Need To Know Book

Year 9

Spring 2024

Name:_____

Form Group: _____

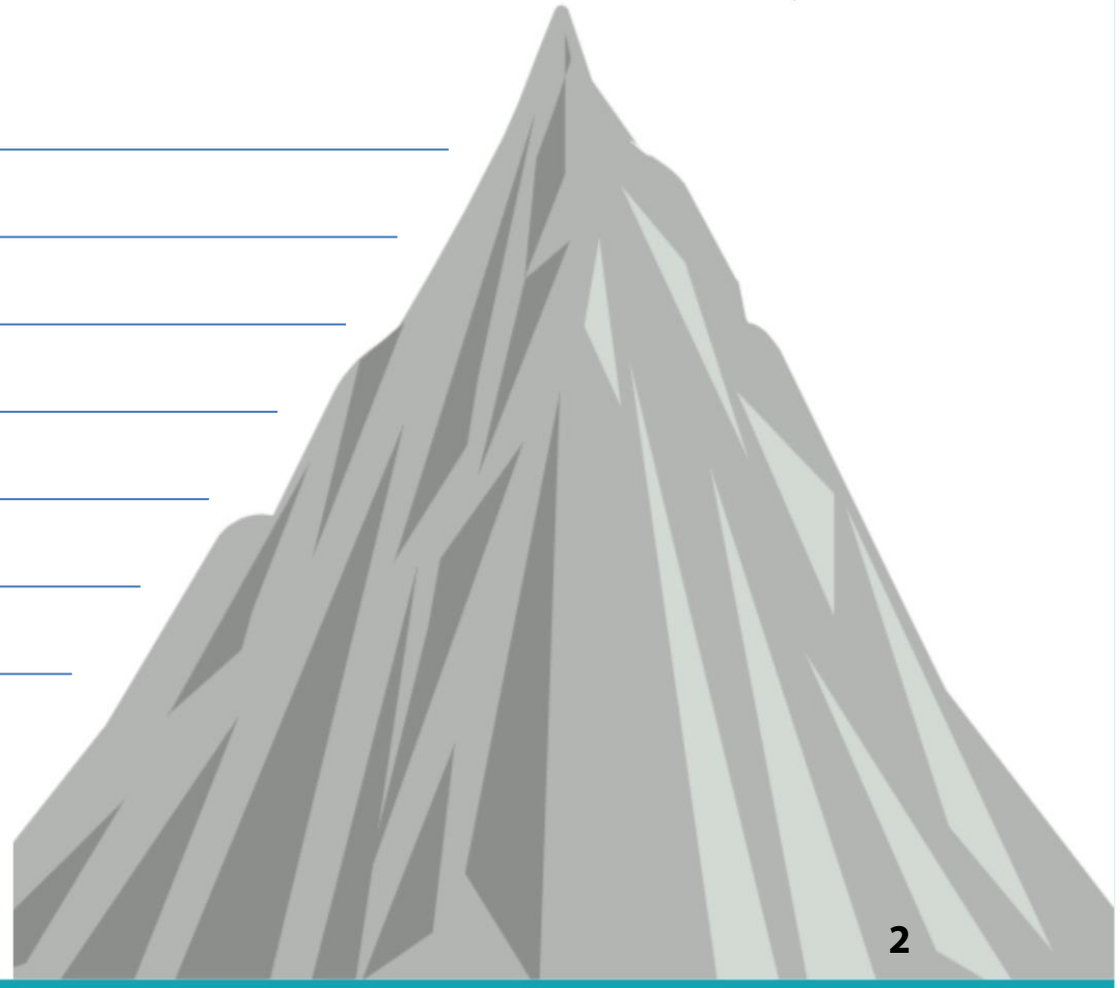
Helping every person achieve things they never thought they could.

Little Lever School
be kind | work hard | take responsibility

My Aspirational Sentence.

Little Lever School
be kind | work hard | take responsibility

What does the top of my mountain look like?



Contents Page

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Knowledge Retrieval Sheet

What are knowledge retrieval sheets?

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

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

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

Using Knowledge Retrieval Sheets- 5 Top Tips:

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

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Art

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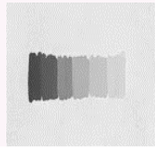
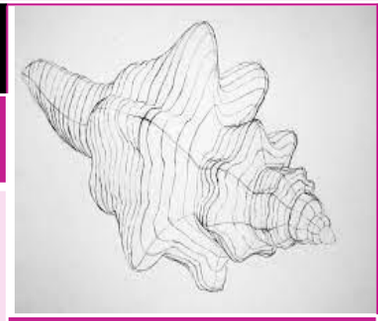
Year 9 Art: The Formal Elements

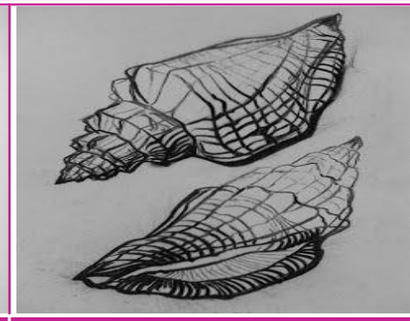
The Formal Elements of Art

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



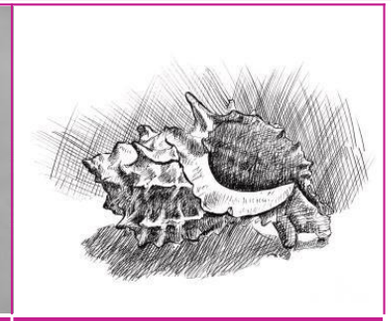
Contour Lines

Lines that are used to define the shape or form of an object or to show key details are called outlines or contour lines.



Descriptive Lines

Descriptive lines tell us more about a subject. They help make a shape look more like a three-dimensional object by showing light, shade and texture.



Expressive Lines

The way lines are created can be used to express emotions and to create mood.

Jason Scarpace

Jason Scarpace was born in 1972 in New York and is best known for his abstract fish art.

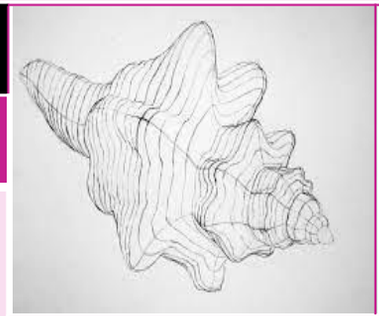
Scarpace's fish paintings are created in acrylic, oil, watercolour, pastel and a variety of other media on canvas, board and paper.

Widely regarded as colourful, completely original, and whimsical, the works of Jason Scarpace represent in his own words, "a personal journey through the use of basic art elements: line, shape and colour."

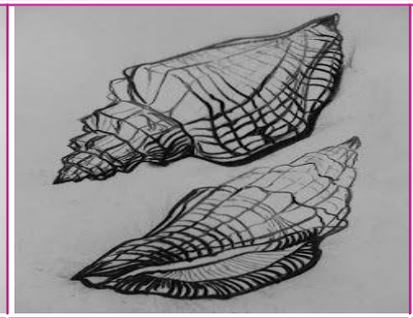
Year 9 Art: The Formal Elements

The Formal Elements of Art

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



What are contour lines?



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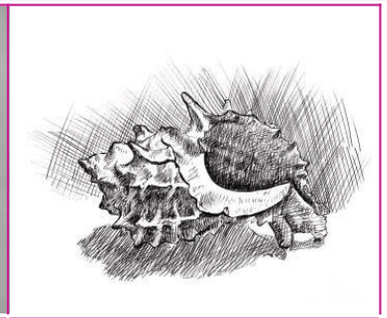


What are expressive lines?

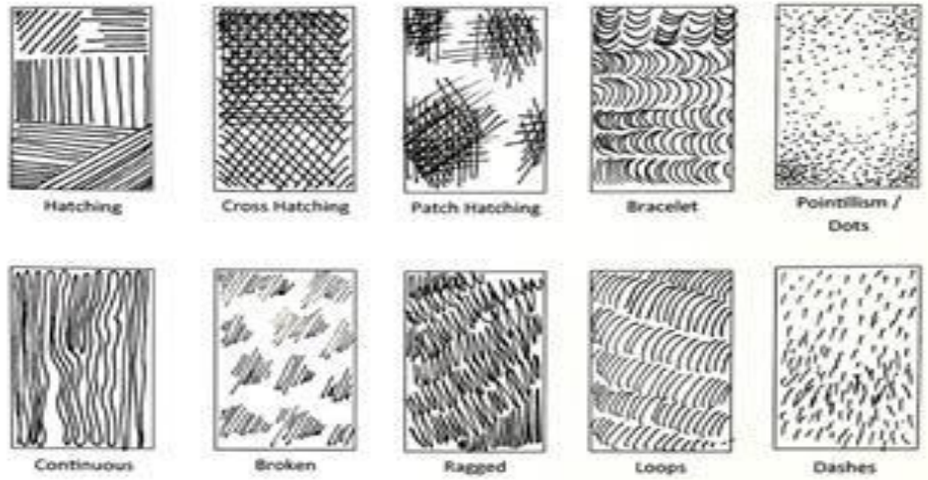
Jason Scarpace

Jason Scarpace was born in:

Scarpace's fish paintings are created in

Widely regarded as colourful, completely original, and whimsical, the works of Jason Scarpace represent in his own words...

Year 9 Art: The Formal Elements



Natural Forms

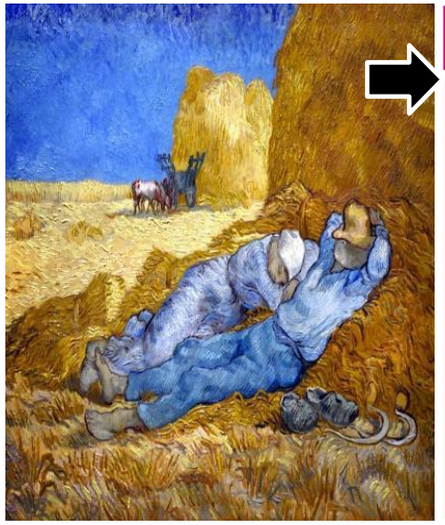
Natural form is an object in nature in its original form.

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.

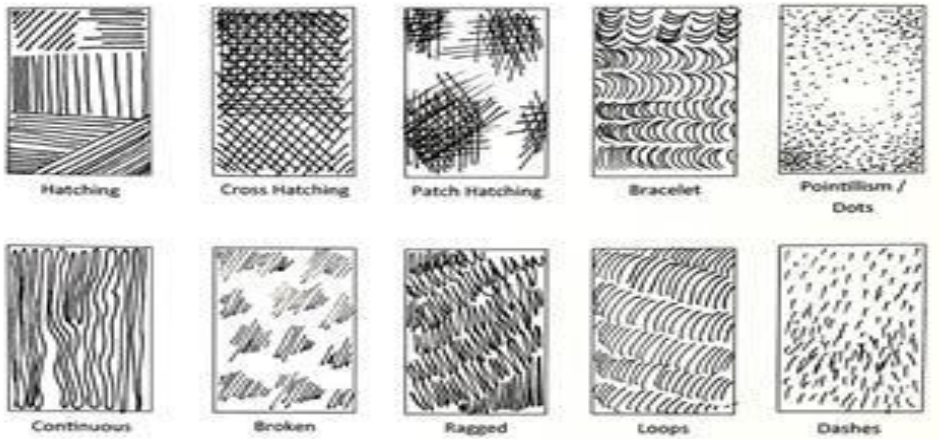
This creates an artwork that has a rough texture as well as a raised surface. Applying thick areas of paint on a canvas like this is known as impasto. This layered, thick paint creates a visual effect that allows you to see the individual brushstrokes the artist has used.

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.

Mark Making

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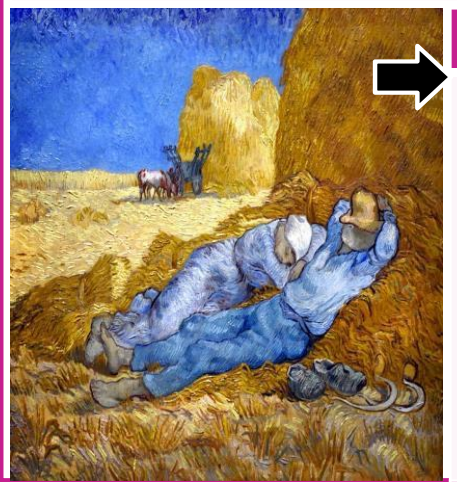

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Actual texture is the result of the_____

_____.

Year 9 Art: The Formal Elements

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

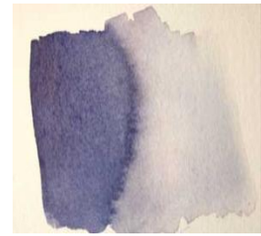
One of the simplest techniques. Simply paint a large, even patch of one colour to create a base.

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.



Year 9 Art: The Formal Elements

Georgia O'Keeffe

Watercolour Techniques

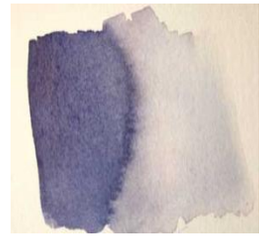
Wet on wet

Dry brush

Flat wash

Gradated

Hard/soft edge



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

Disadvantages of using seasonal foods:

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

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!

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 are seasonal foods?

What are the advantages to using seasonal foods?

-
-
-
-
-
-

What are the disadvantages of using seasonal foods?

-
-
-

What are Food Miles?

What is Fairtrade?

What are local foods and what are the benefits?

What is genetically modified (GM) food?

What are the different effects of heat on food?

-
-
-
-
-
-

To sauté a dish means to cook it in a…

To simmer means

To boil is the cooking of food by…

To reduce a liquid means to

Why do we cook food?

-
-
-
-

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.

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.

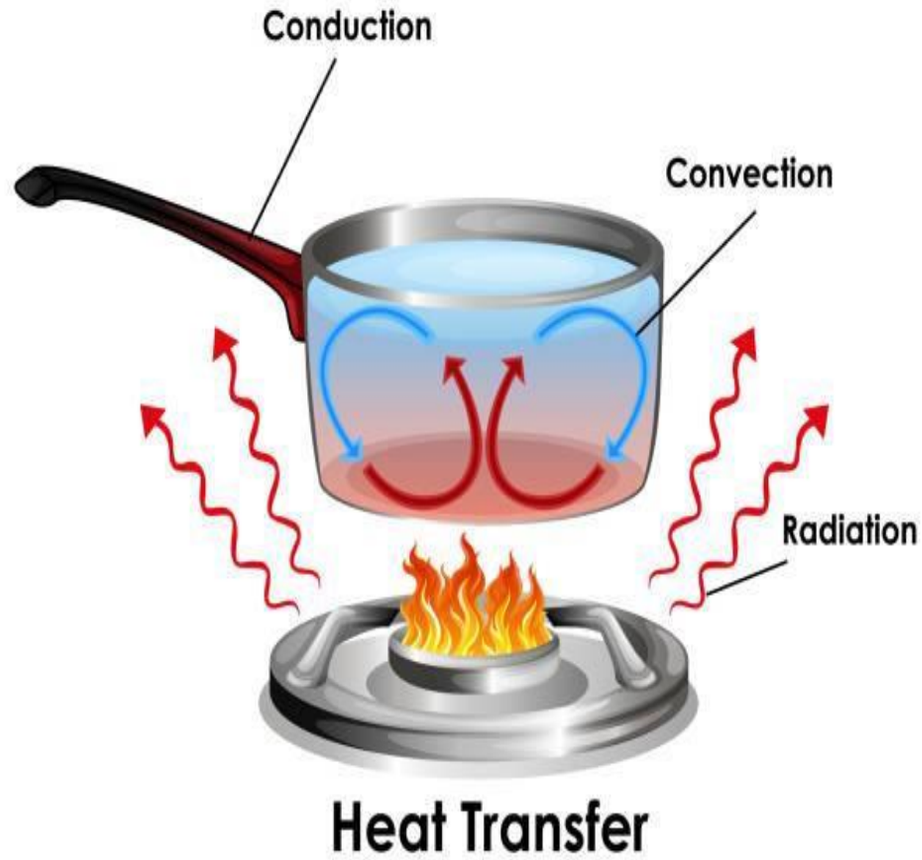
This heat energy cooks the food.

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



Heat Transfer

Year 9 Catering

What is convection?

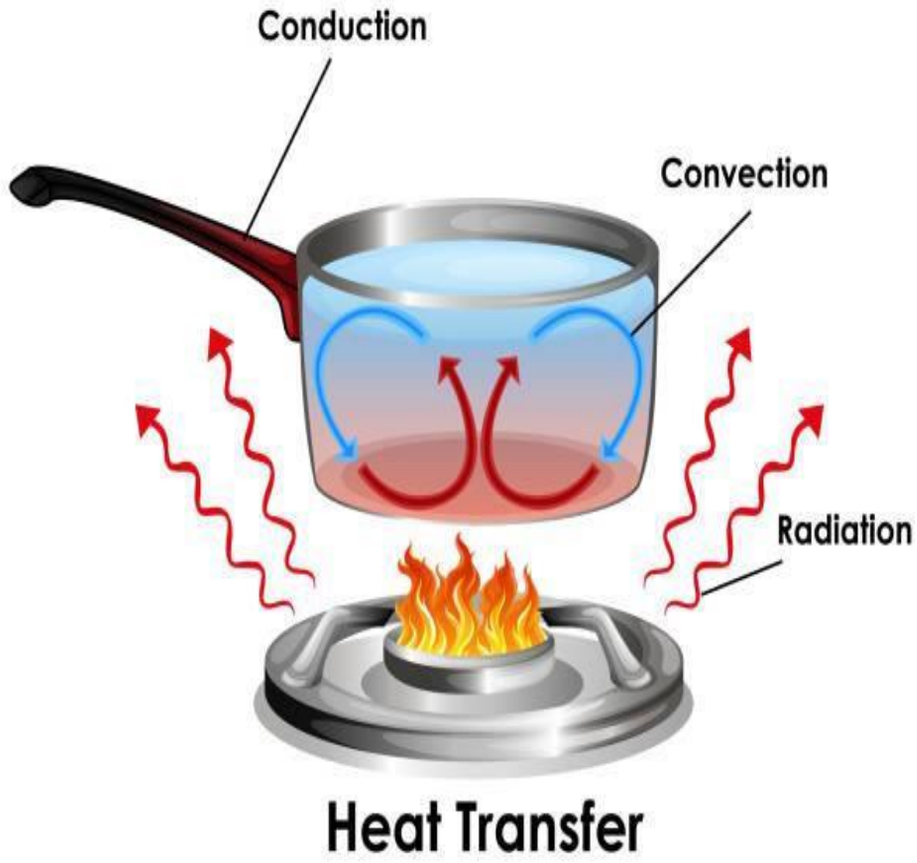
What is conduction?

What is radiation?

What are microwaves?

What is food preservation?

What are convenience foods?



Computing

Helping every person achieve things they never thought they could.

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be kind | work hard | take responsibility

Year 9 Computing: Cybersecurity

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.

Cybersecurity Tools and practices

Keyword	Definition
Network Security	Measures to protect computer networks, including firewalls and anti-malware software.
Firewalls	Security barriers monitoring and controlling network traffic to prevent unauthorised access.
Anti-malware Software	Software designed to detect and remove malware, essential for computer protection.
User Identification	Verifying and validating user identity, essential for secure access. Such as usernames and passwords.
Software Updates	Regular updates fixing vulnerabilities and improving functionality, crucial security measure.
Secure Passwords	Strong, unique passwords enhancing security and protecting accounts.
CAPTCHA	Challenges to verify users are human and not bots, preventing automated attacks. Such as choosing images showing cars.
Biometrics	Authentication based on unique physical traits, enhancing security. Such as fingerprints and retina (eye) scans.
2FA (Two-Factor Authentication)	Authentication using two different methods, adding an extra layer of security.
User Permissions	Controlling access rights for users, limiting potential damage. Such as students not having as much access as teachers to parts of the school network.
Hacking	Unauthorised access to computer systems, illegal and unethical.
Computer Misuse Act	Legislation against unauthorised access and misuse of computer systems, legal consequences for hacking.

Year 9 Computing: Cybersecurity

Keyword	Definition	Context/Key Term
Viruses		
Worm		
Trojan		
		Personal information can be stolen.
Ransomware		
Adware		
		Can be used for good or malicious.
	Malicious software including viruses, worms, etc.	

Cybersecurity Tools and practices

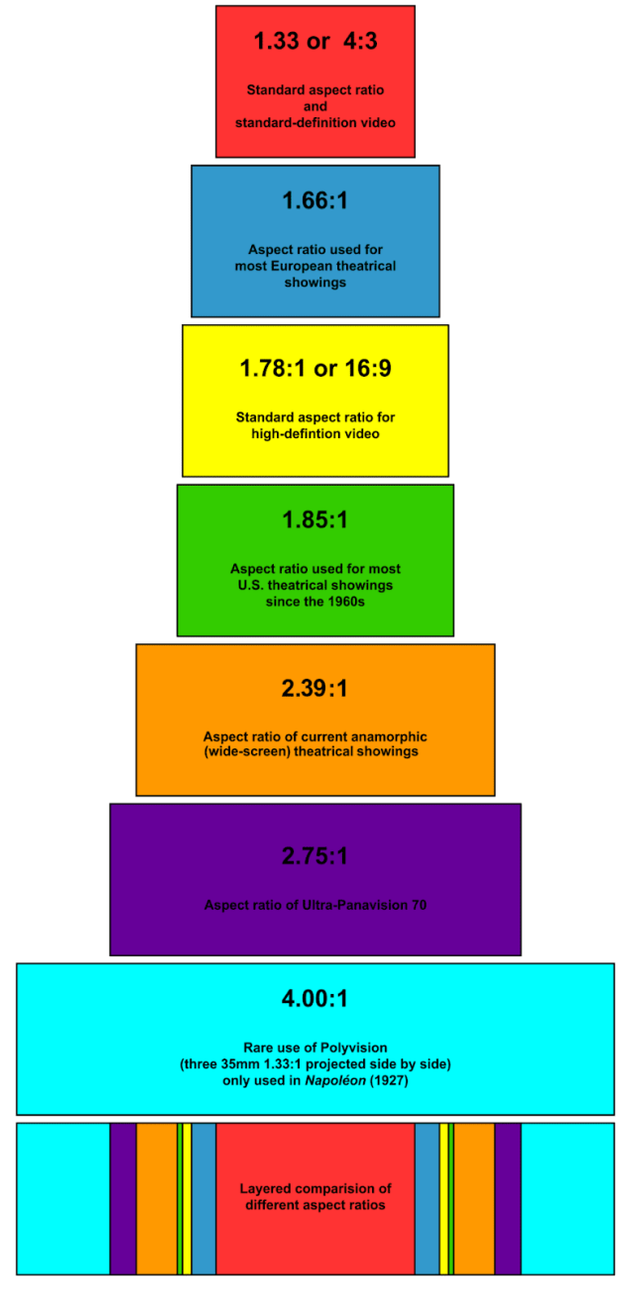
Keyword	Definition
Network Security	
Firewalls	
Anti-malware Software	
User Identification	
Software Updates	
Secure Passwords	
CAPTCHA	
Biometrics	
2FA (Two-Factor Authentication)	
User Permissions	
Hacking	
Computer Misuse Act	

Year 9 Computing: Video Keywords and Definitions

Term	Description	Example
Aspect Ratio	Relationship between the width and height of a screen or image, often expressed as a fraction or with a colon. IMAX cinemas use a unique aspect ratio like "1.43:1" for a more immersive experience.	"16:9" or "4:3"
Bit Rate	Measure of how much data is transferred in a given time, usually in kilobits per second (kbps).	Higher bit rates generally mean better quality for videos, music, and gaming.
Frame Rate	Rate at which the shutter of the video camera opens and closes in a 1-second period.	Industry standard was 24 fps; with digital technology, 60 fps has become common.
Resolution	Refers to the number of pixels on a screen, not the shape (aspect ratio).	"1920x1080" resolution fits a "16:9" aspect ratio.

Year 9 Computing: Video Keywords and Definitions

Term	Description	Example
Aspect Ratio		
Bit Rate		
Frame Rate		
Resolution		



Year 9 Computing: Introduction to Python

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. Python is often used for web development, data science, and machine learning. It can also be used for desktop GUIs, game development, and more.

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**.**

Here are some of the basics of Python:

Concept	**Description**
Print and Escape Sequences	Displaying text on the screen.
Data Types	Used to store and organise data.
Variables	Used to store data.
Operators	Used to perform operations on data.
Statements	Used to control the flow of execution.
Loops	Allow us to repeat tasks until a condition is met.
Functions	Used to group together related code.

Concept	Description	Example	Output
Print Function	Used to print text to the screen. Takes a list of arguments and prints each on a separate line.	print("Hello, world!")	Hello, world!

Escape Sequences

Special characters controlling text formatting in the print function.
Example: print("Hello,**\n**world!")
Output:
Hello
World

Escape Sequence	Meaning
\n	Newline
\t	Tab
\r	Carriage Return
'	Single Quote
"	Double Quote
\	Backslash
\b	Backspace

Year 9 Computing: Introduction to Python

What is Python?

Python is a *high*-_____, general-purpose programming language; this means that it is written in a way that looks a lot like _____ so can be ____ by lots of people, and it is a g____ choice for solving lots of different problems. Python is often used for web development, data science, and _____ learning. It can also be used for desktop ____, game development, and more.

Getting started with Python

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

Here are some of the basics of Python:

Concept	**Description**
Print and Escape Sequences	
Data Types	
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	I		

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Escape Sequence	Meaning
	Newline
\t	
\r	
'	
	Double Quote
	Backslash
\b	

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.

Variables

Concept	Description	Example
Variable	Place in memory to store a value. Can store numbers, strings, lists, and other data types.	**my_number** = 5
Assignment	To create a variable, use the equals sign (=).	my_number **=** 5
Usage	Variables can be used in code; for example, to print the value to the screen.	print(**my_number**)
Print Function	Used in programming to display results or messages on the screen.	**print**(my_number)

Here is an example of how we put that all together to create a Python program that uses a variable:

```
# This program prints the number 5 to the screen.
my_number = 5
print(my_number)
```

This program would *print* the following to the screen:

5

Year 9 Computing: Data Types and Variables

Data types

Data Type	Description	Example	Advantages and disadvantages
Integers			
Floats			
Strings			
Booleans			
Lists			
Dictionaries			

Data Type Considerations:

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

Variables

Concept	Description	Example
Variable		
Assignment		
Usage		
Print Function		

Here is an example of how we put that all together to create a Python program that uses a variable:

```
# This program prints the number 5 to the screen.
my_number = 5
print(my_number)
```

This program would *print* the following to the screen:

Year 9 Computing: Operators and Statements

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

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	Example
Assignment Statements	Assign values to variables.	Example: x = 5 assigns the value 5 to the variable 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.	Example: if x > 5: will only be executed if the value of x is greater than 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:

```
x = 15
y = 10

if x < y:
    print(x, "is less than ", y)

else:
    print(y, "is less than ", x)
```

In this code, the if statement checks *if* x is 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: Operators and Statements

Operators

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

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Arithmetic Operators		
Comparison Operators		
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Year 9 Computing: Loops

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
```

The above code will print the following to the screen:

2
4
6
8

Nested loops are loops that are inside of other loops.

```
matrix = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]
```

```
for row in matrix:
    for element in row:
        print(element)
```

The above code will print the numbers from 1 to 9, each number on a new line. Loops are a really powerful tool that can be used to repeat code multiple times. They are often used along with other *programming constructs*, such as *conditional statements*, to create complex programs.

Year 9 Computing: 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>
```

For example, the following code will print the numbers from 1 to 10:

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

```
while <condition>:
    <block of code>
```

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while i <= 10:
    if i % 2 == 0:
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Nested loops are loops that are inside of other loops.

```
matrix = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]
```

```
for row in matrix:
    for element in row:
        print(element)
```

Year 9 Computing: Functions

A function is a block of code that you can reuse over and over again. It takes in some *input*, does something with it, and then gives you an *output*. For example, you could have a function that takes in two numbers and adds them together. You could then use that function any time you need to add two numbers together.

Functions are a great way to *organise* your code and make it reusable. They can also help you to avoid repeating yourself. For example, if you have a lot of code that needs to be executed every time you open a file, you can put that code into a function and then call the function every time you open a file.

To create a function in Python, you use the def keyword. The following code creates a function called *add_numbers():*

```
def add_numbers(x, y):
    return x + y
```

To call a function, you use the function name followed by parentheses. For example, the following code calls the add numbers() function and prints the result:

```
print(add_numbers(2, 3))
```

The code above would print the following to the screen:

5

Here are some examples of how you could use functions in Python:

- You could create a function that takes in a list of numbers and prints the sum of the numbers.
- You could create a function that takes in a string and prints the number of characters in the string.
- You could create a function that takes in two numbers and prints the larger number.

Functions are a powerful tool that can help you to write more organised and reusable code.

Year 9 Computing: Functions

A _____ is a block of ____ that you can reuse over and over again. It takes in some _____, does something with it, and then gives you an *output*. For example, you could have a _____that takes in two numbers and adds them _____. You could then use that function any time you need to add ___ numbers together.

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```

```
print(add_numbers(2, 3))
```

The code above would print the following to the screen:

Here are some examples of how you could use functions in Python:

Design and Technology

Year 9 Design and Technology

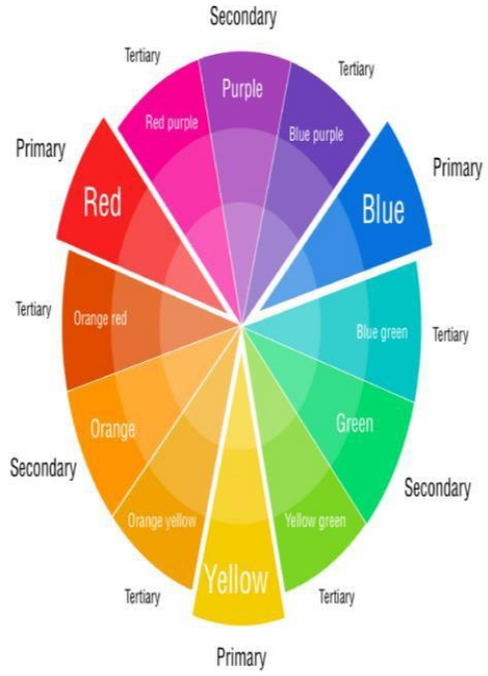
Colours

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.

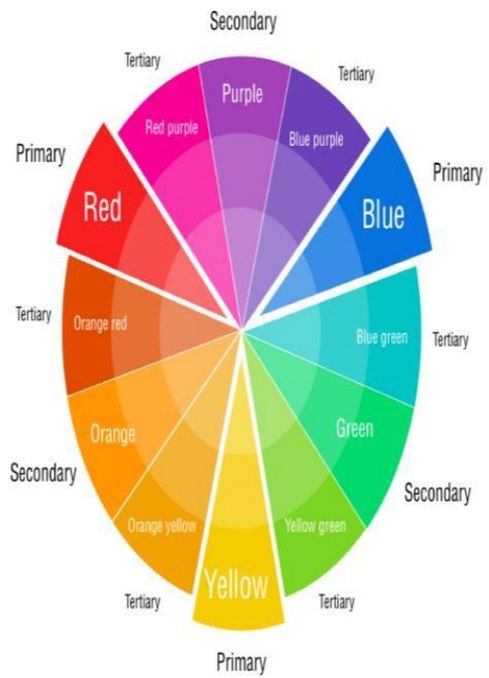
Gluing using solvent cement. Fuse the two layers of acrylic together.

Year 9 Design and Technology

Colours

What are complementary colours?

What are analogous colours?



Smart materials

A 'smart material' can be defined as a…

Live edge acrylic sheets have

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

What are the classifications of plastics? (polymers)

-
-
-
-

What are the characteristics of polymers?

-
-
-
-
-
-
-
-

Joining Plastics

Tapping is

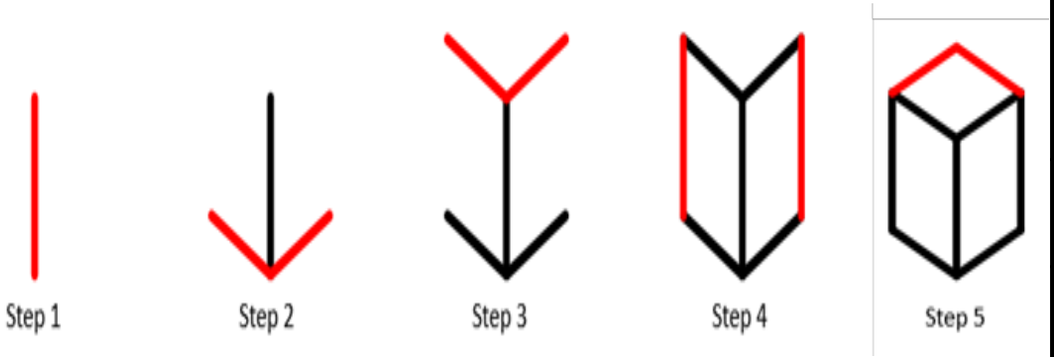
Gluing means solvent cement. Fuse the two layers of acrylic together.

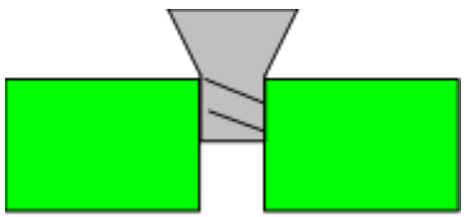
Year 9 Design and Technology

Isometric Drawing

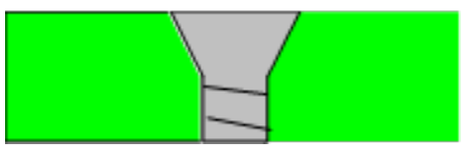
Isometric is a basic form of drawing objects in 3d (think Minecraft style!!!)

The better you get at drawing the more realistic you can make your design look.





Not Countersunk



Countersunk

Recycling Plastics

Plastics are accumulating in the natural environment and threatening wildlife, damaging ecosystems and causing large scale littering. This has a devastating impact on our oceans and marine life.

The benefits of reducing plastic consumption include: Preventing pollution by lessening the amount of new raw materials used. Saves energy. Reduces greenhouse gas emissions, which contribute towards climate change.

Shaping & Finishing Acrylic

1. **Saw**
2. **File**
3. **Sand**
4. **Polish**

Year 9 Design and Technology

Explain what isometric drawing is:

Draw your initials in isometric projection:

Explain the difference between a not countersunk and a counter sunk screw below. Draw a sketch if it helps.

Why is it important to reduce the use of single use plastic and recycle where possible?

Identify the tools for shaping and finishing acrylic

1. Saw
2. File
3. Sand
4. Polish

Drama

Helping every person achieve things they never thought they could.

Little Ouse School
be kind | work hard | take responsibility

Year 9 Drama:

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 **objectivity** (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.

Year 9 Drama:

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.

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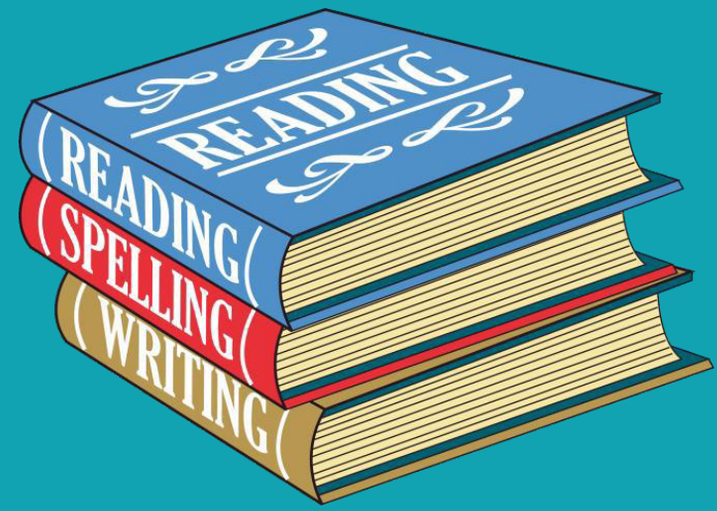
English



Helping every person achieve things they never thought they could.

Little Heaton School
be kind | work hard | take responsibility

Year 9 English: Protest poetry and Transactional Writing

Knowledge for Reading

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
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

P – Point
Answer the question

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

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

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

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

L – Link to Context
Explain how these ideas link to the real world

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

Knowledge for Writing

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 Formats	Features you would find in this text		
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

Romanticism and The Romantic Poets

Romanticism is a term used to describe developments in literature, art and music in the late 18th and early 19th century. Some key Romantic ideas include

-The power of nature **-Imagination** **-Revolution and rejection of absolute power** **-The world of children** **-People in poverty**

Year 9 English: Protest poetry and Transactional Writing

Knowledge for Reading

What are quotations?

What does it mean to embed quotations?

Why should you use patterns of quotations?

What can the structure of a poem be used for?

What is a stanza?

What is enjambment?

What can it symbolise?

What is caesura?

Comparing Poetry

P Point

E Evidence

A Analyse

Z Zoom

E Effect

L Link to Context

C Compare to second poem in detail

Knowledge for Writing

What is an accent?

What is a dialect?

What is Standard English?

Text Formats	Features you would find in this text		
Letter			
Article			
Leaflet			
Speech			
Travel Writing			

Romanticism and The Romantic Poets

What is Romanticism?

What ideas are included?

- _____ - _____ - _____ - _____ - _____

Vocabulary	Definition	Example
1. Protest	Showing that you disagree or disapprove of something	*The civilians demonstrated their views in the form of a protest*
2. Allegory	A text with a moral meaning or message	*The poem is an allegory, teaching of the importance of a person's identity*
3. Social Criticism	A texts that points out what is wrong with society	*The poem acts as 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. Perspective	The point of view comments are made from	*The writer's perspective is biased*
7. Patriarchal	Describes a society that is controlled by men	*The poem criticises the patriarchal society*
8. intention	The reason someone does something	*The writer's intention was to question the country's leadership*
9. Promote	To encourage or raise awareness of something	*The poem promotes tolerance*
10. Discrimination	Limiting the rights of people based on the category they belong to e.g. age, race, gender, disability etc.	*The poem alludes to the discrimination of women in the 1800s*

Grammar

11. Subject

The 'thing' a sentence is about. It can be a noun or pronoun.

__The poem__ is written in first person.

12. Verb

An action or being word.
A sentence must have a verb to be a complete sentence.
The poet __writes__ about fear.

13. Subject-Verb Agreement

The number in the subject impacts the choice of verb that follows
They are...
She is...
I am...

14. Conjunctions

Words that connect two clauses
(for, and, nor, but, or, yet, so)
The poet feels annoyed by the attitudes __and__ enthusiastic about change

15. Compound sentence

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

Punctuation

16. : Colon

Links a complete sentence to an explanation of that sentence

The poet draws on his own experience: he was a soldier in Vietnam

17. : Colon

Links a complete sentence to a list

The poets feeling are clear: anger, frustration and resentment.

18. ; Semi Colon

Links two complete sentence to create, linked by topic

The poem contains violent imagery; it is designed to shock the reader

Year 9 English: Protest poetry and Transactional Writing

Vocabulary	Definition	Example
1. Protest		
2. Allegory		
3. Social Criticism		
4. Provoke		
5. Exploitation		
6. Perspective		
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10. Discrimination		

Grammar

11. Subject

_____
_____
_____
_____

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_____
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The poet __writes__ about fear.

13. Subject-Verb Agreement

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_____
_____
_____

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She is...
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_____
_____
_____

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_____

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_____

The poets feeling are clear: anger, frustration and resentment.

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_____
_____

The poem contains violent imagery; it is designed to shock the reader

Geography

Helping every person achieve things they never thought they could.

Little Silver School
be kind | work hard | take responsibility

ar 9 Geography: Natural Hazards

Key Vocabulary

1	**What is a volcano?**	A vent at the surface of the earth, through which magma and other volcanic materials are ejected
2	**Define 'Immediate responses'**	The reaction of people as the disaster happens and in the immediate aftermath
3	**Define 'Long-term responses'**	Later reactions that occur in the weeks, months and years after the event
4	**Define 'Monitoring'**	Recording physical changes to help forecast when and where a natural hazard might strike
5	**Define 'Planning'**	Actions taken to respond to, and recover from, natural disasters
6	**Define 'Prediction'**	Attempts to forecast when and where a natural hazard will strike
7	**What is a 'Primary effects'?**	The initial impact of a natural event on people and property
8	**Define 'Protection'**	Actions taken before a hazard strikes to reduce its impact
9	**What is a 'Secondary effect'?**	The after-effects that occur as indirect impacts of a natural event
10	**What is 'Subduction'?**	A process occurring at destructive plate margins where a heavier oceanic plate is forced under a continental plate
11	**What is a 'Tectonic hazard'?**	A natural hazard caused by movement of tectonic plates

Plate Margins:

12	Describe the plate movement at the following plate margins: ● Conservative ● Destructive: ● Constructive:	● Conservative: plates move past each other ● Destructive: plates move towards each other and one is subducted ● Constructive: plates move away from each other

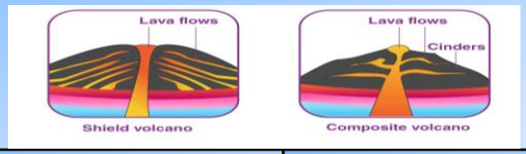
Plate Tectonics Theory:

13	Name the four layers of the earth	Inner core, outer core, mantle and crust
14	What are the pieces of crust called?	Crust pieces are called tectonic plates
15	Where do convection currents happen?	Convection currents caus magma to move in circular movements
16	What do convection currents cause?	Convection currents caus tectonic plates to move

Volcano case study: Tonga

17	**Describe the location of Tonga** 	Tonga is in the southern hemisphere. It is located in the Australian continent in the southern part of the Pacific Ocean. It is located to the west of Australia and north of New Zealand.

Types of volcanoes

18	**Describe the characteristics of shield volcanoes and composit volcanoes** 	**Shield Volcano** · Very little explosive activity · Runny lava · Gentle, sloping sides · Lava travels long distances before it cools **Composite Volcano** · Violent eruptions · Steep sides · Sticky lava which doesn't travel far · Alternate layers of ash and lava, also known as stratovolcanoes

Management of Tectonic Hazards:

19	How do people plan for tectonic hazards?	Hazard maps showing areas at risk
20	How do people predict tectonic hazards?	Measuring sulfur from volcano Seismometers measure vibrations
21	How can buildings be protected from tectonic hazards?	Earth embankments divert lava Earthquake resistant buildings

Living with risk:

22	What kind of energy can be generated by volcanoes?	Geothermal energy to power homes and industry
23	What might attract tourists to risky areas?	Dramatic scenery attracts tourists
34	How is volcanic ash useful?	Lava and ash deposits provide valuable nutrients for soil

Year 9 Geography: Natural Hazards

Key Vocabulary

1	What is a volcano?	
2	Define 'Immediate responses'	
3	Define 'Long-term responses'	
4	Define 'Monitoring'	
5	Define 'Planning'	
6	Define 'Prediction'	
7	What is a 'Primary effects'?	
8	Define 'Protection'	
9	What is a 'Secondary effect'?	
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Plate Margins:

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Plate Tectonics Theory:

13	Name the four layers of the earth	
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15	Where do convection currents happen?	
16	What do convection currents cause?	

Volcano case study: Tonga

17	**Describe the location of Tonga** 	

Types of volcanoes

18	**Describe the characteristics of shield volcanoes and composite volcanoes** 	
	Shield Volcano	**Composite Volcano**

Management of Tectonic Hazards:

19	How do people plan for tectonic hazards?	
20	How do people predict tectonic hazards?	
21	How can buildings be protected from tectonic hazards?	

Living with risk:

22	What kind of energy can be generated by volcanoes?	
23	What might attract tourists to risky areas?	
34	How is volcanic ash useful?	

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:

12	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.

The Russian conflict:

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:

14	**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:

15	What natural resources does Russia have?	Russia is probably richer in natural resources than any other country in the world. It has abundant supplies of oil, natural gas, timber and valuable minerals, such as copper, diamonds, lead, zinc, bauxite, nickel, tin, mercury, gold and silver— most of which are 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:

12	Why is geopolitical power uneven?	

The Russian conflict:

13	Name one geographical reason for the conflict between Russia and Ukraine	

Build that wall:

14	**Name 3 push factors and 3 pull factors causing Syrians' to migrate to Europe**	
	Push Factors	**Pull Factors**

Russia:

15	What natural resources does Russia have?	

Global superpowers:

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

History

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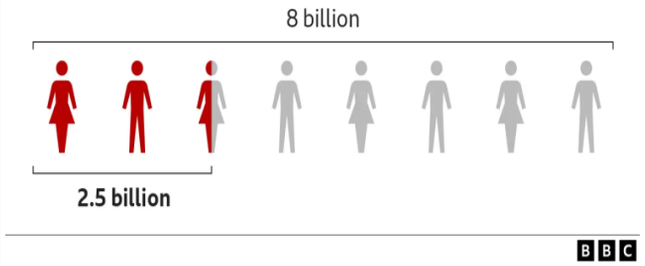
Year 9 History: The fall of the British Empire

Britain had the largest Empire in the world. At its peak it covered ¼ of the world.

The Empire counties played a large role in supporting Britain during both World Wars.

The emergence of the British Commonwealth. This is an international association consisting of the UK together with states that were previously part of the British Empire, and dependencies. The commonwealth covers 2.5 billion of the worlds population.



Question	Answer
What does Empire mean?	an extensive group of states or countries ruled over by a single monarch, an oligarchy, or a sovereign state:
What does nationalism mean?	identification with one's own nation and support for its interests, especially to the exclusion or detriment of the interests of other nations
How did WW2 bring an end to the British empire?	The country was struggling financially
How did Empire countries feel after helping Britain in WW2?	That their loyalty should be rewarded.
Give two problems Britain faced after WW2?	Economic problems and debt
Who led Indian Independence?	Mahatma Ghandi
When did food rationing end in Britain?	1954

The map shows counties that had been part of the British Empire and the years in which they became Independent

Year 9 History: The fall of the British Empire

_____ had the largest _____ in the world. At its peak it covered __ of the world.

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Question	Answer
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What does nationalism mean?	
How did WW2 bring an end to the British empire?	
How did Empire countries feel after helping Britain in WW2?	
Give two problems Britain faced after WW2?	
Who led Indian Independence?	
When did food rationing end in Britain?	

The ___ shows counties that had been part of the _____ Empire and the _____ in which they became _____

Year 9 History: British society

What was British society like in the 1900s?

The effects of poverty:

• In 1900, slums and overcrowding were still problems in Britain. The poor worked long hours and were paid low wages. Many people couldn't afford to see a doctor or provide three decent meals for their children

• Two reports showed how bad the problem of poverty was. These were by Charles Booth and Seebohm Rowntree – social reformers.

Booth's report:

1889 – Life and Labour of the People in London.
Showed 30% were living in severe poverty. It was sometimes impossible for people to find work. Showed that wages were so low that a family could not be supported.

Rowntree's report:

Had a factory in York. Didn't believe the problem in York was as bad as London so did a survey to see. 1901 – Poverty, a study of Town Life showed that 28% of people in York could not afford basic food and housing.

Key word	Definition
Slums	Incredibly poor housing, overcrowding, poor living conditions etc.
Social reformers	Someone who believes something needs to change in society to make things better.
Reform	To change something that isn't working for the better.

Question	Answer
What did Booth, Rowntree and the Boer war show?	There was a link between poverty and ill health.
What measure was passed in 1906?	Free School Meals were introduced paid for by council taxes.
What measure was passed in 1907?	Local Education Authorities started giving children free medical inspections.
What measure was passed in 1908?	Old Age Pensions. For people aged 70 and over. First ever welfare scheme to be paid by national taxes.
What measure was passed in 1909?	Labour exchanges were introduced to help unemployed people find work.
What measure was passed in 1911?	National Insurance Act was passed.
Define the National Insurance Act	health insurance for workers. Worker, employer and the government all contributed to a central fund that workers could use for sick pay or to pay for a doctor

What was British society like in the 1900s?

The effects of poverty:

• In ____, _____ and overcrowding were still problems in _____. The poor worked long hours and were paid ___ wages. Many people couldn't _____ to see a doctor or provide three decent meals for their _____.

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Key word	Definition
Slums	
Social reformers	
Reform	

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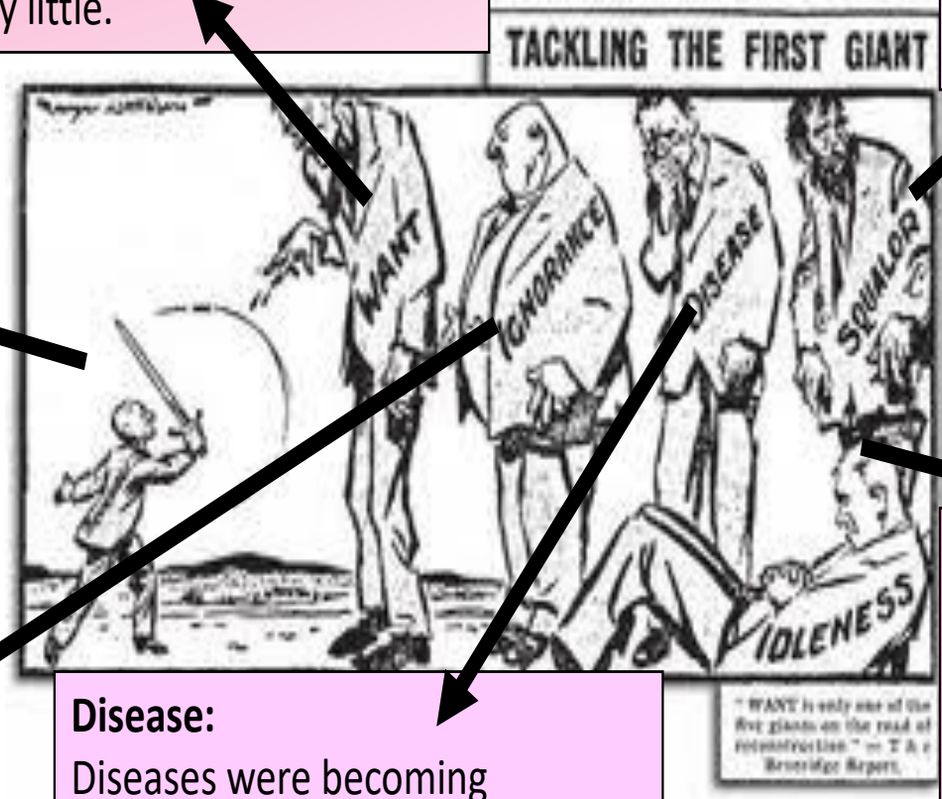
What did Booth, Rowntree and the Boer war show?	
What measure was passed in 1906?	
What measure was passed in 1907?	
What measure was passed in 1908?	
What measure was passed in 1909?	
What measure was passed in 1911?	
Define the National Insurance Act	

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:
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.

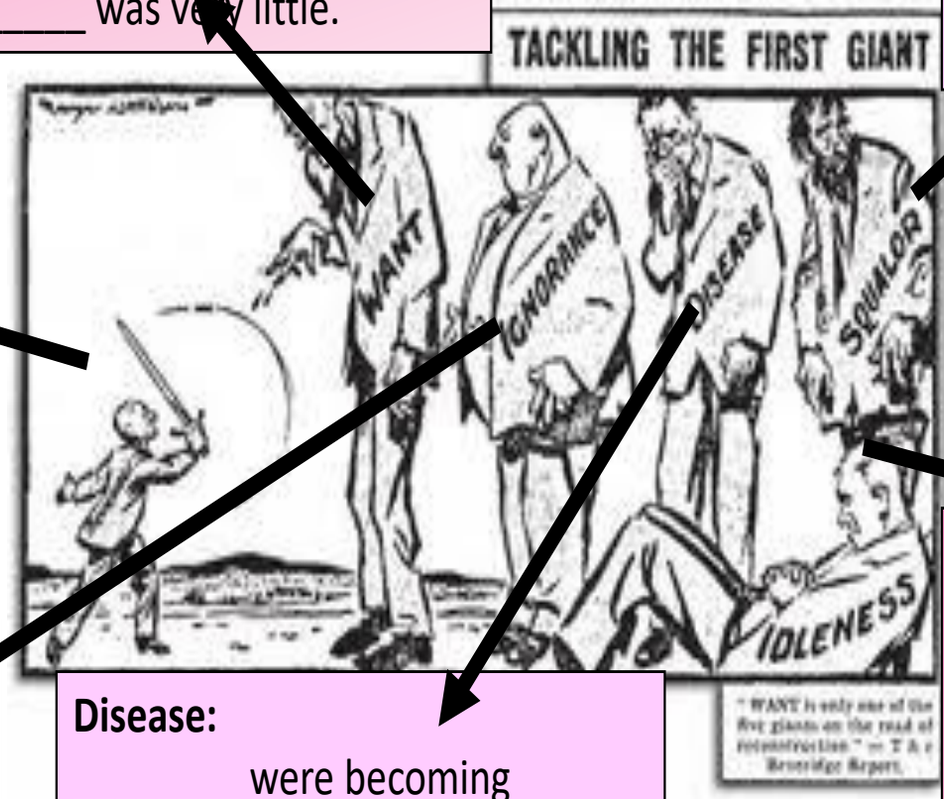
Idleness:
Unemployment levels had become very high due to the little and poor education many people received and the very few jobs available after the war.

Year 9 History:

Want:

_____ poverty was the result for many _____ who could not _____ the necessities of everyday ____. This was the outcome of ____ health and unemployment which _____ the household _____ was very little.

Squalor:



___ William Beveridge, who was a senior _____ Servant. He published his findings in ____, the Beverage report identified _ Giant _____ in the country that needed to be _____!

Idleness:

_____ levels had become very high due to the little and ____ education many people received and the ____ few ____ available after the war.

Ignorance:

The school leaving age in the ____s was just __. Many young people were unemployed, and the majority could not _____ to pay for _____ education.

Disease:

_____ were becoming _____ and there was _____ help available through hospitals as they were all _____ and had ____ implications.

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.
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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 History:

NHS

Question	Answer
What does NHS stand for?	National Health Service
When was the NHS set up?	1948
In 1947, doctors gave out 7 million prescriptions, how many did they give out in 1951?	19 million
Who was prime minster when the NHS opened?	Clement Attlee (Labour party)
What was the budget of the NHS when it opened in 1948?	£437 million
When did the conservatives come back into power?	1951
Why did the Conservatives not get rid of the NHS?	It was too popular
Between what years did the number of NHS doctors double?	1948 and 1973
In 1948 how did life expectancy for a woman and man increase from 1948?	Women has raised from 66 to 83 and for men 64 to 79
How is the NHS paid for?	Through taxes

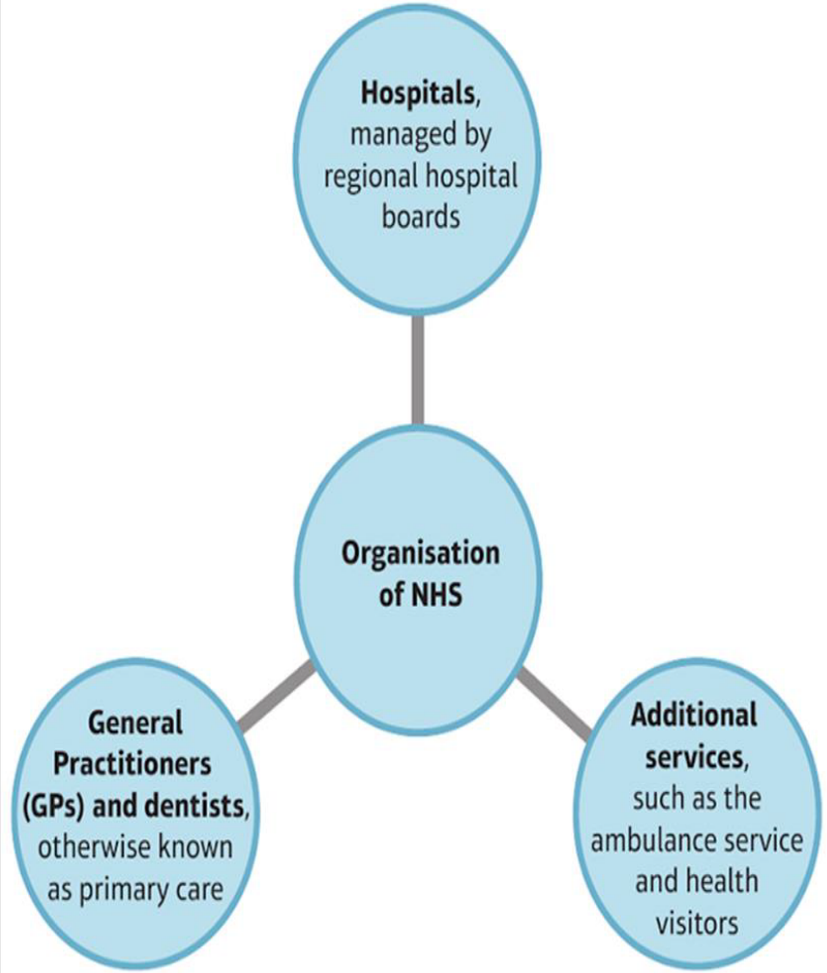

Figure 4.4 The three parts of the NHS in 1948.

The creation of the NHS led to a massive recruitment campaign for doctors and nurses to help staff it.
Many people came from different counties to work in the NHS.

Year 9 History:

NHS

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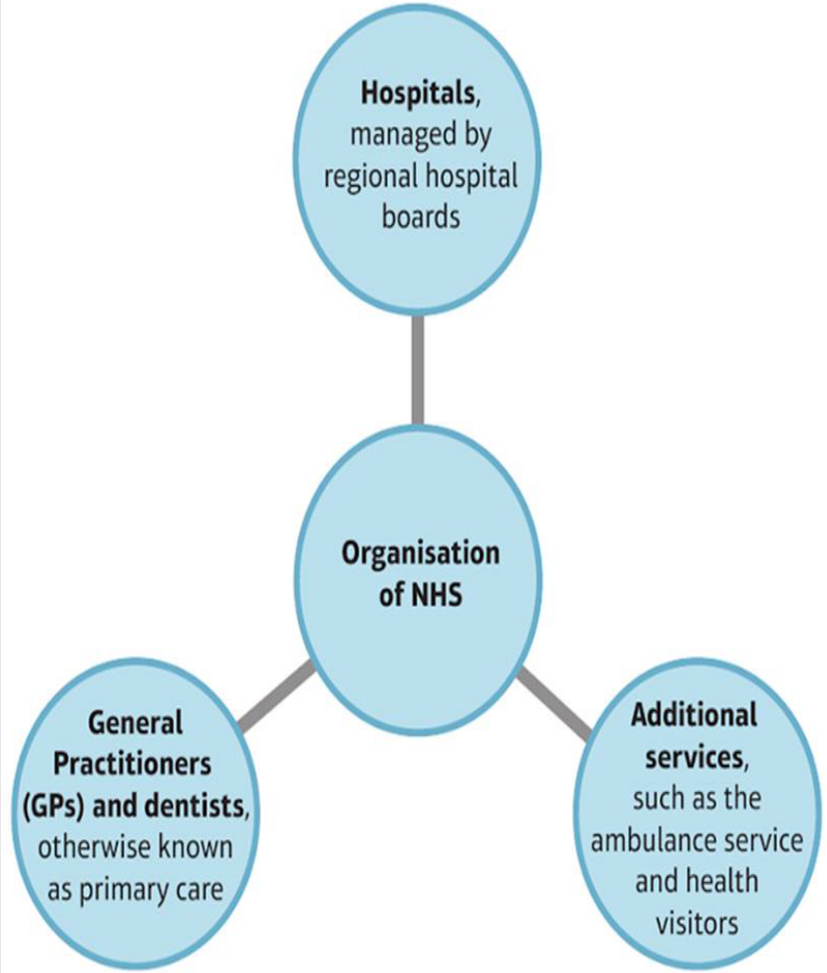

Figure 4.4 The three parts of the NHS in 1948.

The creation of the ____ led to a massive recruitment campaign for doctors and _____ to help _____ it.
Many _____ came from different _____ to work in the NHS.

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
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.
Name the landlord in London who had over 100 properties overcrowded with immigrants?	Peter Rachman
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)
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.
Who set up the Union Movement with the 'Keep Britain white' logo?	Oswald Moseley
What was the year of the summer of violence?	1958

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

Year 9 History: Immigration to Britain

Question	Answer
Groups who come and settle to Britain from 1945-1975	
Why was it difficult for an immigrant to get accommodation?	
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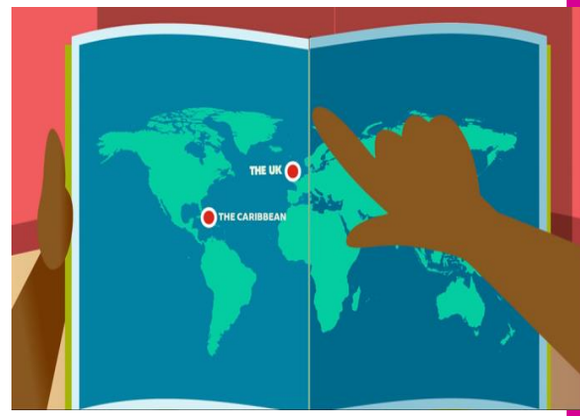
Key Word	Definition
Immigration	
Migrant	
Push factor	
Pull factor	
Nationality	
Windrush	

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
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Why did people want to come to Britain?	
What does voyage mean?	
What was the 1948 Nationality Act?	
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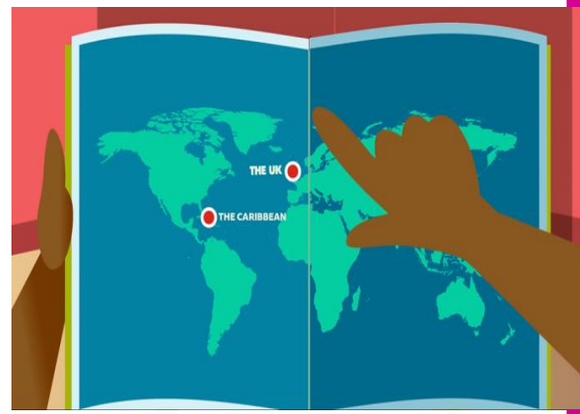

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Life Chances

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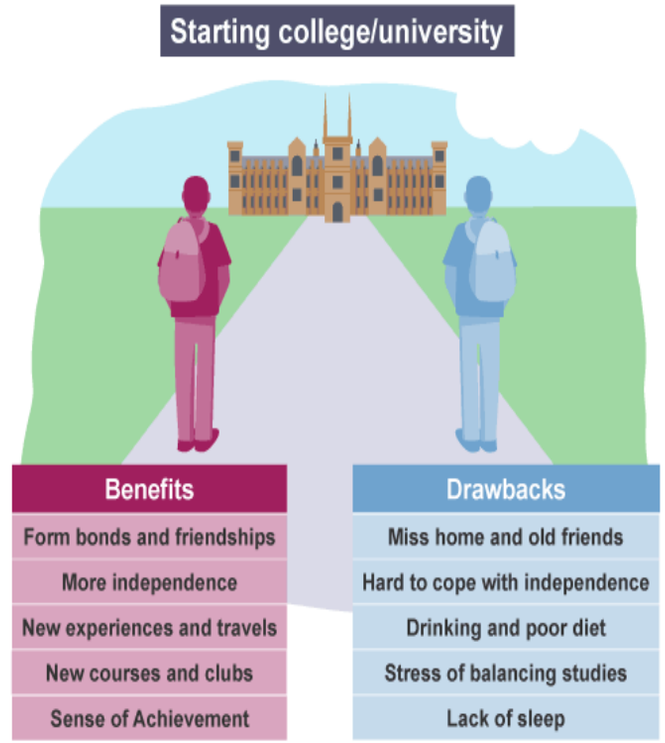
Going to University or College

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 university is exciting. You are going to enjoy:	There **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

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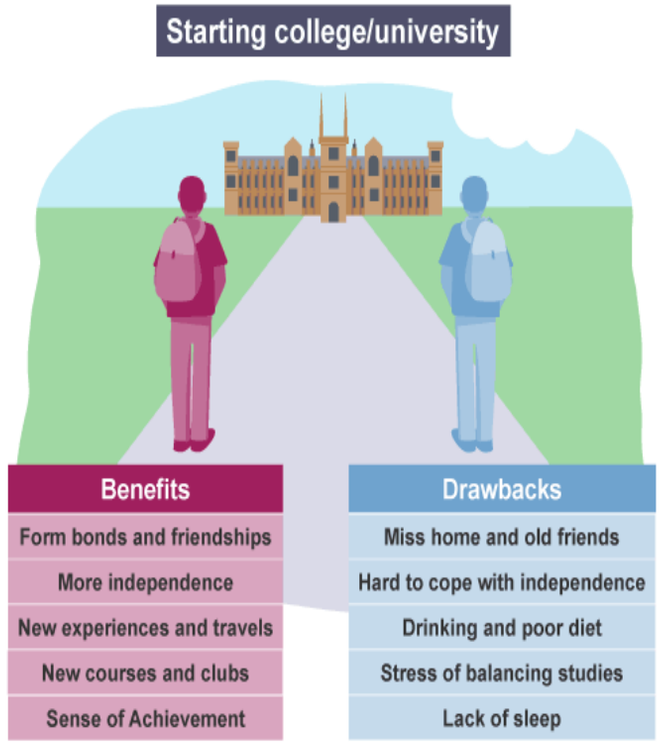


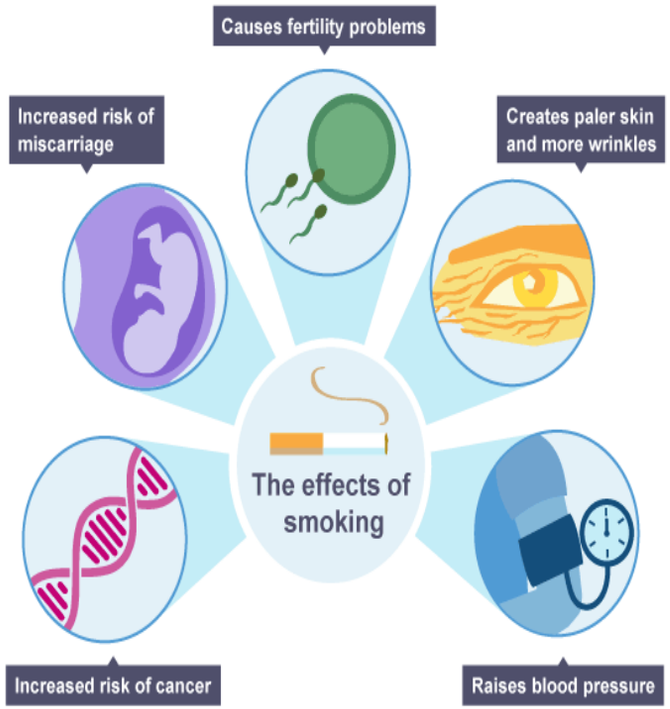
Starting university is exciting. You are going to enjoy:	There **can be** some downsides too. You might:

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

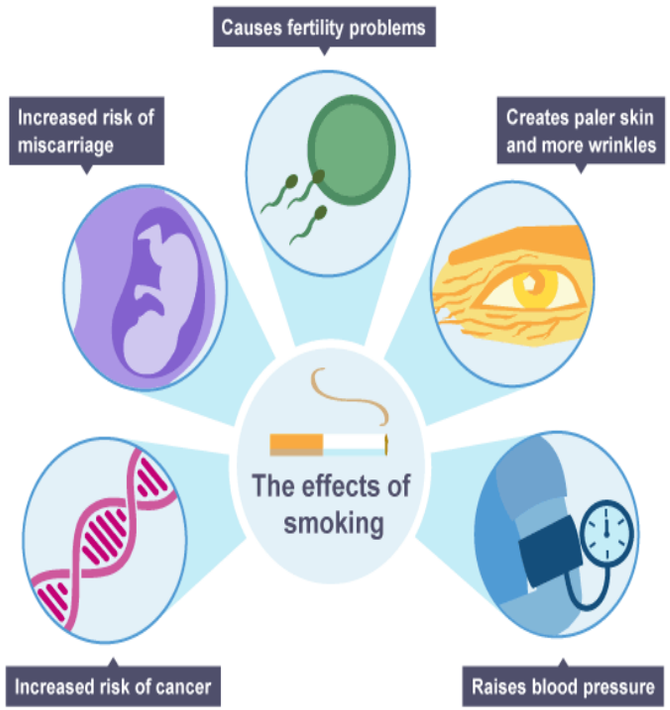
Alcohol such as beer, wine and spirits are legal to buy, only if you are over 18. Drinking large amounts can have the following effects:

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

Year 9 Life Chances: Unhealthy lifestyle choices

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 _____.



Unhealthy lifestyle choices

Nicotine

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Smoking can have very bad ____ effects, including:

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Alcohol

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

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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

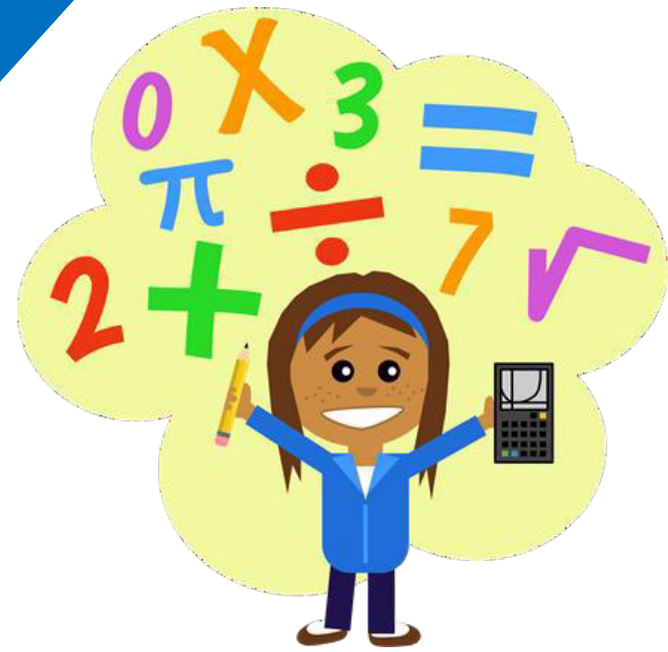
Illegal Drugs

There is a huge range of _____ drugs that change the user's state of mind. Some induce _____ and confidence, others ____ pain or cause hallucinations.

Some illegal drugs include _____, heroin and MDMA (known as 'ecstasy').

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

Maths



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Year 9 Maths: Fraction Arithmetic

	Key Skill	Thinking Point	WAGOLL
1	Adding and Subtracting (same denominator)	• Add or subtract the numerators. • Denominator stays the same.	$\frac{3}{5} + \frac{1}{5} = \frac{4}{5}$
2	Adding and subtracting (different denominators)	• Use equivalent fractions to find a common denominator. • Add or subtract the numerators.	$\frac{3}{5} - \frac{1}{4}$ $\frac{12}{20} - \frac{5}{20} = \frac{7}{20}$
3	Adding and subtracting (mixed numbers)	• 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 Vocabulary	Definition
Numerator	The top number in a fraction.
Denominator	The bottom number in a fraction.
Improper Fraction	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. $5\frac{1}{2}$

Year 9 Maths: Fraction Arithmetic

	Key Skill	Thinking Point	Practice
1	Adding and Subtracting (same denominator)	• What happens to the numerators? • What happens to the denominators	$\frac{3}{7} - \frac{2}{7} =$
2	Adding and subtracting (different denominators)	• What must we find before we can add or subtract?	$\frac{3}{8} + \frac{5}{6}$
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 Vocabulary	Complete the definitions
Numerator	
Denominator	
Improper Fraction	
Mixed Number	

Year 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 $3(x + 2)$ $= \underline{3x + 6}$ | x | x | +2 | | 3 | $3x$ | +6 | Expand $4x\ (3x - 1)$ $= \underline{12x^2 - 4x}$ | x | $3x$ | -1 | | $4x$ | $12x^2$ | $-4x$ |
2	Expand and simplify	• Expand each bracket • Collect any like terms to simplify	$3(x + 7) - 2(3x - 4)$ $3x + 21 - 6x + 8$ $= \underline{-3x + 29}$ | x | x | +7 | | 3 | $3x$ | +21 | | x | $3x$ | -4 | | -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 2 | × | $2x$ | +9 | | 2 | $4x$ | + 18 | $\underline{2(2x + 9)}$ Factorise fully $18y^3 - 12y$ HCF of $18y^3$ and -12y is 6y | × | $3y^2$ | -2 | | 6y | $18y^3$ | - 12y | $\underline{6y(3y^2 - 2)}$

Key Vocabulary	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 x is 4.
Expression	Numbers, variables and operators (+, - , x and ÷), grouped together 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 constant is 8.

Year 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 simplify	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) $14p^2 + 7p^3$

Key Vocabulary	Complete the definitions
Variable	
Coefficient	
Expression	
Constant	

Year 9 Maths: 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 *inverse operation* to undo this.	$x + 6 = 16$ → -6 → $x = 10$ → -6
2	Solve a multiple step equation	• Try to isolate the variable using inverse operations, one step at a time	$4x - 5 = 19$ → +5 → $4x = 24$ → ÷4 → $x = 6$ → +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.	$2x + 11 = 5x + 2$ → -2x → $11 = 3x + 2$ → -2 → $9 = 3x$ → ÷3 → $3 = x$ → -2x → -2 → ÷3

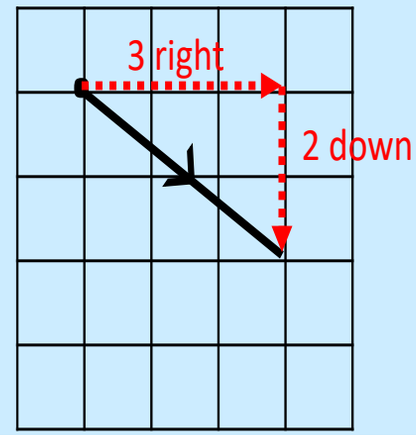
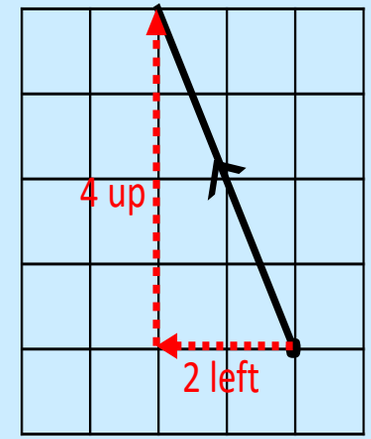
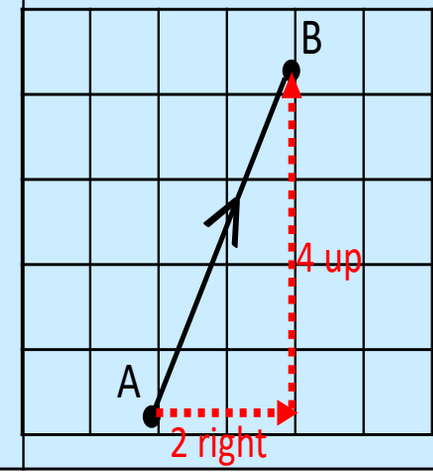
Key Vocabulary	Definition
Equation	A statement showing that two expressions are equal
Variable	A symbol or letter representing a value we do not know.
Solution	The value of the variable once we have worked it out.

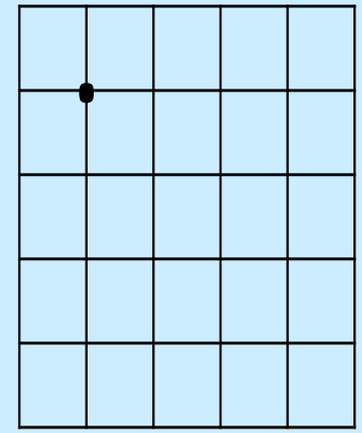
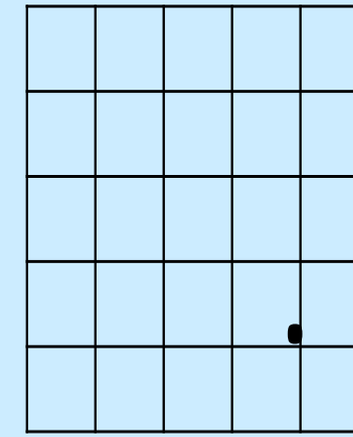
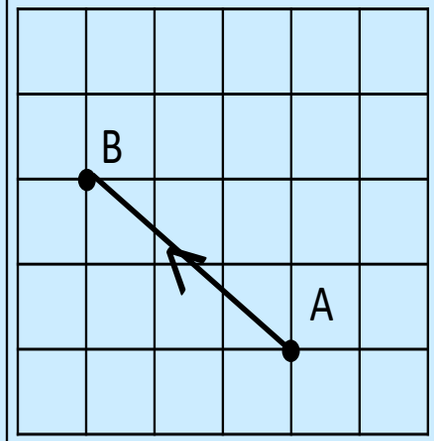
Year 9 Maths: Algebra – Solving Equations

	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	
Variable	
Solution	

Year 9 Maths: 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.  Draw the vector $\begin{pmatrix} -2 \\ 4 \end{pmatrix}$ This means 2 units to left and 4 units up. 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 $= \begin{pmatrix} 2 \\ 4 \end{pmatrix}$

	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 $\overrightarrow{AB}$ 	

	Key Skill	Thinking Point	WAGOLL	
1	Adding and Subtracting Vectors	• Add/Subtract the top numbers together • Add/Subtract the bottom numbers together	$\begin{pmatrix}3\\5\end{pmatrix}+\begin{pmatrix}-2\\4\end{pmatrix}$ $=\begin{pmatrix}3+-2\\5+4\end{pmatrix}$ $=\begin{pmatrix}3-2\\5+4\end{pmatrix}$ $=\begin{pmatrix}1\\9\end{pmatrix}$	$\begin{pmatrix}3\\5\end{pmatrix}-\begin{pmatrix}-2\\4\end{pmatrix}$ $=\begin{pmatrix}3--2\\5-4\end{pmatrix}$ $=\begin{pmatrix}3+2\\5-4\end{pmatrix}$ $=\begin{pmatrix}5\\1\end{pmatrix}$
2	Multiplying Vectors	• Multiply the both numbers in the vector by the number outside the vector	$3\begin{pmatrix}3\\5\end{pmatrix}$ $=\begin{pmatrix}3\times3\\3\times5\end{pmatrix}$ $=\begin{pmatrix}9\\15\end{pmatrix}$	$\frac{1}{2}\begin{pmatrix}-2\\4\end{pmatrix}$ $=\begin{pmatrix}\frac{1}{2}\times-2\\\frac{1}{2}\times4\end{pmatrix}$ $=\begin{pmatrix}-1\\2\end{pmatrix}$
3	Composite problems with Vectors	• Follow order of operations • Use the steps above • Be careful with negative numbers	$3\begin{pmatrix}3\\5\end{pmatrix}+\frac{1}{2}\begin{pmatrix}-2\\4\end{pmatrix}$ $=\begin{pmatrix}3\times3\\3\times5\end{pmatrix}+\begin{pmatrix}\frac{1}{2}\times-2\\\frac{1}{2}\times4\end{pmatrix}$ $=\begin{pmatrix}9\\15\end{pmatrix}+\begin{pmatrix}-1\\2\end{pmatrix}$ $=\begin{pmatrix}9+-1\\15+2\end{pmatrix}$ $=\begin{pmatrix}9-1\\15+2\end{pmatrix}$ $=\begin{pmatrix}8\\17\end{pmatrix}$	

	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?	$\begin{pmatrix}2\\3\end{pmatrix}+\begin{pmatrix}-1\\7\end{pmatrix}$	$\begin{pmatrix}4\\-5\end{pmatrix}-\begin{pmatrix}-3\\1\end{pmatrix}$
2	Multiplying Vectors	• _____ the both numbers in the vector by the number _____the vector	$2\begin{pmatrix}-3\\5\end{pmatrix}$	$-2\begin{pmatrix}3\\5\end{pmatrix}$
3	Composite problems with Vectors	• What must we follow while doing these calculations?	$2\begin{pmatrix}3\\5\end{pmatrix}+3\begin{pmatrix}2\\4\end{pmatrix}$	$4\begin{pmatrix}1\\-2\end{pmatrix}-3\begin{pmatrix}-2\\3\end{pmatrix}$

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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	e
Tu	es
Il, elle, on	e
Nous	ons
Vous	ez
Ils, elles	ent

See the example HABITER in the present tense below:

J'habit**e**	I live
Tu habit**es**	You live (singular/informal)
Il habit**e**	He lives
Elle habit**e**	She lives
On habit**e**	One lives (we like)
Nous habit**ons**	We live
Vous habit**ez**	You live (formal/plural)
Ils habit**ent**	They live (masculine/mixed)
Elles habit**ent**	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

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

See the example HABITER in the present tense below:

J'habite	I 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.
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Examples:
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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

J'ai	I have
Tu as	You have (singular/informal)
Il 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)

RECAP of Être (to be) in the present tense

Je suis	I am
Tu es	You are(singular/informal)
Il 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 chambre**s** = **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)

RECAP of ____ (to be) in the present tense

	I am
	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)

Useful Vocabulary
Places 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 chambre**s** =
Ma chambre =
Le jardin =
Le garage =

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 conditional tense 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

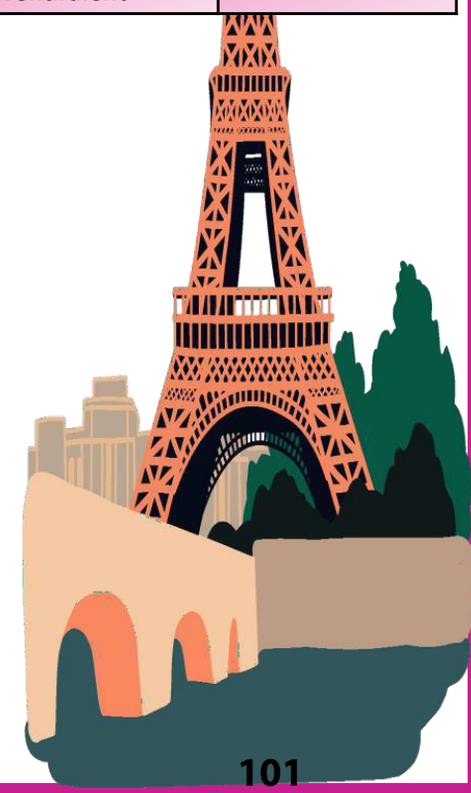
However, to conjugate verbs in the conditional tense follow these simple steps.

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/on	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



Describe my dream house.

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

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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

Year 9 French:

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 a 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

Year 9 French:

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 a 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

Year 9 Spanish:

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	I live
Vives	You live
Vive	He/she/it lives
Vivimos	We live
Vivís	You (plural) live
Viven	They live

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
	I live You live He/she/it lives We live You (plural) live They live

Year 9 Spanish:

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 **after the noun**. 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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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 _____ or feminine.

Year 9 Spanish:

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 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	My
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 **'to be'** 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 *es* grande** - My town *is* big.
- **Estar** **Mi pueblo *está* lejos de Mánchester** - My town *is* far from Manchester.

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

Year 9 Spanish:

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	My
Masculine			
Feminine			
Masculine Plural			
Feminine Plural			

Describing where you live

There are two verbs for **'to be'** 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 *is* big.
- **Estar** - My town *is* far from Manchester.

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

Year 9 Spanish:

Describing location

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

For example:

- **Vivo en una ciudad pequeña. *Está* en la costa y *está* 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. *Está* 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 conditional tense 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

Year 9 Spanish:

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

Describe my dream house.

The conditional tense 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:

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 endings are the same for ___, ___ and ____ verbs.

	ending	vivir (to live)	meaning

Some verbs like tener (to have) are _____ verbs. This means they don't always follow the same _____ 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 =_____

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 abogad**o**.
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	Abogada =
= chef	Cocinera =
= nurse	Enfermera =
= plumber	Fontanera =
= engineer	Ingeniera =
= mechanic	Mecánica =
= doctor	Médica =
= teacher	Profesora =
= translator	Traductora =
= interpreter	Intérprete =

= If I were able to choose,	= I would like	= to be	abogado/a =
= If I were to have the choice,	= I would like		cocinero/a =
=I f it were possible,	= I want		enfermero/a =
=	= When I'm older,		fontanero/a =
			ingeniero/a =
			mecánico/a =
			médico/a =
			profesor/a =
			traductor/a =
			intérprete =

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 _____ _____ _____ _____

Music

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.e..background 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.

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.

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.

Year 9 Music:

1	**Atonal**	
2	**Cue**	
3	**Cuesheet**	
4	**Diegetic Music**	
5	**Discordant**	
6	**Foley**	
7	**Imitation**	
8	**Leitmotif**	
9	**Mickey Mousing**	
10	**Nondiegetic Music**	
11	**Pedal Note**	
12	**Soundtrack**	
13	**Underscore**	

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

John Williams was born in ___ York, USA, in 19__. He _____ the Juilliard School for drama, music and ___ in Manhattan, New York.

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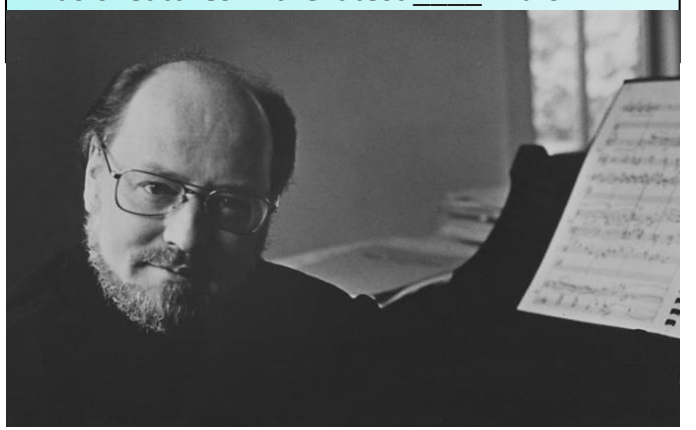


PE

Helping every person achieve things they never thought they could.

Little Lever School
be kind | work hard | take responsibility

Year 9 PE: Basketball

Motor Competence

Passing	Chest pass, bounce pass, shoulder pass
Receiving	Catching with two hands, catching whilst moving.
Dribbling	Fingertips, head up, bounce the ball in front of body
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
Defending	Rebounding, Zonal defence (marking the space rather than the player)
Shooting	Composure, accuracy and placement. Lay up - use outside arm, use fingers to create backspin, aim for the postage stamp

Rules, Strategies and Tactics

Key	The area shaped like a keyhole at both ends of the court which included the free throw line.
3-point Line	If you shoot from outside the 3 point line, it is worth 3 points instead of 2
Contact	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.
Double Dribble	Dribbling with two hands or dribbling, catching the ball, then dribbling again
3 Second Violation	The attackers can't stay in the key for more than 3 seconds.
8 Second Violation	Players have 8 seconds to get the ball over the halfway line. If they don't they lose possession of the ball.
Back Court Violation	Once over the halfway line the attackers can not pass the ball back over the halfway line otherwise they lose possession of the ball.

Healthy Participation

Muscles	Deltoids, biceps, triceps, hamstrings, quadriceps
Fitness components	Hand-eye coordination, speed, agility, reaction time

Year 9 PE: Basketball

Motor Competence

Passing	
Receiving	
Dribbling	
Possession	
Defending	
Shooting	

Rules, Strategies and Tactics

Key

3-point Line

Contact

Double Dribble

3 Second Violation

8 Second Violation

Back Court Violation

Healthy Participation

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

Year 9 PE: Handball

Motor Competence

Passing	Use fingertips for control, weight on front foot with dominant hand and foot at the back. See it out.
Receiving	Get in line, make space away from defender, arms out and see it in.
Dribbling	Use your fingertips, knees slightly bent, keep your head up. Try to use alternate hands as an advanced technique
Possession	Dribble if you have space, pass if a teammate is in a better position. PIVOT to look for options
Defending	Jump block and shutting down the space, communicating with teammates
Shooting	Raising the arm and moving the shoulder back, bending the elbow and rotating the body for power. Jump shot - same motion but jumping to add power

Rules, Strategies and Tactics

Contact	Contact can only be made when front-on. Any contact from the side or behind is a foul
Free Throw	A free throw is given for infringement on the rules, defenders must stand 3 metres away from the thrower
Penalty Throw	Given if a foul occurs when shooting or if a defender enters their own area
Corner Throw	Given if the ball goes behind the goal off the defender (not including the goalkeeper
Passing	You must pass with one hand
Double Dribbling	You cannot dribble with both hands, you cannot move more than 3 steps with the ball in your hand. You must pass or shoot if you stop dribbling. You cannot hold the ball for more than 3 seconds.

Healthy Participation

Muscles	Deltoids, biceps, triceps, hamstrings, quadriceps
Fitness components	Hand-eye coordination, speed, agility, reaction time

Year 9 PE: Handball

Motor Competence

Passing	
Receiving	
Dribbling	
Possession	
Defending	
Shooting	

Rules, Strategies and Tactics

- Contact
- Free Throw
- Penalty Throw
- Corner Throw
- Passing
- Double Dribbling

Healthy Participation

Muscles	
Fitness components	

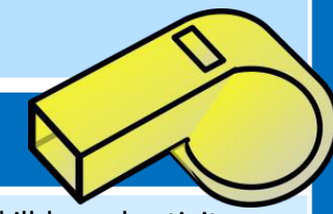
Year 9 PE: Leadership

Motor Competence

Understanding what a sports leader is	Someone in charge of a team, they are creative, reliable, punctual, confident and have good communication skills
Roles of a Sports Leader	Role model, motivator, planner, Instructor, Mentor, Advisor, Councillor, Demonstrator, Organiser.
Responsibilities of a Sports Leader	Knowledge of activity, enthusiasm for activity, knowledge of safety, knowledge of child protection issues,
Designing a lesson plan	Consider a warm up, main activity and game. Consider what space will be used, what equipment will be used and the safety precautions involved.
Orienteering	Using a map and a compass to navigate between checkpoints. Leaders should find the best route to take

Rules, Strategies and Tactics

Appropriate use of equipment	We should consider what equipment we need and only use what is necessary. Equipment should be used without the risk of damaging when creating activities with them.
Planning a session	Consider the equipment available, considers the space needed and how many participants there are. Link the activity to the purpose of it. Consider timings
Delivery of a session	Be confident, organised, punctual, keep it structured and motivate participants.
Orienteering	Use map appropriately, don't move or damage any of the equipment. Try to complete the course as quickly as possible



Healthy Participation

Warm Up	Involves a pulse raiser, dynamic stretches and a skill-based activity. Prepares participants physically and mentally. Helps to prevent injury.
Muscles used when orienteering	Hamstrings, quadriceps, gastrocnemius
Cool Down	Light jog into a walk followed by static stretches. This prevents lactic acid building up in the muscles

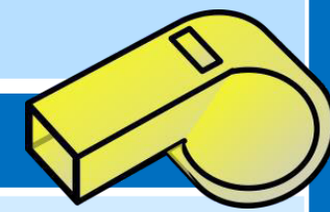
Year 9 PE: Leadership

Motor Competence

Understanding what a sports leader is	
Roles of a Sports Leader	
Responsibilities of a Sports Leader	
Designing a lesson plan	
Orienteering	

Rules, Strategies and Tactics

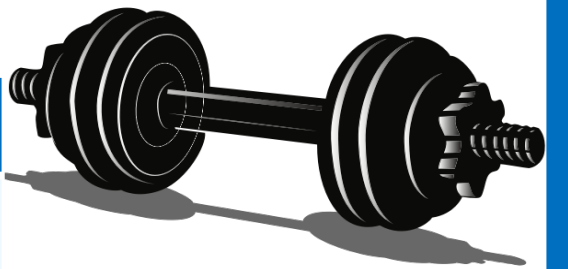
- Appropriate use of equipment
- Planning a session
- Delivery of a session
- Orienteering



Healthy Participation

Warm Up	
Muscles used when orienteering	
Cool Down	

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.
Speed	Moving your body fast as possible
Agility	Changing direction rapidly, whilst maintaining speed and precision.
Flexibility	A joint or series of joints to move through an unrestricted, pain free range of motion.
Balance	Even distribution of weight enabling someone or something to remain upright and steady.
Coordination	Throw with one hand, catch with the other.
Reaction time	How fast an athlete is able to respond to a stimulus.
Cardiovascular Fitness	To exercise the whole body for long periods

Healthy Participation

Muscles commonly used in the lesson:

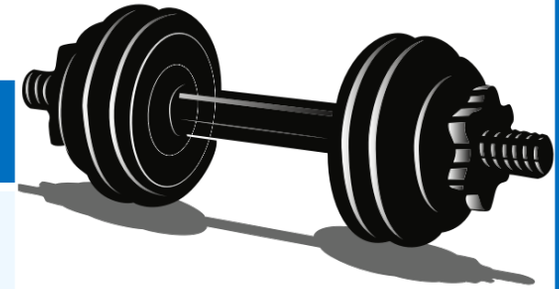
- Gluteal
- Hamstrings
- Quadriceps
- Gastrocnemius
- Abdominals

Rules, Strategies and Tactics

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

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

Year 9 PE: Fitness



Motor Competence- define the terms below.

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

Healthy Participation

Muscles commonly used in the lesson:

- _____
- _____
- _____
- _____
- _____

Rules, Strategies and Tactics

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

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

Religious Education

Helping every person achieve things they never thought they could.

Littleover School
be kind | work hard | take responsibility

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.

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		

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.

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 world.
Will judge.	Performed miracles.	Helper and guide.
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.
Creator	Redeemer, saviour	Provides courage and strength.

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

Christians express their belief in Trinity by...

They recite the creeds.

They do the 'sign of the cross' at the beginning and end of prayers.

During baptism, water is poured over the head three times.

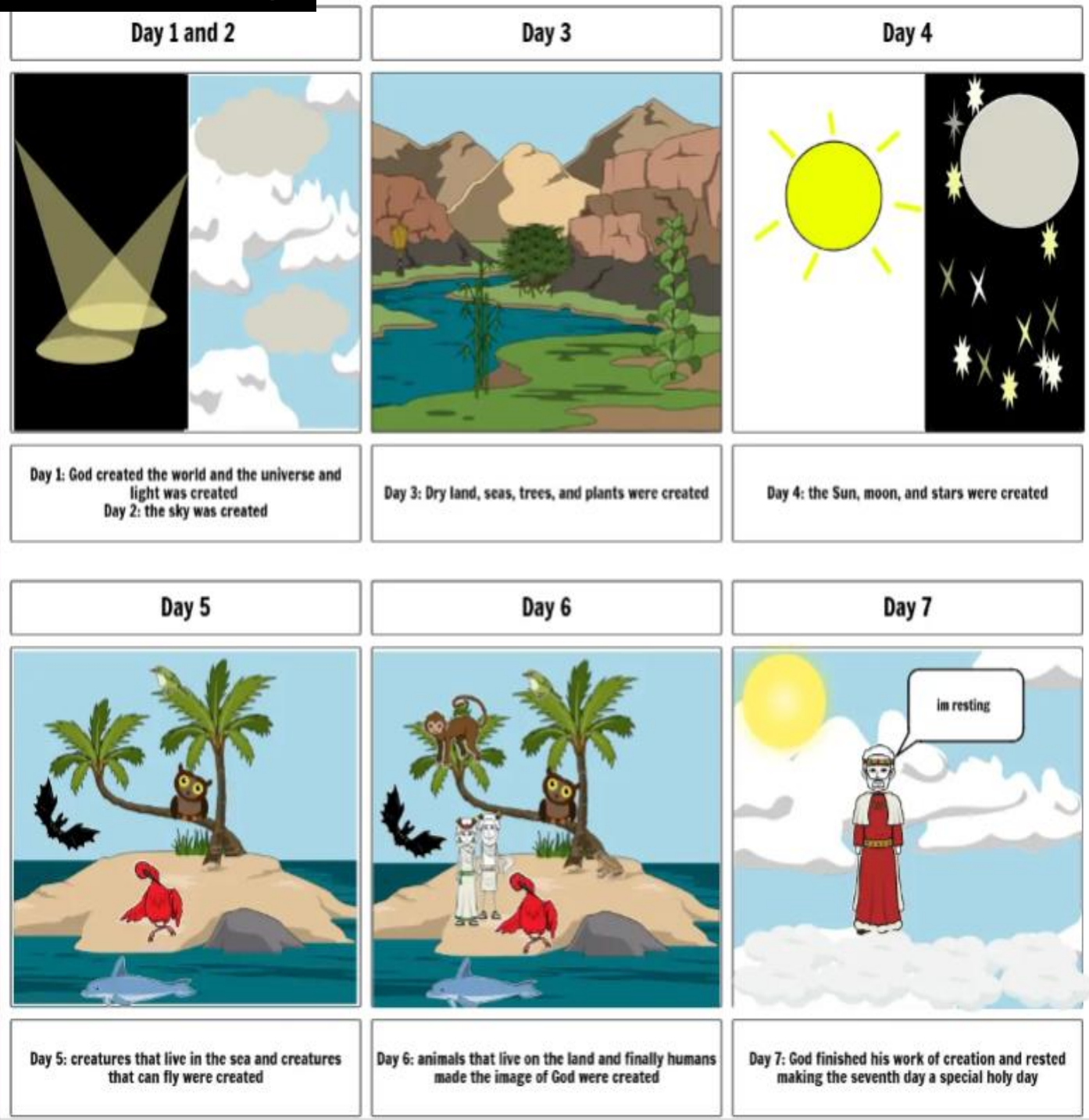
They celebrate Trinity Sunday.

The Trinity is the _____ belief in One God, made up of three persons. The three persons of the Trinity for Christians are ___ the Father, God the Son (_____) and God the Holy Spirit. They are all _____ important.
Christians see the _____ persons of the Trinity as having _____ characteristics and _____.

God the Father	God the Son	God the Holy Spirit

Christians believe in the Trinity because...

Christians express their belief in Trinity by...

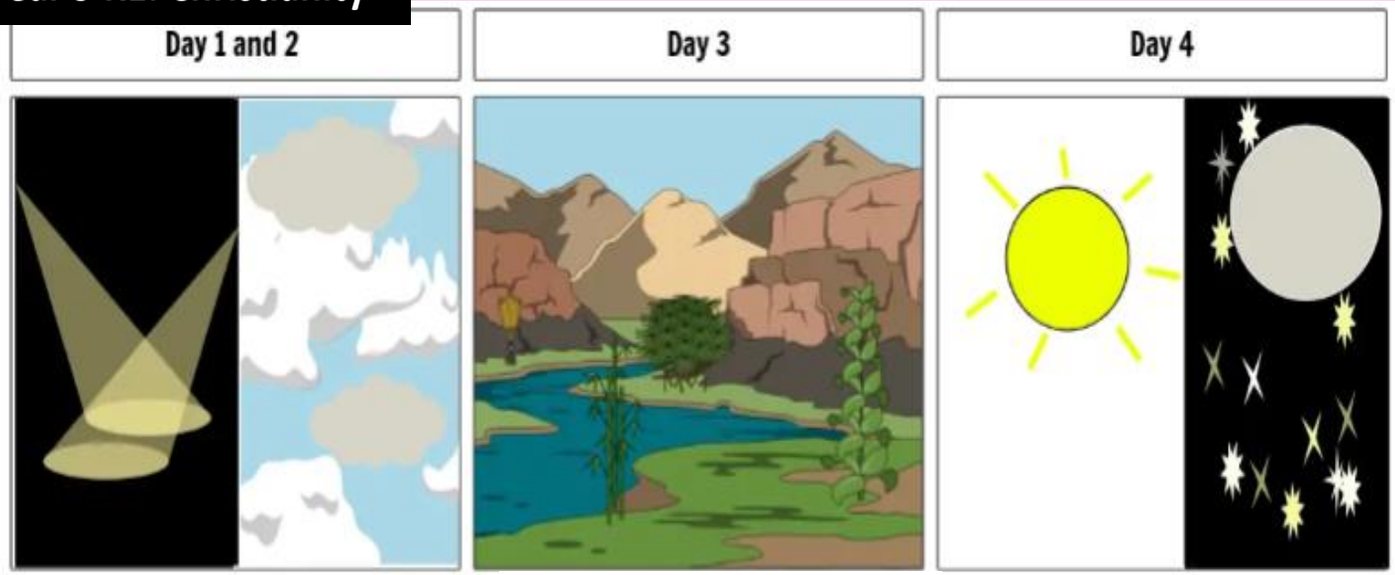


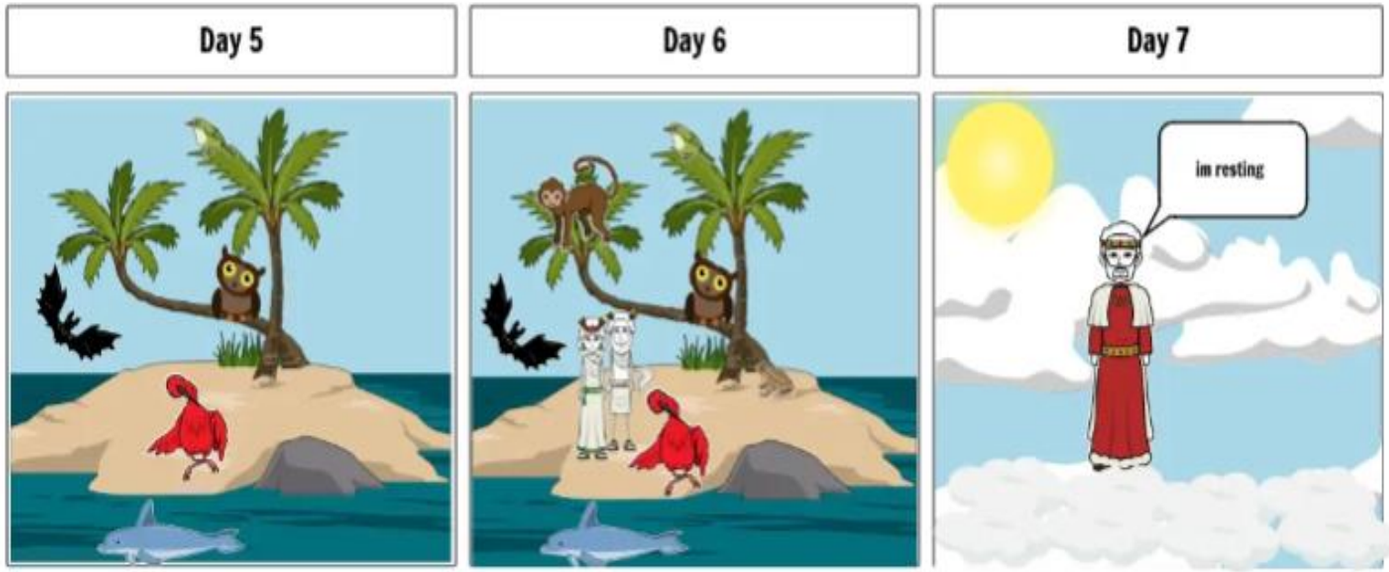
The first book of the Bible, Genesis, says that God created everything. The process took six days and on the seventh day, God rested.

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 _____.

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

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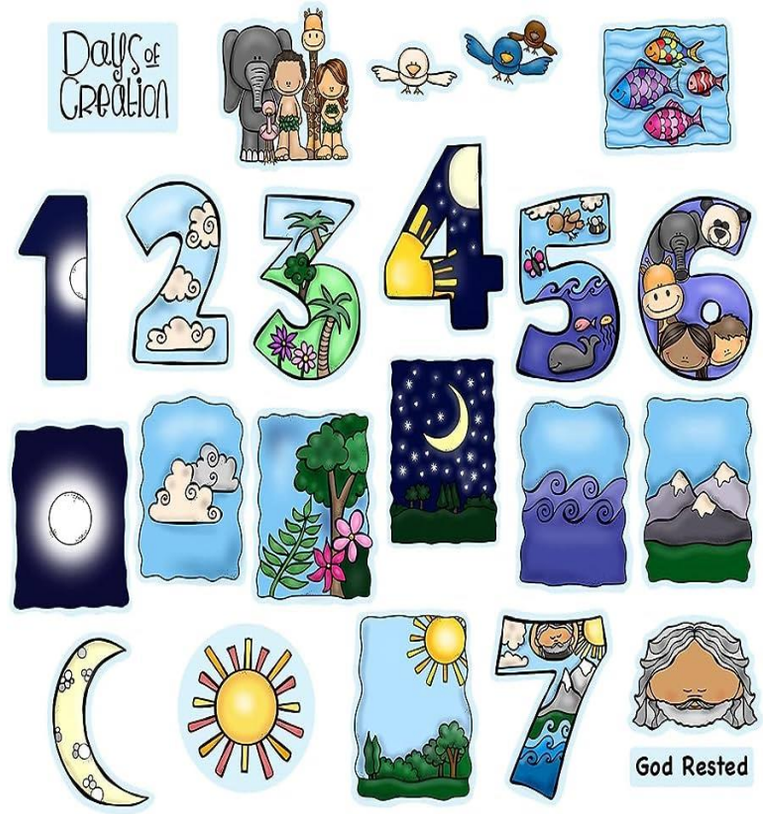
In addition, they believe '…the _____ hovered over the waters.' (Genesis).

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.

Different Interpretations of the Creation Story

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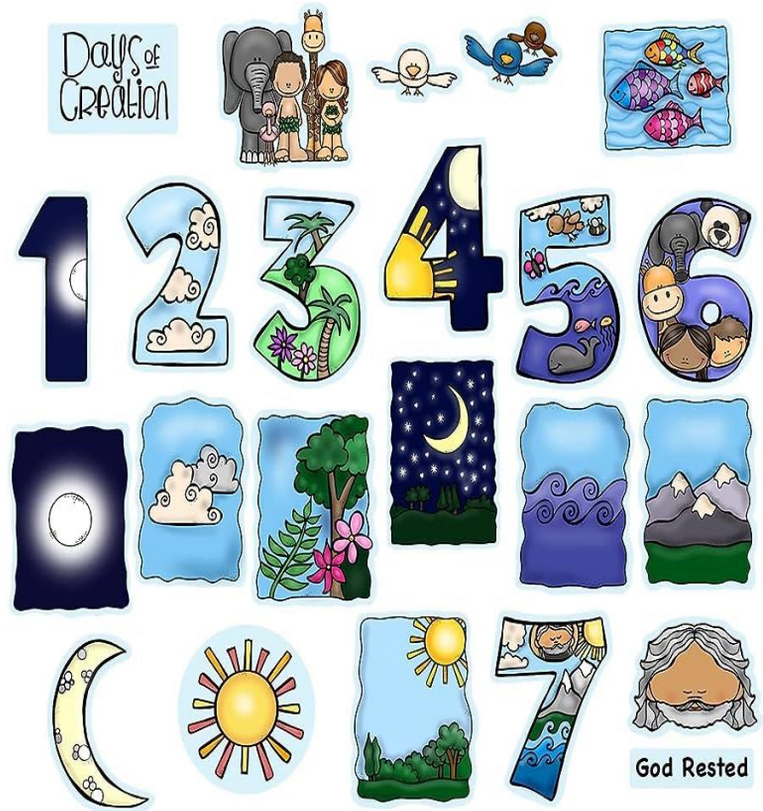

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Year 9 RE: Islam

Islam was founded in the 7th Century.

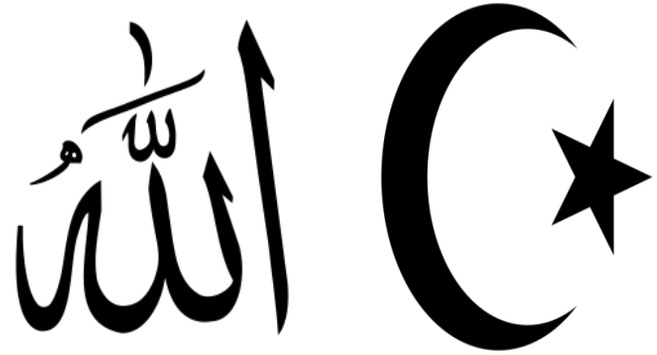
It shares some ideas with Judaism and Christianity.

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.

Islam was founded in the____Century.

It shares some ideas with _____ and _____.

Follows of Islam are called _____.

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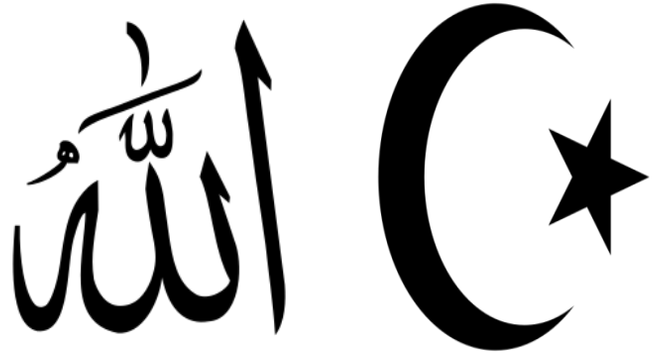
The main holy book for Muslims is the _____.

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



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

Main Differences	Sunni	Shi'a
Leadership		
Beliefs		

Science

Helping every person achieve things they never thought they could.

Little Aver School
be kind | work hard | take responsibility

Year 9 Science: Digestion and enzymes

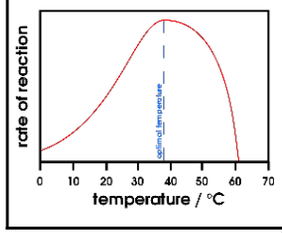
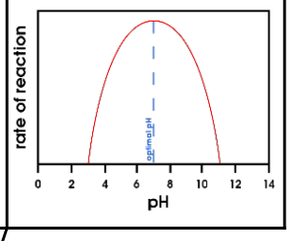
Enzymes catalyse (increase the rate of) specific reactions in living organisms

Enzymes in digestion

The 'lock and key theory' is a simplified model to explain enzyme action

Enzymes catalyse specific reactions in living organisms due to the shape of their active site

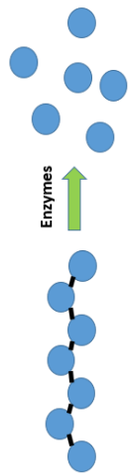
The activity of enzymes is affected by changes in temperature and pH

Enzymes activity has an optimum temperature	*Enzyme activity has an optimum pH*
	

Large changes in temperature or pH can stop the enzyme from working (denature)

Temperature too high	*pH too high or too low*
Enzyme changes shape (denatures) the substrate no longer fits the active site.	

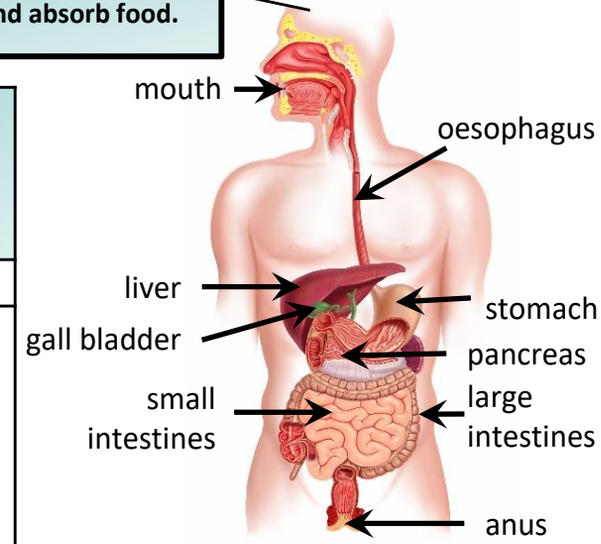
Digestive enzymes speed up the conversion of large insoluble molecules (food) into small soluble molecules that can be absorbed into the bloodstream



Carbohydrases (e.g. amylase)	***Made in salivary glands, pancreas, small intestine***	Break down carbohydrates to simple sugar (e.g. amylase breaks down starch to glucose).
Proteases	***Made in stomach, pancreas***	Break down protein to amino acids.
Lipases	***Made in pancreas (works in small intestine)***	Break down lipids (fats) to glycerol and fatty acids).
Bile (not an enzyme)	***Made in liver, stored in gall bladder.***	Emulsifies lipids to increase surface area to increase the rate of lipid break down by lipase. Changes pH to neutral for lipase to work

The human digestive system

An organ system in which organs work together to digest and absorb food.



Non-communicable diseases

More energy consumed in food and drink than used
obesity
Linked to increased rates of cardiovascular disease and development of diabetes type 2.

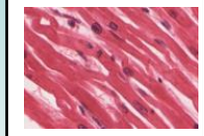
Food tests

Sugars (glucose)	***Benedict's test***	Orange to brick red precipitate.
Starch	***Iodine test***	Turns black.
Biuret	***Biuret reagent***	Mauve or purple solution.

Principles of organisation

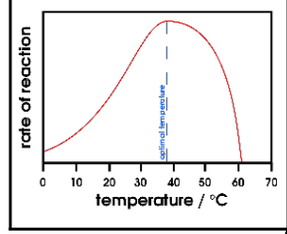
The products of digestion are used to build new carbohydrates, lipids and proteins. Some glucose is used for respiration.

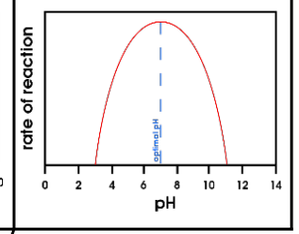
Cells, tissues, organs and systems

Cells		***e.g. muscle cells***	The basic building blocks of all living organisms.
Tissues		***e.g. muscle tissue***	A group of cells with a similar structure and function.
Organs		***e.g. the heart***	Aggregations (working together) of tissues performing a specific function.
Organ systems		***e.g. the circulatory system***	Organs working together to form organ systems, which work together to form an organism.

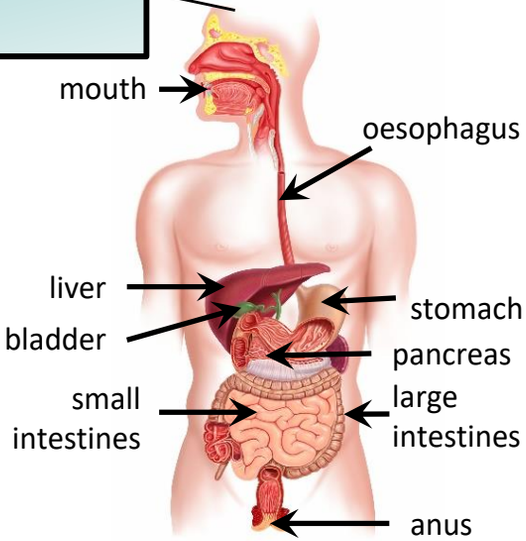
Year 9 Science: Digestion and enzymes

Enzymes in digestion





The human digestive system

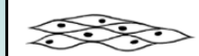
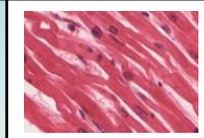


Non-communicable diseases

Food tests

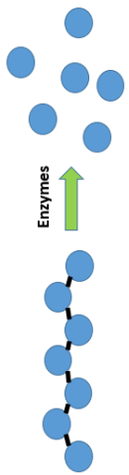
Sugars (glucose)		
Starch		
Biuret		

Principles of organisation

Cells			
		*e.g. muscle tissue*	
Organs			
Organ systems			

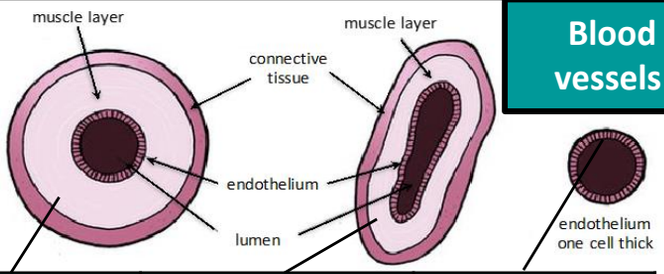
Carbohydrases (e.g. amylase)

Lipases



Year 9 Science: Organs and non-communicable diseases

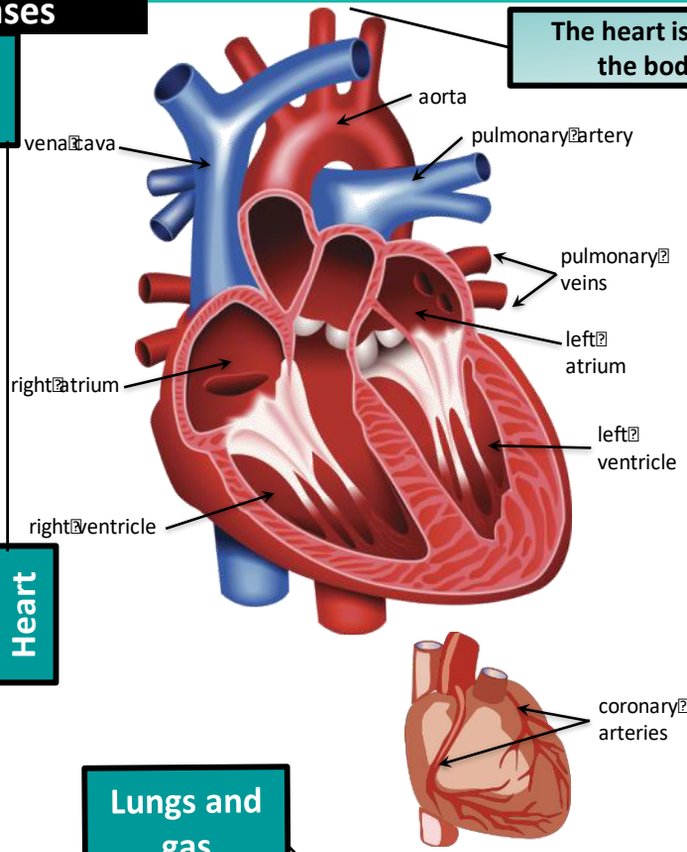
Blood vessels



Artery	Vein	Capillary
Carry blood away from the heart	***Carry blood to the heart***	***Connects arteries and veins***
Thick muscular walls, small lumen, carry blood under high pressure, carry oxygenated blood (except for the pulmonary artery).	Thin walls, large lumen, carry blood under low pressure, have valves to stop flow in the wrong direction, carry deoxygenated blood (except for the pulmonary vein).	One cell thick to allow diffusion, Carry blood under very low pressure.

Heart

The heart is an organ that pumps blood around the body in a double circulatory system



Different structure in the heart have different functions	
Right ventricle	Pumps blood to the lungs where gas exchange takes place.
Left ventricle	Pumps blood around the rest of the body.
Pacemaker (in the right atrium)	Controls the natural resting heart rate. Artificial electrical pacemakers can be fitted to correct irregularities.
Coronary arteries	Carry oxygenated blood to the cardiac muscle.
Heart valves	Prevent blood in the heart from flowing in the wrong direction.

Blood

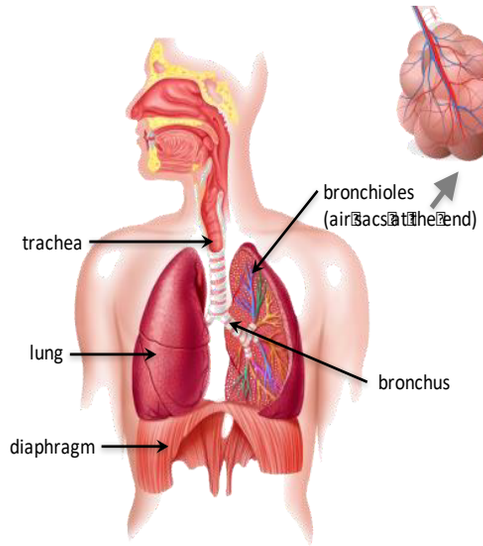
Blood is a tissue consisting of plasma, in which blood cells, white blood cells and platelets are suspended

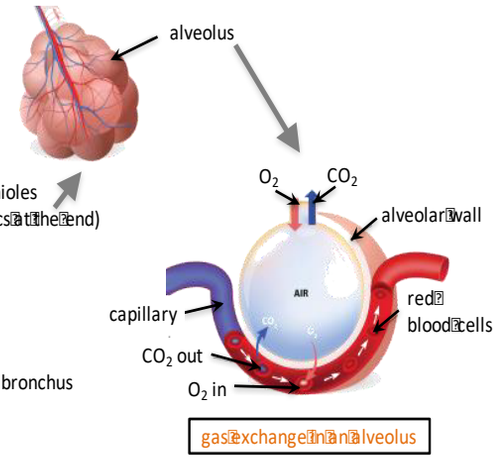
Plasma (55%)	***Pale yellow fluid***	Transports CO_2, hormones and waste.
Red blood cells (45%)	***Carries oxygen***	Large surface area, no nucleus, full of haemoglobin.
White blood cells (<1%)	***Part of the immune system***	Some produce antibodies, others surround and engulf pathogens.
Platelets (<1%)	***Fragments of cells***	Clump together to form blood clots.

Lungs and gas exchange

The heart pumps low oxygen/high carbon dioxide blood to the lungs

Trachea	***Carries air to/from the lungs***	Rings of cartilage protect the airway.
Bronchioles	***Carries air to/from the air sacs (alveoli)***	Splits into multiple pathways to reach all the air sacs.
Alveoli	***Site of gas exchange in the lungs***	Maximises surface area for efficient gas exchange.
Capillaries	***Allows gas exchange between into/out of blood***	Oxygen diffuses into the blood and carbon dioxide diffuses out.

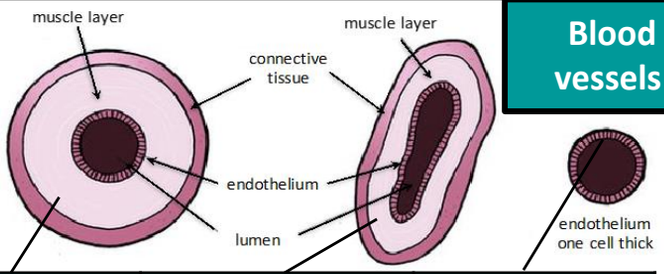




gas exchange in an alveolus

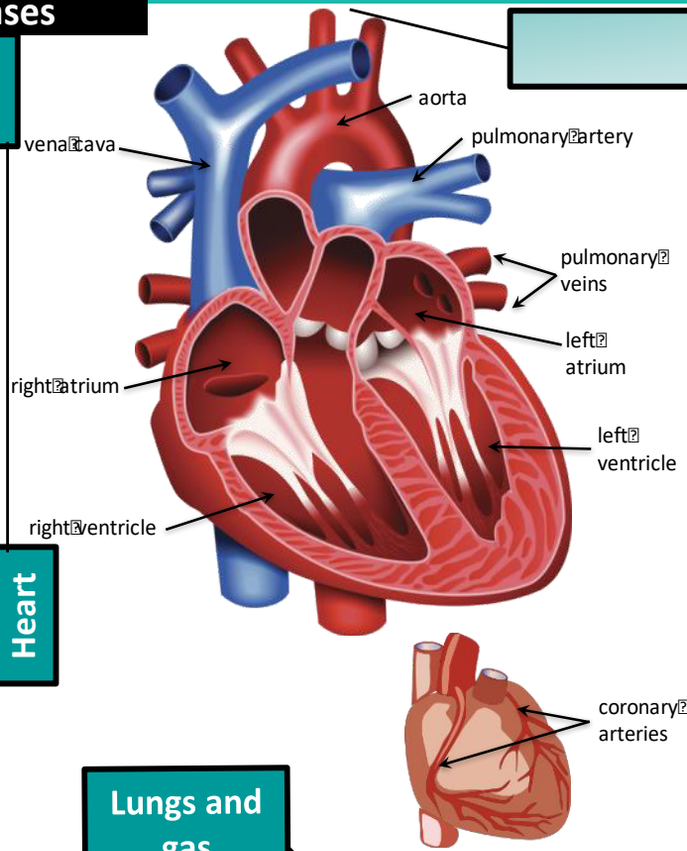
Year 9 Science: Organs and non-communicable diseases

Blood vessels



Artery	Vein	Capillary

Heart



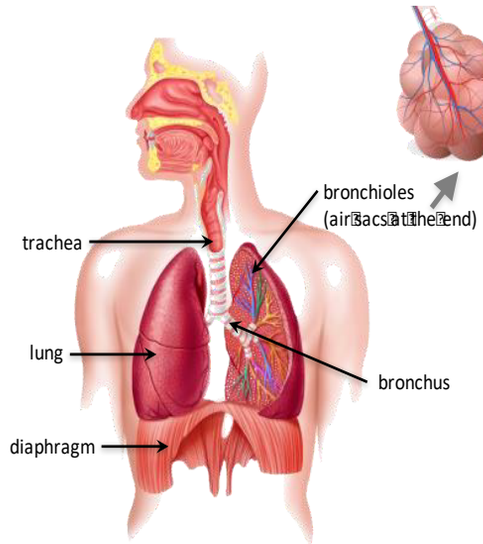
Different structure in the heart have different functions		

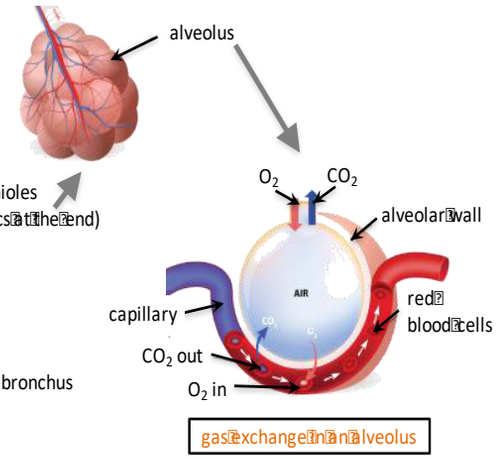
Blood

Plasma (55%)		
Red blood cells (45%)		
White blood cells (<1%)		
Platelets (<1%)		

Lungs and gas exchange

Trachea		
Bronchioles		
Alveoli		
Capillaries		





gas exchange in an alveolus

Year 9 Science: The pH scale and neutralisation

Acid name	Salt name
Hydrochloric acid	Chloride
Sulfuric acid	Sulfate
Nitric acid	Nitrate

Neutralisation	**Acids can be neutralised by alkalis and bases**	An **alkali** is a soluble base e.g. metal hydroxide. A **base** is a substance that neutralises an acid e.g. a soluble metal hydroxide or a metal oxide.

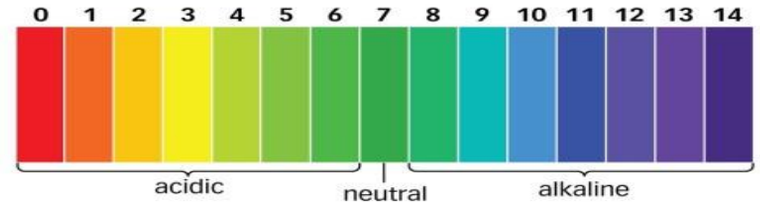
sodium hydroxide + hydrochloric acid ➔ sodium chloride + water

calcium carbonate + sulfuric acid ➔ calcium sulfate, + carbon dioxide + water

Strong and Weak acids

Strong acids	Completely ionised (converted into Ions) in aqueous solutions e.g. hydrochloric, nitric and sulfuric acids.
Weak acids	Only partially ionised in aqueous solutions e.g. ethanoic acid, citric acid.
Hydrogen ion concentration	As the pH decreases by one unit (becoming a stronger acid), the hydrogen ion concentration increases by a factor of 10.

Strong and weak acids (HT ONLY)



Reactions of acids

Acids	Acids produce hydrogen ions (H^+) in aqueous solutions.
Alkalis	Aqueous solutions of alkalis contain hydroxide ions (OH^-).

Soluble salts

Soluble salts	Soluble salts can be made from reacting acids with solid insoluble substances (e.g. metals, metal oxides, hydroxides and carbonates).
Production of soluble salts	Add the solid to the acid until no more dissolves. Filter off excess solid and then crystallise to produce solid salts.

In neutralisation reactions, hydrogen ions react with hydroxide ions to produce water:

$H^+ + OH^- \rightarrow H_2O$

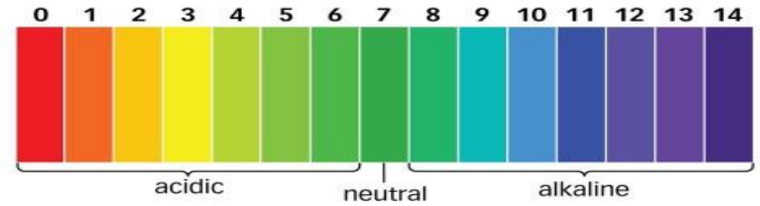
The pH scale and neutralisation

You can use universal indicator or a pH probe to measure the acidity or alkalinity of a solution against the pH scale.

Year 9 Science: The pH scale and neutralisation

Acid name	Salt name
Hydrochloric acid	
Sulfuric acid	

Neutralisation	Acids can be neutralised by alkalis and bases	



Strong and Weak acids

Strong acids	
Weak acids	
Hydrogen ion concentration	

Strong and weak acids (HT ONLY)

Soluble salts

Soluble salts
Production of soluble salts

Reactions of acids

The pH scale and neutralisation

Acids	
Alkalis	