

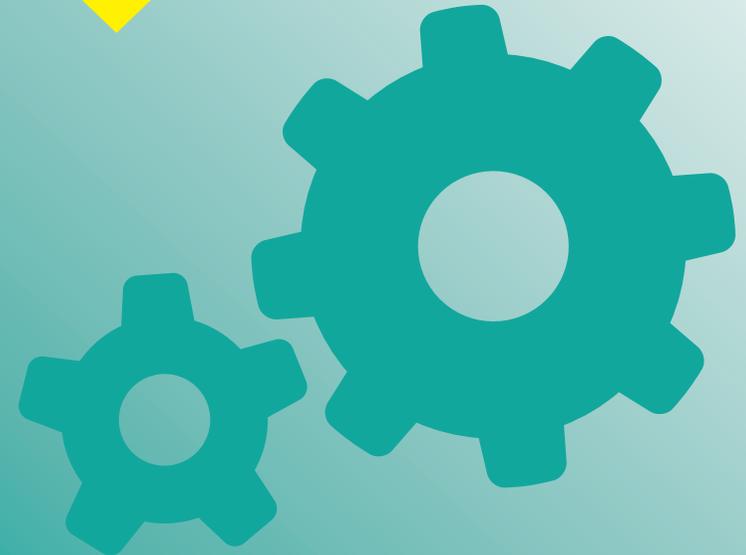
Year 7 Knowledge Organiser

Student's name:



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Maths



Algebra 1

Like and unlike terms

Like terms are those whose variables are the same

♥ and 3♥ are like terms

the variable is
the same

★ and 3♥ are unlike terms

the variables are
NOT the same

Examples and non-examples

Like terms

y, 7y
2x², x²
ab, 10ba
5, -2

Un-like terms

y, 7x
2x², 2c²
ab, 10a
5, -2t

Note here ab and ba are commutative operations, so are still like terms

Collecting like terms ≡ symbol

The ≡ symbol means equivalent to.

It is used to identify equivalent expressions

Collecting like terms

Only like terms can be combined

$$\begin{array}{cccc}
 4x & +5b & -2x & +10b \\
 \textcircled{4x} & \boxed{+5b} & \textcircled{-2x} & \boxed{+10b} \\
 \downarrow & \downarrow & \downarrow & \downarrow \\
 & & & 2x + 15b
 \end{array}$$

Common misconceptions

$$2x + 3x^2 + 4x \equiv 6x + 3x^2$$

Although they both have the x variable x² and x terms are unlike terms so can not be collected



Algebra 1

Multiply expressions with indices

$$\begin{aligned}
 &4b \times 3a \\
 \equiv &4 \times b \times 3 \times a \\
 \equiv &4 \times 3 \times b \times a \\
 \equiv &12ab
 \end{aligned}$$

$$\begin{aligned}
 &5t \times 9t \\
 \equiv &5 \times t \times 9 \times t \\
 \equiv &5 \times 9 \times t \times t \\
 \equiv &45t^2
 \end{aligned}$$

$$\begin{aligned}
 &2b^4 \times 3b^2 \\
 \equiv &2 \times b \times b \times b \times b \times 3 \times b \times b \\
 \equiv &2 \times 3 \times b \times b \times b \times b \times b \\
 \equiv &6b^6
 \end{aligned}$$

There are often misconceptions with this calculation but break down the powers

Substitution into expressions

$$4y \longleftarrow \text{4 lots of 'y'}$$

If $y = 7$ this means the expression is asking for 4 'lots of' 7

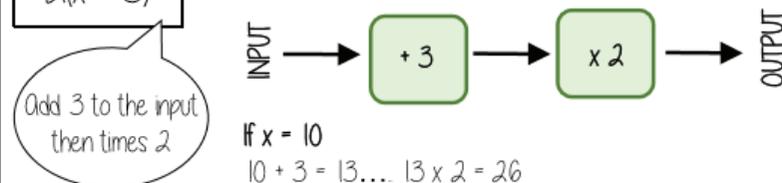
$$4 \times 7 \text{ OR } 7 + 7 + 7 + 7 \text{ OR } 7 \times 4 \quad \boxed{-28}$$

eg: $y - 2$
 $= 7 - 2 = 5$

Substitution into an expression

$$2(x + 3)$$

Put the expression into a function machine



Forming a sequence

$$2(x + 3)$$

INPUT	1	2	3
OUTPUT	8	10	12

\longleftarrow The substitution is the 'input' value
The OUTPUT becomes the sequence

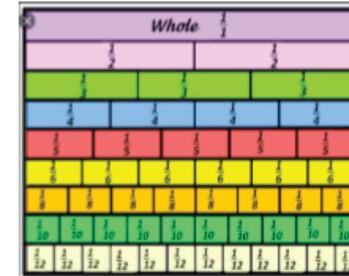


Keywords

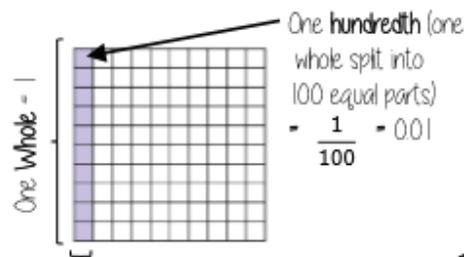
- Fraction:** how many parts of a whole we have
- Decimal:** a number with a decimal point used to separate ones, tenths, hundredths etc
- Percentage:** a proportion of a whole represented as a number between 0 and 100
- Place value:** the numerical value that a digit has decided by its position in the number
- Placeholder:** a number that occupies a position to give value
- Interval:** a range between two numbers
- Tenth:** one whole split into 10 equal parts
- Hundredth:** one whole split into 100 equal parts
- Sector:** a part of a circle between two radius (often referred to as baking like a piece of pie)
- Recurring:** a decimal that repeats in a given pattern

Equivalent fractions

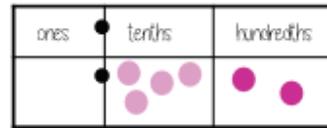
Represent equivalence with fraction walls



Tenths and hundredths

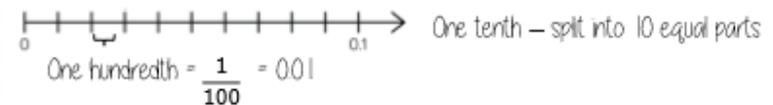
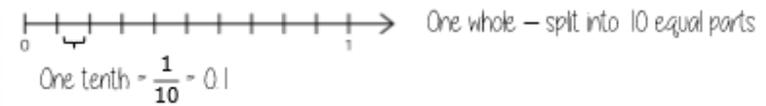


One tenth (one whole split into 10 equal parts) = $\frac{1}{10} = 0.1$



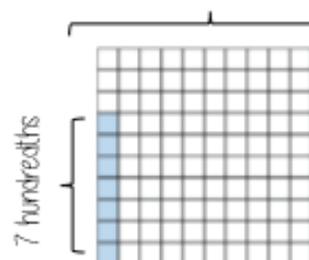
0 ones, 5 tenths and 2 hundredths
 $0 + 0.1 + 0.1 + 0.1 + 0.1 + 0.1 + 0.01 + 0.01$
 $= 0 + 0.5 + 0.02$
 $= 0.52$

On a number line

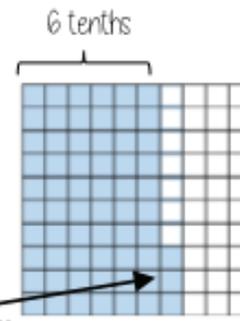


Percentages on a hundred grid

100% = a whole = 100 hundredths



7 hundredths
7 out of 100
7%



6 tenths and 3 hundredths
63 hundredths
63%



Convert FDP

$\frac{70}{100}$ → This also means 70 - 100 → 70 out of 100 squares → 70 "hundredths" = 7 "tenths" = 0.7 → 70 hundredths = 70%

Using a calculator

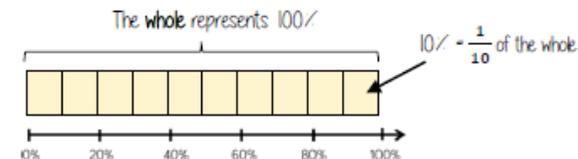
$\frac{70}{100}$ → $\frac{70}{100}$ → Convert to a decimal → $\times 100$ converts to a percentage

Be careful of recurring decimals
 eg $\frac{1}{3} = 0.3333333$
 $\frac{1}{3} = 0.\dot{3}$
 The dot above the 3

This will give you the answer in the simplest form

Fraction	Decimal	Percentage
$\frac{1}{2}$	0.5	50%
$\frac{1}{4}$	0.25	25%
$\frac{3}{4}$	0.75	75%
$\frac{1}{8}$	0.125	12.5%
$\frac{1}{10}$	0.1	10%

Find the percentage of an amount (Mental methods)



$10\% = \frac{1}{10}$ of the whole $50\% = \frac{5}{10} = \frac{1}{2}$ of the whole
 $20\% = \frac{2}{10} = \frac{1}{5}$ of the whole $5\% = \frac{1}{20}$ of the whole

Fraction of a given amount

Find $\frac{2}{5}$ of £205

The bar represents the whole amount

$\frac{2}{5}$ of £205
 $\frac{205}{5} = £41$
 $2 \times £41 = £82$

Each part of the bar model represents £41

90

Use bar models for comparisons

$\frac{1}{3}$ of 90 = 30
 $\frac{2}{3}$ of 45 = 30

$\therefore \frac{1}{3}$ of 90 = $\frac{2}{3}$ of 45

Use a fraction of amount

$\frac{2}{3}$ of a value is 70. What is the whole number?

$70 \div 2 = 35$
 Each part of the bar model represents 35

$35 \times 3 = 105$
 The whole number is 105

The wording of the question is important to setting up the bar model

$\frac{3}{4}$ of a number is 63

Find the whole

What is $\frac{1}{6}$ of the number?

Use the whole to find a given part

$= 14$

Find the percentage of an amount (Calculator methods)

Using a multiplier

Find 65% of 80

Fraction, decimal percentage conversion

$65\% = \frac{65}{100} = 0.65$ ← The multiplier

$0.65 \times 80 = 52$

Using the percent button

Find 65% of 80

This brings up the % button on screen. You will see 65%

Type 65

Press **SHIFT** **(%)**

Press **80** and then press =

You can also use the calculator to support non-calculator methods and find $\frac{1}{10}$ or $\frac{10}{10}$ then add percentages together

*of can represent 'x' in calculator methods



Rounding to the nearest power of ten If the number is halfway between we "round up"

5495 to the nearest 1000 5475 to the nearest 100 5475 to the nearest 10

5000 ↑ 6000 5400 ↑ 5500 5470 ↑ 5480

Round to decimal places 2.46192 ← Focus on the numbers after the decimal point

"To 1dp" - to one number after the decimal
"To 2dp" - to two numbers after the decimal

2.46192 (to 1dp) - Is this closer to 2.4 or 2.5

2.4 ↑ 2.5

2.46192 (to 2dp) - Is this closer to 2.46 or 2.47

2.46 ↑ 2.47

2.46192 | 6192 This shows the number is closer to 2.5

2.46192 | 192 This shows the number is closer to 2.46

Estimate the calculation Round to 1 significant figure to estimate

$4.2 + 6.7 \approx 4 + 7 \approx 11$ This is an **overestimate** because the 6.7 was rounded up more

 ← The equal sign changes to show it is an estimation

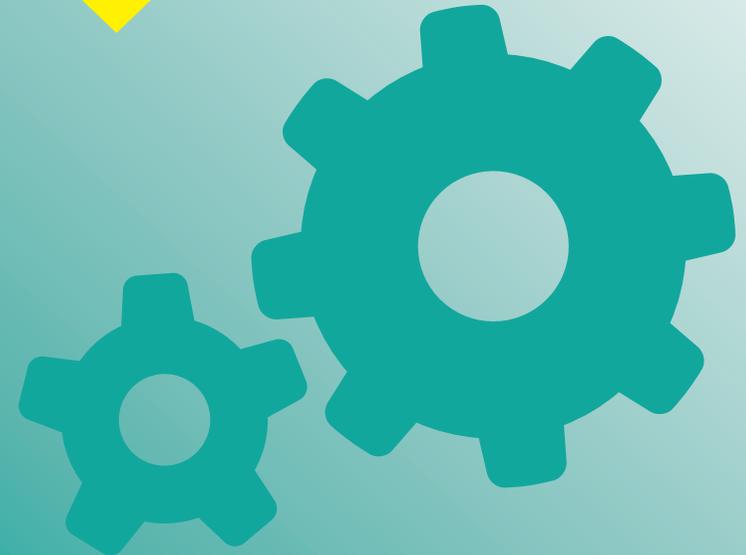
$21.4 \times 3.1 \approx 20 \times 3 \approx 60$ This is an **underestimate** because both values were rounded down

It is good to check all calculations with an estimate in all aspects of maths - it helps you identify calculation errors.

Round to 1 significant figure

370 to 1 significant figure is 400
37 to 1 significant figure is 40
3.7 to 1 significant figure is 4
0.37 to 1 significant figure is 0.4
0.00000037 to 1 significant figure is 0.0000004

Round to the first non zero number



English



Quote Explosion – Example

AO1: knowledge of character & plot

- Mr Briggs is telling the children off
- Shows that he doesn't value the students and sees himself as superior to them

“Is it any wonder that people won't do anything for you? The moment we start to treat you like real people, what happens?”

AO2: writer's methods (language and structure)

- “real people” – noun phrase – suggests that he doesn't value them as humans as they don't live and behave the way he expects them to

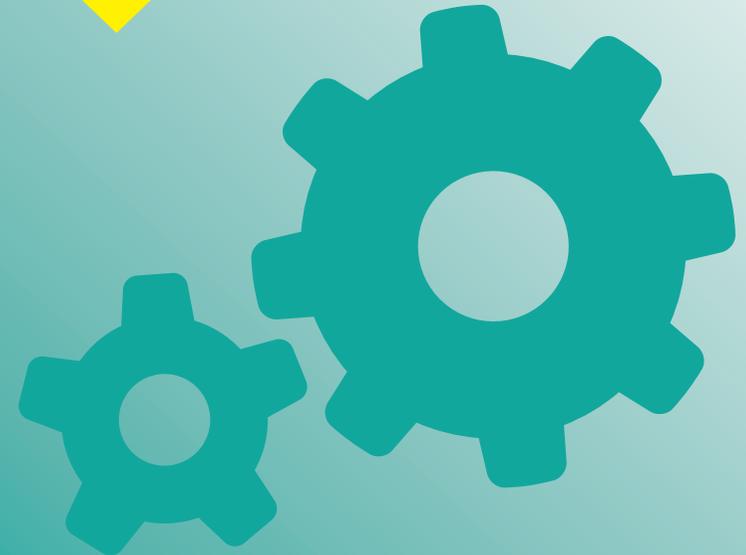
AO3: Historical Context

- Criticism of the education system in the 1970s – there was a prevailing view that children from working class backgrounds were destined for a life of poverty themselves, not matter the interventions of a teacher.

What/How/Why	Key Vocabulary		Historical Context
<p>The three key questions in English:</p> <p>What is the writer doing?</p> <ul style="list-style-type: none"> • In this extract, the writer presents... <p>How is the writer doing this?</p> <ul style="list-style-type: none"> • This is shown through the quote “_____” • This quote suggests... • The word “_____” implies... <p>Why is the writer doing this?</p> <ul style="list-style-type: none"> • Russell does this to represent... • This could link to... • This creates an impression of... 	Social Class	A division of society into a rank based on social and economic factors	<p>Education in the 1970s</p> <p>The divide between the rich and the poor was stark in the 1970s, partly due to the school system.</p> <p>Grammar schools were full of middle class children, many of whom were able to afford private tutors, while the comprehensive schools were left to ruin.</p>
	Grammar School	A school that requires you to pass an '11+ exam' to enter	
	Comprehensive School	A school that does not choose its students based on academic ability	
	Underprivileged	Not enjoying the same standard of living or rights as the majority	
	Disadvantaged	Not having the same financial or social opportunities as the majority	



Subject – Verb – Object		
Sentences in English generally follow a set order – subject → verb → object		
Subject: The person or thing (noun/noun phrase) which is carrying out the verb	Verb: What the subject does	Object: The person/thing (noun/noun phrase) being acted upon
Linda	stood	on the edge.
The bus	drove	through the city.
All sentences must have a subject and a verb , but not all sentences need an object – this is determined by the type of verb the sentence has		
Transitive Verbs (verbs that require an object)		Intransitive Verbs (verbs that don't require an object)
<ul style="list-style-type: none"> I made a cake. She sent a letter. They took the last slice. 		<ul style="list-style-type: none"> It rained. I walked. They sang.
Word Classes		
Clauses		
Homophones		
Noun	Identifies a person, place or thing	<i>Ryan, Chester, sky</i>
Verb	Describes an action	<i>run, cook, sing</i>
Adjective	Describes a noun	<i>big, red, beautiful</i>
Adverb	Describes the way a verb is carried out	<i>quickly, carefully</i>
Pronoun	Replaces a noun	<i>he, she, they, it</i>
Preposition	Expresses relation between words	<i>on, in, before, after</i>
Conjunction	Connects phrases, clauses and sentences	<i>and, but, because</i>
Determiner	Introduces a noun	<i>the, a, that, this</i>
		Main Clause Sentence that makes sense on its own <i>Linda stood on the edge.</i> Subordinate Clause A clause that needs a main clause to make sense <i>As Mr Briggs watched, Linda stood on the edge.</i>
		There He is stood over there . They're They're best friends. Their It is their favourite TV show.



Science



Reproduction

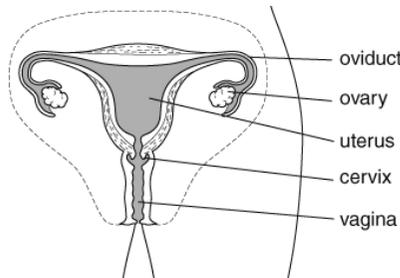
Reproduction produces new living things (**offspring**). Two **parents** are needed for **sexual reproduction**.

Males and females have **reproductive systems**, which contain **reproductive organs** to allow them to reproduce. The ovaries and testes produce **gametes** or **sex cells**.

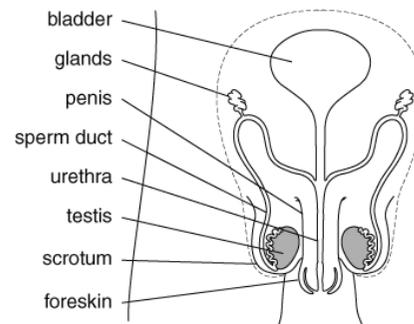
Sexual intercourse in mammals

During **sexual intercourse**, **semen** (sperm cells mixed with special liquids from the **glands**) is forced out of the penis and into the top of the **vagina**. This is called **ejaculation**. The semen travels into the top of the **uterus** and the sperm cells then swim down the **oviducts**.

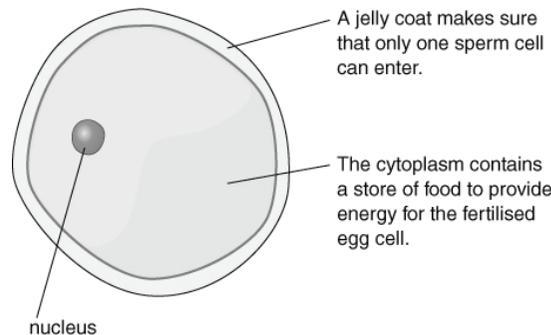
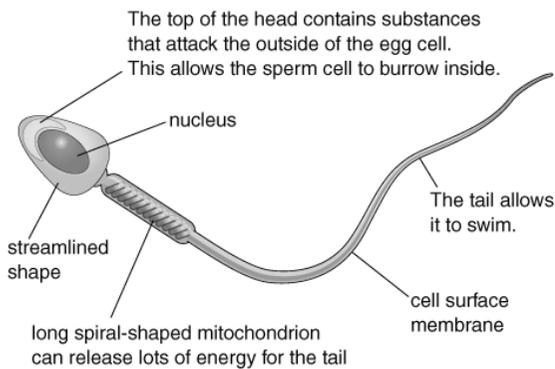
Sperm and egg cells are **adapted** to their **functions**. A sperm cell is much smaller than an egg cell.



The female reproductive system

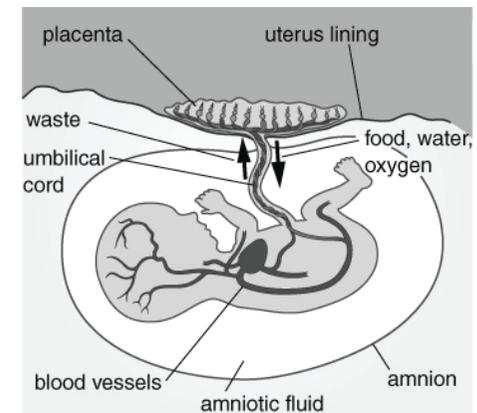


The male reproductive system



Pregnancy in mammals

If an egg cell meets a sperm cell in an oviduct, **fertilisation** can occur (the nuclei from the two cells **fuse**). The **fertilised egg cell** divides to form a ball of cells (an **embryo**). The embryo travels to the uterus where it sinks into the uterus lining (**implantation**). The woman is now **pregnant**. Once the embryo has developed all its organs it is called a **fetus**. It takes about 40 weeks (9 months) for a human fertilised egg cell to grow into a baby ready to be born. This time is called the **gestation period**.





While inside the uterus, the fetus is supplied with oxygen and food by the **placenta**. The placenta also gets rid of waste (especially carbon dioxide) from the fetus. The **umbilical cord** connects the fetus to the placenta.

If a mother smokes, drinks too much alcohol or takes drugs while pregnant, she might damage the baby. The baby might be **premature**.

Birth in mammals

- The uterus starts **contractions** and the woman goes into **labour**.
- The muscles of the **cervix** relax.
- The baby is pushed out head first through the cervix and the vagina.
- The baby starts to breathe and the umbilical cord is cut. The scar left behind is the **navel**.
- Then the placenta is pushed out of the uterus. This is the **afterbirth**.

The mother's breasts contain **mammary glands** that produce milk to feed the baby. Breast milk contains all the nutrients that a baby needs and **antibodies**, which help destroy micro-organisms that might cause diseases.

Growing up

The stages through which an organism goes as it grows and develops are its **lifecycle**. In the human lifecycle, a baby grows into a child. Between the ages of 10 and 14 years, most children start to go through **puberty**. During puberty, **sex hormones** cause big physical changes to occur. **Adolescence** is the time when emotional as well as physical changes occur. It ends at about 18.

After puberty, animals are able to sexually reproduce. Men produce sperm cells for the rest of their lives. Women stop releasing egg cells at the age of 45–55 and this is called the **menopause**.

In all mammals fertilisation happens inside the female. This is called **internal fertilisation**. In some animals (e.g. frogs, fish) fertilisation happens outside the female (**external fertilisation**).

The fertilised egg cells of many animals also grow and develop outside their parents. This is called **external development**. Amphibians, birds and fish use external development. Humans use **internal development** and produce fewer offspring than animals using external development because the growing embryos are protected inside the mother.

Changes in boys
• hair grows under arms, on face and on chest
• pubic hair grows
• shoulders get wider
• body smell increases
• testes start to make sperm cells
• testes and penis get bigger
• voice deepens ('breaks')

Changes in girls
• hair grows under arms
• pubic hair grows
• hips get wider
• body smell increases
• ovaries start to release egg cells
• breasts develop



Hazards

- A **hazard** is something that can cause harm.
- Chemicals are labelled with hazard symbols to warn people of potential dangers.
- Some common hazard symbols are:



Risk **WS**

- A **risk** is the chance that a hazard will actually cause harm.
- Risks can be reduced by taking **precautions**. E.g. wearing eye protection to prevent chemicals splashing in your eyes or tying long hair back to prevent it catching fire in a Bunsen flame.

Acids

- Common substances at home that contain acids include: citric acid, vinegar, fizzy drinks and car battery acid.
- Acids have a sour taste.
- Most concentrated acids are **corrosive**. If they are added to water they become more **dilute**. Dilute acids are less hazardous. Many dilute acids are **irritant**.

Alkalis

- Common substances at home that contain alkalis include: toothpaste, drain cleaner, oven cleaner.
- Many alkalis are metal hydroxide solutions.
- An alkali can be described as a soluble base. A base is any substance, soluble or insoluble, that neutralises an acid forming a salt and water.

Indicators

- Indicators change colour and can be used to detect acids, alkalis and neutral solutions.
- Litmus is a common indicator.

Solution	Colour of litmus
acid	red
neutral	purple
alkali	blue



pH scale

- A numbered scale from 1 to 14.
- Acids have a pH less than 7. The lower the pH, the more acidic the substance is. The lower the pH, the more hazardous the acid is.
- Neutral solutions have pH 7.
- Alkalis have a pH more than 7. The higher the pH, the more alkaline the substance is. The higher the pH, the more hazardous the alkali is.

strong acid			weak acid			neutral	weak alkali			strong alkali			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
stomach acid	vinegar		fizzy drinks		skin	pure water	indigestion powder			washing powder			oven cleaner
	lemon juice				milk		toothpaste						

Neutralisation

- This is a reaction between an acid and an alkali.

$$\text{acid} + \text{alkali} \rightarrow \text{salt} + \text{water}$$
- It is also a reaction between an acid and a base.

$$\text{acid} + \text{base} \rightarrow \text{salt} + \text{water}$$

Word equation

- This summarises a reaction by writing the names of the substances you start with and the names of the new substances that are made.
- **Reactants** are the substances you start with and are written on the left side of the word equation.
- **Products** are the new substances that are made and are written on the right side of the word equation.
- There is an arrow between the reactants and products. The arrow means 'react to form'. Do not write an equals sign, =.
- For example



Hydrochloric acid and sodium hydroxide are the reactants.

Sodium chloride and water are the products.

Notice the arrow between the reactants and the products.



Salts

- Salts are made when an acid reacts with an alkali or a base.
- Salts names are made of two words.
- The first part of the name of the salt is the same as the metal in the alkali or base.
- The second part of the name of the salt comes from the acid.

Acid	Second part of the name of the salt	Example
hydrochloric acid	chloride	Zinc chloride is made from zinc oxide and hydrochloric acid
nitric acid	nitrate	Magnesium nitrate is made from magnesium oxide and nitric acid
sulfuric acid	sulfate	Copper sulfate is made from copper oxide and sulfuric acid

Neutralisation in everyday life

- Antacids are indigestion remedies. People take these medicines if they have indigestion caused by too much acid in the stomach. The antacid contains a base that neutralises the extra acid.
- Soil can become too acidic for some crops to grow. Farmers spread lime (a base) on the soil to neutralise the acid.
- Toothpaste contains a mild alkali to neutralise the acid in our mouths.
- Alkalis are used to neutralise the acidic gases coming out of power stations.
- Sulfuric acid reacts with iron oxide in rust and removes it from the surface of an object.



Forces

Forces are pushes or pulls. Forces can:

- change the shape or size of an object
- change the speed things are moving (make them move faster or slower)
- change the direction of a moving object.

The unit for measuring force is the **newton (N)**.

Friction is a force caused by two things rubbing together. **Air resistance** and **water resistance** are kinds of friction.

Solid things, like your chair, push up on you when you sit on them. Upwards forces from water or air are called **upthrust**. Things float in water because of upthrust.

Contact forces only act when two objects or materials are touching. Examples of contact forces are:

- friction
- air resistance
- water resistance
- upthrust.

Some forces can have an effect without objects touching. They are called **non-contact forces**. There are three non-contact forces:

- **magnetism**
- **gravity**
- **static electricity.**

Weight and mass

Your **mass** is the amount of substance in your body. Your mass is measured in **kilograms (kg)**. Your **weight** is a force caused by gravity pulling on your body. The newton (N) is the scientific unit used to measure forces, and so it is also used as the unit for weight.

Wherever you take an object, its mass will not change but its weight depends on the force of gravity. An object on the Moon would have a smaller weight than on Earth, because the Moon's gravity is not as strong as Earth's.

Measuring forces

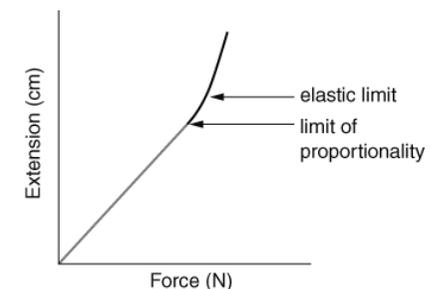
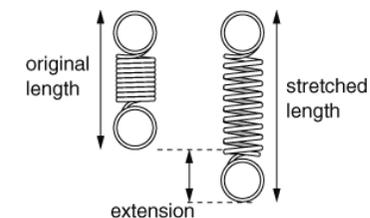
Elastic materials will stretch with a force and then return to their original shape when the force is taken away. Springs are elastic. The extension of a spring is the difference between its original length and its stretched length.

The extension of a spring is **proportional** to the force on it. This is called **Hooke's Law**.

If the spring is stretched too far, the extension stops being proportional to the force. If it is stretched even further, it goes beyond its **elastic limit**. The spring will no longer return to its original length when the force is removed.

Force meters have springs inside them.

Materials like Plasticine[®] will stretch with a force but they will not return to their original shape afterwards. Plasticine[®] is a **plastic** material.





Friction

Friction is a contact force. Friction can:

- slow things down
- produce heat
- wear things away
- cause a noise.

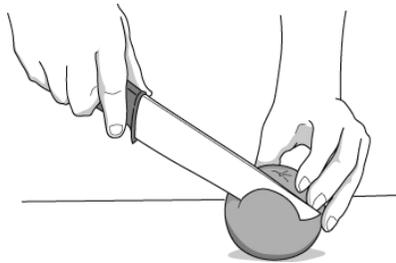
Friction can be increased by using rough surfaces, or by using materials such as rubber that have a lot of friction.

Friction can be reduced by using smooth surfaces, or by lubrication. Oil and grease are examples of lubricants, and help things to move past each other easily.

Pressure

Pressure is the amount of force pushing on a certain area.

For a certain area, the bigger the force, the bigger the pressure. For a certain force, the bigger the area, the smaller the pressure.



Sharp knife – a small area giving a large pressure.



Snow shoes – a large area giving a small pressure.

We can work out the pressure under an object using this formula:

$$\text{pressure} = \text{force} \div \text{area}$$

Balanced and unbalanced forces

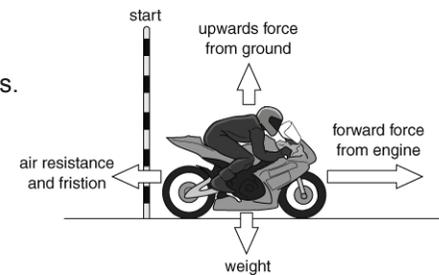
Balanced forces are forces on an object that are the same size but work in opposite directions.

If forces are balanced:

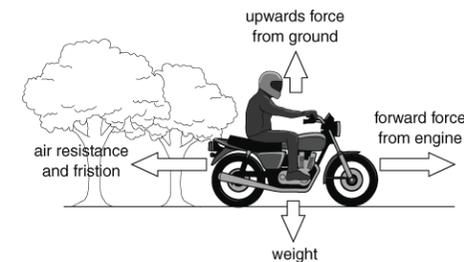
- a stationary object stays stationary
- a moving object continues to move at the same speed and in the same direction.

If there are **unbalanced forces** on an object:

- a stationary object will start to move
- a moving object will change its speed or direction.



Unbalanced forces – the motorbike will speed up.



Balanced forces – the motorbike will continue to move at a steady speed.

A car or motorbike uses the energy stored in fuel to move at a steady speed because it needs a force from the engine to balance the forces of air resistance and friction.



Energy from food

Humans and other animals need energy to live. The energy resource for our bodies is the energy stored in food. We need to choose our food so that we get the right amount of energy.

The unit for measuring energy is the **joule (J)**. There is a lot of energy stored in food, so we usually measure the energy in food using **kilojoules (kJ)**. $1 \text{ kJ} = 1000 \text{ J}$.

Energy transfers and stores

Energy can be transferred by:

- heating
- light
- sound
- electricity
- forces.

Energy can also be stored in different ways.

Energy stored in...	Commonly called...
the chemicals in food, fuels and batteries	chemical energy
moving objects	kinetic energy
hot objects	thermal energy
objects that are stretched, squashed or twisted	strain energy or elastic potential energy
objects moved to high places	gravitational potential energy
inside the particles that everything is made up from	nuclear energy or atomic energy

Energy is not used up. It can be transferred and stored in different ways, but it cannot be created or destroyed. This is called the **law of conservation of energy**.

Fuels

Fuels store energy, and this energy is transferred when the fuels burn. Burning fuels are used to heat things.

Fossil fuels:

- are made from plants and animals that were trapped in mud and rocks millions of years ago
- include coal, oil and natural gas
- are non-renewable (they take millions of years to form, and so our supplies will run out)
- produce gases that cause pollution and global warming when burnt
- are relatively cheap to obtain
- originally got their energy from the Sun. The plants that became coal, oil and natural gas got their energy from the Sun, and the animals that became oil and natural gas got their energy from plants, which got their energy from the Sun.

Nuclear fuel is also non-renewable. Nuclear power stations produce dangerous waste materials.

Electricity is not a fuel. It has to be generated using other **energy resources**.



Making fossil fuels last longer

We can make fossil fuels last longer and help to reduce global warming by using less of them. We could walk or cycle whenever we can, or use a bus instead of using a car. Walking and cycling would make us fitter and healthier, and there would be less pollution if there were not as many cars on the roads. We could also save energy by keeping our houses cooler and putting on more clothes if we are cold instead of turning up the heating.

Renewable energy resources:

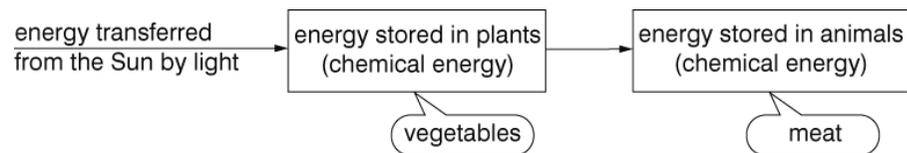
- include solar, wind, tidal, wave, biofuels, geothermal and hydroelectricity
- do not produce harmful gases or contribute to global warming
- are often more expensive than using fossil fuels
- will not run out
- are not always available.

Hydroelectricity, geothermal energy and biofuels are available at any time. Tidal power is not available all the time, but we can predict when it will be available. Energy from solar, wind and waves is only available some of the time.

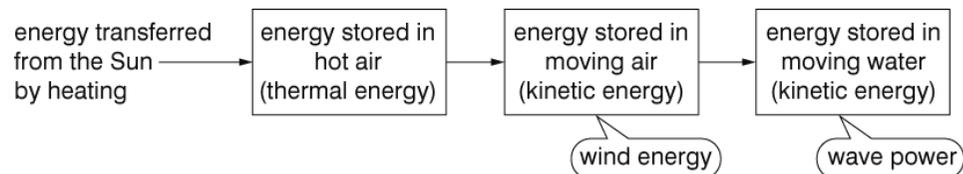
Energy from the Sun

Most of the energy resources we use store energy that originally came from the Sun. Only geothermal power, nuclear power and tidal power do not depend on energy from the Sun.

How energy is transferred to our food:



How energy is stored in the wind and in waves:





History



TUDORS and STUARTS KNOWLEDGE ORGANISER

Everyday Life in the Period

Tudor Lords – The wealthy in Tudor society lived increasingly rich and flamboyant lives:
 -Fashion was important, with men wearing decorated doublets (jackets) with rounded fronts and slashed trunks. Women would wear kirtles (overskirts) over wooden frames (farthingales) and high collars.
 -Food consisted almost entirely of meat, with few vegetables, with beer or wine amongst the predominant drinks of choice.
 -Tudor Lords lived in huge mansions in the countryside (e.g. Hampton Court).
 -Pastimes included jousting, hunting, dancing, and real tennis.



Stuart Lords – The wealthy in Stuart times also lived lives of increasing sophistication and flair:
 -Cavaliers would dress flamboyantly, in the same manner as the Tudor Lords before them. Many women wore beauty spots on their faces. However, Puritans would dress in plain colours such as black and white, made of hard-wearing cloth.
 -People began to eat salad, grown in their own greenhouses, and drink exotic drinks, such as tea from China and cocoa from Mexico.
 -Gardens were formal places, often shaped in geometric designs, with fancily cut hedges and mazes.
 -Recreations included horse-racing, board games and cards.



Life in Towns – The Tudor and Stuart era has been described as the 'Golden Age of the Small Town' as roughly 90% of people still lived in smaller dwellings. Small towns contained inns and dwellings for tired travelers (remember that travel was much more limited than now, even a trip to the next town was an undertaking) market places, and leisure facilities.
 London notably improved in the 17th Century, as running water was made available from reservoirs for those who could afford it, and streets were lit by oil lamps after 1680. Most people travelled by boat on the River Thames, paying local 'Ferry-men.'



Life for the Poor – Life for poor people in this era was exceptionally harsh. For many manual labour jobs, such as farming, the day would begin at approximately 5am. Work would continue throughout most of the day, only breaking for mealtimes, which was normally some form of simple vegetable stew. As there was no welfare state, many who grew too old or weak were forced to beg, steal, or die. Punishments for crime were brutal – death by hanging was given to anyone who stole over one shilling, beggars were whipped through the streets, and poisoners were boiled alive! The Poor Laws made life even harder for poor people, mostly punishing their poverty.



Major Events and Key Information

Battle of Bosworth – 22nd August 1485
 The Battle of Bosworth was the last significant battle in the 'War of the Roses', a civil war that raged between the houses of Lancaster in York in the latter half of the 15th Century. The battle was won by the Lancastrians, and Henry Tudor thus became the first King of the Tudor period. Richard of York had proven to be widely unpopular – he was originally acting as Lord Protector for Edward V at the request of his brother (Edward IV), however he declared the boy illegitimate and took the throne for himself. He was also believed to have been implicated in the murder of his wife. Henry seized this opportunity to stake his claim to the throne, garnering wide support and the help of Sir William Stanley to defeat Richard in battle and kill him.



Henry VIII's Wives – In total, Henry VIII had six wives:
 1st Wife: Catherine of Aragon – This marriage was annulled as Henry broke with the Catholic church in order to divorce. Their child was Mary I. 2nd Wife: Anne Boleyn – Anne gave Henry his second daughter, Elizabeth I. She was accused of treason and incest and was executed in 1536. 3rd Wife: Jane Seymour – Jane gave Henry the son that he desired (Edward VI) but died 12 days later, presumably from post-natal complications. 4th Wife: Anne of Cleves – A German princess, it is believed they never consummated the marriage, which lasted 6 months. 5th Wife: Catherine Howard – Executed for adultery after just over 1 year. 6th Wife – Catherine Parr – Trusted by the King – outlived him by over a year.

The Civil War – 1642-1651
 The civil war pitted the Parliamentarians (the 'Roundheads') against the Royalists (the 'Cavaliers') over the manner of England's government. The three major battles saw fighting between those supporting Charles I and those supporting Parliament. The war was eventually ended at the Battle of Worcester on 3rd September 1651, when the Parliamentarians won. The outcome of the war was several-fold – Charles I was put on trial and then executed, his son Charles II was driven out of the country, the country was ruled by the Commonwealth and then the Protectorate: Oliver Cromwell.

Great Fire of London – 2nd-5th September 1666
 The Great Fire of London was a major conflagration that tore through London throughout the reign of Charles II. The fire consumed over 13,200 houses, St Paul's Cathedral, and many, many churches. It is estimated that the fire damaged at least 70,000 of London's 80,000 homes at the time. It is commonly held that the death-toll was relatively low (6), however many believe that the deaths of the poor were simply not recorded. The fire started at the bakery of Thomas Farriner on Pudding Lane. Afterwards, huge areas of London needed to be rebuilt – rebuilding schemes were widely encouraged by Charles.



The Great Plague of London – 1665-1666
 The last major episode of the bubonic plague to occur in England, the great plague killed around 100,000 people, almost a quarter of London's population, in 18 months. It was reportedly initially caused by an infected rat flea bite. There was no duty to report deaths at the time – instead, parishes employed 'searchers of the dead.' For this reason, death figures may be somewhat inaccurate.

The Glorious Revolution – 1688-1689
 The Glorious Revolution was the overthrow of King James II of England by a group of parliamentarians, to be replaced by William of Orange (of the Netherlands) and his wife Mary II (James's daughter). James's policies of religious tolerance had been met with opposition, and there was general concern over his Catholicism. William successfully invaded with his Dutch fleet to take the throne.

Tudor and Stuart Monarchs - date of reign, biography, spouse info, and key facts.

Henry VII 1485-1509		Henry VII started the Tudor dynasty when he defeated Richard III in the battle of Bosworth Field in 1485. He was known as a serious man. He faced several challenges to his throne, but married Elizabeth of York, to end the War of the Roses. When he died, England was a rich and prosperous nation, and his son's succession to the throne was not challenged.	Elizabeth of York m.1486-1503	In total, Henry had 9 children with his wife, including Henry VIII.
Henry VIII 1509-1547		Henry was the second son of Henry VII and became king after his brother (Arthur) died. A keen sportsman, Henry was lauded for his athleticism in his youth. He married his brother's widow, Catherine of Aragon, but divorced her when she didn't produce a male heir. To do so, he broke with Catholicism and formed the church of England. He went on to marry another five times, yet only had one male heir – Edward VI.	Henry had six wives – see the section on the left.	As many as 72,000 people were executed through his reign.
Edward VI 1547-1553 Lady Jane Grey 1553		Edward VI came to the throne at only 9 years of age. Therefore, the country was run by his protectors, firstly the Duke of Somerset (his mother's brother) and then the Duke of Northumberland. Edward died aged 15 in 1553. Lady Jane Grey was chosen as Queen by the Duke, but the public did not approve. She lasted 9 days, before being removed and executed.	Did not marry	There is evidence to suggest that Edward was tall and healthy as a child.
Mary I 1553-1558		Mary I was the daughter of Henry VIII and Catherine of Aragon and was a committed Catholic. She vowed to return England to Rome and Catholicism. These attempts were mightily aggressive, as she had over 280 religious dissenters burnt at the stake. Mary's popularity decreased because of this, in addition to marrying Philip of Spain and losing Calais, England's last French possession.	Philip II of Spain m.1554-1558	Mary was the first queen to rule England in her own right.
Elizabeth I 1558-1603		Elizabeth I became Queen after her sister Mary died without an heir. The daughter of Henry VIII and Anne Boleyn, she reversed Mary's re-establishment of Catholicism and upheld Protestantism. She had a long and successful reign, including the defeat of the Spanish Armada in 1588. However, she did not marry or have children, thus ending the Tudor line.	Did not marry	She may have owned as many as 2,000 sets of gloves!
James I 1603-1625		The accession of James I united the countries of England and Scotland under one monarchy for the first time. He believed in the Divine Right of Kings and rejected any other interpretation of church doctrine than his own. The King James Bible is still in use today. When he died, the country was badly in debt.	Anne of Denmark m.1589-1619	James had become King of Scotland at just 13 months old.
Charles I 1625-1649		Charles I embarked on war with Spain and France, however Parliament made it difficult for him to access the money to do so. He thus dismissed Parliament and ruled alone for 11 years. When he ran the country into further debt and recalled Parliament, it resulted in the Civil War and eventually his execution in 1649.	Henrietta Maria of France m.1625-1649	Charles I is the only English King to be executed.
Interregnum Oliver Cromwell 1649-1658		Oliver Cromwell took on the title of Lord Protector of the newly-formed republic of England, known as the Commonwealth, and was not popular at home or abroad. He began wars in Ireland and the Netherlands, and colonies in the West Indies and Jamaica. His son and successor, Richard, had no wish to rule.	Elizabeth Cromwell m.1620-1658	It is a myth that Cromwell personally banned Christmas.
Charles II 1660-1685		Charles had attempted to defeat Cromwell and restore the monarchy in 1651, but was defeated and fled to France, where he spent the next 8 years. He was invited back to rule by Parliament in 1660 – known as the Restoration. Unlike Cromwell, he loved music and dancing. Charles made bad financial choices.	Catherine of Braganza m.1662-1685	Charles reportedly used to play with a toy spinnaker at meetings!
James II 1685-1688		James' accession was despite attempts to bypass him (he was Catholic, so in violation of the 1673 Test Acts). The Duke of Monmouth and 300 others were executed after trials known as 'The Bloody Assizes.' This made him unpopular, allowing William of Orange to usurp him in the Glorious Revolution.	Anne Hyde m.1660-1671 Mary of Modena m.1673-1701	James II died of a brain hemorrhage in France.
William III & Mary II 1688-1694		William III and Mary II (daughter of James II) were made joint sovereigns of England following the Glorious Revolution. They were accepted by Scotland the following year, but not by Ireland, who remained loyal to James II. Mary died in 1694, leaving William to rule alone until his death in 1702.	William III and Mary II were joint monarchs	William and Mary had 3 stillborn children
Queen Anne 1702-1714		Queen Anne was the sister of Mary II and was married to Prince George of Denmark. She was a committed Protestant and supported the Glorious Revolution. In 1707 the Act of Union joined England and Scotland. She left no heirs, ending the Stuart line.	Prince George of Denmark m.1683-1708	None of her 18 children survived infancy.

Timeline of Major Events

1485 – Battle of Bosworth 1491 – Henry VIII born 1534 – 'Act of Supremacy' 1553 – Mary takes the throne 1588 – England defeats the Spanish Armada 1603 – Elizabeth I dies – end of Tudor line 1642 – Civil War begins 1689 – Charles I executed 1660 – Charles II returns to lead 1689 – Glorious Revolution complete 1714 – Queen Anne dies – end of Stuart line

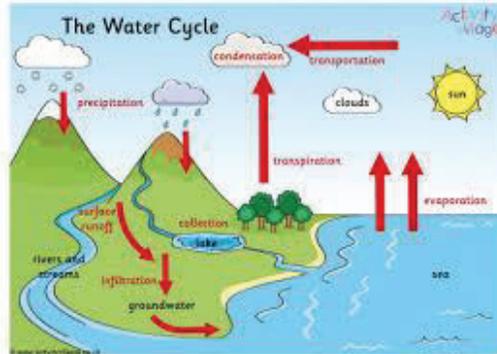


Geography

Rivers and Glaciers Shape the Coast

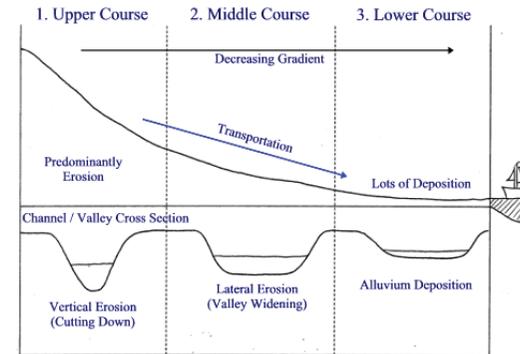


Key Words:
 Erosion
 Hydraulic action
 Transportation
 Deposition
 Waterfall
 Meander
 Source
 Mouth
 Drainage basin
 Precipitation
 Upper course
 Middle course
 Lower course
 Abrasion
 Plucking



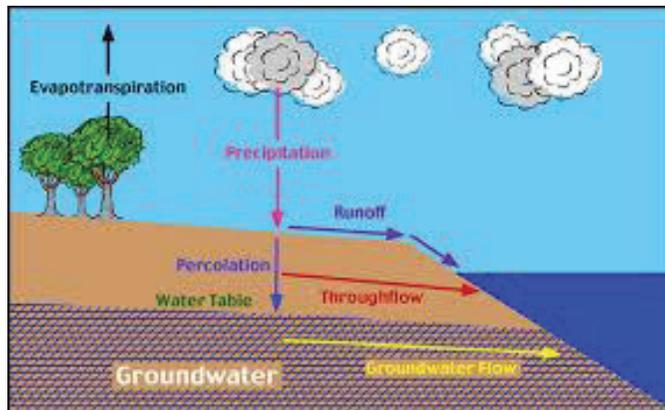
All the water that has ever been on our planet is still here. It moves through the land the water and the atmosphere and it can be a solid in ice, a liquid in rivers and sea and a gas as it is evaporated.

As a river flows towards the sea it will change shape. **The Long profile** is how it changes from the source to the mouth and the **cross profile** is how the river channel changes from source to mouth.

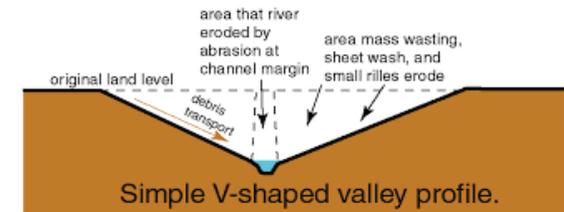


The UPPER course of the river is where the source of the river is found. This is usually in the mountains and hills where there is high rainfall. Features here are V shaped valleys, interlocking spurs and waterfalls.

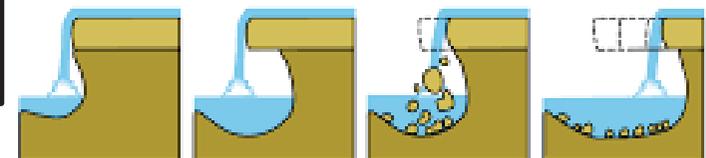
Once the rain falls and the water hits the ground it can move through the land in a number of ways. **Surface flow, through flow and groundwater flow.**



High Force is a waterfall on the River Tees



The formation of a waterfall



1. Waterfalls typically form in the upper stages of a river. They occur where a band of hard rock overlies a softer rock. Falling water and rock particles erode the soft rock below the waterfall, creating a plunge pool.
2. The soft rock is undercut by erosional processes such as hydraulic action and abrasion creating a plunge pool where water and debris swirl around eroding the rock through corrosion further deepening it and creating an overhang.
3. Hard rock overhangs above the plunge pool collapse as its weight is no longer supported.
4. Erosion continues and the waterfall retreats upstream leaving behind a gorge.

The fastest route for the water to get into rivers is surface flow. Building on the ground increases surface flow and can increase the risk of rivers **flooding**.

Rivers and Glaciers Shape the Land



The **Middle course** of a river is characterised by both erosion and deposition

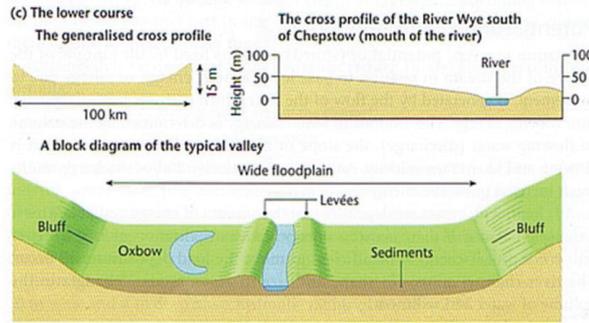
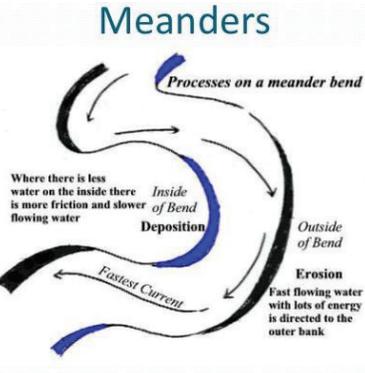
The **Lower course** of the river is characterised by deposition. As the river reaches the sea the flow is slowed.

Glaciers which are like giant rivers of ice can also shape the land.

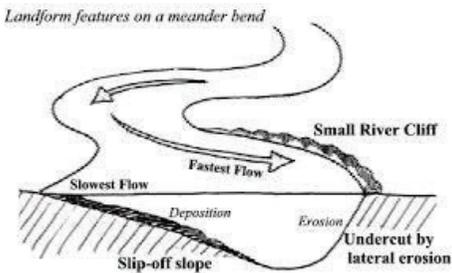
Many glaciers are mountain glaciers and are found in the worlds large mountain areas like the Alps and the Himalayas. In Greenland and Antarctica the ice is so extensive it is known as an ice sheet.



Glaciers are very powerful agents of erosion. As they slowly move down hill they scrape away at the land. The ice can stick to rock and as it moves away it can rip large blocks of rock out of the sides of the valley.



A wide **lood plain** and **natural levees** are features of deposition found in the lower course of the river.



Along the journey of the river **humans can have an effect**. Rivers can be dammed to create hydro electricity, pollution from factories can get into the water. In some places rivers are straightened to speed the flow to help to reduce flooding. Rivers are used to transport goods and for leisure activities too.

A **meander** is a key feature of the middle course of the river. As a meander becomes more extreme in its shape the neck becomes narrow. Over time the river breaks through the neck to form an **Ox-Bow lake**.



Plucking (the ripping out of rock as the ice freezes on it and abrasion the scarping of the ice and the material it carries create amazing features like Corries and U shaped valleys



Religious Studies



SIKHISM

KNOWLEDGE ORGANISER



Overview

Sikhism is one of the world's major religions. It is the **world's 5th largest religion**, with about 28 million followers. It began over 500 years ago.

Sikhs are the people who follow Sikhism. Sikhs believe in one God who guides and protects them. Sikhs see everybody as being equal in God's eyes.

Sikhism was founded by a man called **Guru Nanak**. It is based on what he taught people. They believe that he received messages from God telling them how to live.

Leading a good life and making the right choices are important in Sikhism.

Granth Sahib is the holy book of **Sikhism**. Sikhs worship at home and in Sikh temples called **Gurdwaras**.

Image of Guru Nanak, the founder of Sikhism and the first of the ten Sikh Gurus.



Answers to Important Questions and Key Vocabulary

Where and how do Sikhs worship? Why?	 	-Sikh temples are called gurdwaras. They are built with a large central dome. -Gurdwaras have four doors, to show that they are open to all people, as a part of the Sikh belief that everyone is equal. Before Sikhs worship in a gurdwara, they should take a bath as a mark of respect and cleanliness. Shoes are taken off, and heads are covered.	Key Vocabulary
What is the Sikh holy book?		-The Sikh holy text is the Guru Granth Sahib. It is exactly 1430 pages long in its printed form, and all of the hymns in it are in the same order. This helps Sikhs from everywhere to read it the same way.	Sikh
Where do most Sikhs live in the world?	 	-Sikh people are mainly found in the Punjab region of north India, in Asia. In total, there are nearly 23 million Sikhs in India. -However, there are also populations of Sikhs on every inhabited continent. -The largest populations of Sikhs in countries outside of India are in the United States, Canada, the United Kingdom, and Malaysia. There are very few Sikhs in parts of Africa and Central America.	Guru Nanak India Punjab Granth Sahib El Onkar Gurdwara Gobind Singh Nishan Sahib Golden Temple
What are some other Sikh traditions?		-When a Sikh baby is born, the whole community turns out to celebrate! Fathers traditionally tell the news to friends and family, and the baby name is revealed in a ceremony at the gurdwara. -Sikh names are easily distinguishable. Boys and men are given an extra Sikh name – Singh – meaning 'lion.' Girls and women have Kaur – 'princess.'	Vaisakhi The Five Ks

Sikh Beliefs

Guru Nanak



-Sikhs believe that Guru Nanak was born in a small village called Punjab in India. He was born into a Hindu family, but grew up around Hindus and Muslims.

-Sikhs believe that Guru Nanak was spoken to by God, who told him to follow a simple faith, in which everybody was equal. In other religions, some people were thought of as better than others.

-His message was simple: pray to God, be honest, work hard, care for your family and your community. These ideas formed the basis of Sikhism.

Vaisakhi

-Vaisakhi marks the Sikh New Year. At this time, Sikhs remember when Khalsa was created.

-Khalsa was the purified Sikh community created by Guru Gobind Singh, in which all were equal.

-This event takes place in April, and also marks the start of the Harvest.

The Five Ks



- Sikhs often display their commitment to their religion by adhering to the 5 Ks, which are the 'Sikh Articles of Faith.'

1. Kesh – Uncut Hair
2. Kanga – Comb
3. Kara – Steel Bracelet
4. Kirpan – Sword
5. Kaccha – Soldier's shorts

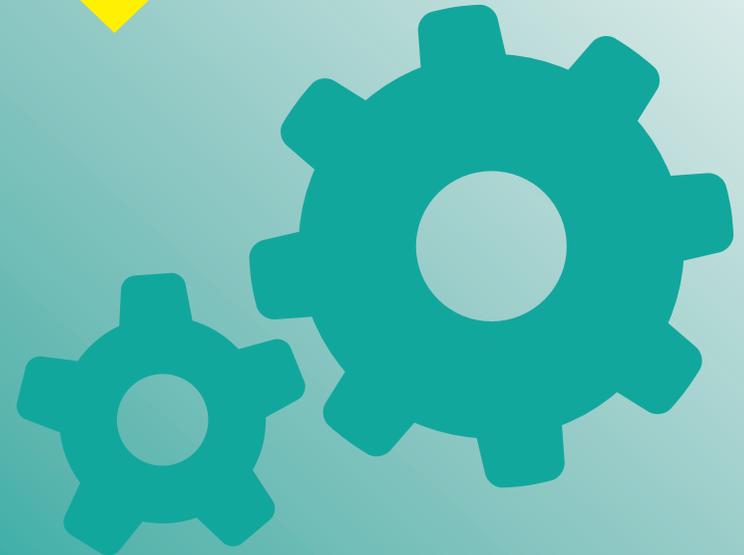
The Five Ks are symbols for different Sikh ideals – each item links to a different belief.

Top 10 Facts!

1. Sikhs take their name from 'sikha', meaning disciples.
2. El Onkar ('God is one') is the most powerful teaching in the Sikh religion.
3. Sikhs often sit on the floor together whilst eating, to show that everyone is equal.
4. Most of the hymns sung in gurdwaras today were written by the Sikh Gurus.
5. To keep their long hair tidy, many men wrap their hair in a turban - a piece of material.
6. Not all Sikh men and women join the Khalsa. It is a choice and involves an initiation ceremony.
7. The most holy place for Sikhs is the Golden Temple of Amritsar, in Punjab, India.
8. The last Guru, Gobind Singh, decided that there should be no more Gurus.
9. The symbol of Sikhism is known as the Khanda.
10. Sikhs have their own flag. It is known as the Nishan Sahib and is found outside gurdwaras.

Sikhism Timeline

- | | | | | | | | |
|-------------------------------|--|--|---------------------------|---|--|---|--|
| 1469 CE: Birth of Guru Nanak. | 1481 CE: Guru Nanak refuses to wear the 'golden thread.' | 1500 CE: Nanak travels, spreading the message of equality. | 1539 CE: Guru Nanak dies. | 1606 CE: Guru Arjan, the 5 th Guru, is tortured to death for being a Sikh. | 1699 CE: The tenth Guru, Gobind Singh, founds the community of the Khalsa. | 1708 CE: Gobind Singh dies. He is the last of the human Sikh Gurus. | 1716 CE: The first of the Sikh military leaders – Banda Singh Bahadur. He leads many military campaigns. |
|-------------------------------|--|--|---------------------------|---|--|---|--|



Spanish



1

1) ¿Qué estudias?	What do you study?
2) Estudio español y música	I study Spanish and music
3) ¿Qué NO estudias?	What don't you study?
4) No estudio historia pero estudio inglés	I don't study history but I study English
5) ¿Cuándo estudias matemáticas?	When do you study Maths?
6) Estudio matematicas el lunes y el viernes	I study maths on Monday and on Friday

2

1) ¿Cómo es tu instituto?	What is your school like?
2) Mi instituto es grande y bastante moderno	My school is big and quite modern
3) Describe tu instituto	Describe your school
4) Mi instituto es muy antiguo pero NO es bonito	Mi school is very old but it is not pretty
5) También mi instituto es pequeño sin embargo NO es feo	Also my school is small however it is not ugly

4

1) ¿Cuál es tu día favorito?	What is your favourite day?
2) Mi día favorito es el martes	My favourite day is Tuesday
3) ¿Por qué?	Why?
4) Porque tengo geografía los martes por la mañana	Because I have geography on a Tuesday in the morning
5) Porque tengo la educación física por la tarde	Because I have PE in the afternoon

3

1) ¿Te gusta el dibujo?	Do you like art?
2) Sí me gusta mucho el dibujo	Yes, I like art a lot
3) ¿Te gusta la informática?	Do you like ICT
4) No odio la informática	No, I hate ICT
5) ¿Cuál prefieres?	Which do you prefer?
6) Prefiero las ciencias	I prefer science
7) ¿Por qué?	Why?
8) Porque es aburrido/a / divertido/a	Because it is boring / fun
9) Porque son faciles / dificiles (used with matematicas/ciencias)	Because it is (they are) easy / difficult

5

1) ¿Cuál es tu profesor / profesora favorito/a?	What is your favourite teacher?
2) Mi profesor favorito es el Señor Raúl	My favourite teacher is Mr Raúl
3) Mi profesora favorita es la Señora / Señorita Perez	My favourite teacher is Miss/Mrs Perez
4) Porque es paciente y simpático/a	Because he/she is patient and nice
5) Sin embargo el profesor / la profesora es raro/a y servero/a	However, the teacher is odd and strict



6

1) ¿Qué hay en tu insti?	What is there in your school?
2) En mi insti hay un campo de fútbol y un gimnasio	In my school there is a football field and a gym
3) ¿Qué NO hay en tu insti?	What is there not in your school?
4) NO hay una piscina pero hay una biblioteca	There is no pool but there is a library
5) ¿Te gusta tu insti?	Do you like your school?
6) Sí, me encanta mi insti	Yes I love my school
7) ¿Por qué?	Why?
8) Porque hay muchos laboratorios	Because there are a lot of labs
9) No, no me gusta mi insti porque NO hay un patio grande	No, I don't like my school because there is not a big playground

7

1) ¿Qué haces durante el recreo?	What do you do at break?
2) Escribo mi SMS y leo mi SMS	I write messages and I read messages
3) ¿Qué comes?	What do you eat?
4) Como un bocadillo y fruta	I eat sandwich and fruit
5) ¿Qué NO comes?	What don't you eat?
6) NO como chocolate y no como chicle	I don't eat chocolate and I don't chew gum
7) ¿Qué bebes?	What do you drink?
8) Bebo agua	I drink water
9) ¿Qué NO bebes?	What don't you drink?
10) NO bebo refrescos o zumo	I don't drink fizzy drink or juice



<u>C</u> onnectives		<u>O</u> pinions		<u>R</u> easons		<u>T</u> ime Phrases		<u>I</u> ntensifiers	
y	and	en mi opinión	in my opinion	emocionante	exciting	normalmente	normally	muy	very
pero	but	pienso que	I think that	increíble	amazing	todos los días	everyday	bastante	quite
sin embargo	however	creo que	I believe that	entretenido/a	entertaining	a veces	sometimes	un poco	a bit
o	or	me gusta / no me gusta	I like / I don't like	gracioso/a	funny	nunca	never	demasiado/a	too many
también	also	me encanta / adoro / amo	I love	inolvidable	unforgettable	mañana	tomorrow	más	more
tampoco	nor / neither	odio / detesto	I hate	guay	cool	la próxima semana	next week	menos	less
porque	because	prefiero	I prefer	molesto/molesta	annoying	el próximo fin de semana	next weekend	mucho/a	A lot
además	furthermore			una tontería	a joke	el próximo año	next year		
con	with					ayer	yesterday		
						anoche	last night		
						la semana pasada	last week		



ME GUSTA / ME GUSTAN

You must make some opinions plural by adding an 'n' when talking about plural nouns.

Singular	Plural
Me gusta el / la	Me gustan los / las
No me gusta el / la	No me gustan los / las
Me encanta el / la	Me encantan los / las

e.g.

Me gusta la historia / Me gustan las ciencias

Me encanta el deporte / Me encantan los deportes

No me gusta el dibujo / No me gustan las matemáticas

PRESENT TENSE VERBS

Remove the infinitive ending (AR/ER/IR) and add the following for each person...

	- Ar	- Er	- Ir
Yo (I)	o	o	o
Tu (you)	as	es	es
El/ella (he/she)	a	e	e
Nosotros (we)	amos	emos	imos
Vosotros (y'all)	áis	éis	ís
Ellos/Ellas (they)	an	en	en

e.g.

montamos = we ride

bebemos = we drink

salimos = we go out

NEGATIVES

To make a verb negative in Spanish you simply put **NO** before the verb

e.g.

no tengo = I don't have

no hago = I don't do

no bebemos = we don't drink

no estudia = she doesn't study

You can also say **NUNCA** = never

e.g. Nunca como = I never eat

A / THE / SOME

	Singular	Plural
Masculine	un (a)	unos (some)
Feminine	una (a)	unas (some)

e.g.

un laboratorio = a lab

unos laboratorios = some labs

una clase = a classroom

unas clases = some classrooms

	Singular	Plural
Masculine	el (the)	los (the)
Feminine	la (the)	las (the)

e.g.

El laboratorio = the lab

los laboratorios = the labs

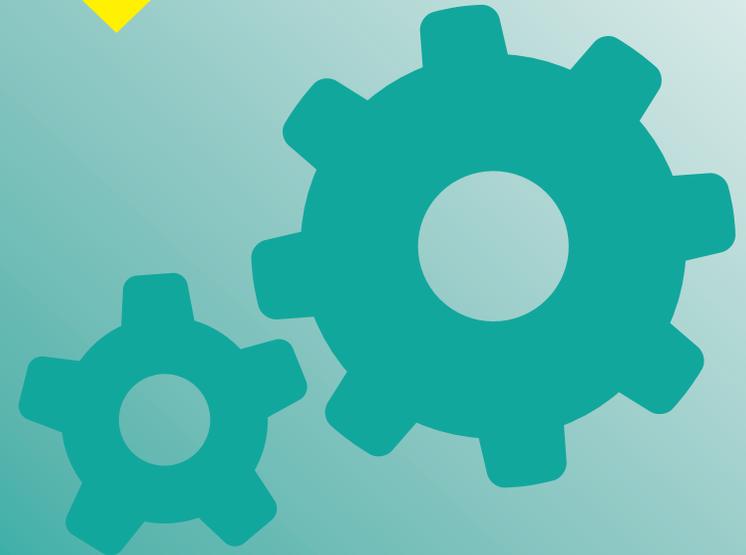
la clase = the classroom

las clases = the classrooms

ADJECTIVE AGREEMENTS

The table shows the patterns that adjective usually follow to agree with the noun they are describing:

Adjectives ending in:	Masculine singular	Feminine singular	Masculine plural	Feminine plural
o/a	bueno	buena	buenos	buenas
e	interesante	interesante	interesantes	interesantes
consonant	útil	útil	útiles	útiles



French



1

1) Qu'est-ce que tu fais avec ton ordinateur?	What do you do on your computer?
2) Quelquefois je joue aux jeux vidéo et je surfe sur Internet.	Sometimes I play video games and I surf the Internet.
3) Souvent je tchatte sur MSN avec mes amis.	Often I chat on messenger with my friends
4) Tous les jours je regarde des clips vidéo.	Everyday I watch video clips.
5) Qu'est-ce que tu fais avec ton portable?	What do you do on your mobile phone?
6) Je télécharge de la musique	I download music
7) J'envoie des SMS et aussi des emails	I send messages and emails

2

1) Tu est sportif/sportive?	Are you sporty?
2) Je suis assez sportif / sportive	I am quite sporty
3) Je ne suis pas très sportif / sportive	I am not very sporty
4) Je joue au basket / au foot / au volleyball	I play basketball / football / volleyball
5) Je ne joue pas aux boules	I don't play bowls
6) Mon sportif /sportive préféré/e est.....	My favourite sportsman/woman is

3

1) En été je fais du skate et du roller	In summer I do skate boarding and roller skating
2) En hiver je fais de la natation et du vélo	In winter I do swimming and cycling
3) Quand il fait beau, je fais de la danse avec mes amis	When the weather is good, I do dance with my friends
4) Quand il fait chaud, je fais de l'équitation	When it's hot, I do horse riding
5) Quand il pleut, je fais de la gymnastique	When it's raining, I do gymnastics
6) Quand il fait froid, je fais du patin à glace	When it's cold, I do ice skating
7) Quand il fait beau, je fais des promenades	When it's good weather, I go for walks



4

1) Qu'est-ce que tu aimes faire?	What do you like doing?
2) Le soir, j'aime retrouver mes amis en ville	In the evening, I like to meet up with my friends in town
3) Le weekend, j'aime regarder la télé	At the weekend, I like to watch TV
4) Le samedi matin, j'aime jouer sur ma Play Station avec ma seour	On a Saturday morning, I like to play on my Play Station with my sister
5) L'après-midi, j'aime écouter de la musique	In the afternoon, I like to listen to music
6) Le weekend, j'aime faire les magasins avec ma mère	At the weekend, I like to go shopping with my Mum.

5

1) Qu'est-ce qu'ils font?	What do they do?
2) Il fait de la lutte	He does wrestling
3) Elle fait du jogging	She goes jogging
4) Il est champion régional	He is the regional champion
5) Elle a gagné le match	She won the match
6) Ils jouent au foot	They play football
7) Elles regardent la télé	They watch TV



<u>C</u> onnectives		<u>O</u> pinions		<u>R</u> easons		<u>T</u> ime Phrases		<u>I</u> ntensifiers	
et	and	j'aime	I like	amusant/e	fun	hier	yesterday	très	very
mais	but			génial/e	great	l'année dernière	Last year	assez	quite
cependant	however	j'adore	I love	passionnant/e	exciting	la semaine dernière	last week	un peu	a bit
aussi	also	je n'aime pas	I don't like	facile	easy	quelquefois	sometimes	trop	too
ou	or	je déteste	I hate	ennuyeux/euse	boring	toujours	always	beaucoup	a lot
car c'est	because it is	à mon avis	from my point of view/in my opinion	nul/nulle	rubbish	d'habitude	usually	moins	less
parce que c'est	because it is	je pense que	I think that	difficile	difficult	demain	tomorrow	plus	more
avec	with	je préfère	I prefer	barbant/e	boring	le weekend prochain	next weekend		
puis	then								



PRESENT TENSE ER VERBS

Step 1 - Remove the ER ending from the infinitive

Step 2 add the following for each person

	<u>ER</u>
Je (I)	e
Tu (you)	es
il/elle/on (he/she/it)	e
Nous (we)	ons
Vous (y'all)	ez
ils/elles (they)	ent

e.g. regarder = to watch
Je regarde - I watch
Tu regardes - you watch
Il/elle regarde - he/she watches

OPINION + INFINITIVES

An **infinitive verb** is the form of the verb found in the dictionary. It means 'to ...'.
In French, **infinitives end in -er, -ir or -re.**

<u>Opinion</u>		<u>Infinitive</u>
<i>J'aime</i>	+	jouer (to play)
<i>J'aime beaucoup</i>		regarder (to watch)
<i>J'aime assez</i>		écouter (to listen)
<i>J'adore</i>		lire (to read)
<i>Je n'aime pas</i>		finir (to finish)
<i>Je déteste</i>		faire (to do)

JOUER / FAIRE?

When talking about free time activities you use:

1. Jouer au / à la / aux - to say sports that you **PLAY**

- 'au' for masculine sports = je joue **au** football
- à la for feminine sports = je joue **à la** pétanque
- Aux for plural sports = je joue **aux** boules

2. Faire du / de la / de l' / des - to say sports that you **DO**

	singular			plural
	masculine	feminine	before a vowel	
	le judo	la natation	l' équitation	les promenades
Je fais	du roller	de la natation	de l' équitation	des promenades

Talking about 'them'

There are 2 words for 'they' in French.

Ils - males, *elles* - females. (When talking about a mixed group, use 'ils')

For ER verbs as in the table above:

Step 1 - Remove ER ending

Step 2 - add ENT.

e.g. ils aiment = they like
ils jouent = they play

IRREGULARS...

Etre (to be) and *faire* (to do) are irregular.

Ils/elles sont grandes - they are tall

Ils/elles font de la natation - they do swimming

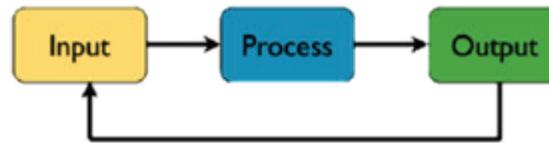


IT



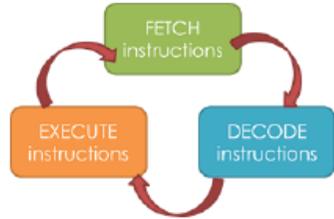
What is a computer?

A computer is any device that takes an input, processes it and then outputs information



Fetch, Decode, Execute

The main function of the CPU is to run an endless fetch-execute cycle.



The speed of the FDE cycle is measured in cycles per second (**hertz**). This is known as the **clock speed**.

Processors are usually measured in **giga-hertz (GHz)**

1GHz = 1 billion instructions processed.

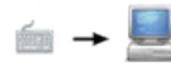
Input Devices

An input device is a piece of hardware that can be used to enter data into a computer

Output Devices

An output device is a piece of hardware that can be used to represent information in a variety of ways

Input Example



Output Example



Components

Computer components are all the different internal parts of a computer system that help it to operate. Each component has its own purpose and functions.

Central Processing Unit

The CPU is the brain of the computer. It does all the processing and calculating for the computer.



Heat sink

A heat sink is used to draw heat away from important components such as the CPU that can get quite hot. If a component gets too hot then it will not be able to perform its job as well.



Motherboard

The motherboard is what connects all the other components. It helps keep them secure and allows the components to communicate.



Power Supply

A power supply helps to convert electricity to a suitable voltage to power the computer safely.



Hard Drive

A Hard Drive is where all the computers long term data is stored i.e. data you want to keep for in the future, such as your own documents, music, | films and games.



Random Access Memory

RAM is where temporary data is stored while the computer is currently being used. Once a computer is switched off this data is lost



Network Interface Card

A network interface card (NIC) enables a computer system to connect to a network. Some allow access wirelessly.

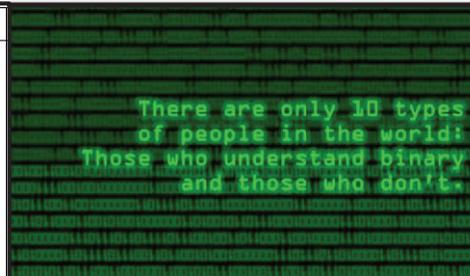


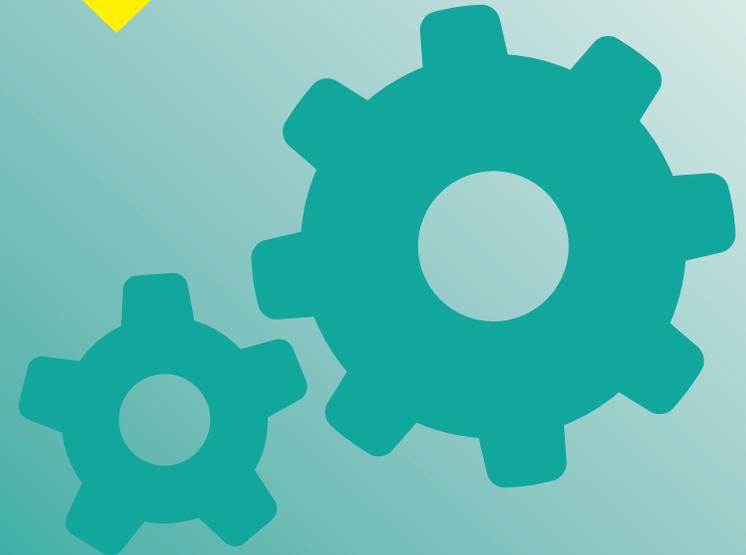
What is Binary?

Binary is a number system that only uses two digits: 1 and 0. All information that is processed by a computer is in the form of a sequence of 1s and 0s. Therefore, all data that we want a computer to process needs to be converted into binary.

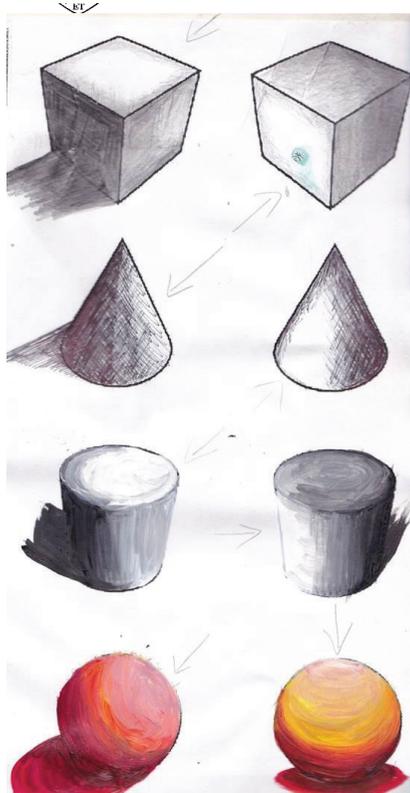
128	64	32	16	8	4	2	1	
0	0	1	1	0	1	0	1	= 53
128	64	32	16	8	4	2	1	
1	1	0	1	1	1	0	1	= 221
128	64	32	16	8	4	2	1	
1	0	1	0	0	0	1	1	= 163

Decimal	Binary
0	0000
1	0001
2	0010
3	0011
4	0100
5	0101
6	0110
7	0111
8	1000
9	1001





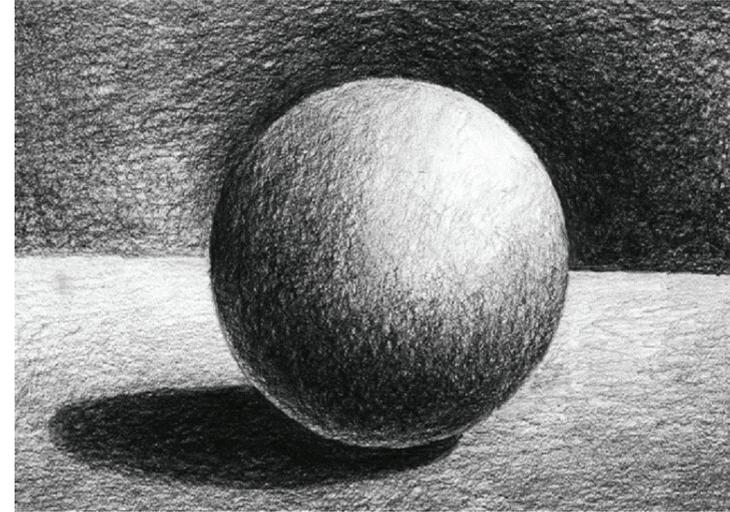
Art



Tone refers to the lightness or darkness of something. This could be a shade or how dark or light a colour appears. Tones are created by the way light falls on a 3D object. The parts of the object on which the light is strongest are called **highlights** and the darker areas are called **shadows**. There will be a range of tones in between the highlights and shadows.

Independent study - Watch the video from the link below have a go at shading your own shapes. Practising your drawing skills regularly will improve your hand eye coordination.

<https://youtu.be/vMr6eimcolc>



Form in drawing painting and sculpture refers to the 3-Dimensional quality of an object. You will be learning how to make flat shapes appear more rounded and curved.



Susannah Blaxhill is a botanical artist who specialises in pencil, watercolour and charcoal

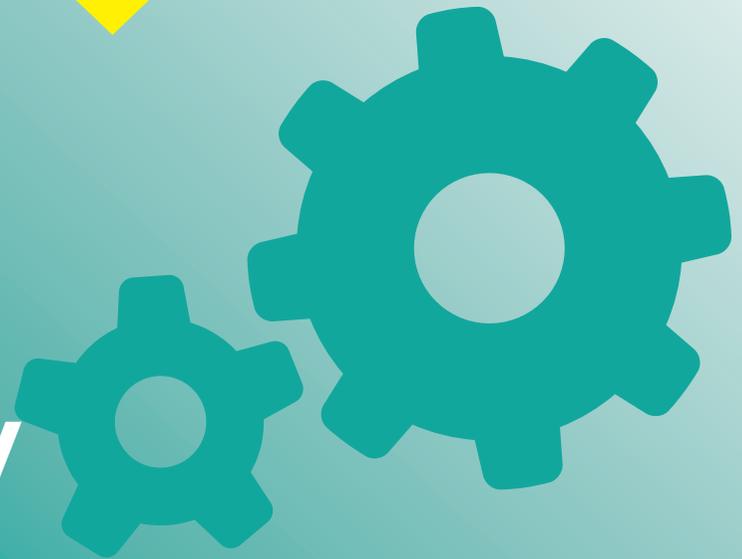


Independent study
Select a piece of fruit or a vegetable to draw in detail, you could cut it in half to make a more interesting drawing.



Keywords

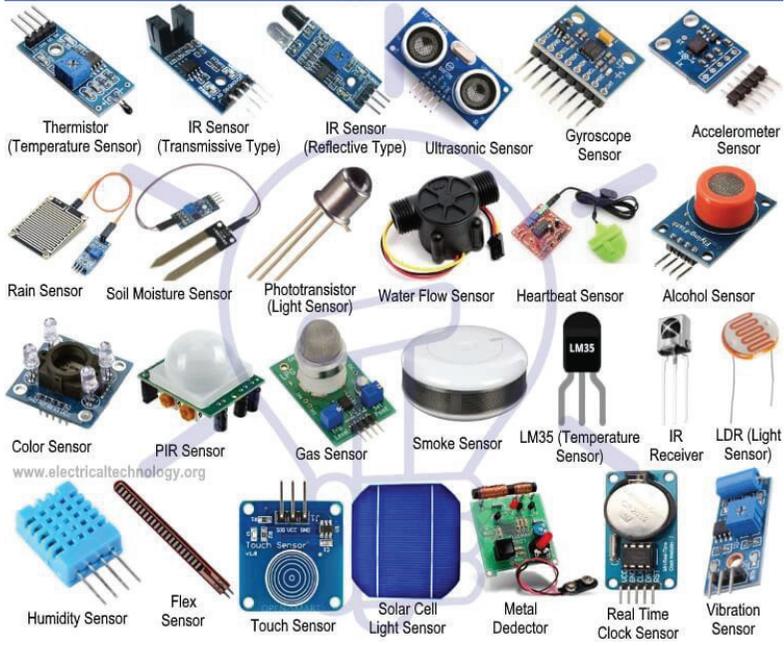
Tone Value Gradient Highlight Shadow Light Dark Range
Form Shape Space 3-Dimensional Rounded Curved Illusion



Design Technology



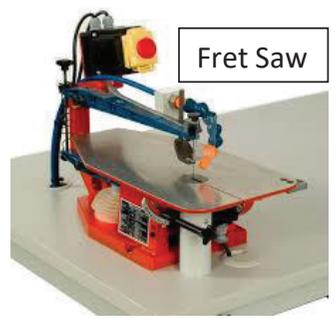
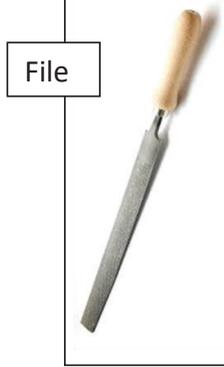
Different Types of Sensors



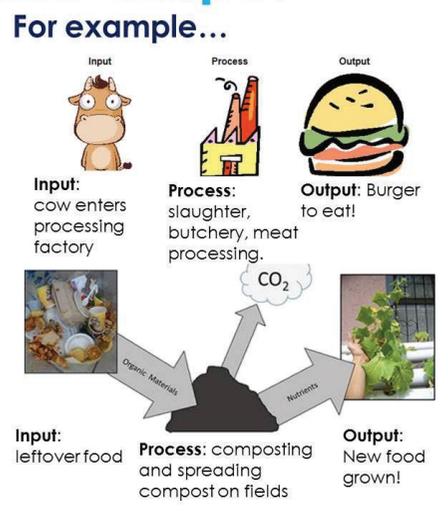
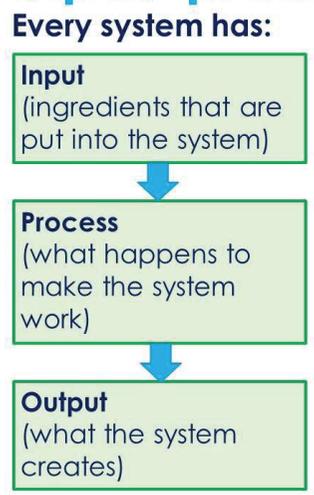
YEAR 7 D&T CONTROL



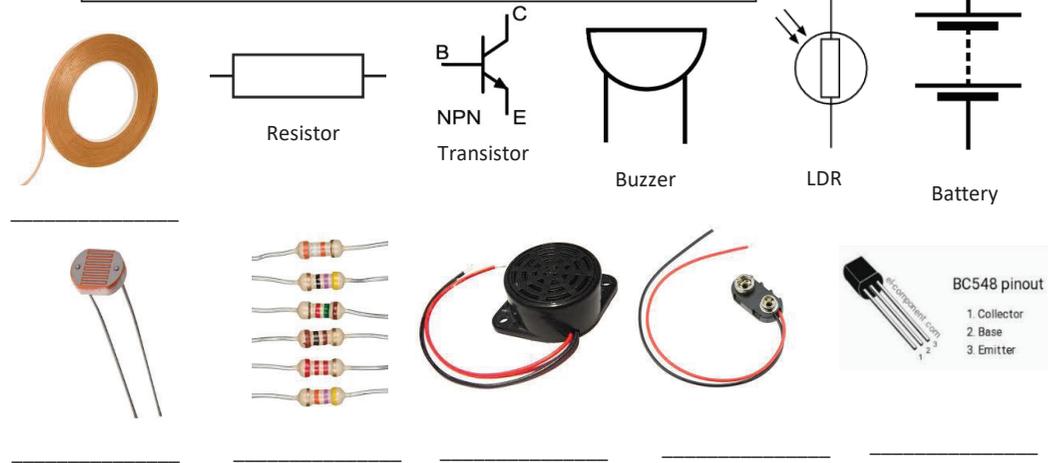
Machines & Tools



Input>process>output



COMPONENTS & SYMBOLS





Natural Timbers		Manufactured Boards
Hardwood	Softwood	
		
<p>Hardwoods are usually obtained from deciduous trees, which lose their leaves in autumn.</p> <ul style="list-style-type: none"> <input type="checkbox"/> usually grow in warmer more humid climates, mainly in South America and Asia <input type="checkbox"/> grow slowly (80+ years) <input type="checkbox"/> are more difficult to sustain than softwoods <input type="checkbox"/> are more expensive than softwoods <input type="checkbox"/> are strong and hardwearing. 	<p>Softwoods are usually obtained from coniferous trees, which keep their leaves in winter and are also known as evergreens. These grow quickly which makes them sustainable as they are renewable. This also makes them cheaper when compared to hardwoods.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Usually grow in colder climates and are mainly grown in Scandinavia and Northern Europe <input type="checkbox"/> Grow thin, needle-like leaves <input type="checkbox"/> Grow relatively quickly (30 years) <input type="checkbox"/> Are easier to sustain than hardwood trees <input type="checkbox"/> Are easy to cut and shape <input type="checkbox"/> Are usually cheaper than hardwoods 	<p>Manufactured boards are made from the waste sections of felled trees – the parts which are of little use as planks. The wood is reduced to pulp, particles or thin strips and bonded together using special adhesives or resins. Manufactured boards are made as alternative to natural timber.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Come in sheet form (usually 1.2 x 2.4m) <input type="checkbox"/> Are extremely stable and of uniform thickness <input type="checkbox"/> Are less expensive than laminating planks of timber <input type="checkbox"/> Can be covered with veneers <input type="checkbox"/> Are available in a variety of thicknesses (3, 6, 9, 12, 15, 18, 22mm)

Woods—Key Words:

- Manufactured
- Deciduous
- Coniferous
- Felling
- Seasoning
- Converting
- Grain
- Knots

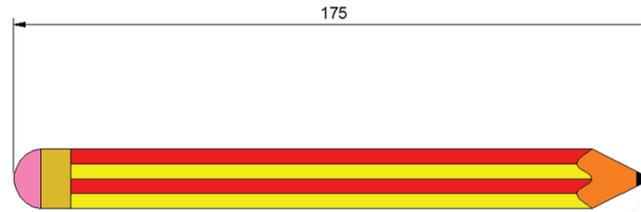


We always measure in millimetres!

1cm = 10mm



Steel Rule



Adding Dimensions



Pillar Drill

Adhesives

P.V.A. – Poly Vinyl Acetate – best for joining 2 pieces of wood together

Epoxy – a *thermosetting* resin that can be used to bond most types of material

Contact Adhesive – a glue type that creates a tacky bond on both surfaces to be joined. It can be used with most materials.



Tri Square



Mitre Saw



Bench Hook



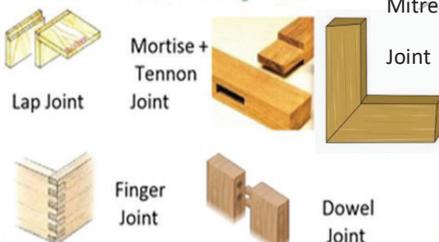
Tenon Saw

1: Joining Methods

Wood joints can be either permanent or temporary depending on the type and if glue is used.

Permanent:	Temporary:
When we do not want to take the pieces apart again	When we will, or might need to take pieces apart again
Glues, welding, rivets	Screws, bolts, nails

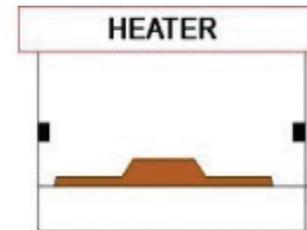
1.1 Wood joints



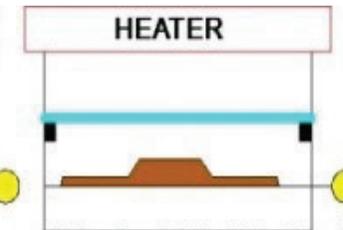
Vacuum Forming



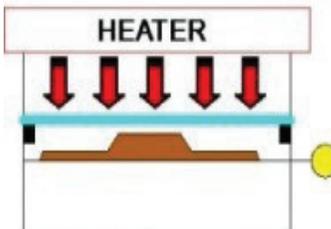
1. Mould is made from MDF or Expanded Polystyrene



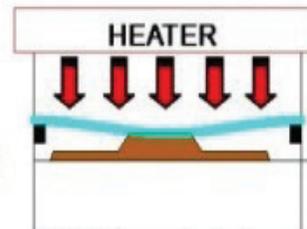
2. The mould is placed in the bottom of the vacuum former



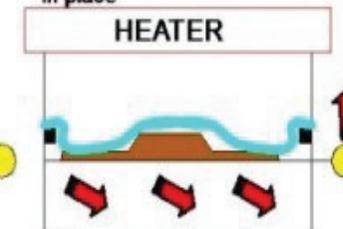
3. The sheet of plastic is placed above the mould and clamped in place



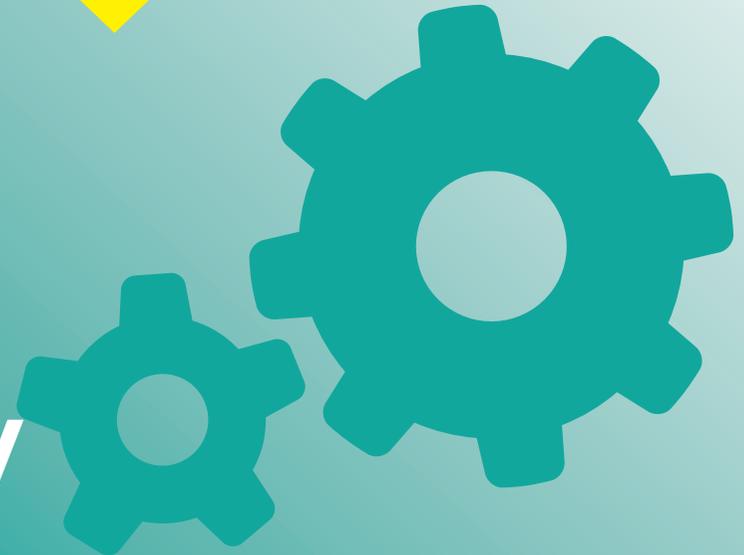
4. The electric element (heater) is turned on and begins to warm the plastic sheet



5. The Thermoplastic becomes flexible as it is heated. The mould is moved up to the plastic using the handle



6. The pump is turned on and the air is removed from under the plastic, sucking the plastic over the mould



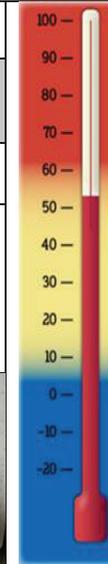
Food Technology



KS3 Y7 Food Tech Knowledge Organiser

Hazards in the food room

	1. Physical hazard		
	Physical hazard: can cause harm with <u>contact</u> . A door left open, spill on floor		
	2. Hygiene hazard		
	Hygiene Hazard: microorganisms' (tiny living things) e.g. bacteria/germs		
	3. Infestation hazard		
	Infestation Hazard: Food left out could encourage pests e.g. mice or ants		



The 4 key Temperatures for Bacteria activity

- 75°
- 5°-63° **Danger Zone**
- 0°-5° **Sluggish**
- 18° **Dormant**

4Cs: Always wash and dry your hands properly. Keep everything clean	4Cs: Keep raw meat and cooked foods apart to avoid cross contamination	4Cs: Cook food properly! You must make sure foods like 'meat' are cooked in the middle.	4Cs: Store food at the correct temp. Keep it chilly silly.



8 Tips for healthy eating

1. Base your meals on starchy foods.
2. Eat lots of fruit and veg.
3. Eat more fish.
4. Cut down on saturated fat and sugar.
5. Try to eat less salt – not more than 6g a day.
6. Get active and try to be a healthy weight.
7. Drink plenty of water.
8. Don't skip breakfast.

Nutrient Dense Foods=		Energy Dense Foods=	



The **Eatwell Guide** is based on the 5 food groups and shows how much of what you eat should come from each group.

The 5 different groups are:

Fruit & Veg (F&V) – Starchy Carbs (SC) – Protein (P) – Dairy & Alternatives (D&A) – Oils & Spreads (O&S)

F&V Vits. & Minerals	SC Energy	P Build & Repair muscles	D&A Calcium	F&O Fat soluble vitamins. Insulation
-------------------------	--------------	-----------------------------	----------------	---



See FoodTech 101 for all KS3 practicals

5 Things bacteria need to thrive:

1. Plenty of moisture
2. Plenty of food
3. Warm temperature
4. Correct PH (not too acidic or too alkali)
5. Enough time



Allergies and Intolerances:

- Dairy
- Eggs
- Peanuts
- Shellfish
- Gluten
- Yeast



SDN=Special Dietary Needs & Restrictions: Vegetarian, Vegan, Pescatarian, Lacto Vegetarian, Lactose Intolerance, Kosha, Halal



Music



Pomp and Circumstance by Edward Elgar

MELODY

1 G F#GA E D C BCD A A B C#D E A
 12 D G G#E D D G F#GA E D C BCD
 23 A A B C#D E A D C C B A B
 32 B E F#G A D G G C B A G G

PART 5

1 G A B B C D E D G G F# B E
 14 A D D G A B B E D C# D G G
 27 F# F# E D G G C
 34 C B E A D G G

CHORDS – Each chord is to be played for two beats

- G - D - Em - G - C - G - A - D -
- G - A - D - Bm - Em - A - D - D -
- G - D - Em - G - C - G - A - D -
- G - A - D - D - C - D - G - G -

Diagram showing piano keys and chord fingerings:

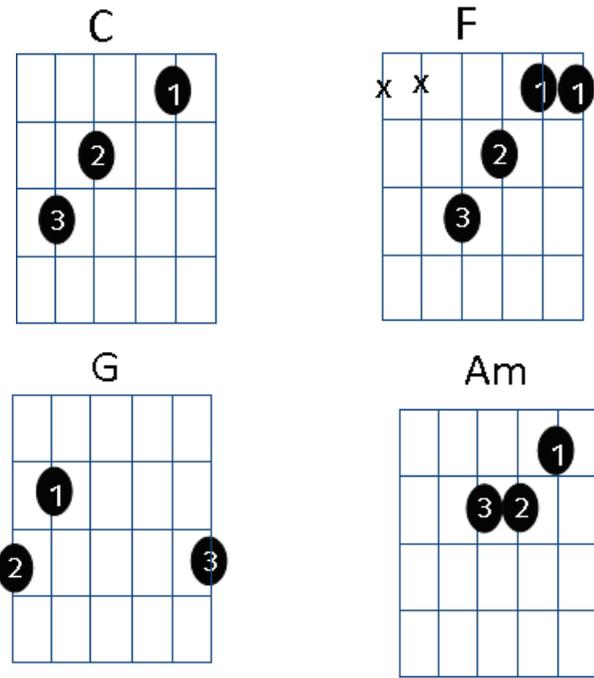
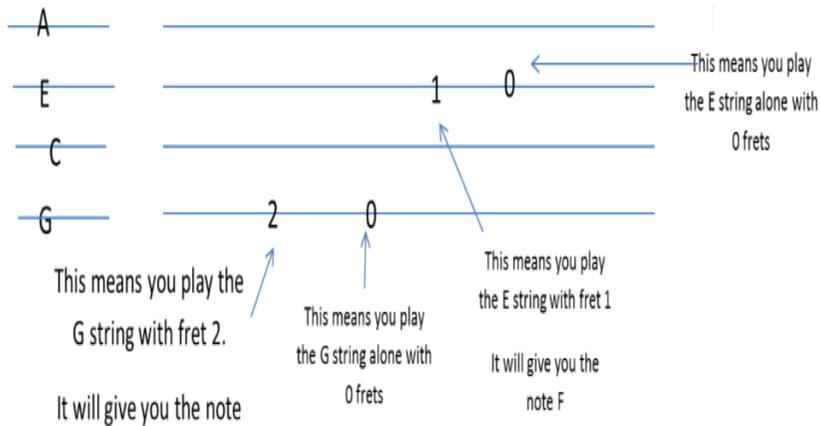
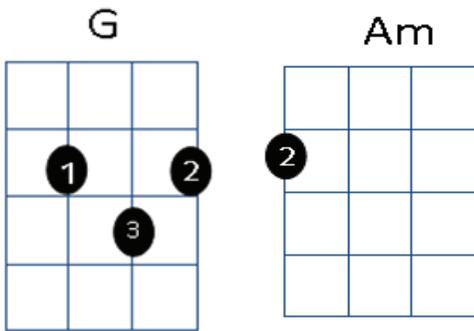
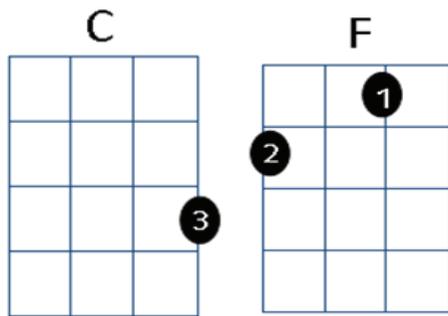
- D^b (F^b), E^b (D^b)
- C[#] (D[#])
- G^b (F[#]), A^b (G[#]), B^b (A[#])
- D^b (F^b), E^b (D^b)
- C (B[#]), D (F^b), E (E[#]), F (C^b), G (B[#]), A (F^b), B (C^b)

FOCUS ON SOUND SOFTWARE

- 1) Web address: <https://hartford.musicfirst.co.uk/app/>
- 2) Type in username and password
- 3) Click on Instruments First/Focus on Sound
- 4) Click on Instrument/Sound Words
- 5) Click on task set by the teacher
- 6) Click on test set by the teacher

NOTEFLIGHT- composing software

- 1) Web address: www.noteflight.com
- 2) Go to sign in
- 3) Log in with Google
- 4) Sign in with your hartfordhighschool e-mail account

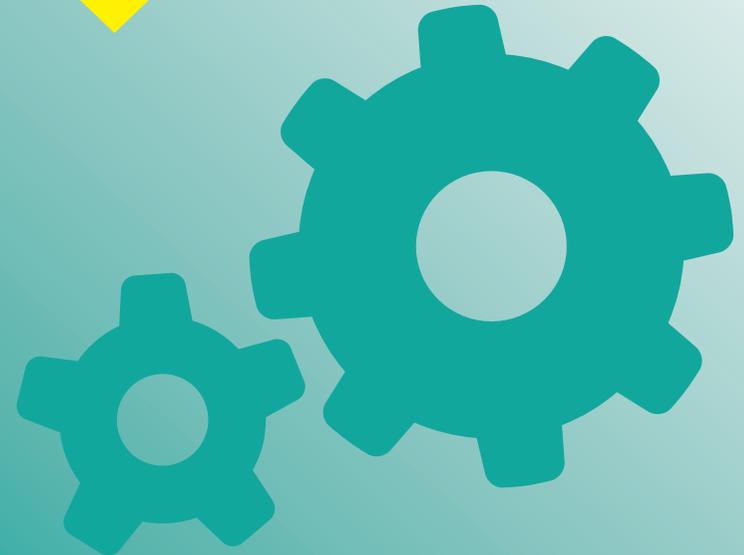


E string 5th fret

A string 7th fret

D string 5th fret

D string 7th fret



Sport



Passing – there are a number of different passes such as, the push pass and the slap pass/hit

Stage one- maintaining correct hockey posture of straight back and bent knees, stand sideways on to the ball with your right foot inline with the ball and your left pointing in the direction the ball will be passed. The stick and ball remain in contact until the release point which is in line with the left foot .

Stage two- complete a push pass whilst dribbling with the ball on open stick, still keeping contact with the stick and ball until release point - this time the direction of the ball can be changed by pushing the ball across your body whilst dribbling but still releasing the ball on the left foot.

Stage three – releasing the ball off the right foot, whilst dribbling the ball can be pushed passed off the right foot, this pass will be disguised , there will be limited contact time with the stick and the ball before release

Dribbling – this enables us to run with the ball

Stage one - maintaining the correct hockey position of straight back and bent knees. Keep the ball on the open stick side, you can use a clock reference e.g. dribble with the ball at 2 o'clock. The ball should remain on the right hand side of the participant and pushed out away from their feet so that they can move easily without kicking the ball .

Stage two- open to reverse stick dribbling, the ball will now move between 1 and 11 o'clock on the clock face reference (side to side), whilst keeping contact with the ball on the flat side of the stick, the left hand at the top of the stick will do the turning , and the right hand will act as a guide and will allow the stick to turn.

Stage three- v-drag elimination- using the previous 2 stages, the participants will dribble the ball towards their opponents stick side and engage the defender, they will then drag the ball back (bottom point of the V) and drive with the ball towards the defenders non stick side

Tackling- this is how we win possession of the ball

Stage one - block tackle pick up. Participants will lead with their left hand at the top of the stick, they will keep their stick parallel to the ground , they will squeeze the ball between them and their partners stick and pick up the ball (flat side of the stick)

Stage two - participant A will dribble straight with the ball, whilst Participant B will perform a block tackle, they will get low to the ground , they will lead with their left foot followed by their left hand, keeping their stick parallel to the ground. Their right hand remains on the stick and will provide the strength in the tackle.

Stage three - the participant with possession of the ball will dribble open to reverse stick , the tackling participant will need to track the ball and time their tackle to maintain good contact with the ball and not to make contact with the oppositions stick.

Tick List

Passing:

- Sideways on
- Low to the ground
- Left foot pointing in the direction of the pass
- Stick and ball contact unit release
- Passing off both left and right feet

Dribbling

- Correct hockey posture
- Contact with the flat side of the stick
- Open stick ball positioning – 2 o'clock
- Open to reverse stick dribbling
- Elimination skills finding the none stick side

Tackling

- Stick parallel to the ground
- Leading with left foot
- Right hand provided the strength in the tackle



Key Components of Fitness for Gymnasts

A gymnast requires **flexibility** at the joints to allow for a larger range of motion around a joint.

A gymnast requires **muscular strength** to be able to balance on certain body parts. This is exerting their body against a given force.

A gymnast requires **power** in their arms and legs, which is speed x strength.

A gymnast requires **agility** to change direction at speed.

A gymnast requires **muscular endurance** to keep using the same muscle groups over and over again when performing a skill such as a forward roll.

A gymnast requires a certain levels of **speed** as they slow down their speed and increase their speed depending on the sequence they are performing.

Gymnastics Key Terms

Apparatus The equipment used in gymnastics.

Balance Position A static position, holding a distinct shape.

Dismount To leave an apparatus at the end of a routine.

Equilateral Triangle A triangle in which all three sides have equal length.

Jeté A move where the gymnast springs from one foot to the other.

Pike Body position where the body is bent forward 90 degrees at the waist with the legs kept straight.

Pivot A turn on the ball of the foot.

Plié Feet angled at 90 degrees.

Routine A combination of moves and sequences performed on one apparatus.

Spotting Spotting a landing before take off.

Supporting When a second person assists the gymnast through a move and prepares to cushion them to avoid injury in the event of a fall.

Tuck A position where the knees are bent into the chest, with the body folded at the waist.

Walkovers A move where a gymnast transfers from a standing position to a handstand to a standing position.

Gymnastics Chronology

2000 BC Gymnastics activities are depicted on Egyptian artefacts

1804 The Crown Prince of Denmark believes gymnastics to be useful for military training and creates the Military Gymnastic Institute in 1804.

1928 The first women's Olympic competition (synchronised calisthenics) is held in Amsterdam.

1964 The first Trampoline World Championships are held in London, Uk.

1984 Rhythmic gymnastics is introduced as an Olympic sport in Los Angeles, USA.

2001 The traditional vaulting horse is replaced with a new apparatus, known as a tongue or table, which is ultimately more stable and therefore safer.

2008 Louis Smith is the first British Individual gymnastics medalist in a century, at the 2008 Beijing Olympics, claiming bronze in the pommel horse final.

<https://www.livestrong.com/article/497802-5-components-of-fitness-in-gymnastics/>



Gymnastics - Travelling, Jump, Roll, Weight on Hands, Balance & Vault



Travelling

Travelling in floor gymnastics is being able to move around the mat using different movements such as rolls, steps, turns, jumps, cartwheels, walkovers, handsprings, and being as creative as possible.

Standing Upward Jump

Bending your legs slightly, jump up while raising your arms forwards and upwards above your head. Keep your arms slightly in front of your body. As you land, it is important to keep your arms raised above your head, and place your feet slightly apart in the 'plie' position at an angle of 45 degrees, with your knees bent. As you make contact with the floor continue to bend the knees to absorb the downward force of landing. Bring your arms down sideways to stabilise the landing, without taking a step.

Forward Roll

From standing, crouch down. Place your hands on the floor in front of you, shoulder-width apart with your fingers facing forwards, while simultaneously placing your chin on your chest. This will ensure your hips are raised high enough and your spine is rounded so you can roll on to your back. Bend your arms as you place your neck on the floor, slightly extending the legs and pushing on the floor with your feet until the roll commences and you roll on to your back. Try to keep your legs straight as you commence the roll forwards. In the last part of the roll, bend your legs tightly so that your heels are close to your bottom. At the point where your feet contact the floor, stretch forwards with your arms so that your head and chest move over your feet. Once your body weight is in a position of balance you will be able to stand.

Cartwheel

Raise your hands above your head and place your leading leg forward. Reach forward to place the first hand (the hand on the same side as the leading leg) on the floor by bending your front leg and bending at the waist. When the first hand contacts the floor, straighten your front leg while kicking upward with your back leg over your head. Continue the movement by rocking over from your first to your second hand (which is still extended above your head). To do this, push strongly against the floor with your first hand, keeping your arms stretched up over your head. As your body rocks over your second hand, bring your second leg down to the ground and place it close to your second hand.

Headstand

Crouch down and place your hands and forehead on the floor to form an equilateral triangle. Your head should be approximately 30cm in front of your hands and your arms bent at an angle of 90 degrees. Extend your legs so that your pointed toes are resting on the floor. By pressing with your hands, slowly move your bottom over your forehead into a balanced position. Maintain the equilibrium by continually pressing with your hands. By exerting more pressure you will reach a point at which you can lift your feet from the floor. Continue to raise your legs above your head by pressing constantly against the floor with your hands. Make sure that your back is kept straight at all times by tightening your bottom and stomach muscles.

Headspring

To obtain the necessary height and rotation, a fast but controlled approached run is required. On take-off, drive your arms upwards and extend the body. Think of the lower body rotating over the upper body. You must still be moving upwards at the point when your hands strike the vault. In the strike phase, the angle of the body and the vault should be between 60 and 80 degrees to the vertical. Your hands should leave the box just before your body reaches the vertical. To achieve this the strike phase must be short and extremely powerful. During post-flight, keep the body as straight as possible. Just before landing, bend the knees.

<https://gymnasticshq.com/gymnastics-skills-list-floor/>



Training Methods

Training can be aerobic or anaerobic. In aerobic exercise, which is steady and not too fast, the heart is able to supply enough oxygen to the muscles. Aerobic training improves cardiovascular fitness. Anaerobic exercise is performed in short, fast bursts where the heart cannot supply enough oxygen to the muscles. Anaerobic training improves the ability of the muscles to work without enough oxygen when lactic acid is produced.

Specific training methods can be used to improve each fitness factor. Circuit training involves performing a series of exercises in a special order called a circuit. Each activity takes place at a 'station'. It can be designed to improve speed, agility, coordination, balance and muscular endurance. Continuous training involves working for a sustained period of time without rest. It improves cardiovascular fitness. Cross training involves using another sport or activity to improve your fitness. It happens when an athlete trains in a different environment. For example a volleyball player uses the power training for that sport to help with fitness for long jump. Fartlek training or 'speed play' training involves varying your speed and the type of terrain over which you run, walk, cycle or ski. It improves aerobic and anaerobic fitness. Interval training involves alternating between periods of hard exercise and rest. It improves speed and muscular endurance. Weight training uses weights to provide resistance to the muscles. It improves muscular strength (high weight, low reps), muscular endurance (low weight, high reps, many sets) and power (medium weight and reps performed quickly).

Advantages and Disadvantages of Training Methods

Continuous Training

Good for aerobic fitness, lose weight accessible, health benefits, good for beginners of all ages, little equipment Boring, not always sport specific, risk of injury does not improve anaerobic fitness

Fartlek Training

Good for team sports, less boredom, easy to use, can mimic the sport, god for team sports Too easy to cheat, can be difficult

Circuit Training

Less boring, easily adapted for fitness/skill, easily adapted to sports, stations can target specific muscle groups Take time to set up, requires equipment

Interval Training

Can be both aerobic and anaerobic, less technical, can mimic a sport, good for sports that require a change of pace Can be boring, easy to cheat hard aspects,

Free weights

Full range of sporting movement, large muscle groups can be worked Risk of injury, need a spotter, more suitable for advance performers, requires good knowledge

Resistance machines

Safer, good for beginners, good for injury rehabilitation Expensive, no functional everyday movements, only focuses on one muscle group

Training Zones

Anaerobic Threshold
80-100%
Peak Performance
80-90%
Aerobic Fitness
70-80%
Aerobic
60-80%
Fat Burning
60-70%
Active Recovery
60%
Warm-up Cool-down
50%



A motif can be a single movement or a phrase of movement (for pupils in school, short phrases are often more helpful as they provide greater scope for development)

A motif contains 'the essence' of the dance; a dominant feature that is repeated, like a reoccurring theme throughout a dance

A motif is usually introduced at the start of a dance, then once established is developed and varied

An entire dance can be built around the development and variation of a few contrasting motifs.

CREATING A DANCE MOTIF

A motif is the main, often recurring theme or element in a movement sequence.

When creating a dance motif always consider:

ACTION	SPACE
DYNAMICS	RELATIONSHIPS

Motifs can be created through the use of **5** basic actions:

1	<p>TRAVELLING</p> <p>Includes stepping, transferring body weight and sliding.</p>	
2	<p>JUMPING</p> <p>There are various ways of jumping: 2 feet to 2 feet, 2 feet to 1 foot etc.</p>	
3	<p>TURNS</p> <p>1/4, 1/2, 3/4 or full turns. Turns can be performed as a jump.</p>	
4	<p>GESTURES</p> <p>A body movement that portrays a concept or mood.</p>	
5	<p>STILLNESS</p> <p>A motionless pose during the dance sequence.</p>	