wars trilogy.





Year 9 Music:

1	Atonal	
2	Cue	
3	Cuesheet	
4	Diegetic Music	
5	Discordant	
6	Foley	
7	Imitation	
8	Leitmotif	
9	Mickey Mousing	
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Hans Zimmer, born in _____, is a leading film composer who has written film scores for The Lion King, _____, The Batman Trilogy, _____, The Simpsons Movie and Interstellar. He has won multiple awards for his work, including an Academy Award, Golden Globes, _____ Awards and Classical _____ Awards.

John Williams

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Year 9 Music:

Song Structure

Song structure refers to how a song is organized, using a combination of different sections. A typical song structure includes a verse, chorus, and bridge in the following arrangement: intro — verse — chorus — verse chorus — bridge — chorus — outro This is known as an ABABCB structure, where A is the

verse, B is the chorus and C is the bridge.

VERSE	CHORUS	VERSE	CHORUS	BRIDGE	CHORUS
Α	В	Α	В	С	В

Syncopation

In music, syncopation is the placement of rhythmic stresses or accents on non-important beats, where they normally wouldn't occur.

It can do this by highlighting certain "off" beats, or by putting a rest where normally an "on" beat would be.







Quantisation



Simply put, Quantisation snaps your notes into place to the grid, meaning they are

<u>Sampling</u>

"In music, sampling is the act of taking a portion, or sample, of one sound recording and reusing it as an instrument or element of a new recording.

This is typically done with a sampler, which can be a piece of hardware or a computer program on a digital computer"









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Year 9 PE: Basketball			Rules, Strategies and Tactics		
Motor Competence			Кеу	The area shaped like a keyhole at both ends of the court which included the free throw line.	
Passing	Chest pass, bounce pass, shoulder pass	3-ро	int Line	If you shoot from outside the 3 point line, it is worth 3 points instead of 2	
Receiving	Catching with two hands, catching whilst moving.	Co	o Dribblo	No contact is to be made with the player touching the ball. If it does a side line is taking to the team the foul was against.	
Dribbling	Fingertips, head up, bounce the ball in front of body	3 St Vio	econd	The attackers can't stay in the key for more than 3 seconds.	
Possession	Keeping the ball away from opponents, using body to protect the ball. Dribble if there's space, pass if a teammate is in space	8 So Vio Bacl	econd Iation k Court	Players have 8 seconds to get the ball over the halfway line. If they don't they lose possession of the ball. Once over the halfway line the attackers can not pass the	
Defending	Rebounding, Zonal defence (marking the space rather than the player)	Vio	lation He	ball back over the halfway line otherwise they lose possession of the ball.	
	Composition accuracy and	Muscles Deltoids, biceps, triceps, hamstrings, quadriceps			
Shooting	Composure, accuracy and placement. Lay up - use outside arm, use fingers to create backspin, aim for the postage stamp	Fitness components	nponents Hand-eye coordination, speed, agility, reaction time		



Year 9 PE: Handball

Rules, Strategies and Tactics Contact Contact can only be made when front-on. Any **Motor Competence** contact from the side or behind is a foul Use fingertips for control, weight on front foot with dominant Passing **Free Throw** A free throw is given for infringement on the hand and foot at the back. See it rules, defenders must stand 3 metres away from out. the thrower Get in line, make space away Penalty Throw from defender, arms out and see Receiving Given if a foul occurs when shooting or if a it in. defender enters their own area **Corner Throw** Use your fingertips, knees slightly Given if the ball goes behind the goal off the bent, keep your head up. Try to defender (not including the goalkeeper Dribbling use alternate hands as an advanced technique Passing You must pass with one hand Dribble if you have space, Double pass if a teammate is in a better You cannot dribble with both hands, you cannot Possession position. PIVOT to look for Dribbling move more than 3 steps with the ball in your options hand. You must pass or shoot if you stop dribbling. You cannot hold the ball for more than 3 seconds. Jump block and shutting down Defending the space, communicating with teammates **Healthy Participation** Raising the arm and moving the shoulder back, bending the Muscles Deltoids, biceps, triceps, hamstrings, quadriceps elbow and rotating the body for Shooting power. Jump shot - same motion **Fitness components** Hand-eye coordination, speed, agility, reaction time but jumping to add power


dovebin O DE-L

ear 9 PE: Leadership			Rules, Strategies and Tactics		
Motor Competence		Approj use	priate of	We should consider what equipment we need and only use what is necessary. Equipment should be	
Understanding what a sports leader is	Someone in charge of a team, they are creative, reliable, punctual, confident and have good communication skills		equipi Plann	ment ing a ion	activities with them. Consider the equipment available, considers the
Roles of a Sports Leader	Role model, motivator, planner, Instructor, Mentor, Advisor, Councillor, Demonstrator, Organiser.		session Delivery of a session		are. Link the activity to the purpose of it. Consider timings Be confident, organised, punctual, keep it structured and motivate participants.
Responsibilities of a Sports Leader	Knowledge of activity, enthusiasm for activity, knowledge of safety, knowledge of child protection issues,		Oriente	eering	Use map appropriately, don't move or damage any of the equipment. Try to complete the course as quickly as possible
Designing a	Consider a warm up, main activity and game. Consider what				Healthy Participation
lesson plan	space will be used, what equipment will be used and the safety precautions involved.	Warm Up	Involves a pulse raiser, dynamic stretches and a skill-basedVarm UpPrepares participants physically and mentally. Helps to previnjury.		a pulse raiser, dynamic stretches and a skill-based activity. s participants physically and mentally. Helps to prevent
Orienteering	Using a map and a compass to navigate between checkpoints. Leaders should find the best route to take	Muscles used orienteering	Muscles used when orienteering Hamstrings, quadriceps, gastrocnemius		ngs, quadriceps, gastrocnemius
		Cool Down	Light jog into a walk followed by static stretches. This prevents I acid building up in the muscles		; into a walk followed by static stretches. This prevents lactic ding up in the muscles



Year 9 PE: Fitness

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

Rules, Strategies and Tactics

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

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

V

Year 9 PE: Fitness		
Mot	cor Competence- define the terms below.	
Muscular strength		
Muscular Endurance		Healthy Participation
Speed		Muscles commonly used in the lesson:
Agility		•
Flexibility		•
Balance		
Coordination		
Reaction time		·
Cardiovascular Fitness		
Rules, Strategies and Tactics		
All of the movements completed to ir	nprove agility and speed must use theas this would stop any inju	ies or muscular injuries occurring.
All participants must have	their muscles before completing flexibility and balance skills as if not muscles	can easily be torn or damaged.

Religious Education



Helping every person achieve things they never thought they could.

Little Lever School be kind | work hard | take responsibility

Year 9 RE: Christi	Year 9 RE: Christianity			
Christianity	The religion followed by Christians	1.		
Bible	The holy book of Christianity			
Old Testament	The first part of the Bible	2.		
New Testament	The second part of the Bible	3.		
Creed	A statement of belief			
Denominations	Groups or branches within the religion	4. 5.		

Where do Christian teachings come from?

- The Bible The holy book of Christians is called the Bible. This is divided into two main parts – the Old Testament and the New Testament. The Old Testament includes the Creation Story and the Ten Commandments. The New Testament includes the 4 Gospels of Matthew, Mark, Luke and John, which are accounts of Jesus' life.
- 2. The Church mainly through their creeds.
- **3.** Theologians and philosophers who have studied difficult questions about religion.
- 4. Individual Christians.
 - **Different Christian denominations.** The two main branches of Christianity are Roman **Catholics and Protestants**.







Year 9 RE: Christianity			1er
Christianity		1.	-
Bible		2.	-
Old Testament		3.	-
New Testament		4	_
Creed			-
Denominations		5.	-

Where do Christian teachings come from?

-

HOLY BIBLE



Christianity is a **monotheistic** religion, which means that they believe in **One God.** They believe that God has many qualities/attributes.

Key Words

Salvation – the idea that Jesus **saved** humanity from **sin** and death through his death and **resurrection**.

Sin – acting against God's will.

Original Sin – Some Christians believe this was the **first** sin, committed by Adam and Eve.

Atonement – Forgiveness, reconciliation, being 'at one' with God.

Qualities	Meaning	Evidence from the Bible
Omnipotent	All-powerful	The creation of the world in Genesis. Miracles that Jesus performed, for example, turning water into wine.
Omni- benevolent	All-loving	Jesus' death - so that humanity could achieve salvation and atonement.
Just	Fair, treat everyone equally.	The Parable of the Sheep and Goats. The Book of Job.



Year 9 RE: Christianity

Year 9 RE: Christianity

Christianity is a ______ religion, which means that they believe in _____ . They believe that God has many _____/attributes.



Key Words Salvation –

Sin –
Original Sin –

Atonement –

Qualities	Meaning	Evidence from the Bible
Omnipotent		
Omni- benevolent		
Just		

Year 9 RE: Christianity

The Trinity is the Christian belief in One God, made up of three persons. The three persons of the Trinity for Christians are God the Father, God the Son (Jesus) and God the Holy Spirit. They are all equally important.

Christians see the three persons of the Trinity as having different characteristics and roles.

Christians believe in the Trinity because...

It is explained in the Creeds, for example, the Apostles' Creed and the Nicene Creed.

It is referred to in the Creation Story.

It is referred to when Jesus was baptised

God the Father	God the Son	God the Holy Spirit	
Sustains and rules everything.	Born of the Virgin Mary.	Part of God that works within the	Christians express their belief in Trinity by
		world.	They recite the creeds.
Will judge.	Performed miracles.	Helper and guide.	They do the 'sign of the cross' at the beginning and end of prayers.
Continues to care for us like a father.	Rose from the dead on the third day.	Invisible power of God which breathes new life into people.	During baptism, water is poured over the head three times.
Creator	Redeemer, saviour	Provides courage and strength.	They celebrate Trinity Sunday.

Year 9 RE: Christianity

The Trinity is the persons. The three persons Father, God the Son (important. Christians see the characteristics and	_ belief in One God, mad ons of the Trinity for Chris) and God the Holy Spi persons of the Trinity as 	e up of three stians are the rit. They are all having	because
God the Father	God the Son	God the Holy Spirit	

Gou the Soli	God the noty Spint

Christians express their belief in Trinity by...



Year 9 RE: ChristianityDay 1 and 2Day 3Day 4Image: Day 1 and 2Image: Day 2Image: Day 2Day 3Day 3Day 4Image: Day 3Image: Day 3<



The first book of the Bible, Genesis, says that God created everything. The process took six days and on the seventh day, God rested.

Christians see God the Father as the creator, but the Bible also describes how the other persons of the Trinity were involved.

Christians believe God the Son was present at Creation because in the Bible it refers to Jesus as the 'Word' and in John's Gospel it says, 'In the beginning was the Word'

In addition, they believe '...the Spirit hovered over the waters.' (Genesis).



The _____book of the Bible, Genesis, says that _____ created everything. The process took _____ days and on the seventh day, God

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Year 9 RE: Christianity and Creation

Different Interpretations of the Creation Story

- Some Christians take the Creation story literally. They are known as Creationists. They believe the process took six days and humans descended from Adam and Eve.
- Other Christians believe it is metaphorical; that God may be responsible for the Big Bang and for starting the process of evolution. They would say that the Bible story is not necessarily scientifically accurate. It has a symbolic truth.
- They view Genesis as more of a parable, or a symbolic description. They acknowledge God as the creator, but are open up to other theories about how God made the universe.





The creation story can help Christians to further understand God's nature. God is eternal and transcendent, as he made time and was present prior to it. He is omnipotent as he created the universe through words. God's benevolence can be seen through creation too, as he brought mankind to life and gave them the world.

Year 9 RE: Christianity and Creation

Different Interpretations of the Creation Story

- Some Christians take the Creation story literally. They are known as ______. They believe the process took six days and humans descended from _____ and Eve.
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Year 9 RE: Islam

Islam was founded in the 7th Century.

It shares some ideas with Judaism and Christianity.

Follows of Islam are called Muslims.

Muslims believe in one God, Allah.

The main holy book for Muslims is the Qur'an.

Muslims also follow the sunnah (the way) and the teachings of the Prophet Muhammad.



The two main branches of Islam are Sunni and Shi'a .

Main Differences	Sunni	Shi'a
Leadership	Believe the Prophet's best friend, Abu Bakr, should be the caliph (successor) after the Prophet's death.	Believe the caliph should be related to the Prophet Muhammad and that Muhammad named his cousin, Ali, to be the next caliph following his death.
Beliefs	Their main beliefs are known as the Six Beliefs or Six Articles of Faith	Their main beliefs are known as the Five Articles of Faith or Five Roots.

Year 9 RE: Islam				
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Main Differences	Sunni	Shi'a
Leadership		
Beliefs		

Science



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Year 9 Science: Cell division and transport					\cap	Cell		Semi permeable site of chemical	Controls the movement		
	Cytoplasm	Site of chemical reactions in the	Gel like substance containing enzymes to catalyse the		R	membr	ane	reactions in the cell	of substances in and out of the cell		
	Nucleus	cell Contains genetic material	rea Controls the a and code	ctivities of the cell s for proteins	0	Bacter DNA	ial	Not in nucleus floats in the cytoplasm	Controls the function of the cell		
	Cell membrane	Semi permeable	Controls the substances in a	e movement of and out of the cell		Cell wal		Cell wall NOT made of cellulose		Sand strengthens the cell	
	Ribosome	Site of protein synthesis	mRNA is trans	lated to an amino d chain	Ÿ	Plasm	id	Small rings of DNA	Contain additional genes		
animal	Mitochondria	Site of respiration	Where energ the cell	gy is released for to function		Cytoplasm		Site of chemical reactions in the cell	Gel like substance containing enzymes to catalyse the reactions		
cell	Eul	aryotes compl	ex organism	s	\sim			Prokaryotes	simpler organisms		
plant cell	Permane	nt Contains	cell sap co	Keeps cell turgid, ontains sugars and	Nerve		to	Carry electrical signals	long branched connection and insulating sheath		
	Cell wall Made		salts in solution Supports and strengthens the cell of cof cof cof cof cof cof cof cof cof		Sperm	S		Fertilise an egg	streamlined with a long ta acrosome containing enzymes large number o mitochondria		
Chloroplast		site st photosy			Muscle		-	Contract to allow movement	contains a large number mitochondria long		
and the second		Y JEE	Root hair		Absorb wat minerals fro	t er and om soil	На	ir like projections	to increase the surface area		
		Xylem Phloem		Carry water ai minera ls		and TRAN SPIRATION - de Is lignin. Flo		ad cells cell walls toughened ws in one direction			
				Carry glu	icose	TRANS	LOCATION - living with l Flows in bot	cells cells have end plates noles. h directions.			











Year 9 Scier	nce: Cell division ar	nd transport			Therapeutic cloning uses same genes so the body does not reject the tissue. Can be a risk of infection			
Diffusion <u>No</u> energy required	Movement of particles in a solution or gas from a higher to a lower concentration	E.g. O_2 and CO_2 in gas exchange, urea in kidneys. Factors that affect the rate are concentration, temperature and surface area.	Human Embryonic stem cells	Can be cloned and made to differentiate into most cell types				
Osmosis	Movement of water	E.g. Plants absorb water from the soil by osmosis through their root						
<u>No</u> energy required	from a dilute solution to a more concentrated solution	hair cells. Plants use water for several vital processes including photosynthesis and transporting minerals.	Adult bone	Can form some types	Tissue is matched to avoid rejection, risk			
Active transport <u>ENERGY</u> required	Movement of particles from a low concentration to a high concentration	E.g. movement of mineral ions into roots of plants and the movement of glucose into the small intestines.	marrow stem cells	of human cells e.g. blood cells	of infection. Only a few types of cells can be formed.			
DNA replic	+ (Conception) → (Conception)	Two diploid cells	Meristems (plants)	Can differentiate into any plant cell type throughout the life of the pant.	Used to produce clones quickly and economically, e.g. rare species, crop plants with pest /disease resisitance			
	Mitosis							

Treatment with stem cells may be able to help conditions such as diabetes and paralysis. Some people object to the use of stem cells on ethical or religious grounds











Year 9 Science: The Structure of Atoms and Groups						Two or moreMixturescompounds n			e elements or not chemically	Can be separated by physical	
its ds	Atom	The smallest po an element tha exist	art of Have It can nanome	of Have a radius of around 0.1 nanometres and have no charge		F Have a radius of around 0.1 nanometres and have no charge (0).		combined together			processes.
oun	Element Contains only one type of atom		Around	Around 100 different elements				Method	Description	Example	
ns, ele comp			m each c syl	one is represented by mbol e.g. O, Na, Br.	epresented by a g. O, Na, Br.				Separating an	To get sand	
Aton and	Compound	Two or mor elements chemically combined	e Compour into d	Compounds can only be separated into elements by chemical reactions.				Filtration	insoluble solid from a liquid	n of sand, salt and water.	
		Central nucleus	: Contaiı	ns protons and neu	trons		Cry	ystallisation	To separate a soli from a solution	To obtain pure crystals of sodium chloride	
i (🍪		Electron shells	hells Contains electrons							from salt water.	
			Electronic shell	Max number of electrons			Simple		To separate a solvent from a	To get pure water from salt	
Name of Particle	Relativ Charge	e Relative Mass	1	2	- - -	es e		istillation	solution	water.	
Proton	+1	1	2	8		nctu		Fractional	Separating a mixture of liquids each with	To separate the	
Neutron	0	1	3	8		str				h different	
Electron	-1	Very small	4	8	1 └		C	distillation	points	crude oil.	
									_		
Relative a		Mass number	The sum of the p	protons and neutrons	in the nu	ucleus	Chro	omatography	Separating substances that move by differen amounts (due to	t To separate out the dyes in food	
3		Atomic number	The number protons in the a	of Number of number	of electro of proto	ons = ons			solubility) through medium	a	



Year 9 Se	cience: Th	e Structure of Ator	The development of the model of the atom			
(1803)		Suggested idea of ato	oms as small spheres that cannot be cut.		A beam of alpha	Most of the alpha
Thomson (1904)		Proposed <i>'plum pudding'</i> with nega	model – atoms are a ball of positive charge tive electrons embedded in it.	ierford's experiment	particles are directed at a very thin gold foil	particles passed right through. A few (+) alpha particles were deflected by the positive nucleus. A tiny number of particles reflected back from the nucleus.
Geiger and Marsden (1909)	Diagram below	Directed beam of alpha Found most travelled th	a particles (He ²⁺) at a thin sheet of gold foil. rough, some were deflected, some bounced back.	Ruth scattering		
(1911)		Used above evidence electrostatic interactio Proposed mass and p electrons found outside	to suggest alpha particles deflected due to n between the very small charged nucleus. ositive charge contained in nucleus while the nucleus which cancel the positive charge exactly.	Chemica I equation	Show chemical reactions - need reactant(s) and product(s)	Law of conservation of mass states the total mass of products = the total mass of
Bohr (1913)		Suggested modern mode nucleus, electrons ca electromagnetic radia particles within the nucle	l of atom – electrons in circular orbits around in change orbits by emitting or absorbing ition. His research led to the idea of some us having positive charge; these were named protons.	ord equations	Uses words to show reaction reactants → products e.g. magnesium + oxygen	Does not show what is happening to the atoms or the number of
Chadwick (1932)		Discovered neutrons in n	ucleus – enabling other scientists to account for mass of atom.	s Wo	→ magnesium oxide	atoms.
Relative atomic mass	Isotopes	Atoms of the same element with the same number of protons and different numbers of neutrons	<pre>35Cl (75%) and ³⁷Cl (25%) Relative abundance = (% isotope 1 x mass isotope 1) + (% isotope 2 x mass isotope 2) ÷ 100 e.g. (25 x 37) + (75x 35) ÷ 100 = 35.5</pre>	Symbol equation	Uses symbols to show reaction reactants → products e.g. 2Mg + O ₂ → 2MgO	number of atoms and molecules in the reaction, these need to be balanced.


Yea Per	r 9 Scie iods	AIKAII METAIS Transition metals	f Atoms and Groups and Halogens 3 4 5 7 0 He B C N O F Ne Al Si P S CL Ar	Elements arranged in order of atomic number	Elements with similar properties are in columns called groups	Elements in the same group have the same number of outer shell electrons and elements in the same period (row) have the same number of electron shells.	
K Rb Cs Fr	Ca Sc T Sr Y Z Ba La H Ra Ac R	i V Cr Mn Fe Co Ni Cu Z r Nb Mo Tc Ru Rh Pd Ag C If Ta W Re Os Ir Pt Au H If Db Sg Bh Hs Mt ? ? ?	n Ga Ge As Se Br Kr d In Sn Sb Te I Xe g TI Pb Bi Po At Rn Development of the Periodic table	Before discovery of protons, neutrons and electrons	Elements arranged in order of atomic weight	Early periodic tables were incomplete, some elements were placed in inappropriate groups if the strict order atomic weights was followed.	
The Periodic table Metals To the left of the Periodic table			Form positive ions. Conductors, high melting and boiling points, ductile, malleable.	Mendeleev	Left gaps for elements that hadn't been discovered yet	Elements with properties predicted by Mendeleev were discovered and filled in the gaps. Knowledge of isotopes explained why order based on atomic weights was not always correct.	
Non metals Consist		To the right of the Periodic table of molecules made of a pair of atoms	Form negative ions. Insulators, low melting and boiling points. Have seven electrons in their outer shell. Form -1 ions.	netals	Very reactive with oxygen, water and chlorine	Only have one electron in their outer shell. Form +1 ions.	
Halogen	Meltin down th Reactiv	g and boiling points increase e group (gas → liquid → solid) ity decreases down the group	Increasing atomic mass number. Increasing proton number means an electron is harder to gain.	Alkali n	Reactivity increases down the group	Negative outer electron is further away from the positive nucleus so is more easily lost.	

Yea	Year 9 Science: The Structure of Atoms and Groups and											At	om								
Pe	ric	ods																	Elements	Elements with	
			/	ΑΙΚά	i me	ταις						Halogens					ne gas I	5	order of	similar properties	
1					_							3 4 5 8 7 0							atomic	called groups	
Н	_	_			Trar	nsitio İ	n me	etals	5			He					He		number		
Li	B	e									_	В	С	N O F Ne							
Na		lg						Al	Si	Р	S	Cl	Ar								
К		a Sc	T	i V	Cr	Mn	Fe	Со	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr				
Rb		r Y	Z	r Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Те		Xe		y of ons s	Elements arranged	
Cs	В	a La	Н	f Ta	W	Re	Os	lr	Pt	Au	Hg	TI	Pb	Bi	Po	At	Rn		over utro		
Fr	Fr Ra Ac Rf Db Sg Bh Hs Mt ? ? ?										in isco	in order of atomic									
	Ţ														tons nd e	weight					
								Development					nt		3efo prot al						
												of the Periodic table					table		—		
	Th	e Pe	rio	odic	tabl	е					_								>		
				_										ndeleev	Left gaps for elements that hadn't been						
N	/let	als		To the left of the Periodic table																	
								-											Β	discovered yet	
Nor	n m	netals	;	То	the	right	t of † table	the	Perio	odic											
								-												Very reactive with	
		Cons	ict /	ofmo			nad	o of	2 02	ir of									<u>s</u>	oxygen, water and	
		COIIS	151 1		at	toms	5	2 01	a pa										eta	chiorine	
ens																			<u>.</u>		
) <u></u> 30		Me dowr	ltin th	g and	boil	ling zas =	poin ➔ lio	ts ir wid	ncrea ح	nse oliď									kal		
- Har				510	~P (8	543	2 110		- 3		/								A	Reactivity increases	
		Read	tiv	itv de	crea	ises	dow	n th	ne gr	auo										down the group	
Nedu				,					- 0'	- 											

Year 9 So Periods	cience:	The	Structu	re of Atoms	and Gr	oups and	With Forms a metal oxygen oxide		Metal + oxygen → metal oxide		e.g. 4Na + O₂ → 2Na₂O		
			Transi	tion metals (Chemist	ry only)	With water	Forms a metal hydroxide and hydrogen	Metal + water → metal hydroxide +		e.g. 2Na + 2H ₂O ➔ 2NaOH + H₂		
	Very u not for	y unreactive, do form molecules		This is due to having full outer shells of electrons.			With chlorine	Forms a metal chloride	Metal + chlorine → metal chloride		e.g. 2Na + Cl₂ → 2NaCl		
ble ses						Compared to group 1	• • ні	Less reactive • Harder • Denser gher melting point	 Cu²⁺ is blue Ni²⁺ is pale green, used in manufacture of margaria 		Cu²+ is blue e green, used in the cture of margarine		
9 Do	Boiling points increase down the group			Increasing a numbe	itomic r.	Typical properties	• Mai poss • Form	ny have different ibilities with differ charges Used as catalysts coloured compou	ion rent ınds	 Fe²⁺ is green, used in the Haber process Fe³⁺ is reddish-brown Mn²⁺ is pale pink 			
With metals		Forms a metal halide			Metal + halogen → metal halide e.g. Sodium + chlorine → sodium chloride					e.g. NaCl metal atom loses outer shell electrons and halogen gains an outer shell electron			
With hyc	For	rms a hyd	rogen halide	Hydr e.g. Hyd	rogen + halogen rogen + bromin	→ hydrog e → hydro	en halide gen bromide	e.g. Cl ₂ + H ₂ → 2HCl					
With aqueous solution of a halide salt		A more reactive halogen will displace the less reactive halogen from the salt			Chlorine + potassium bromide → potassium chloride + bromine					e.g. Cl₂ +2KBr →2KCl + Br₂			

Year 9 So and Peri	cience: T iods	he Structı	ire of Atoms	and Gr	oups	With oxygen Sorms a metal				e.g. 4Na + $O_2 \rightarrow$ 2Na ₂ O	
		Trans	ition metals (Chemist	ry only)	With water	Forms a metal hydroxide and hydrogen			e.g. 2Na + 2H ₂ O → 2NaOH + H ₂	
	Very unro not form	eactive, do molecules				With chlorine	Forms a metal chloride			e.g. 2Na + Cl₂ → 2NaCl	
									• (Cu²+ is blue	
Voble Jases					Compared to group 1			 Ni²⁺ is pal manufat Fe²⁺ is gree 		e green, used in the cture of margarine	
2 0	Boilin increase	g points down the			Turical					en, used in the Haber process	
	gı	oup			properties				• Fe ³⁺ Is • Mn	²⁺ is pale pink	
With metals								meta ai	e.g. N I atom loses ou nd halogen gair elec	NaCl Iter shell electrons Is an outer shell tron	
With hyd	drogen							e.g. Cl ₂ + H ₂ → 2HCl			
With aqueous solution of a halide salt								e.g. Cl₂ +2KBr →2KCl + Br₂			

Year	9 science:	Energ	SY											C		
						2	Change	in th	ermal ener	gy = mass X sp	pecific heat o	capacity X ten	nperature chang	e 1	$\Delta E = m \mathbf{X} \mathbf{C} \mathbf{X} \Delta \Theta$	
Kineti	c Energy store	ed by a biect	1/2	2 X mas	ss X (speed) % mv ²	2	Sner	rific	Energy	Energy needed to Depends			ubstance	The support		
Elasti	c Energy stor	ed in a	½ X sprir	ng con	stant X (ext ½ ke ²	ension) ²	Heatraise 1kg ofwhat the suCapacitysubstance by 1°Cput into the		substance is and energy he system.							
energ	y elastic b	and	(Assuming the li	mit of p ex	proportionali ceeded)						-					
Gravitati	onal Energy gaine	d by an	Mass X gravit	tationa	al field strer	Mechanic	al	Force	acts upon an	n object	Ener	gy Conserv	ation	and Dissipation		
energ	y the grou	ind			mgh		Electrical Electric current flow			How much en						
	-		Ι	_			Heat	Temperature			ture difference			ficiency	is usefully	
Syster	n An object o	or group o	f objects that	EG	: Kettle boi			b	between objects					transferred		
		teract tog	t together			Radiatio	diation Electron		nagnetic waves or sound			To scatter	in			
Energ	Kinetic, cher v aravitati	nical, inte onal potei	ernal (thermal), ntial. elastic	En	ergy is gain	ed or lost		No	change	HIGHER:	efficiency		all	Wh	it dissipates into the	
store	s potential,	potential, magnetic, e		fro	om the obje	Closed	ir	total	can be in	ncreased	Dissipat	e direction	s su	rroundings as internal		
		nuclear	nuclear						ergy in	using machines.			wastefull	v	(thermal) energy.	
Ways to Light, sou		nd, electric	city, thermal,	EG	: electrical		S	ystem	Efficienc	y = <u>Useful p</u>	ower			Insulation		
energy store to a		nother sto	re of energy.	tra	ansfers cher	Open	Ene	ergy can		Total power	input	Ways to	Energy	streamline		
Unit		Joules (J)	he	at water up).	system	dis	ssipate	Efficien			'wasted'	ansferre	d design,	
			nhuing a farma							output er	nergy transfe	<u>er</u>	energy	isefully	lubrication of	
	Doing work transfers enerav	By app to mo	to move an object Wo			/ork done = Force X distance					Total input					
Work	from one store to	the en	the energy store is					energ		y transfer	Principle o	f The amou	nt of	Energy cannot be		
	another	changed.					— НІСНЕІ			Vhen an obied	t is	conservatio	on energy all	<i>rays</i> created or destroyed,		
	-	1 Jou	1 Joule of energy			Power = energy transfer ÷ ti			oved, ener	gy is transferr	ed by	of energy	same		one store to another.	
Power	The rate of energy transfer	per s	second = 1		Power = w	P = E ÷ t /ork done ÷ time	.		do	ing work.						
	0.0.000	wat	t of power		F	P = W ÷ t			Work de	one = Force X					Units	
		•	Units		Lisoful	Energy tro	unsforred		distar	nce moved		Energy (k	E. EPE. GPE.			
	fie Lleet Care situ	Joules p	er Kilogram deg	gree	energy	and u	ised				┛	the	ermal)		Joules (J)	
Speci	fic Heat Capacity	Ce	elsius (J/Kg°C)		Waste	d Dissipated	l energy,		Friction energy t	nal forces caus to be transferr	se red	Ve	locity	Met	tres per second (m/s)	
Temperature change		Deg	rees Celsius (°C))	energy	stored less	s usefully		as therm	al energy. Th	is is	Spring	constant	New	vton per metre (N/m)	
	Work done		Joules (J)		Brofix	Multiple	Standar	ון	L	wasted.		Ext	ension		Metres (m)	
Force			Newton (N)		Field	wiuitipie	d form		Reduc	educing friction - using		Ν	/lass		Kilogram (Kg)	
Di	stance moved		Metre (m)		Kilo	1000	10 ³ 10 ⁶	wheels, a Reduci		applying lubri	cation.	Gravita	Gravitational field strength		Newton per kilogram (N/Kg)	
	Power		Watts (W)		Mega	1000 000				ivelling slowly	, ,	Sti				
Time			Seconds (s)		Giga 100 000 000		10 ⁹			streamlining.		H	eignt		wietres (m)	



V	ear 9 sci	ence: Fnerøv									
	Using renewable	energy will need to	Energy de increas	emand is ing as behind of	ation – NB: You need erstand the principle reperating electricity	Trans	sport	Petrol, diesel, kerose from oil	ene produced I	Used in cars, trains and planes.	
	increase to	meet demand.	population	An energ	y resource is burnt to	Неа	ting	Gas and elect	tricity	Used in buildings.	
	Renewable en about 20% consun	ergy makes up of energy – reserves nption. running	uel s are out.	make ste which c	am to drive a turbine Irives the generator.	Elect	ricity Most generated by fossil fuels			Used to power most devices.	
N e	on-renewable ergy resource	These will run out. It is a finite reserve. It cannot be replenished.e	e.g. Fossil fuels (bil and gas) and nuclear fuels.	coal,	Power station Ger	erates ctricity	Fuel burn releasing thermal ene	Water boils seam	Steam turns turbine	Turbine turns generator voltage	
RenewableThese will never run out. It is an infinitee.g. Solar, Tide Waves, Wind, Geothermal, E Hydroelectric				mass,	Nation al Grid	nsports ctricity oss UK	Power stat	ion Step-up transformer	Pylons t	Step-down transformer factory	
	Energy resource	How it work	cs	Uses	Positive			I	Negative		
	Fossil Fuels (coal, oil and gas)	Burnt to release therma to turn water into ste turbines	l energy used cam to turn	Generating electricity, heating and transport	Provides most of the U Large reserves. Cheap t Used in transport, hea making electricity. E transport.	K energy. o extract. ting and asy to	Non-renewable. Burning coal and oil releases sulfur dioxide. When mixed with rain makes acid rain. Acid rain damages building and kills plants. Burning fossil fuels releases carbon dioxide which contributes global warming. Serious environmental damage if oil spilt.				
	Nuclear	Nuclear fission p	rocess	Generating electricity	No greenhouse gases p Lots of energy produced amounts of fue	roduced. from small I.	Non-renewable. Dangers of radioactive materials being released into air or water. Nuclear sites need high levels of security. Start up costs and decommission costs very expensive. Toxic waste needs careful storing.Large areas of land needed to grow fuel crops. Habitats destroyed and food not grown. Emits carbon dioxide when burnt thus adding to greenhouse gases and global warming.Expensive to set up. A dam like structure is built across an estuary, altering habitats and causing problems for ships and boats.				
	Biofuel	Plant matter burnt to rea energy	lease thermal	Transport and generating electricity	Renewable. As plants g remove carbon dioxide. 'carbon neutral	row, they They are					
	Tides	Every day tides rise a generation of electric predicted	und fall, so city can be	Generating electricity	Renewable. Predictabl consistency of tides greenhouse gases pro	e due to 5. No oduced.					
	Waves	Up and down motion tu	urns turbines	Generating electricity	Renewable. No waste p	products.	Can be unreliable depends on wave output as large waves can stop the pistons working.				
	Hydroelectric	Falling water spins	a turbine	Generating electricity	Renewable. No waste p	products.	Habitats destroyed when dam is built. Unreliable – wind varies. Visual and noise pollution. Dangerous to migrating birds. Making and installing solar panels expensive. Unreliable due to light intensity.				
	Wind	Movement causes turl which turns a gen	bine to spin nerator	Generating electricity	Renewable. No waste p	products.					
	Solar	Directly heats objects in s sunlight captured in pho	solar panels or tovoltaic cells	Generating electricity and some heating	Renewable. No waste p	products.					
	Geothermal	Hot rocks under the gr water to produce ster turbine	round heats am to turn	Generating electricity and heating	Renewable. Clean. No g gases produced	reenhouse 1.	Limited to a small number of countries. Geothermal power statior cause earthquake tremors.				

Y	'ear 9 scie	ence: Energy		Pov	wer station –				-	
						Transport				
L			L	4		Heating				
						Electricity				
N e	Ion-renewable nergy resource		Ē		Power station		-	-	* +	
e	Renewable nergy resource				Nation al Grid		•	•	* +	
	Energy resource	How it works		Uses	Positive					
	Fossil Fuels (coal, oil and gas)									
	Nuclear									
	Biofuel									
	Tides									
	Waves									
	Hydroelectric									
	Wind									
	Solar									
	Geothermal									









Year 9 science: Reactions in cells











