

Year 8

Booklet 1  
2024/2025

Independent  
Study

Name & LF:



Cabot  
Learning  
Federation

# How to Complete Independent Study

You will have three pieces of IS due every week, which will be checked by your teacher of the subject due.

You teachers will set your IS on Bromcom and tasks for each subject are outlined in this booklet as a reminder.

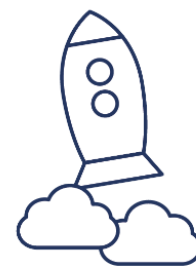
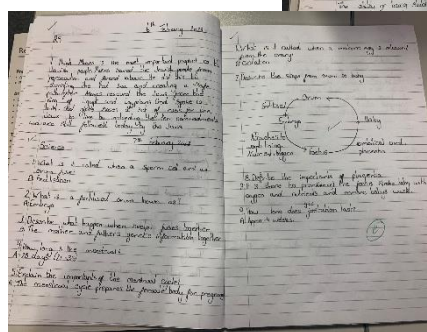
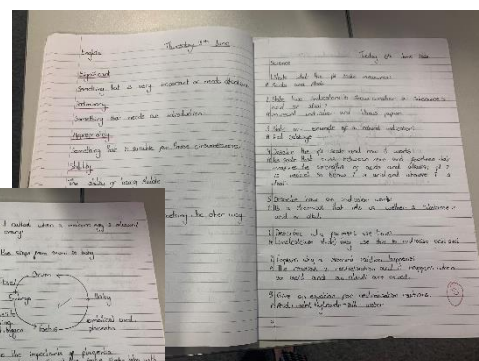
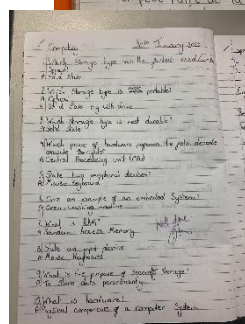
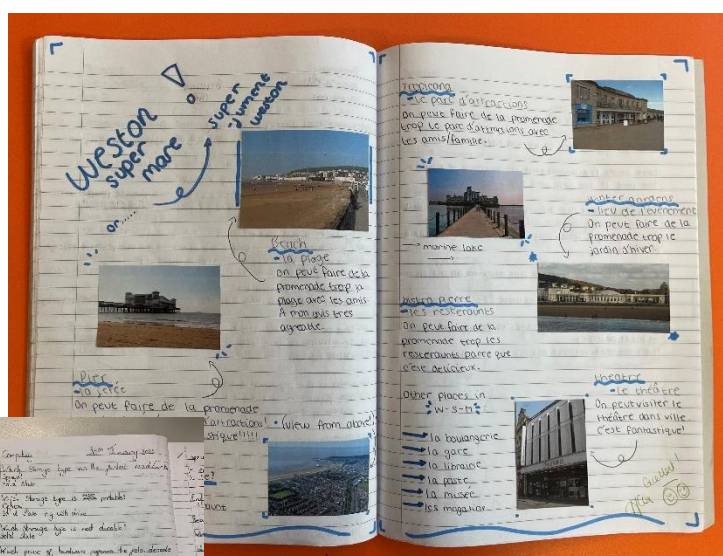
To complete your independent study you will need this knowledge organiser and your grey, IS exercise book. Most IS is set using this booklet. Maths will be set online in SPARX.

You can access further support or computers in IS Club, which is open every day in LS3 from 3:00pm-3:50pm or every lunch time in G7.



## Contents

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## Supporting Independent Study Completion

Completed IS is valued by teachers as it extends and supports the learning in lessons as well as embedding independent learning habits. It is rewarded with achievement points.

If students are struggling to complete IS they will be asked to attend a support session after school the following week to address any barriers and ensure the work is completed successfully.

# Tasks

Subject	Year 8 Task
English	<p>Write out your understanding of the definitions and create two different sentences showing your understanding of the word.</p> <p><b>OR</b></p> <p>Create flashcards which display the words and their definitions written in your own words. However, students could also complete the following:</p> <ul style="list-style-type: none"> <li>• <b>Challenge:</b> Complete both the tasks above.</li> <li>• <b>Extra Challenge:</b> Using the template at the end of the booklet, create a Frayer model for one or two of the words. (Etymology= where the word comes from)</li> <li>• <b>Super Challenge:</b> Create a word map. Start with the original word in the middle and add words you associate with that word around it, then words you associate with the secondary words OR write a short story of your choice that includes the key words for the week.</li> </ul>
Maths	<p>You will need to log into your <b>SPARX</b> account to complete your IS. Every student needs to complete 100% of the compulsory tasks and can also complete the XP Boost and Target to support your progress. Write your bookwork codes in your IS exercise book and complete the bookwork checks online. If you get stuck, watch the associated video or check in with your maths teacher before the IS is due.</p>
Science	<p>Complete the worksheet in the knowledge organiser booklet.</p>
Humanities	<p>Complete the questions set on Bromcom. You can request a paper copy of the questions from your teacher if needed.</p>
Computing	<p>Using the knowledge organiser please write 10-15 high quality questions and answers. Write them in the style of the nibble questions. Use the command words state, define, describe, explain etc. Do not include any yes/no or true/false questions.</p>
DT	<p><b>For Design Tech</b>, please draw the 3D (isometric) shape in the space provided on the sheet. keep to the lines, use a RULER and a PENCIL.</p> <p><b>For Food Tech</b>, use the eat well plate to construct 10 knowledge recall questions.</p>
MFL	<p>You will have been given an IS sheet by your teacher in lesson. You need to complete the sheet using your knowledge organiser. If you do not have the sheet, you need to see your teacher before your second lesson this week to get one.</p>
Careers	<p>Your task will be set in <b>UniFrog</b>. You'll find your log in details in an email from UniFrog. You can use UniFrog at any time to find out more about career pathways, post-16, the local and national labour market and to find out more about you and your skills.</p>
Music	<p>Select a Major Composer of the Baroque Period. Choose one of their compositions to listen to and make notes on. Write a short paragraph 200-250 words on your findings, including some history on the composer. Further details on Bromcom.</p>
Art	<p>Landscape Art is the depiction of natural scenery such as mountains, valleys, trees, forests and seascapes. Create an A4 landscape of your choice using materials also of your choice. It must be detailed and you should spend a minimum of one hour to complete this. Examples of what you could do will be shown before the deadline.</p>
Drama	<p>Find out about the extra-curricular opportunities available within drama and the rest of the performing arts subjects. You can find out more about clubs and performance opportunities in this booklet and from your drama teacher.</p>
PE	<p>Find out more about the extra-curricular opportunities available within PE and performance. Try a range of clubs to explore different sports and activities. There are opportunities to represent your college or Hans Price Academy in a range of teams and event across the year. Find out more from your PE teacher.</p>

# Independent Study Hand-In Schedule

The schedule below shows which pieces of independent study will be due each week. They will be checked by the teacher of the subject due in the lesson that week.

Date	Schedule	
<b>Term 1</b>		
16 <sup>th</sup> Sept '24	English	
	Maths	
	Science	
23 <sup>rd</sup> Sept '24	English	
	Maths	
	MFL	
30 <sup>th</sup> Sept '24	English	
	Maths	
	Humanities	
7 <sup>th</sup> Oct '24	English	
	Maths	
	DT	
14 <sup>th</sup> Oct '24	English	
	Maths	
	Careers	
21 <sup>st</sup> Oct '24	English	
	Maths	
	Science	
<b>Term 2</b>		
4 <sup>th</sup> Nov '24	English	
	Maths	
	Science	
11 <sup>th</sup> Nov '24	English	
	Maths	
	Music	
18 <sup>th</sup> Nov '24	English	
	Maths	
	Humanities	
25 <sup>th</sup> Nov '24	English	
	Maths	
	Science	
2 <sup>nd</sup> Dec '24	English	
	Maths	
	Computing	

Date	Schedule	
9 <sup>th</sup> Dec '24	English	
	Maths	
	MFL	
16 <sup>th</sup> Dec '24	English	
	Maths	
	DT	
<b>Term 3</b>		
6 <sup>th</sup> Jan '25	English	
	Maths	
	Science	
13 <sup>th</sup> Jan '25	English	
	Maths	
	Humanities	
20 <sup>th</sup> Jan '25	English	
	Maths	
	Art	
27 <sup>th</sup> Jan '25	English	
	Maths	
	Computing	
3 <sup>rd</sup> Feb '25	English	
	Maths	
	Science	
10 <sup>th</sup> Feb '25	English	
	Maths	
	Careers	

Extra-Curricular	





# How else can I use my Knowledge Organiser?

The Knowledge Organisers in this booklet will help you learn a wide range of knowledge to prepare you for your lessons as well as the multiple-choice tests at the end of this block of learning.

To get the most out of your Knowledge Organisers, you should be learning sections and then testing yourself. There will be set tasks each week based on the Knowledge Organisers, and there are some optional ideas below that you could try in addition to this if you wish.

## Key vocabulary:

- Highlight key terms for a subject and look up the definitions
- Write a sentence using the key terms you have highlighted
- Practice spellings – cover, write and check to learn the correct spellings of key terms

## Quizzes/questions:

- Write some self-quizzing questions based on the information read
- Test your friends and family on their knowledge of a subject
- Get your parents/carers to ask you some questions
- Create exam style questions and then swap with a friend

## Reflection:

- Before a topic – rank order your confidence and then revisit at the end of the topic, rank again and consider where you have improved
- Add more detail to the Knowledge Organiser after you have been taught that topic
- Traffic light (red, amber, green) each box based on how confident you are

## Revision:

- Create 2-3 flashcards each week based on each box
- Create a mind map showing the key information from the Knowledge Organiser
- Read ahead to develop skills, knowledge and understanding so you feel more confident before lessons

## General use:

- 50 words, 30 words, 10 words – summarise the information on the Knowledge Organiser from 50 words to 30 words to 10 words
- Pictionary – learn the definitions then draw it for your friends/family to guess
- Elevator pitch – summarise the information in a box/whole Knowledge Organiser for a 30 second presentation
- Generation game – like the famous conveyor belt – look at the Knowledge Organiser and then try to remember as many items as possible
- Key term stories – write a short story using 6 key words that are found on the Knowledge Organiser
- Scavenger hunt – read through the Knowledge Organiser with a friend/family member and see who can find specific information/facts first
- Read, cover, check – read the box, write out what you can remember, check what you have missed (then add in purple pen)

“Education is the passport to the future, for tomorrow belongs to those who prepare for it today.”

Malcolm X

“Success is no accident. It is hard work, perseverance, learning, studying, sacrifice and most of all, love of what you are doing or learning to do.”

Pele

“Sticking to good habits can be hard work, and mistakes are part of the process. Don't declare failure simply because you messed up or because you're having trouble reaching your goals. Instead, use your mistakes as opportunities to grow stronger and become better.”

Amy Morin

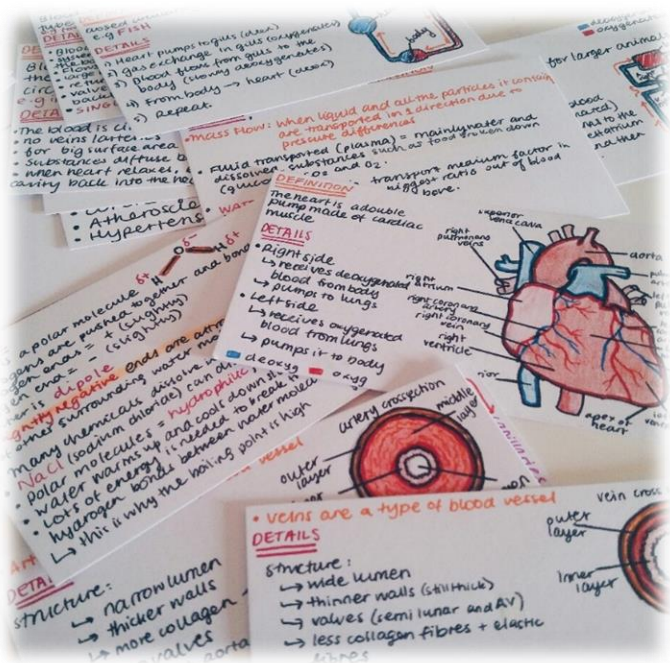
# Revision Techniques

## Flash Cards

Great for revising key terms and remembering definitions, dates, facts etc.

Split the page of your I.S textbook into four using a ruler or use flash cards which you can collect from the LRC and keep in your I.S folder.

Make brief notes on the information in the knowledge organiser, use colour coding and diagrams where you can to highlight key information.



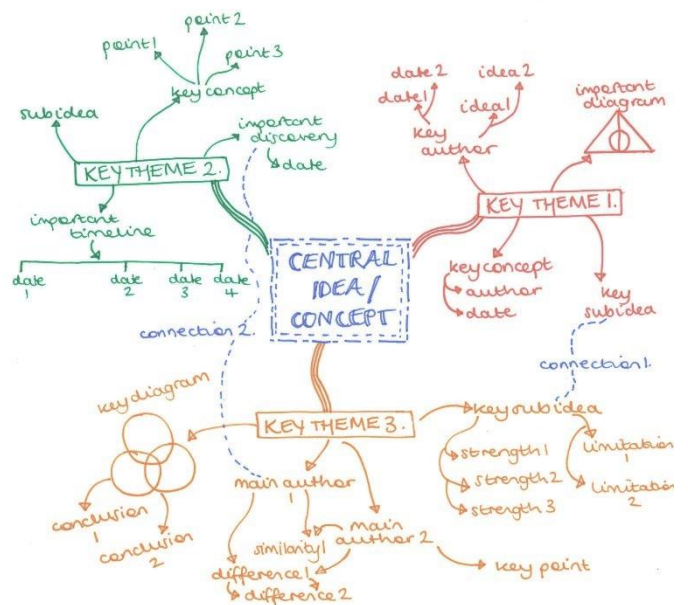
## Mind Map

Great for revising if you are a visual learner, allowing you to select and link key information.

Use a full page to add as much detail as you can to your mind map, starting with a key concept or topic at the centre. Use the knowledge organisers and your own ideas.

You can use colour coding, diagrams and connections to support your learning.

### MINDMAPPING GUIDE



## Self-quizzing Questions

Here is a section of a Science Knowledge Organiser. You could test your grasp of this knowledge by asking yourself,

*“What ions are found in acids? Acids contain hydrogen ions.”*

*“What does corrosive mean? A corrosive acid can destroy skin cells and cause burns.”*

These are examples of self-quizzing questions. Write 10-20 self-quizzing questions and answers based on the subject knowledge organiser and focusing on the areas where you need to strengthen your knowledge.

### 2. Acids (pH 1-6)



- Acids are a family of chemicals, examples are lemon juice, vinegar and Coca Cola. There is also acid in our stomach.
- Acids contain Hydrogen ( $H^+$ ) ions.
- **Strong acids** like hydrochloric acid are very corrosive this means they destroy skin cells and cause burns.
- **Weak acids** like vinegar are safe to eat but are still irritant to sensitive parts of the body.

## KS3 English I.S

Your task each week is to understand the meaning of and spell correctly 5 key words.

Each student as a minimum should:

- Create two different sentences showing your understanding of the word.

E.G.: **hierarchy**:

- Hierarchy** is shown in A View From the Bridge through the character of Eddie.
- In Romeo and Juliet, women were lower than men in **hierarchy**.

*N.B.: You can change the tense of your word to suit your sentences.*

### OR

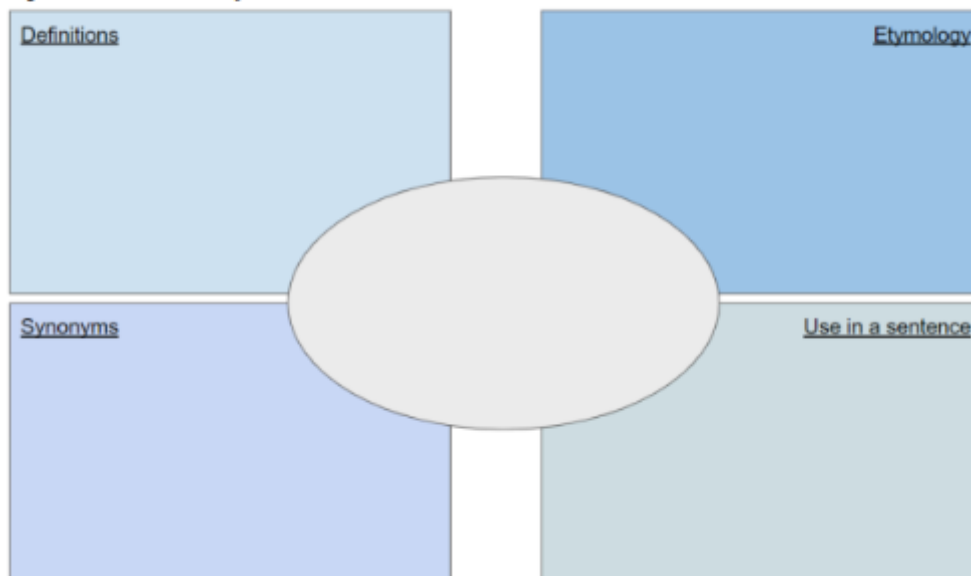
- Create flashcards which display the words and their definitions written in your own words.

However, students could also complete the following:

- Challenge:** Complete **both** the tasks above.
- Extra Challenge:** Using the template at the end of the booklet, create a Frayer model for one or two of the words. (Etymology= where the word comes from)
- Super Challenge:** Create a word map. Start with the original word in the middle and add words you associate with that word around it, then words you associate with the secondary words OR write a short story of your choice that includes the key words for the week.

#### Frayer Model Template

Definitions	Etymology
Synonyms	Use in a sentence





Week Due (w/c)	Word	Definition
16th Sept	Prologue Justice Acceptance Diverse Figurative	A separate introductory section to a piece of writing. The quality of being fair and reasonable. The process of receiving and welcoming an idea, person or thing. Showing variety and difference. Describing something in a non-literal way e.g. using similes to describe something.
23rd Sept	Narrative Methods Infer Protagonist Narrator	A plot or storyline. The procedure used to accomplish something. To draw a conclusion about something based on evidence. The main character of a book, play or film. The person who tells a story.
30th Sept	Significant Setting Dialogue Exposition Autobiography	Something that is important. The surroundings or environment Conversation between two or more persons. Providing background information about a character/setting etc. to set up the story An account of a person's life written or told by that person.
7th Oct	Characterisation Imagery	How a writer builds a character, showing their physicality and personality. Pictures or words that are used to represent something.

	Context Corruption Empathy	The background circumstances that inform a text. Dishonest actions, usually by those in power. The ability to understand another person's perspective and feelings.
14th Oct	Simile Tension Represent Genre Chronological	A comparison used to describe something, using 'like' or 'as'. The feeling of mental or emotional strain To serve, show, stand for, or to speak and act. A type, class, or category of story such as horror, comedy, or drama. Events arranged in the order they happened.
21st Oct	Atmosphere Foreshadowing Prejudice Exploitation Morality	The particular tone or mood being set. A literary device - suggesting something will happen in the future. An unfair and unreasonable opinion or feeling formed without enough thought or knowledge. The act of using someone unfairly to your own advantage. The distinction between right and wrong
4th Nov	Dream Oracy Activist Persuasive Political	A series of events or images that happen in your mind when you are sleeping. To be able to express yourself clearly and fluently in speech. Someone who campaigns to bring about change. Making you want to do or believe in a particular thing. This relates to the politics of a government who makes the law and tries to influence the way a country is governed.

11th Nov	Revolution	A change in the way a country is governed, usually to a different political system and often using violence or war.
	Anaphora	The repetition of a word or phrase at the beginning of consecutive sentences.
	Control	To order, limit or rule something, or someone's actions or behaviour.
	Conflict	An active disagreement between people with opposing opinions or principles.
	Justice	The quality of being fair and reasonable.
18th Nov	Totalitarianism	A system of government where they have complete control and power over the state.
	Rhetoric	Speech or writing intended to be effective and influence people.
	Persuasion	The action of convincing someone.
	Dystopia	An imagined state or place where there is great suffering.
	Utopia	An imagined place or state where everything is perfect.
24th Nov	Abstract	An idea, feeling or quality, not a material or physical object.
	Allegory	A story with a hidden meaning, usually a political or moral one.
	Interpretation	An explanation or opinion of what something means.
	Fable	A short story conveying a moral.

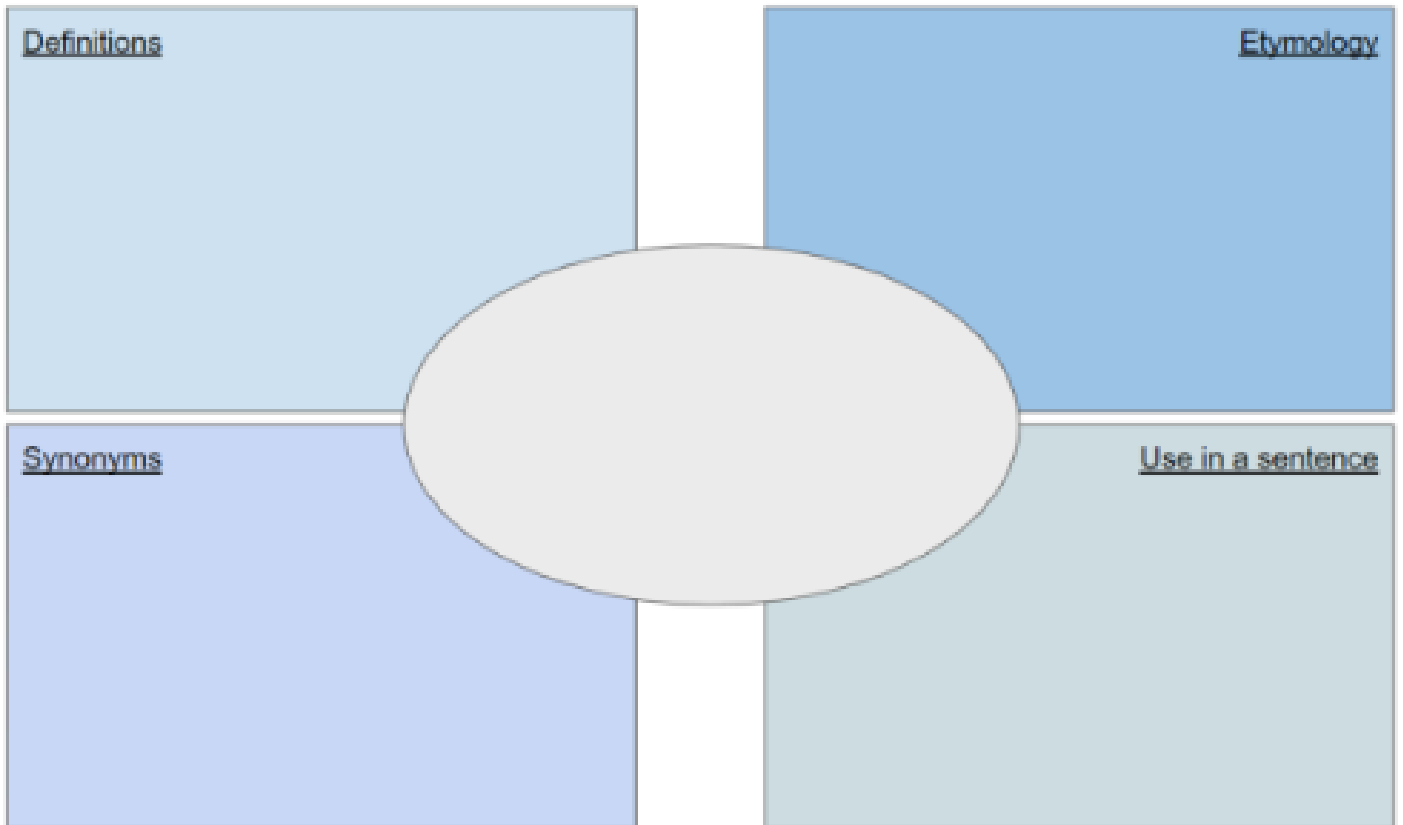
	Amend	To change the words of something written.
2nd Dec	Propaganda	Information or ideas that are spread by an organisation/government to influence people's opinions.
	Representation	The way that someone or something is shown or described.
	Context	The circumstances surrounding something.
	Climax	The highest or most intense point in a narrative.
	Hyperbole	Exaggerated statements or claims.
9th Dec	Corruption	Dishonest or illegal behaviour involving a person in a position of power.
	Tyranny	A situation in which someone or something controls how you live in an unfair way.
	Rebellion	A violent action organised by a group of people who are trying to change a political system.
	Manipulation	Controlling someone or something to your own advantage.
	Oppression	A situation in which people are governed in an unfair and cruel way and prevented from having opportunities and freedom.



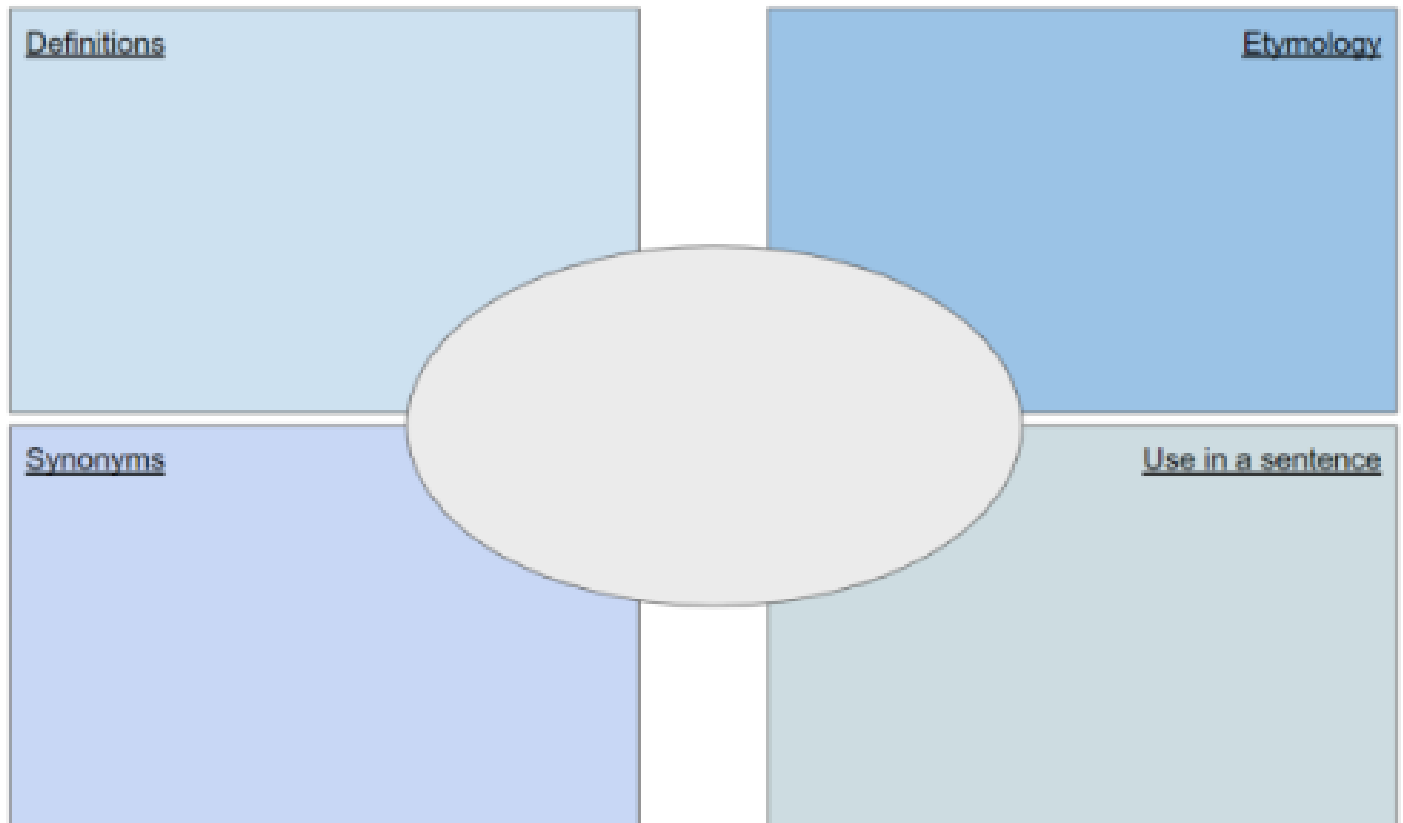
16th Dec	Hierarchy Democracy Authority Rebuttal Implicit	A system in which people or things are arranged according to their importance. A country/organisation where power is held by elected representatives or by the people. Person or state having power to give commands and make decisions. A statement that says that something is not true. Something suggested but not directly expressed.
6th Jan	Symbolism Bias Confer Dialogue Hierarchy	When a thing or image represents an idea or concept. To have an unfair belief against something/someone. Exchange ideas on a particular subject in order to reach a decision on what action to take. Conversation between two or more persons. A system where things are ranked according to their importance.
13th Jan	Motif Satire Oppression Metaphor Repetition	A pattern or design. A way of criticising people or ideas in a humorous way in order to make a point. Unfair and cruel treatment by those with power of those without. A comparison used to describe, not using 'like' or 'as'; describing something by saying it is something other than itself. When something occurs more than once.

20th Jan	Alliteration Imperative Plot Structure Pronouns	The use of the same sound, especially at the beginning of several words that are close together. Extremely important or urgent. The story of a book, film, play, etc. The relationship of the component parts of a work of art or literature; the way something is built up. A word used instead of a noun to refer to a person or thing that has already been mentioned, e.g: I, you, he, this, it, who, what.
27th Jan	Contrast Tone Eloquence Verb Vengeance	An obvious difference between two or more things. The general mood of something or someone. The quality of delivering a clear and strong message which is used with fluency. A word or phrase that describes an action or experience. Violent revenge: to 'get someone back' for an insult or injury.
3rd Feb	Commandments Pathos Assessment Victorian Bleak	Authoritative rules to be followed A quality that causes the reader to feel emotion, usually pity or sadness. The action of making a judgement about something. The era in which Queen Victoria ruled. Dull and miserable.
10th Feb	Diverse Motif Form Foreboding Antagonist	Varied or different qualities about a person, place or thing. A pattern or design. A shape of configuration of something. A feeling that something bad might happen. Opposite to the protagonist, someone who opposes them.

## Frayer Model Template



## Frayer Model Template



# Hans Price Maths Department

All Independent Study in the Maths department is set using the following online platforms

**SPARX MATHS**

You need to log in to your SPARX account, where there are 3 types of homework:

- **Compulsory**
  - **XP Boost**
  - **Target**

Every student needs to get **100%** of their compulsory homework completed every week. Students need to write out the bookwork codes of each of the questions in their homework book and complete the bookwork checks online.

XP boost and Target sections are additional resources that the students can complete if they wish. They will support the students to make greater progress in Maths, but do not form part of the compulsory Independent Study.

**If students get stuck on any question, they should watch the associated video to help them complete the task.**

We also subscribe to Times Tables Rock Stars. We encourage students to engage with this program to ensure their foundation of knowledge is solid. We will run College competitions and award prizes to those students with the most coins.



**These homework platforms are designed to consolidate your knowledge, and students at KS3 can expect this to take up to 1 hour per week.**





### 1. Forces

A force is a **push** or a **pull** that changes the **shape, speed or direction** of an object. You cannot see forces, but you can see the effects of them.



The unit of force is the **Newton (N)** named after Sir Isaac Newton. We measure force using a piece of equipment called a **Newton metre**.



### 2. Types of Force

Forces can be divided into two types: **contact** and **non-contact**.

- Contact forces** (e.g. push) are caused when two objects are in contact.
- Non-contact forces** (e.g. magnetism) do not require the objects to be in contact for the force to occur.

Examples of forces include **push, pull, friction, air resistance, water resistance, thrust, upthrust, reaction, weight, magnetism, gravity, lift and tension.**

### 4. Unbalanced Forces

If the forces are unbalanced on an object there are two things that could happen:

- If the object is stationary then it will move in the direction of the resultant force
- If the object is moving, then the object will speed up or slow down in the direction of the resultant force



## KSS3 Science Forces and Motion

gHansPhiroSci  
#SpeedyTokomiti



### 5. Speed, Distance and Time

How do you find the average speed of an object?

- Measure the distance travelled
- Measure the time taken to travel that distance

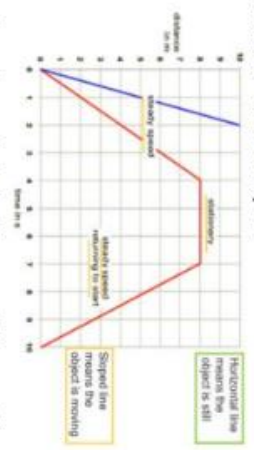
$$\text{speed} = \text{distance} / \text{time}$$

Worked example:

- Q) A car travels 2000 km in 100 s.  
Calculate its average speed.  
2 km = 2000 m  
2000 m / 100 s = 20 m/s



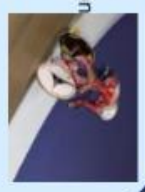
### 6. Distance-Time Graphs



Speed can be calculated from a distance-time graph. In the first 4 seconds, this object travelled 8m. Its speed was  $8 / 4 = 2\text{m/s}$

### 7. Reducing forces for the better

Friction opposes the direction of motion making it more difficult to move.



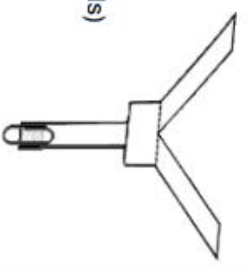
- This can be helpful:**
- ✓ Your shoes and the floor to stop you slipping
  - ✓ Tyres and the road to prevent skidding
  - ✓ Brakes and the wheel to slow you down
- This can be unhelpful:**
- ✗ If you do not lubricate your bike chain using oils, friction between the chain and the axles make it difficult to pedal.

Like friction, air resistance and water resistance forces can also be reduced. This is known as **streamlining**.

### 8. Investigating Forces

**Scientific Question:** Does wing length affect the time taken to land?

- Independent variable:** wing length (cm)
- Dependent variable:** time taken to land (seconds)
- Control variable:** height dropped from (cm), mass of helicopter (g)



**Conclusion:** The longer the wings, the greater the force of air resistance.

### 3. Balanced Forces

When the forces acting in opposite directions are the same magnitude (size) we say the forces are **balanced**. The resultant force (overall force) is 0N.


This means one of two things:

- The object is stationary (not moving)
- The object is moving at a constant speed

For example, the vertical resultant force acting on the duck is 5N-5N=0N



# TERM 1 SCIENCE I.S. FORCES

<p>1. State the unit for force.</p>	<p>2. Name two contact forces.</p>	<p>3. Explain why magnetism is an example of a non-contact force.</p>
<p>4. Draw a force diagram which shows a 30N force acting upwards and a 15N force acting downwards.</p>	<p>5. Explain how you know the forces in question 4 are unbalanced.</p>	<p>6. Calculate the speed of a ball which rolls 14m in 2s.</p>
<p>7. Describe what a horizontal line on a distance-time graph represents.</p>	<p>8. Describe how to reduce the frictional forces acting on a bicycle's chain.</p>	<p>9. Sketch a distance-time graph to show a person travelling 3m, stopping for 5s and returning to the start.</p> 



### 1. Chemical Reactions



Their changes are **irreversible**. There are 5 indicators of **chemical change**.



### 4. Incomplete combustion

Combustion **without** enough oxygen.  
The general **equation** is:  
Fuel → carbon monoxide + water + carbon (soot)

#### Problems with incomplete combustion

- X Carbon monoxide, CO, a colourless toxic gas which can kill.
- X Particles of carbon, which appear as soot and smoke, and which cause breathing problems.

### 6. Thermal Decomposition

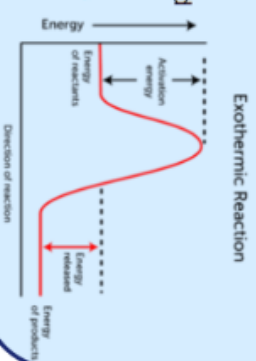


Thermal decomposition is a **chemical reaction that happens when a compound breaks down when heated**. Thermal decomposition reactions absorb lots of energy before breaking down into the products. Thermal decomposition is an example of an **endothermic** reaction.

### 7. Exothermic Reactions

Energy is **released to the surroundings**, indicated by a temperature increase.

This means that the **reactants** produce both **heat energy** and **products** in the reaction. The **energy level diagram** shows the lower energy in the products.

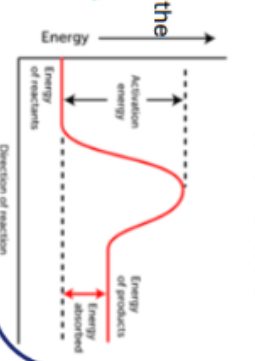


**EXOTHERMIC**  
exit heat

### 8. Endothermic Reactions

Energy is **absorbed from the surroundings**, indicated by a temperature decrease.

This means that the **reactants** combined with **heat energy** produce **products** in the reaction. The **energy level diagram** shows the higher energy in the products.

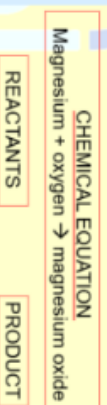


**ENDOTHERMIC**  
in heat

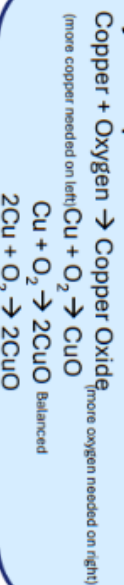
### 2. Chemical Equations

Changes in a chemical reaction are written as a chemical equation.

#### Word equation:



#### Symbol equation:



### 3. Combustion

**Combustion** is the scientific term for burning. There are 3 things that are needed for a fire: oxygen, fuel and heat, shown by the fire triangle.

#### Complete combustion

occurs when there is good supply of oxygen. The general equation is:  
Fuel + oxygen → carbon dioxide + water



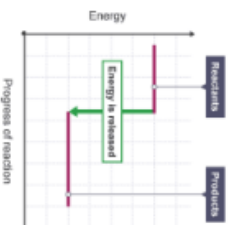
## KS3 Science

# Chemical Reactions



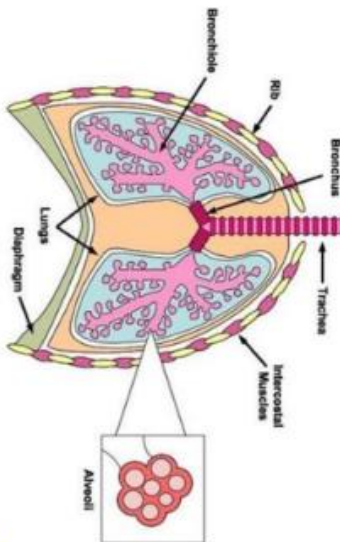
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# TERM 1 SCIENCE I.S. CHEMICAL REACTIONS

<p>1. List three indicators of chemical change.</p>	<p>2. Complete the word equation: Lithium + oxygen →</p>	<p>3. Balance the symbol equation: <math display="block">\text{Ca} + \text{O}_2 \rightarrow \text{CaO}</math></p>
<p>4. List the three parts of the fire triangle.</p>	<p>5. Naomi burns a candle under a beaker. After 3 minutes, the flame goes out. Explain why.</p>	<p>6. Describe two negative impacts of incomplete combustion.</p>
<p>7. Define the term <i>thermal decomposition</i>.</p>	<p>8. State whether there is more energy in the reactants or the products in an exothermic reaction.</p> 	<p>9. Describe how Harry can investigate whether a chemical reaction is exothermic or endothermic.</p>

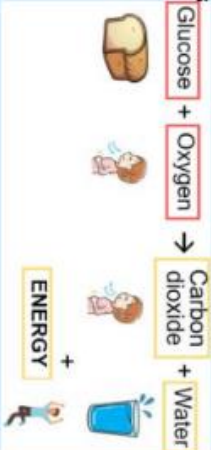


### 1. The Respiratory System



### 4. Aerobic Respiration

Respiration is a chemical reaction which releases energy, to keep up alive.. The energy is used to processes such as: growth, repair and movement. This process happens in the mitochondria of cells



### 6. Respiration and Exercise

When our bodies undergo exercise our **breathing rate and heart rate increases.**

Breathing rate increases in order to draw more oxygen into our bodies which is needed for respiration. This also removes the carbon dioxide which is being produced quickly through respiration.

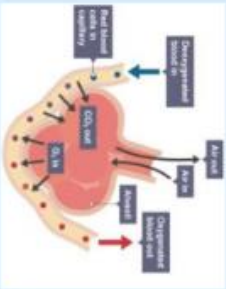
Our heart rate increases in order to pump oxygen around the body faster to the muscles. We can measure our **heart rate** by finding



### 2. Adaptations of the Alveoli

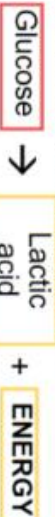
Alveoli are the small air sacs in the lungs and are the site of gas exchange. There are several adaptations that make them suited to their function.

- **Large surface area** to allow for maximum gas exchange
- **Walls one cell thick** to minimise the diffusion distance.
- **Good blood supply** to ensure gases are transported quickly.
- **Moist walls** to allows gases to dissolve.



### 5. Anaerobic Respiration

During intense exercise not enough oxygen can be supplied to our muscles. When this happens, our bodies carry out anaerobic respiration.



Energy is quickly made



Lactic acid is harmful to the body. It has to be removed from cells and broken down following the resumption of aerobic respiration (to repay the oxygen debt).



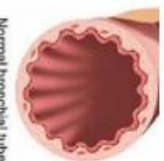
### 7. Smoking

Smoking cigarettes cause damage in the lungs. Over time the alveoli become damaged and change shape. This reduces the surface area of the alveoli and reduces the amount of gas exchange that can take place. This causes symptoms like fatigue and shortness of breath.



### 8. Asthma

Asthma is a condition that affects the bronchioles in the lungs. The bronchioles become inflamed and produce mucus making it harder for air to enter and leave the lungs. This causes shortness of breath and tightness in the chest. Inhalers are used as a treatment for asthma. They cause the bronchioles to widen allowing air flow to return to normal.



### 3. Ventilation

Ventilation is the scientific word for breathing. Breathing is a process that takes oxygen into the body and removes carbon dioxide. Breathing in is called **inhalation** and breathing out is called **exhalation**.

	Inhaling	Exhaling
Diaphragm	Contracts and moves downwards	Relaxes and moves upwards
Intercostal muscles	Contract, moving the ribs upwards and outwards	Relax, letting the ribs move downwards and inwards
Volume of thorax	Increases	Decreases
Pressure inside the chest	Decreases below atmospheric pressure	Increases above atmospheric pressure
Movement of air	Moves into the lungs	Moves out of the lungs

## TERM 2 SCIENCE I.S. RESPIRATION

<p>1. List the order of structures that air passes through from the nasal cavity to the alveoli.</p>	<p>2. State why the alveoli have a good blood supply.</p>	<p>3. Describe the changes to the diaphragm and ribcage when breathing in.</p>
<p>4. State the location of respiration in the cell.</p>	<p>5. Complete the equation for aerobic respiration: Glucose + ..... → ..... + water + .....</p>	<p>6. Describe one disadvantage of anaerobic respiration.</p>
<p>7. Name one lifestyle choice that can reduce the surface area of alveoli.</p>	<p>8. Name the part of the respiratory system that is affected by asthma.</p>	<p>9. Describe changes to the bronchioles during an asthma attack.</p>



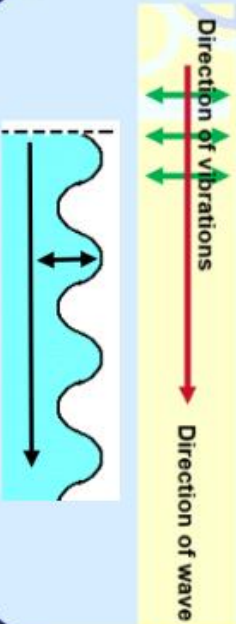
### 1. Waves

Waves are a **transfer of energy**. They do **not** transfer particles.  
For example, when in the sea, the wave moves past you and you bob up and down. You are the particle in this e:



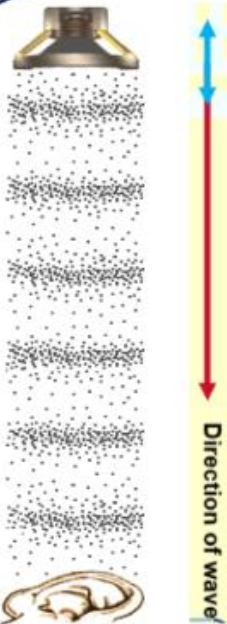
### 2. Water waves

The particles in water waves move at a right angle to the direction of the wave. Water waves are an example of **transverse waves**.



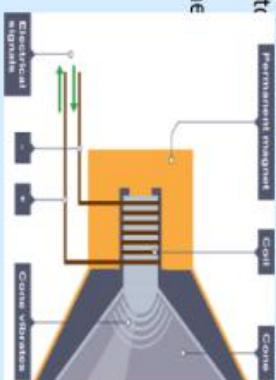
### 3. Sound waves

Sound waves are **longitudinal waves** - the vibrations are in the same direction as the direction of travel.



### 4. Loudspeakers

Sound waves are produced by all vibrating objects. Loudspeakers work by converting chemical energy into electrical transfer. This moves the cone which creates the sound waves.



### 6. Microphones

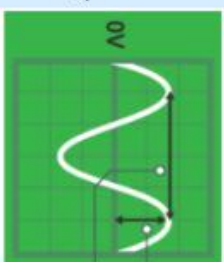
Mobile phones and telephones contain microphones. These devices contain a diaphragm, which does a similar job to an ear drum. The vibrations in air make the diaphragm vibrate, and these vibrations are changed to electrical impulses. In the lab, the electrical impulses can be sent to an oscilloscope, which represents them as a graph on a screen



### 7. Oscilloscope traces

**Amplitude** is the height of the wave from its resting position – the greater the amplitude, the louder the sound  
**Wavelength** is the distance between the crests (tops) of two waves

**Frequency** is the number of waves per second – the higher the frequency, the closer together the waves are and the higher the pitch



## KS3 Science

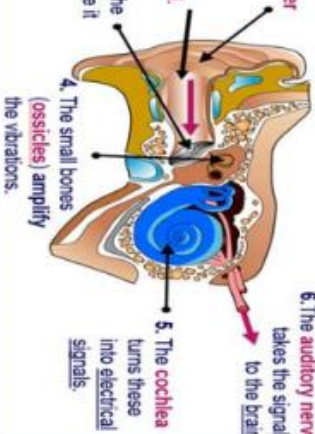
# Sound Waves



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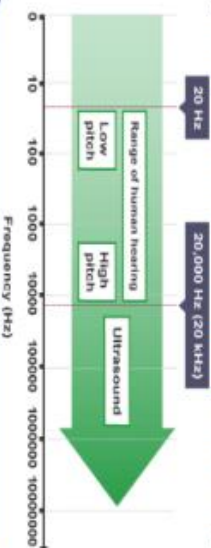
### 5. Detecting sounds

1. Sound waves are collected by the **outer ear** (or **pinna**).
2. The waves travel along the **ear canal**.
3. The waves reach the **eardrum** and make it vibrate.
4. The small bones (**ossicles**) amplify the vibrations.
5. The **cochlea** turns these into **electrical signals**.
6. The **auditory nerve** takes the signals to the **brain**.



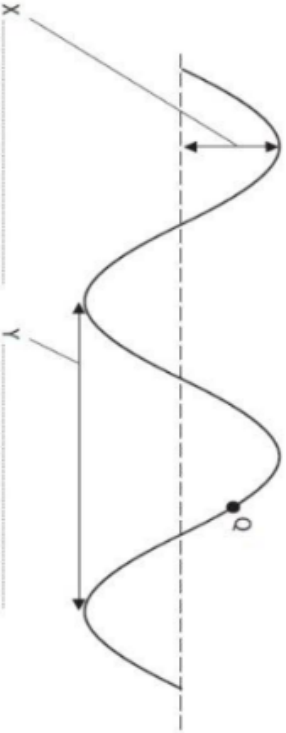
### 8. Human Hearing range

The frequency of sound waves is measured in hertz, which has the symbol Hz. The bigger the number, the greater the frequency and the higher the pitch of the sound. Human beings can generally hear sounds as low as 20 Hz and as high





# TERM 2 SCIENCE I.S. SOUND WAVES

<p>1. State what waves transfer.</p>	<p>2. Describe the movement of particles in a longitudinal wave.</p>	<p>3. State whether sound is a transverse or longitudinal wave.</p>
<p>4. Describe the passage of a sound wave from the pinna to the auditory nerve.</p>	<p>5. Label point X and Y.</p>	
<p>6. State what will happen to the pitch of the sound as the frequency is increased.</p>	<p>7. A whistle has a frequency of 4000 Hz. Explain whether a human can hear the whistle.</p>	<p>8. Describe how to measure a person's hearing range.</p>

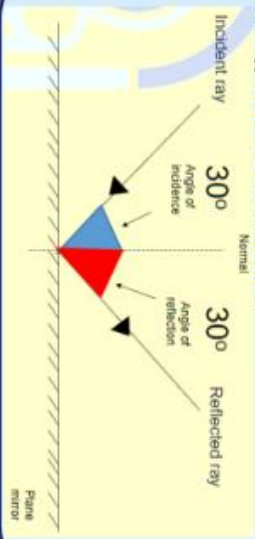
### 1. Sound and Light

Light travels at 300,000,000 m/s, much faster than sound, which travels at 343 m/s. This is why you see lightning before you hear it.

	Light waves	Sound waves
Type of wave	Transverse	Longitudinal
Can they travel through matter (solids, liquids and gases)?	Yes (if transparent or translucent)	Yes
Can they travel through a vacuum?	Yes	No
How are they detected?	Eyes, cameras	Ears, microphones
Can they be reflected?	Yes	Yes
Can they be refracted?	Yes	Yes

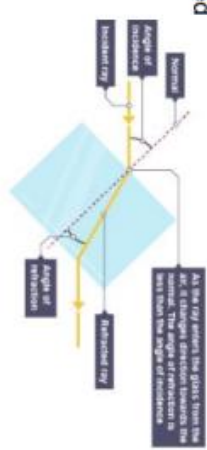
### 3. The law of reflection

The law of reflection states that the angle of incidence equals the angle of reflection,  $i = r$ . For example, if the angle of incidence is  $30^\circ$  then the angle of reflection is  $30^\circ$ .



### 5. Refraction

Light waves change speed when they pass across the boundary between two substances with a different density, such as air and glass. This causes them to change direction, an effect called



### 6. Coloured light

There are three primary colours in light: red, green and blue. Light in these colours can be added together to make the secondary colours magenta, cyan and yellow. All three primary colours add together make white light.



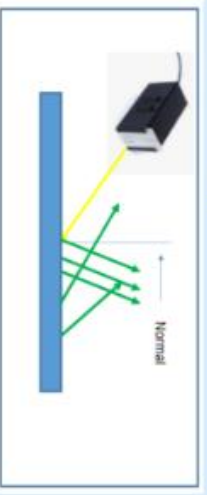
### 7. Seeing in colour

Any coloured object reflects the colour that it is, and absorbs the rest. A leaf looks green because it has absorbed all colours except for green. Black objects absorb all colours. White objects absorb no colours and reflect all the light



### 4. Scattering

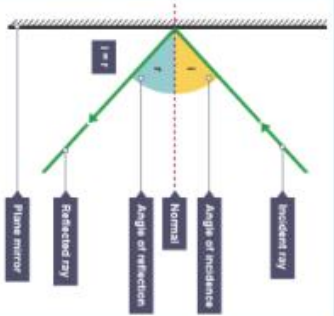
The reason a reflection is not seen in dull objects is because of scattering.



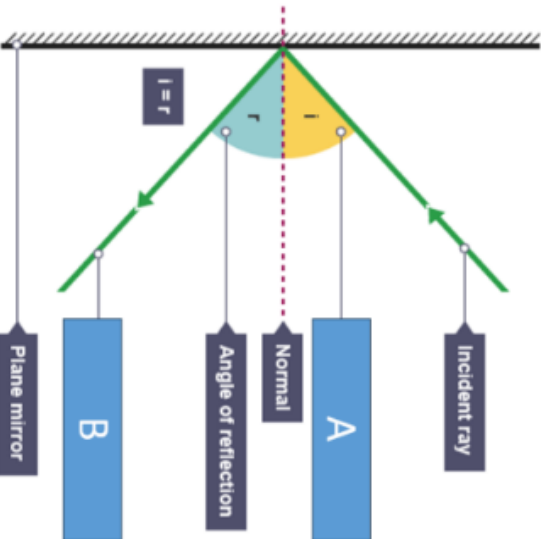
Dull objects cause light to be reflected in all directions. This is called **SCATTERING**.

### 2. Reflection

When light reaches a mirror, it reflects off the surface of the mirror: the incident ray is the light going towards the mirror the reflected ray is the light coming away from the mirror



# TERM 3 SCIENCE I.S. LIGHT WAVES

<p>1. State whether light is a transverse or longitudinal wave.</p>	<p>2. Compare the detection apparatus of sound and light waves.</p>	<p>3. State whether light can pass through a transparent solid.</p>
<p>4. Label A and B.</p> 	<p>5. State the law of reflection.</p>	<p>6. Naomi measures the angle of incidence to be <math>40^\circ</math>. Predict the angle of reflection.</p>
	<p>7. When light is passed through objects with different densities, its speed changes. Name this process.</p>	<p>8. Describe how to produce yellow-coloured light.</p>



### 1. Variation

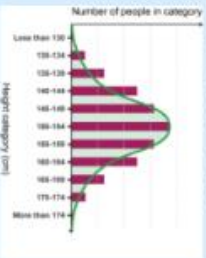
All of the tomatoes in the world look slightly different. Their colour, shape and size is not identical. This means they show variation.

**VARIATION: differences in characteristics between individuals of the same species.**



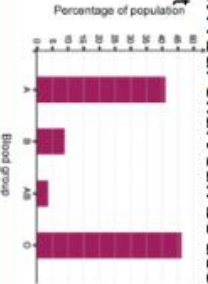
### 2. Continuous Variation

Human height is an example of continuous variation. It ranges from that of the shortest person in the world to that of the tallest person. Any height is possible between these values – making it an example of continuous variation. A bell-shaped curve represents continuous variation.



### 3. Discontinuous Variation

If a characteristic can be categorised into a group, it is labelled discontinuous variation. Examples of this include eye colour, blood group and shoe size. A bar chart can be used to represent discontinuous variation.



### 4. Genetic and Environmental Variation

Some variation is passed on from parents to offspring, via **genes**, during reproduction. This is **genetic** variation and examples include eye colour, sex and ability to roll your tongue. Some variation is the result of differences in the surroundings, or what an individual does such as lifestyle, culture and climate you live in. This is called **environmental** variation and examples include your language and accent. Some variation is caused by a mixture of both genetic and environmental factors and examples include your weight and height.



## KS3 Science Evolution

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### 5. Evolution

If all the individuals of a species were genetically identical they would be vulnerable to the same diseases. If this were the case a single disease could wipe out an entire species! As a result of their genes, some individuals of a species might have better camouflage, or be able to run faster. These individuals are more likely to survive and reproduce. Their offspring are likely to have the desirable characteristics of their parents. This process is known as **evolution**.



### 6. Extinction

Changes in the environment may leave individuals less well adapted to compete successfully for resources such as food, water and mates. Sometimes an entire species may become unable to compete successfully and reproduce. These problems can lead to **extinction**. **Extinction is the loss of an entire species.**

Causes of extinction:

1. new disease
2. new predator
3. climate change
4. competition

Examples of animals who have gone extinct: the dodo, dinosaurs and the West African Black Rhinoceros.



### 7. Biodiversity

**Biodiversity:** the variety of living organisms in an area.

Biodiversity is important for:

1. Food
2. Resources
3. Medicine
4. Well-being



### 8. Conservation Measures

Some species in Britain are endangered, including the skylark, red squirrel and grass snake. They could be helped by conservation measures such as:

- education programmes
  - captive breeding programmes
  - legal protection and protection of their habitats
  - making artificial ecosystems for them to live in.
- Plant species can also be endangered. Seed banks are a conservation measure for plants. Seeds are carefully stored so that new plants may be grown in the future.

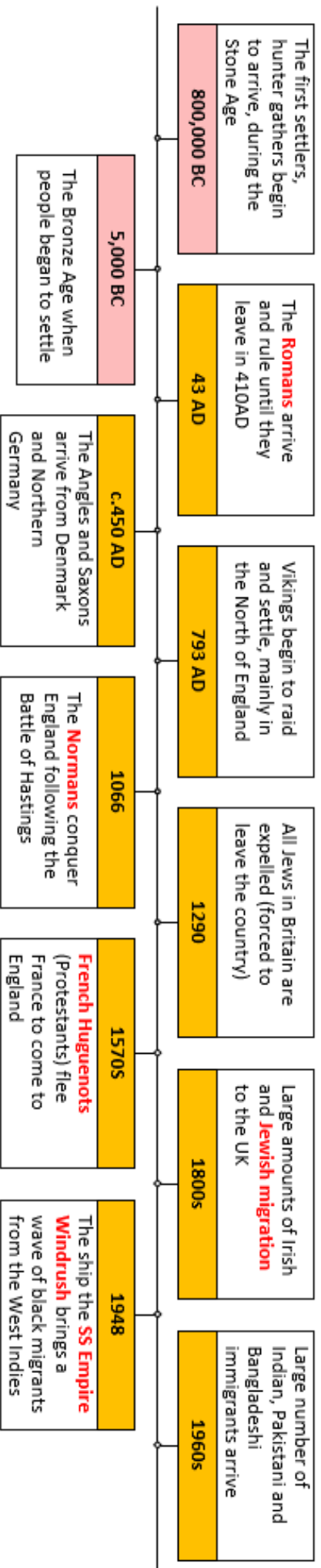


# TERM 3 SCIENCE I.S: EVOLUTION

<p>1. Define the term <i>variation</i>.</p>	<p>2. Name two characteristics that show discontinuous variation.</p>	<p>3. Describe the shape of a continuous curve.</p>
<p>4. The neck length of a giraffe has increased over many generations, making them better adapted to their environment. State what process this is an example of.</p>	<p>5. White rhinos which are closely related are less likely to survive. Suggest a reason why.</p>	<p>6. Define the term <i>biodiversity</i>.</p>
<p>7. List three reasons conserving biodiversity is important.</p>	<p>8. Name three endangered British species.</p>	<p>9. The Hazel Dormouse is at risk of going extinct. Describe ways to protect the species from extinction.</p>



# Migration moments



## Why have people migrated over time?

### Key terms for this unit

1	Migration	The movement of people
2	Hunter Gatherer	The first settlers to Britain, they moved around hunting and gathering food. They did not settle.
3	Doggerland	A land bridge between Britain and Europe that the first settlers crossed to hunt, fish and settle in Britain.
4	Assimilate	Integrate (become part of) into society
5	Empire	A collection of countries ruled by another e.g. Rome or Britain
6	Anti-Semitism	Prejudice towards Jews
7	Persecution	People being abused and treated cruelty for who they are
8	Protestant	Christians who broke away from the Catholic Church
9	Reformation	In the 16th century when the Catholic church's dominance dropped and the Protestant faith began to rise.
10	Famine	An extreme shortage of food
11	Voluntary Migration	When people choose to move countries
12	Forced Migration	When people have little/no choice but to leave their country
13	West Indians	People from the Caribbean, many of these used to be part of the British Empire e.g. Jamaica
14	Racism	Treating another group differently because of their race
15	Great Britain	When England, Wales, Scotland and Ireland united in 1801
16	Commonwealth	Countries that previously were in the British Empire
17	Multicultural	Where several different cultural groups live together within society

### Politics and power

Groups like the **Romans** and **Normans** came to Britain as part of their conquest (takeover) of the country to increase their empire.



### Religion

Religious groups like the **Jews** and **Huguenots** came to Britain. They were forced to leave their homes as they were persecuted (targeted) for their religious beliefs and they felt they would be welcomed in Britain.

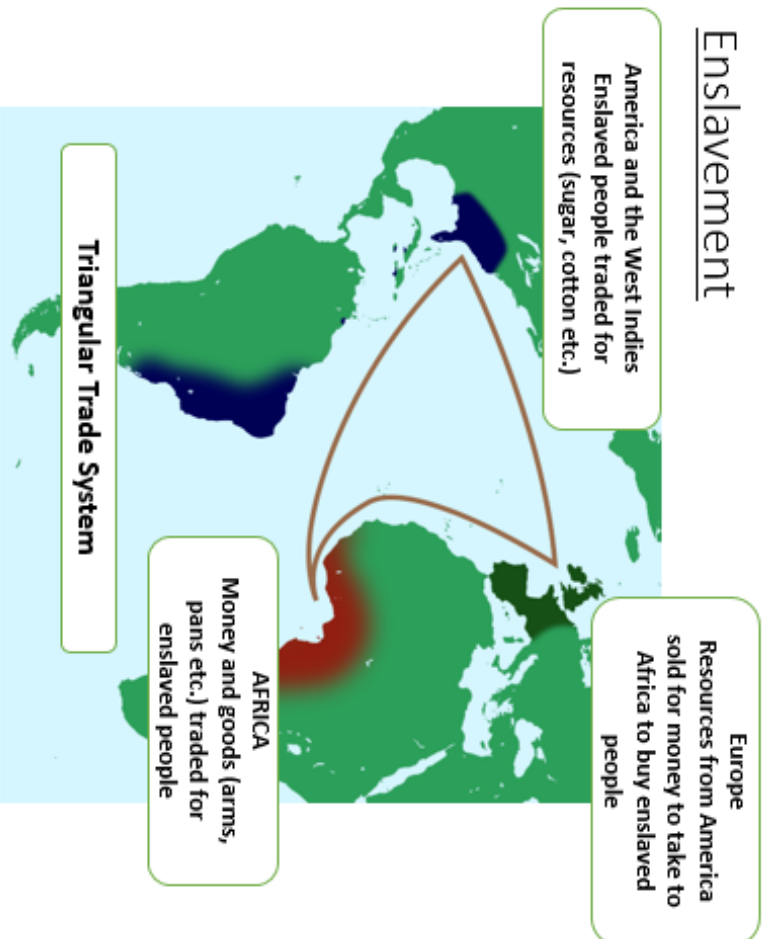


### Economics

Groups like the Irish or **West Indians** came to Britain mainly for economic reasons, many simply wanted a better job and standard of living.



# Enslavement



**Harriet Tubman**  
(1822-1913)  
Helped to free at least 70 enslaved people, using the **Underground Railroad System**



**Toussaint Louverture**  
(1743-1803)  
One of the leaders of the **Haitian Revolution**- he helped liberate (free) Haiti



**Samuel Sharpe**  
(1804-1832)  
An enslaved Jamaican, who led the **Jamaican Rebellion**- helping to abolish the Slave trade

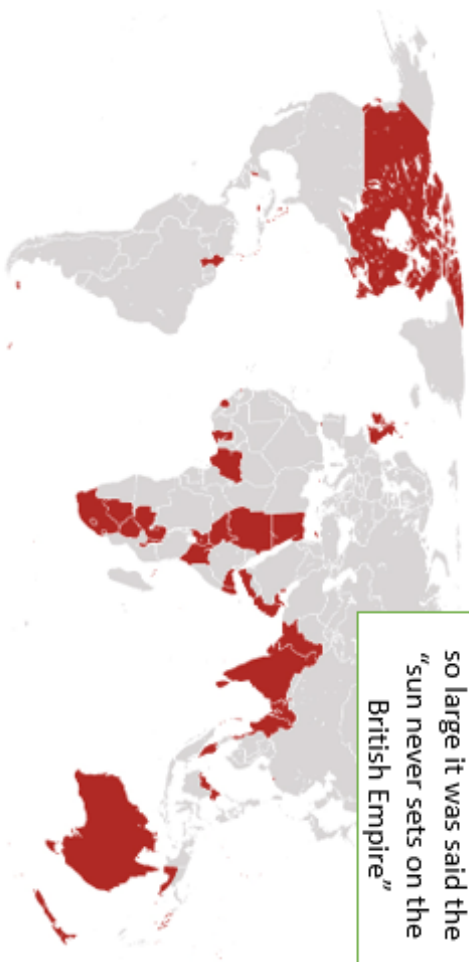
## Key terms for this unit

<b>Globalisation</b>	The global reach of empire
<b>Economic</b>	The financial impact of slavery
<b>Legacy</b>	How are the legacies of slavery still visible in society and Bristol in particular
<b>Abolition</b>	The action of abolishing a system, practice, or institution
<b>Auction</b>	Where enslaved people were sold
<b>Plantation</b>	The places where enslaved people were forced to work to produce tradable goods
<b>Emancipation</b>	Freedom from slavery
<b>Dehumanising</b>	To deprive of positive human qualities
<b>Human Rights</b>	The basic rights and freedoms that belong to humans
<b>Underground Railroad System</b>	The system used to help enslaved people escape from the Southern states in America to the free states
<b>Resistance</b>	To resist your treatment (Active/Passive)
<b>Revolt</b>	To take violent action against an establishment
<b>Legislation</b>	An act or law
<b>Impact</b>	A marked effect or influence.
<b>Oppression</b>	Prolonged cruel and unjust treatment at the hand of the slavers

## Impacts

<b>Human Impact</b>	The human cost of the Slave Trade- its effect on people and the human experience	
<b>Economic Impact</b>	The monetary (money) impact of the Slave Trade- how did it effect the wealth of countries and people?	
<b>Global Impact</b>	How the Slave Trade created and increased global links. The link between the Slave trade and the Empire.	

# The British Empire



1500s – England begins to establish itself as a naval power and looks to control more land

1770 – Captain James Cook landed his ship in Australia

1833 – Britain abolished slavery

1857 – The Indian Mutiny and the start of the British Raj in India

1919 – Amritsar massacre

1997 – Hong Kong was handed back to China.

1842 – Britain took control of Hong Kong after the opium wars with China

1901 – Australian independence

1947 – Indian independence

## Key terms for this unit

Empire	When countries are ruled/controlled by another country.
Colony	A country that is controlled by an empire. Eg. India, South Africa, Australia, Canada.
Imperialism	When a country wants to extend their power, usually by force
Decolonisation	When colonies got their independence (freedom) and were no longer controlled by an Empire
Indian Mutiny	When Indians fought back against British rule in India
“Jewel in the Crown”	The phrase used to describe India, the most important and valuable British colony
Penal colony	When convicts (criminals) were sent to Australia
Aboriginals	The people native to Australia. They have lived there for over 60,000 years
Opium	A drug

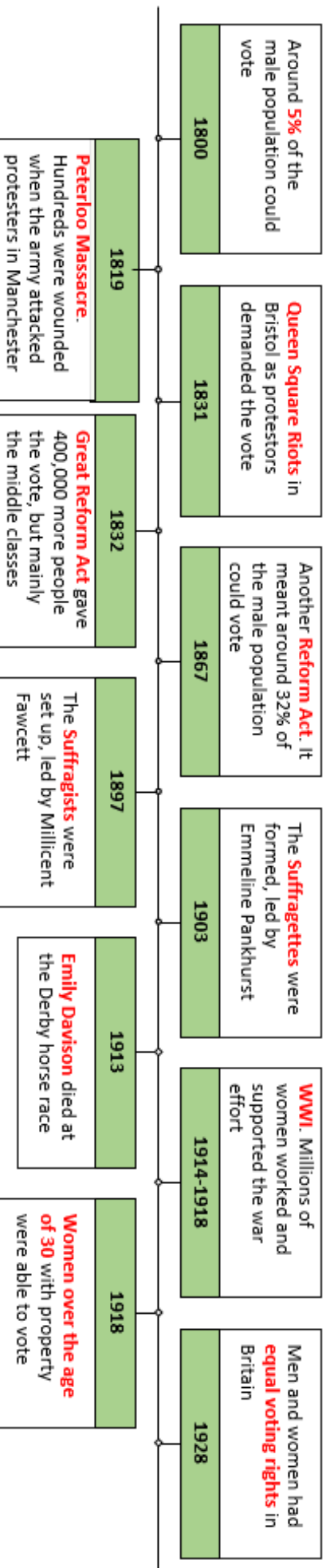
## Reasons for wanting an Empire (there are others)





<p><b>Trade (and money)</b></p> <p>The British could make huge amounts of money from trading across the Empire. They could also access resources which otherwise were not available to them.</p>	<p><b>Warfare</b></p> <p>The British used soldiers from around the Empire in their army.</p>	<p><b>Political power and influence</b></p> <p>The British became one of the most powerful countries in History. Even today, Britain is far more powerful than it's size suggests.</p>	<p><b>Religion</b></p> <p>The British tried to spread Christianity across the Empire, often ignoring local religions and cultures.</p>
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# Democracy in Britain c.1800-1928



	<b>Emmeline Pankhurst</b> , leader of the Suffragettes
	<b>Millicent Fawcett</b> , leader of the Suffragists
	<b>Emily Davison</b> , a suffragette who was hit by the King's horse at the Derby and died
	<b>Henry Hunt</b> , A radical reformer and orator who wanted more men to be able to vote

## Key terms for this unit

<b>Democracy</b> A system where everyone is represented in government	<b>Suffrage</b> The right to vote in elections <i>"People in the 1800s campaigned for suffrage"</i>	<b>Enfranchised</b> To give the vote to people <i>"Women were enfranchised in 1928"</i>
<b>Suffragists</b> A group who wanted women's suffrage. They tended to use non-violent methods	<b>Suffragettes</b> A group who wanted women's suffrage. They were willing to use violence to be heard	<b>Reform</b> Change. People in the 1800s wanted political reform
<b>Orator</b> A good public speaker	<b>The Derby</b> A prestigious horse race ran every year	<b>Radicals</b> The name given to those who wanted change in the 1800s
<b>Parliament</b> Made up of the House of Commons and the House of Lords, this is where laws are made and passed	<b>MPs</b> Members of Parliament. Today there are 650 MPs who represent their local area in Parliament	<b>Canaries</b> The nickname for women who worked in WWI factories making bullets, this was because their skin often turned yellow



### Area & Population

Asia is the **largest** and **most populous** continent, with roughly 60 % of the total population. It is home to the largest (**Russia**) and most populous (**China**) nations. It covers ~ 30% of the Earth's land area. China and India are the two largest countries in the world by population. **China** is number one with over 1.34 billion people. **India** is number two with over 1.37 billion.

**Keywords**  
**Development:** How economically, socially, culturally or technologically advanced a country is.

Why do people migrate = Push & Pull Factors

**Primary industries:** Are where raw materials are taken from the ground and are the poorly paid jobs

**Secondary industries:** Are where things are made in factories and people can earn a decent wage with regular hours.

**Tertiary Industry:** Are jobs in which people provide a service for others e.g. office jobs, teaching, nursing, IT.

**Quaternary Industry:** Are jobs in which people research and invent things. Bangalore is the home of India's space programme and hi-tech industry.

**Push Factors**  
 People want to get away from the negative things that risk or reduce their life chances. (Pushes them away)



- few services
- lack of job opportunities
- unhappy life
- poor transport links
- natural disasters
- wars
- shortage of food

**Pull Factors**  
 People are attracted to the positive things that improve their life chances (Pulls them in)



- access to services
- better job opportunities
- more entertainment facilities
- better transport links
- improved living conditions
- hope for a better way of life
- family links

### We measure Development using

#### Development Indicators

Life expectancy		Death rate		Birth rate		years in education	
GDP		Calories intake		Infant mortality		access to healthcare	
employment		access to technology		car ownership		people per doctor	

### Human Development Index

**HDI:** Is the best way to measure development because it combines 3 Development Indicators

**Income**  
 GNI per capita




**Education**  
 The average number of years of schooling



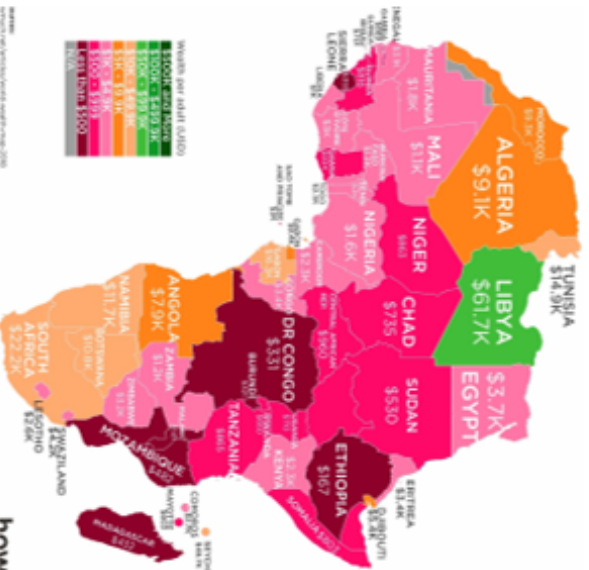
**Life expectancy**  
 Number of years expected to live



## Year 8 Knowledge Organiser - Africa

<b>1. Physical feature</b>	Natural feature of the land e.g a river
<b>2. Human feature</b>	Man made feature e.g. a city
<b>3. Africa</b>	A continent made up of 54 different countries 
<b>4. Latitude</b>	Horizontal across the map. The Equator, Tropic of Capricorn and Tropic of Cancer pass through Africa.
<b>5. Longitude</b>	Vertical up and down the map. Prime Meridian passes through Africa.
<b>6. Equator</b>	0 degree line of latitude that divides the earth in half
<b>7. Prime (Greenwich) Meridian</b>	0 degree line of longitude that divides the earth in half
<b>8. Diversity</b>	Africa is different in landscapes, people and culture
<b>9. Misconception</b>	A view or opinion that is incorrect because based on faulty thinking or understanding

<b>10. Africa is both rich and poor</b>
<b>11. Some African economies are the fastest growing in the world...with Kenya and Rwanda outperforming many countries in terms of % GNI growth.</b>
<b>12. Over 400 million people in Africa live in extreme poverty....\$1.90 a day</b>
<b>13. We can measure how developed a country is by using development indicators. Lots of data is collected from countries around the world. We can use this to compare countries, areas, people</b>

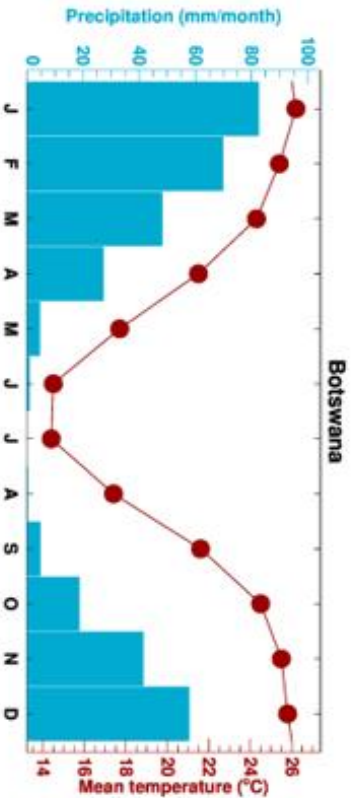
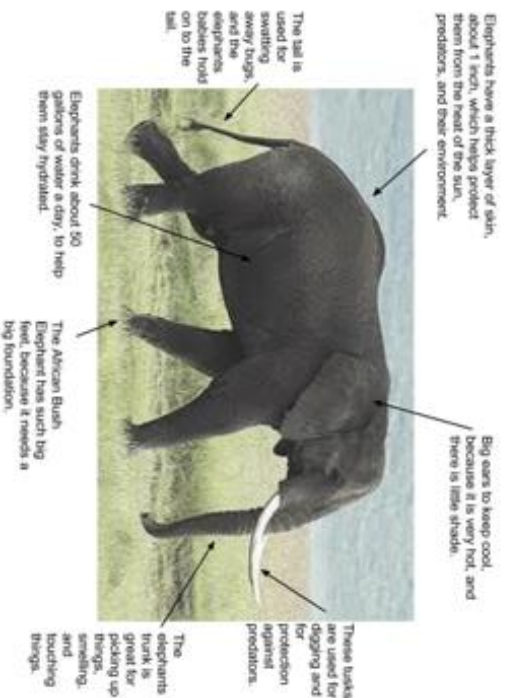


<b>14. GNI per capita</b>	Gross National Income - Dollar value of a country's final income in a year divided by its population
<b>15. Quality of life</b>	The general well being of people, which includes income, health, education employment, happiness and environment
<b>16. Standard of living</b>	The degree of wealth and owned possessions available to a person or community
<b>17. Development</b>	Complex idea but simply defined as people reaching an acceptable standard of living or quality of life. Can improve over time.
<b>18. Life expectancy</b>	Average age someone is expected to live from birth
<b>19. Infant Mortality rate</b>	Number of deaths of a child before 2nd birthday per 1000
<b>20. Literacy rate</b>	Number of over 16's who can read and write



## Year 8 Knowledge Organiser - Africa

<b>21. Biome</b>	A large area with the same plants, climate and animals
<b>22. Hot desert</b>	An area with little rainfall, high daily temps. and little vegetation.
<b>22. Savanna</b>	A grassy biome between the rainforest and desert.
<b>23. Tropical rainforest</b>	Found around the Equator. Dense trees, warm temperature and high rainfall.



### Impacts of safari tourism - Botswana

<p><b>Minibus drivers often take shortcuts – increasing soil erosion.</b></p>	<p><b>Tourism brings lots of overseas money into Botswana.</b></p>	<p><b>Hot air balloon safaris cause distress to wildlife due to their loud noise and shadows.</b></p>
<p><b>Tourism can create a wide variety of jobs for locals, such as tourist guides or safari drivers.</b></p>	<p><b>The National Parks often force locals out of their homes and grazing land.</b></p>	<p><b>The Salt Pans and Okavango Delta are both fragile environments, and tourism puts them under pressure.</b></p>
<p><b>Money from tourism can help to improve local infrastructure such as roads.</b></p>	<p><b>Most of the money spent by tourists goes to the government or leaks abroad.</b></p>	<p><b>Money from tourism can help to improve the standard of living in Botswana by funding schools and hospitals.</b></p>
<p><b>Key:</b>  <span style="background-color: yellow;">Positive</span>  <span style="background-color: green;">Negative</span>                  Social                  Economic                  Environmental</p>	<p><b>Jobs in the tourist sector can be low paid, low skilled and seasonal.</b></p>	<p><b>Animals are often disturbed by the minibus drivers going to close.</b></p>

# ॐ What do the Dharmic faiths believe? Hinduism Knowledge Organiser ॐ

NEED TO KNOW WORDS	
<b>Polytheist</b>	Belief in many gods
<b>Monotheist</b>	Belief in one god
<b>Deities</b>	Gods
<b>Brahman</b>	Supreme god in Hinduism
<b>Dharma</b>	duty – fulfilling these duties are the first step towards breaking the samsara cycle.
<b>Reincarnation</b>	being 'reborn'
<b>Moksha</b>	The spiritual aim for Hindus is to achieve freedom from the samsara cycle
<b>Mandir</b>	Community temple
<b>Karma</b>	The belief that actions have consequences
<b>Samsara</b>	The cycle of birth and rebirth.
<b>Trimurti</b>	— 3 main aspects of Brahman (Brahma / Vishnu / Shiva)



**Hinduism overview:**  
Hinduism is over 4,000 years old, making it one of the world's oldest religions. It is made up of a variety of different religious beliefs and practices. It originated near the Indus River in India. The name 'Hindu' comes from the word Indus

**Hindu nature of God.**  
Hindus believe in one God (Brahman) and they believe he comes in many forms. Hindus believe that there are three gods called the Trimurti who display the 3 aspects of the universal supreme God, Brahman.

**Where do Hindus worship?**  
Hindus worship in a temple called a Mandir. Mandirs vary in size from small village shrines to large buildings, surrounded by walls.  
People can also visit the Mandir at any time to pray and participate in the bhajans (religious songs).  
Hindus also worship at home and often have a special room with a shrine to particular gods.

**Hindu belief in The Trimurti:**  
Brahman takes many forms. Especially three forms called the Trimurti:

<b>Brahma</b>	is the creator of the world and all creatures. He is usually shown with four heads.
<b>Vishnu</b>	is the preserver of the world. His role is to return to the earth in troubled times and restore the balance of good and evil. He has blue skin and four arms.
<b>Shiva</b>	is the destroyer of the universe. Shiva destroys the universe in order to re-create it. Shiva has blue skin, a third eye and carries a trident.

**What are Hinduism's holy books?**  
Hinduism does not have a single holy book, but many ancient texts and scriptures.  
**The Vedas** - a collection of hymns praising the Vedic gods. Veda means 'knowledge'.  
**The Ramayana** - long epic poems about Rama and Sita.  
**The Mahabharata** - which includes the Bhagavad Gita.  
**The Puranas** - a collection of stories about the different incarnations and the lives of saints..

# + How do religions practice their faith?

Knowledge Organiser



Key terms	
<b>Agape</b>	Unconditional love for God and mankind.
<b>Atonement</b>	Doctrine of how humans are forgiven, redeemed and reconciled through the death of Christ.
<b>Baptism</b>	Christian sacrament representing entrance into the Christian faith.
<b>Church</b>	The Holy people of God, the body of Christ or a building where Christians worship.

Worship	
An expression or adoration and praise for God. May involve prayer, listening to sermons, or playing music.	
<b>Liturgical:</b>	Follows a set structure and established rituals, the same every time. E.g. The Eucharist.
<b>Non-liturgical:</b>	Does not follow a set text/ritual. No set prayers, people take turns to preach. Seen as modern and appeals to young people.
<b>Informal:</b>	Type of non-liturgical; spontaneous. Focuses on importance of the Holy Spirit. Resembles worship practiced by Christians in the first decades. Christians can gather anywhere, not just at Church.
<b>Private Worship:</b>	Takes place individually, forms a personal relationship with God. Become popular in modern times as more freedom.

Baptism	
Believers are washed with water to remove sin and become part of the church community.	
<b>Infant's Baptism</b>	Promises made on child's behalf by godparents and parents. Welcomes them into the church and washes away original sin. Cross is drawn on their head with oil, the child is dressed in white and a Paschal candle is lit.
<b>Believers Baptism</b>	An adult has chosen for themselves to follow Christianity and they are fully immersed into water to represent cleansing sin and rising u to a new life with Christ. Baptists only practice this form of baptism as children are too young to understand the meaning





# How do religions practice their faith?

Knowledge Organiser

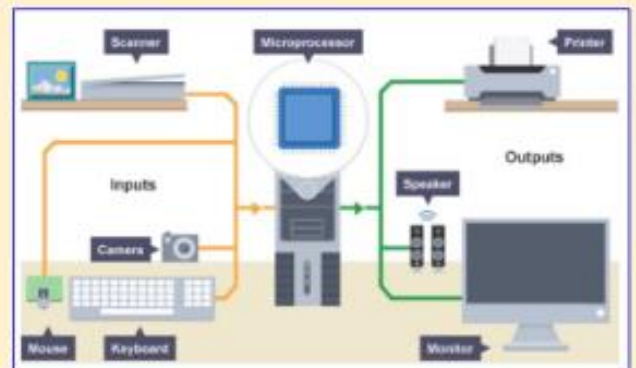
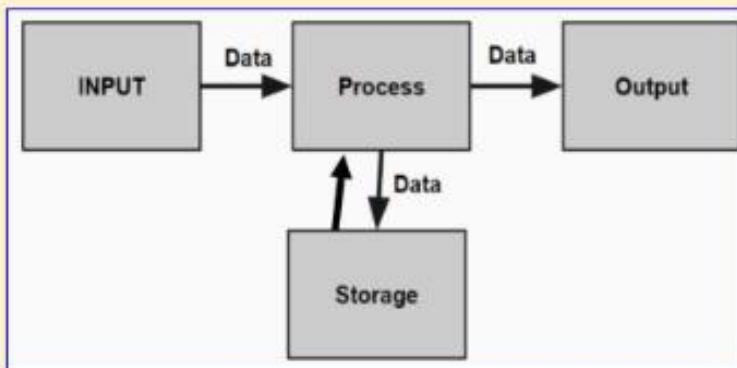
Key terms	
<p><b>Prayer</b> Communicating with God, either silently or through words of praise, thanksgiving or confession, or requests for God's help or guidance.</p> <p><b>Sacrament</b> Rites and rituals through which the believer receives a special gift of grace. 'An outward sign of an inward grace'.</p> <p><b>Secular</b> Something that is not connected with religion or impacted by religious of spiritual concepts.</p> <p><b>Worship</b> Act of religious honour or devotion.</p>	<p><b>Celebrations</b></p> <p><b>Christmas</b> Celebration of the birth of Jesus, where God became human, with a period of time called advent that begins 4 Sundays before. Seen as a time of peace + goodwill.</p> <p>Christians celebrate it with nativities, Christingle services to show Jesus as the light of the world, carol concerts, exchanging cards, decorating houses, family meals and exchanging gifts.</p> <p><b>Easter</b></p> <p>Holy Week: Palm Sunday - arrival in Jerusalem, palm leaf crosses exchanged. Maundy Thursday - Last meal with disciples and washed their feet, some priests do this now. Good Friday - death on the cross, mourning.</p> <p>Easter Sunday: Day of Jesus' resurrection, remembrance and celebration services, cards and Easter eggs are given.</p>
<p><b>The Church Community</b></p> <p><b>Church in the Local Community</b> A place of worship and support. Religious events e.g. prayer meetings, baptisms and marriage. Non-religious events e.g. toddler groups, food banks, youth clubs.</p> <p><b>The Worldwide Church</b></p> <p>Church Growth: Up to 2.5 billion Christians worldwide. Books translated into 123 languages.</p> <p>Mission: Calling of a group or individual to spread their faith; through preaching, or humanitarian work. Evangelism: Many Christians are evangelical, they believe it is important to spread the 'good news' of Christianity with others so that they might be saved.</p>	

## Input & Output

An **input** device **sends data to the computer system** to be processed. For example a keyboard, mouse, scanner or microphone.

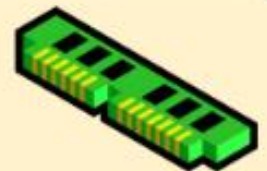


An **output** device **receives data from the computer system** that has been processed. For example a monitor, headphones, speakers or printer.



## RAM, ROM (Primary Storage) & Virtual Memory

**Random Access Memory (RAM)** stores the instructions and data for programs **while the programs are running**. It is **volatile** so when the computer system is turned off, all data is lost.



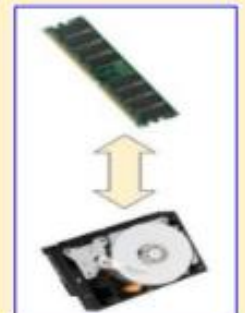
**Read Only Memory (ROM)** stores the **instructions** that are needed to **start the computer system**. It is **non-volatile** so when the computer system is turned off and then on again, the instructions are still there.

**Virtual Memory** is used when **RAM is full**.

**Part of the secondary storage** is used as virtual memory.

**Data is moved to secondary storage** to make space for the new data.

When data in virtual memory is needed, it is **moved back to RAM**.





## Secondary Storage

**Secondary Storage** is **permanent** storage that is needed to **store data** such as the **operating system, applications and files**. It is **non-volatile**

Type	Advantage	Disadvantage
Solid State	Faster <b>data transfer speed</b> and more <b>durable</b> than magnetic and some devices are more <b>portable</b>	Less <b>cost effective</b> and often has a lower <b>capacity</b> than magnetic
Magnetic	More <b>cost effective</b> and often has a higher <b>capacity</b> than magnetic	Slower <b>read-write speed</b> and less <b>durable</b> than magnetic because it has moving parts. Magnetic storage is also not <b>portable</b>
Optical	More <b>cost effective</b> than both magnetic and solid state. It is also very <b>portable</b> .	Less <b>durable</b> than solid state because it is easy to scratch and it has a low <b>capacity</b> .

Secondary storage **characteristics** that we can use to compare devices

Durability	Capacity	Portability	Cost-effectiveness	Data transfer speed
How hard wearing it is	Amount of data it can hold	How easy it can be used on other devices	Good value for money	How fast it is to read and write the data

## CPU

The purpose of the CPU is to **process instructions**. During this process it **fetches an instruction** from **RAM**, **decodes** the instruction and **executes** the instruction.



**Cores** are independent processors in the CPU which complete the fetch, decode, execute cycle **simultaneously**

**Clock speed** is the number of fetch, decode, execute cycles that the CPU can perform per second. This is measure in **Hertz**.



**Cache** is memory in the CPU which is used to store **frequently used instructions**. The **data transfer speed** of cache is faster than RAM so data in cache can be **accessed more quickly** than data or instructions in RAM



## Computer Performance - Answer Builder

Upgrade to a CPU with a higher **clock speed**.



Upgrade to a CPU with more **cache**.



Upgrade to a CPU with more **cores**.



Increase the amount of **RAM**.



Use a **solid state hard drive**.



More fetch decode execute cycles can be **processed per second**.

Can access **frequently used data** quicker.

More **instructions** can be processed at once.

Does not need to rely on the **virtual memory** as much.

Will have a much faster **read/write speed** which allows files to load and save quicker.

Programs and data will load faster.



Programs and data will load faster.



Programs and data will load faster.



More programs and data can be opened at the same time without affecting performance.



Programs and data will load faster.



because

so that

this means that

therefore

consequently

so you will find that

you will notice that

## Embedded Systems: Knowledge Gathering

### Embedded Systems

- Embedded systems are **computers built into other devices**.
- They are often used as **control systems**, this means that they **monitor and control machinery**.
- They are **dedicated systems**. This means that they are **designed for a single task**.
- As they are dedicated to a single task, they are much easier to **design**, cheaper to **produce** and more **efficient** at doing their task.



#### Example: Washing Machine

The embedded system in a washing machine will:

- Control the water pumps so that they do not overflow
- Control the water release mechanisms
- Control the washing powder tray release
- Lock the washing machine door until the washing cycle has finished
- Control the temperature for the different wash cycles

## Typical hardware used to create a LAN.

### LANs

1. Stands for **Local Area Network**
2. A LAN is when devices are connected over a **small geographical area**
  - o Examples: School, home
3. You can connect to a LAN using **WiFi** or **Ethernet**



Ethernet cable



Router



Switch



Wifi extender



Peripherals



Network interface card

### WANs

1. Stands for **Wide Area Network**
2. A WAN is when networks are connected over a **large geographical area**
  - o Example: The internet
3. You can connect to a WAN through your telephone connection, mobile data (GPRS) or cable/satellite.
4. WANs connect using a **modem**. Nowadays these are built into the **router**.



### WPANs

1. Stands for **Wireless Personal Area Network**
2. A WPAN allows us to **pair** devices together over a short range.
  - o Examples
    - A speaker connected to a phone
    - A smartwatch connected to a smartphone
3. You can connect to a WPAN using bluetooth.



## Advantages and disadvantages of different connection types.

	Advantages	Disadvantages
Wifi	Good for connecting <b>portable devices</b> to a LAN.	Slower <b>data transfer speed</b> compared to Ethernet.  Limited <b>range</b> (unless you use a wifi extender)  Can be <b>hacked by unauthorised users</b>
Ethernet	Faster <b>data transfer speed</b> compared to wifi.  Has a <b>range</b> of 100 metres.	Cables are more <b>expensive</b> than using a wifi connection.
GPRS	Can be used on the move.  Good for mobile devices such as smartphones.	Mobile data can be <b>expensive</b> - requires a SIM card.  Limited/slow connection speed in some locations.
Bluetooth	Up to 7 bluetooth devices can be <b>paired</b> at once.	Can be hacked by <b>unauthorised users</b>  The <b>range</b> is quite short.

## Methods of Prevention and Detection

### Firewall

- **Controls** which **programs** can **send** or **receive data packets** from your computer or network.
- Stops **intruders/unauthorised users** from accessing your computer system.
- Only **trusted** programs should be allowed to send and receive data packets.



### Antivirus

- **Scans** your computer **periodically** for **malware**.
- **Quarantines** malware so that it doesn't spread to other files or computers.
- You need to scan all **downloads** and email **attachments** before opening them.
- Needs to be **updated** regularly in order to keep up to date with the latest **threats**.



### Encryption

- Scrambles data packets using a **cipher** so that they cannot be read by unauthorised users.
- You need a **key** to decrypt the data packets so that they can be read.
- Websites which require you to send personal information should be encrypted (**HTTPS**).
- **WiFi connections** should also be encrypted to stop **unauthorised users** from accessing your network.



### Passwords

- Needs to be at least 8 characters long.
- Should include UPPERCASE, lowercase, numbers and Symbols (e.g. ! \$ @ -).
- Stops **unauthorised users** from accessing your account/profile and changing/deleting/stealing your files.





## Types of Malware

**Computer viruses** – insert themselves in normal programs. Viruses can replicate themselves and transfer from one computer to another. They are activated by a user often as email attachments and attachment to other files and programs.

**Trojan** gains access to a computer by pretending to be legitimate software. The trojan allows unauthorised backdoor access to a computer without the user being aware.

**Spyware** records the activity on your computer such as your keystrokes, thereby logging your passwords for instance and then sending the data back over the network to the attack instigator. Spyware can also be used to control your webcam and microphone.

**Adware** includes banners and popups that are automatically installed onto a computer. Whilst this does not cause any damage, adware is undesirable and can slow down the performance of a computer.

**Worms** spread like viruses but do not require human intervention. They attach themselves to network tools to spread automatically around a network very quickly.



Who are the "bad guys"?



## Types of Social Engineering

**Blagging (Pretexting)** Fraudsters make up a scenario to con victims into revealing something they would not ordinarily do. They may have found out some personal information about you from social media sites, to pretend they already know you.

**Phishing** Normally an email or text messaging scam where victims are conned into believing that they are being contacted by an authentic organisation (e.g. by their bank) and can give sensitive personal details (such as bank account passwords).

**Pharming** Users are redirected to a fraudulent website that they believe to be genuine because it looks like the real site. For instance, you could be directed to a site that pretends to be an online store which asks you for your credit card information.

**Shoulder surfing** Fraudsters look over the shoulder of users to see what passwords or PIN numbers are being typed into the device. This can easily occur at computer terminals and at ATMs that are out in the street.

## Knowledge Organiser: Threats & Prevention

### System Security Threats

**Brute-force Attack** – when all possible password combinations are systematically tried, with the hope of getting it right.

**Denial-of-Service Attack (DoS)** - when a network resource becomes deliberately overloaded ('flooded') with unnecessary requests, preventing it from responding normally.

**Distributed-Denial-of-Service Attack (DDoS)** – when the requests come from many sources so you cannot just block a single IP address.

**Structure Query Language (SQL) Injection** – when a website is linked to a database and allows a user to enter information, it makes it possible for malicious code to be entered into a website form, in order to modify the SQL statement being executed. This will result in unauthorised access to the SQL database and the hacker will be able to modify, delete or add data.

**Malware** is software that has been purposely developed to damage, disrupt or take control of computer systems.

**Social engineering** techniques manipulate people into giving away confidential and personal information.

#### Brute Force Attack

**Brute-force Attack** can be prevented by:

- ✓ Using strong passwords
- ✓ Locking accounts after a certain number of login attempts
- ✓ Using 2 step verification (e.g. a code sent to mobile phone to confirm identity)

#### Passive Attacks (Data Interception)

**Passive attacks** can be detected and prevented by:

- ✓ Using **encryption**
- ✓ Using **network forensics**
- ✓ Using **penetration testing**

#### What are User Access Levels?

**User access levels** control which part of the network users can access. User access levels are used to limit the number of people with access to important data, helping to prevent **inside attacks** on the network.



Computational Thinking	Abstraction	Decomposition	Pattern Recognition	Algorithms	Sequence	Selection
Computational thinking allows us to take a complex problem, understand what the problem is and develop possible solutions. We can then present these solutions in a way that a computer, a human, or both, can understand.	Focusing on the important information only. Ignoring the details that are not needed.	Breaking down a complex problem or system into smaller, more manageable parts.	Looking for similarities among and within problems.  Looking for patterns.	Developing a step-by-step solution to the problem, or the rules to follow to solve the problem.	Following an ordered set of instructions.	Making a decision within a computer program to decide which instruction to carry out next.

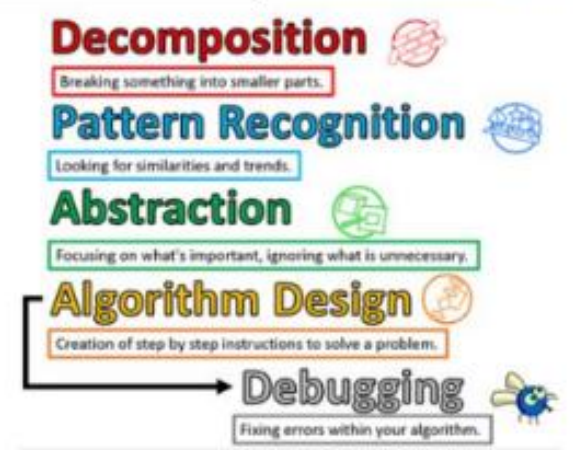
Comparison Operators	
Greater than	>
Less than	<
Greater than or equal to	>=
Less than or equal to	<=
Equal to	==
Not equal to	!=

## Variables & Data Types

A **variable** is used to store data that can change while the program is running. The variable name (e.g. score) is used to identify the memory location of the data that is stored in RAM

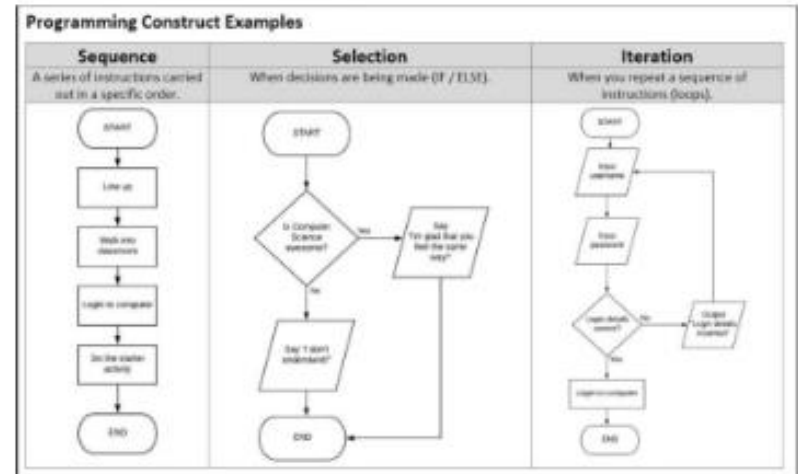
A variable can be used to store different types of data:

Character	One character such as a letter or symbol
Real	A number with a decimal point in it (e.g. 3.14)
Integer	A whole number (e.g. 3)
Boolean	Can either be True or False
String	One or more characters (e.g. Hello)



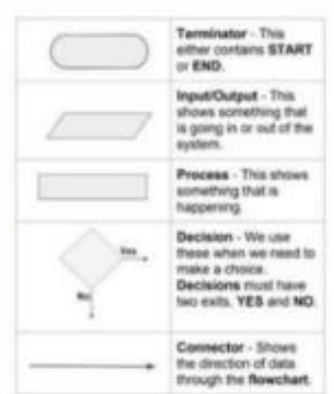
**Definitions** (use these when completing your tasks).

Algorithm	A set of step by step instructions in order to solve a problem.
Flowchart	An algorithm which is a visual representation of the steps needed to solve a problem.
Pseudocode	An algorithm which uses text to show the steps needed to solve a problem.
Decomposition	Breaking a complex problem down into smaller, more manageable problems.
Abstraction	Focusing on what is important and leaving out unnecessary detail.
<b>You need to know the three main programming constructs:</b>	
Sequence	A series of instructions carried out in a specific order.
Selection	When decisions are being made (IF / ELSE).
Iteration	When you repeat a sequence of instructions (loops).



**What is an algorithm?**

- A series of steps to solve a problem.
- They are not just about computers, we use them all the time in our everyday lives.
- There can be many algorithms to solve the same problem.

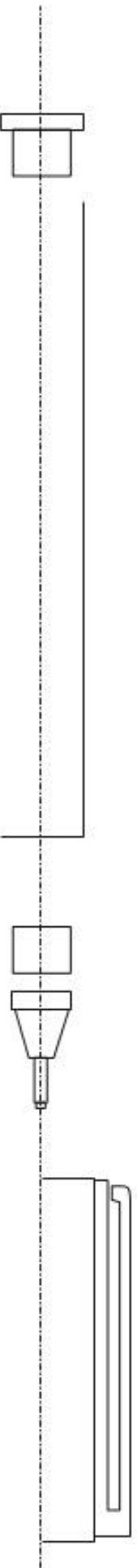


## EXPLODED VIEWS - FINE PEN DESIGN

[V/Ryan © 2008 World Association of Technology Teachers](#)

A fine felt pen is shown below. It has been drawn as an exploded 3D view. Complete the 2D version below by adding the missing lines and appropriate colour and shade.

HELPFUL LINK



## EXPLODED VIEWS - FOUNTAIN PEN DESIGN

[V.Ryan © 2008 World Association of Technology Teachers](#)

A fountain pen is shown below. It has been drawn as an exploded 3D view. Complete the 2D version below, by adding the missing lines and appropriate colour and shade.

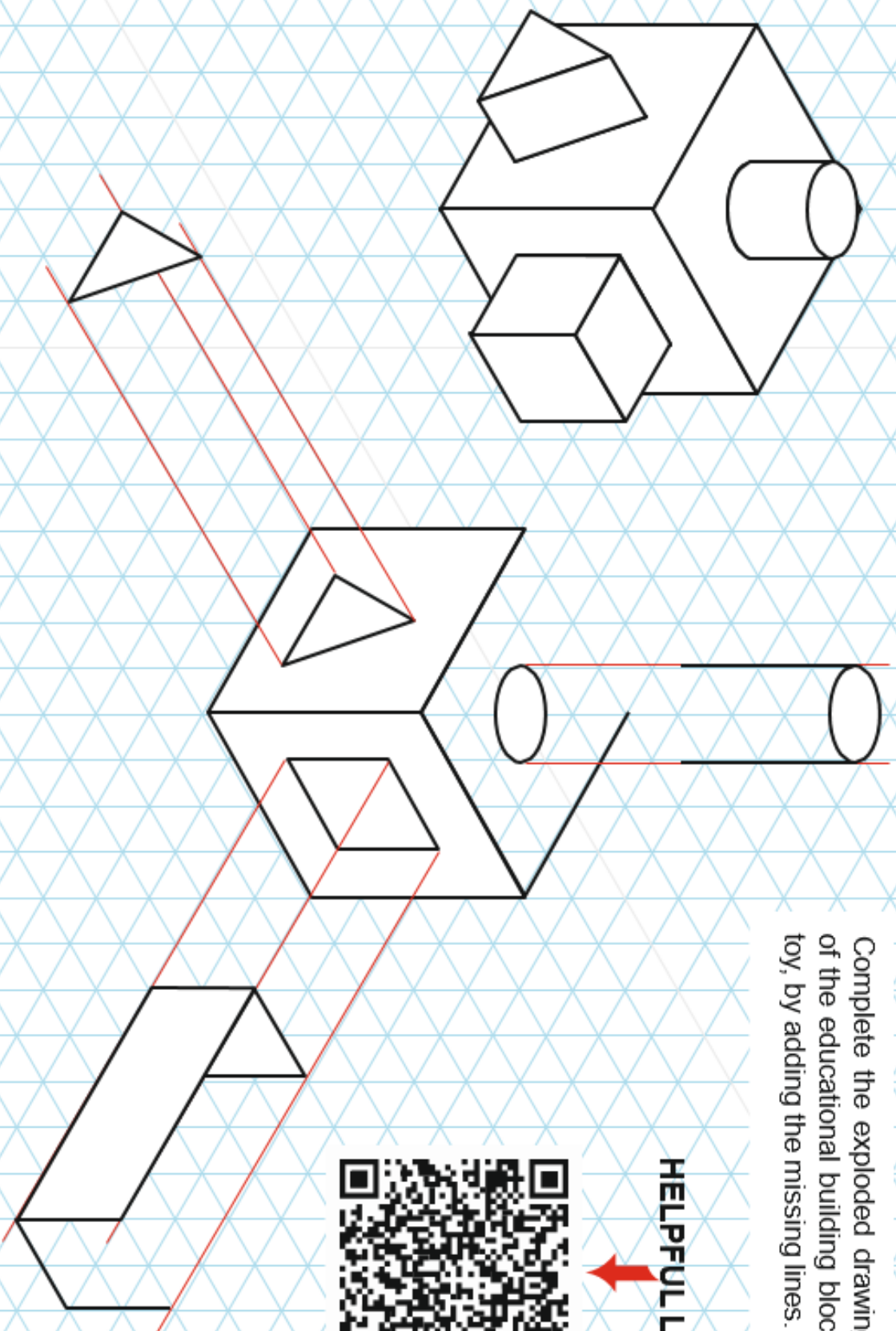
HELPFUL LINK





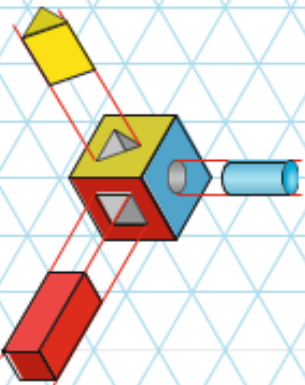
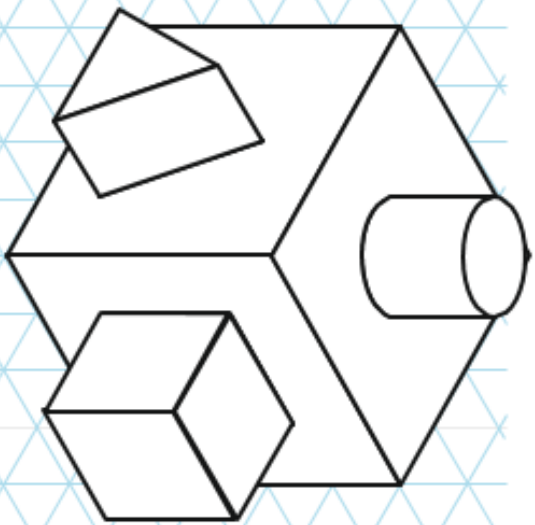
## **EXPLODED DRAWINGS**

Complete the exploded drawing of the educational building block toy, by adding the missing lines.



**HELPFUL LINK**

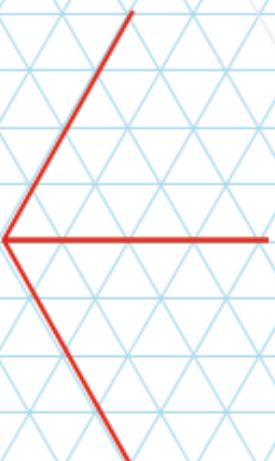




## **EXPLODED DRAWINGS**

Draw an exploded view of the educational building block toy. Add appropriate colour and shade. Start your drawing on the 30 degree lines and single vertical line, just below the centre of the page

### **HELPFUL LINK**





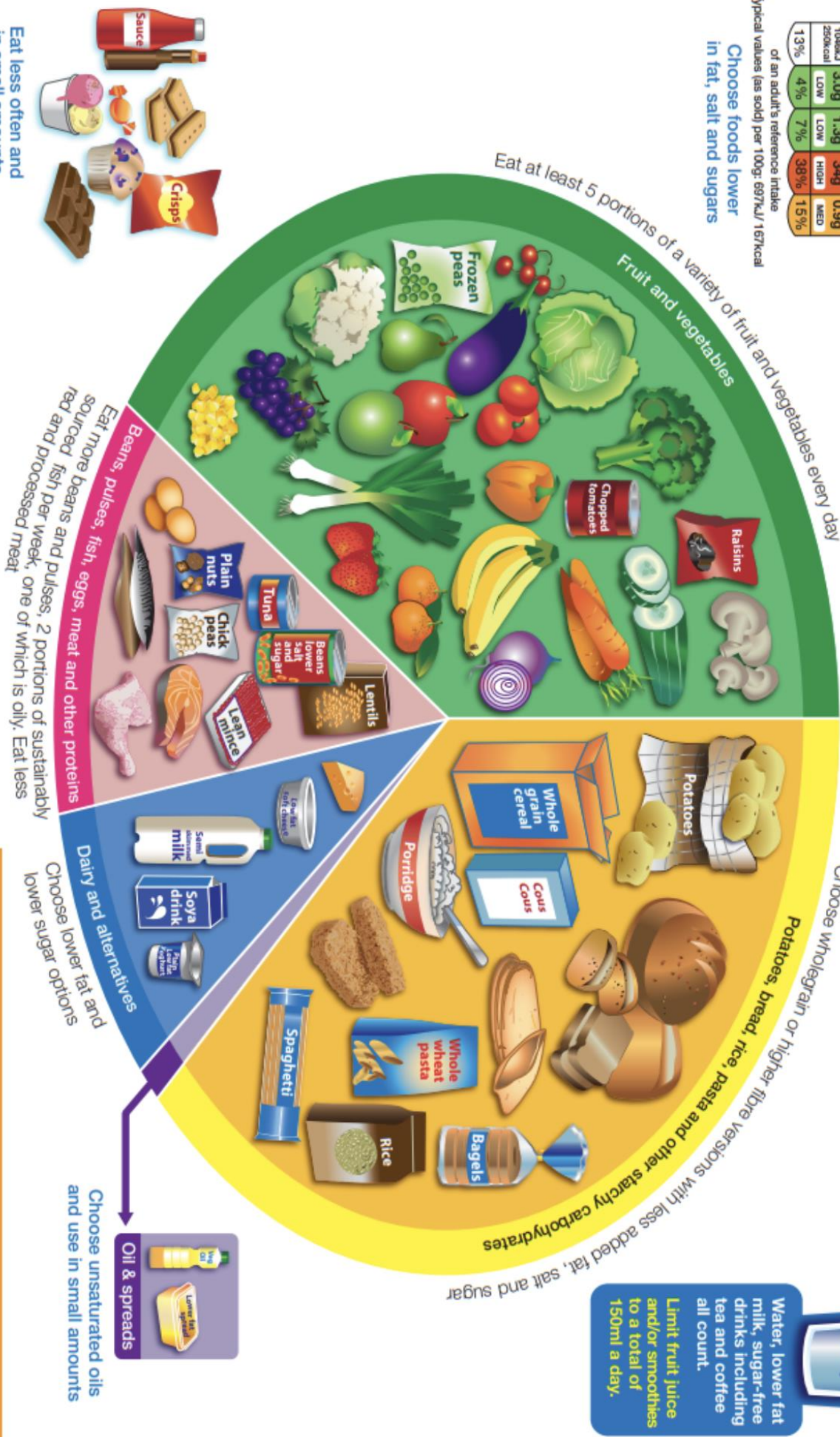
# Eatwell Guide

Use the Eatwell Guide to help you get a balance of healthier and more sustainable food. It shows how much of what you eat overall should come from each food group.

Energy	1066kJ 256kcal	Fat	3.0g LOW	Saturated	1.3g LOW	Sugars	34g HIGH	Salt	0.9g MED
			4%		7%		38%		15%

Each serving (150g) contains  
of an adult's reference intake  
Typical values (as sold) per 100g: 697kJ/167kcal

Choose foods lower in fat, salt and sugars



Eat less often and in small amounts



Per day 2000kcal 2500kcal = ALL FOOD + ALL DRINKS



### Verbs and the present tense in French

#### The infinitive

When you look up a verb in the dictionary, you find its original, unchanged form which is called the **infinitive** (regarder, manger, boire, finir, jouer, avoir, être, etc.). The infinitive ends in **-er, -ir or -re**.

#### Forming the present tense in French

Take off the last 2 letters of the infinitive (**-er, -ir or -re**) and add the following endings depending on the pronoun:

	ER verb	IR verb	RE verb
je	-e	-is	-s
tu	-es	-is	-s
il / elle / on	-e	-it	/
nous	-ons	-issons	-ons
vous	-ez	-issez	-ez
ils/elles	-ent	-issent	-ent

#### Adjective agreement:

Remember adjectives have to agree with the noun they are describing. Normally we add an **-e** to make it feminine unless there is already an **e** and we add an **-s** to make it plural.

\*But be careful! :

- Adjectives which end in **-f** change to **-ve** feminine
- Adjectives which end in **-ux** or **-ur** change to **-se** in feminine.
- Adjectives which end in **-il** change to **-ille** in the feminine.

Check out the examples below:

- Il est délicieux – elle est délicieuse
- Il est sain – elle est saine
- Il est savoureux – elle est savoureuse
- Il est gras – elle est grasse

#### Comparisons

Plus (...) que - more (...) than  
 Moins (...) que - less (...) than

le coca est **plus** sucré que le lait  
 la viande est **moins** saine que le poisson

#### Superlative

Le /la plus - the most  
 Le /la moins - the least

le citron est **le plus** aigre  
 l'eau est **la moins** calorique

**Opinion phrases** help to make your work more interesting – have a look at the list on your vocabulary list. Try to use a range of different ones in your work e.g. **J'aime (I like)/Je pense que (I think that)/ à mon avis (in my opinion).**

In French there are different ways of saying '**some**'. See the box to the right.

Words come before the noun	masculine (sing.)	feminine (sing.)	feminine singular (vowel)	masculine plural	feminine plural
some	du	de la	de l'	des	des

## Est-ce que tu aimes... ? Do you like... ?

OPINION	NOUN	JUSTIFICATION	INTENSIFIERS	ADJECTIVES
Je préfère I prefer	le pain (bread) le poisson (fish)	parce que c'est because it is	très very	agréable (pleasant)
J'adore I love	le fromage (cheese) le beurre (butter) le lait (milk) le café (coffee)			délicieux/euse (delicious) fantastique (fantastic) savoureux/euse (tasty)
J'aime I like	le thé (tea) le coca (coke) le sucre (sugar) le jambon (ham)		un peu a bit	sain/e (healthy)
Je n'aime pas I don't like	le chocolat chaud (hot chocolate) la pomme (apple) la viande (meat)		trop too	horrible (horrible) terrible (awful)
Je déteste I hate	la confiture (jam) la glace (ice-cream) les haricots verts (green beans)			doux/douce (sweet) aigre (sour)
À mon avis In my opinion	les légumes (vegetables) les frites (chips) les chips (crisps) les épinards (spinach)			dégoûtant/e (disgusting) épicé/e (spicy)
Je pense que I think that	les champignons (mushrooms) l'oeuf (egg)			salé (salty) gras/se (fatty) bon/bonne pour la santé (good for your health)

Quand est-ce que tu manges ?  
When do you eat?

Le petit déjeuner	Breakfast
Le déjeuner	Lunch
Le goûter	Snack
Le dîner	Evening meal/tea



### AU SUPERMARCHÉ

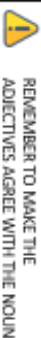
Tu voudrais... ?

Un paquet de	A packet of
Un litre de	A litre of
Un kilo de	A kilo of
Un demi kilo de	Half a kilo of
Une bouteille de	A bottle of

### AT THE SUPERMARKET

Would you like... ?

Un paquet de	A packet of
Un litre de	A litre of
Un kilo de	A kilo of
Un demi kilo de	Half a kilo of
Une bouteille de	A bottle of



mauvais/e pour la santé  
(bad for your health)

REMEMBER TO MAKE THE ADJECTIVES AGREE WITH THE NOUN



## 8.5 Food and Drink FRENCH



### AU RESTAURANT

Qu'est-ce que vous voulez manger ? Est-ce que je peux vous aider ?

### IN THE RESTAURANT

What would you like to eat?  
Can I help you?

Comme entrée

For the starter

Comme plat principal

For the main

Comme dessert

For dessert

Comme boisson

For drinks

Je voudrais

I would like

Manger/boire

To eat/ to drink

Je prends...

I'll take (have)

Un serveur/ une serveuse

A waiter/ waitress

L'addition s'il vous plaît

The bill, please

Le pourboire

The tip



C'est combien ?

How much?

dix	10
vingt	20
vingt et un	21
trente	30
trente et un	31
quarante	40
cinquante	50
soixante	60
soixante-et-un	61
soixante-dix	70
soixante-onze	71
quatre-vingt	80
quatre-vingt-deux	82
quatre-vingt-dix	90
quatre-vingt-douze	92
cent	100
deux cents	200



## Year 8 French Knowledge Organiser 8.6

Where I live geographically, Places in town, Phrases that use infinitives.

### Opinion starters:

Je pense que	I think that
Je crois que	I believe that
À mon avis	In my opinion
Pour moi	For me
Il me semble	It seems to me
Je pense que Bristol est historique - I think that Bristol is historic	
Je crois que Londres est assez industriel – I think that London is quite industrial	
Je préfère Bath parce que c'est moins touristique que Liverpool – I prefer Bath because it is less touristy than Liverpool.	

	<b>Aller – to go</b>	
I	Je vais – I go / I am going	
you	Tu vas – You go / you are going	
he/she/it	Il/elle/on va – he goes / he is going	
we	Nous allons – we go / we are going	
you (pl)	Vous allez – you (pl) go / are going	

### Phrases that use infinitives.

An infinitive is the basic form of the verb. In English it starts with to \_ to run, to jump, to swim.  
In French the verb ends in -er, -ir, -re  
e.g. J like to run – J'aime courir.

On peut – One can  
Je vais – I am going to  
J'aime – I like

On peut **aller** au centre-ville – One can go to the city centre.  
Je vais **manger** dans un restaurant – I am going to eat in a restaurant.  
J'aime **jouer** dans le parc - I like to play football in the park.

**These are followed by an infinitive.**

**Il y a (there is) and il n'y a pas de (there is not) –** these phrases are very important to allow us to say what is in our town or city. Remember! When using il n'y a pas, we use a 'de', but no article e.g. **Il y a un parc but il n'y a pas de parc**

It is important to use the correct **article** in front of a noun. This will depend on if we want to say 'a' (indefinite article) or 'the' (definite article), and also in French if the noun is **masculine, feminine, singular or plural.**

Articles	A/some	The
Masculine	Un	Le
Feminine	Une	La
Plural	Des	Les





## Verbs and the present tense in Spanish

### The infinitive

When you look up a verb in the dictionary, you find its original, unchanged form which is called the **infinitive** (comer, beber, jugar, visitar, vivir, ir etc.). The infinitive ends in **-ar, -er** or **-ir**.

### Forming the present tense in Spanish

Take off the last 2 letters of the infinitive (**-ar, -er** or **-ir**) and add the following endings depending on the pronoun:

\*Important! There are some key irregulars to learn which don't follow this pattern – **ir** (as shown here), **ser**, **tener** and **hacer** are really important!

	AR verb	ER verb	IR verb
yo (I)	-o	-o	-o
tu (you)	-as	-es	-es
él/ella (he/she)	-a	-e	-e
nosotros/as (we)	-amos	-emos	-imos
vosotros/as (you all)	-áis	-éis	-ís
ellos/ellas (they)	-an	-en	-en

### Comparisons

más - more  
menos - less

### Superlative

El/La más—the most  
El/La menos – the least

La cola es **más** deliciosa que el café  
El café es **menos** delicioso que la cola  
El queso es **el más** rico  
La carne es **la menos** sabrosa

Words come before the noun	Masculine (sing.)	Feminine (sing.)	Masculine plural	feminine plural
A / some	un	una	unos	unas

### Adjective agreement.

Remember adjectives have to agree with the noun they are describing. Normally we change the **-o** to an **-a** to make it feminine unless there is already an **-a** then it stays the same and we add an **-s** to make it plural.

El helado es **delicioso** – La pizza es **deliciosa**

El pan es **asqueroso** – La pasta es **asquerosa**

Other rules :

- **Adjectives which end in – e stay the same when feminine (just add –s to make it plural)**

e.g. El café es terrible – La leche es terrible

- **Adjectives which end in –or change to –ora when feminine**

e.g. El deporte es agotador – La natación es agotadora

- **Adjectives which end in –l (or other consonants) stay the same w/e feminine**

e.g. El helado es genial – La mantequilla es genial

**Opinion phrases** help to make your work more interesting – have a look at the list on your vocabulary list. Try to use a range of different ones in your work e.g. Me gusta (I like)/ Pienso que (I think that)/ En mi opinión (in my opinion).

## Year 8 Spanish Knowledge Organiser 8.6

Where I live geographically, Places in town, Phrases that use infinitives.

Opinion starters:

Pienso que	I think that
Creo que	I believe that
En mi opinión	In my opinion
Para mí	For me
Me parece que	It seems to me
Encuentro	I find
Pienso que Bristol es histórico - I think that Bristol is historic	
Encuentro Londres bastante Industrial – I find London quite industrial.	
Prefiero Bath porque es menos turístico que Liverpool – I prefer Bath because it is less touristy than Liverpool.	

Phrases that use **infinitives**.

An infinitive is the basic form of the verb. In English it starts with to _ to run, to jump, to swim.	
In Spanish the verb ends in –ar, -er , -ir.	
e.g. I like to run – Me gusta correr.	
Se puede	– One can
Voy a	- I am going to
Me gusta	- I like
	} <b>These are followed by an infinitive.</b>
Se puede ir al centro – One can go to the city centre.	
Voy a comer en un restaurante – I am going to eat in a restaurant.	
Me gusta jugar al fútbol en el parque - I like to play football in the park.	

	<b>Ir – to go</b>
I	Voy – I go / I am going
you	Vas – You go / you are going
he/she/it	Va – he goes / he is going
we	Vamos – we go / we are going
you (pl)	Vais – you (pl) go / are going
they	Van – they go / are going



**Hay (there is) and no hay (there is not)** – these phrases are very important to allow us to say what is in our town or city. Remember! When using no hay there is no un/una e.g. **Hay un** parque **but no hay** parque

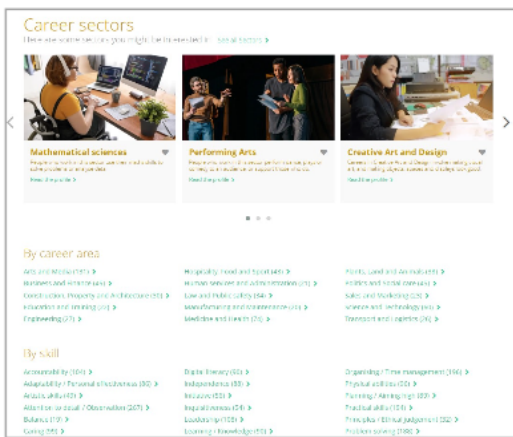
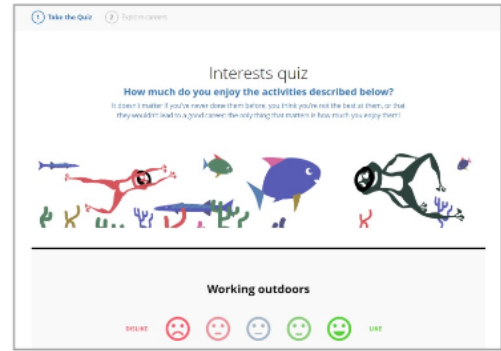
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Articles	A/some	The
Masculine	Un	El
Feminine	Una	La
Masc Plural	Unos	Los
Fem Plural	Unas	Las

# CAREERS AT HPA

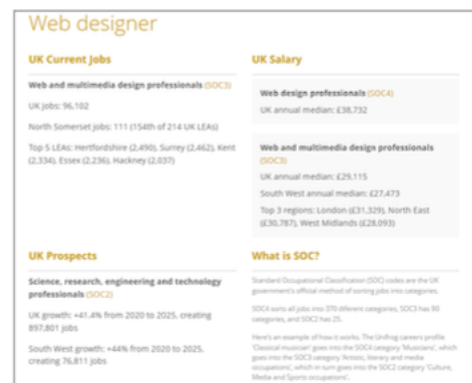
Our Careers guidance and provision at Hans Price offers a wide range of experiences and opportunities to inform and develop aspirations for the future. In addition to a careers featuring in our SPACE curriculum and weaving through all subjects taught at Hans Price, all students use UniFrog to support their careers provision and their planning for Post-16 and beyond.

Unifrog is the universal destinations platform and is designed to support learners in making the most informed decisions about their futures. It has a range of tools that are suitable for all year groups. Each student has their own account where they can explore all the career and next step options available to them and find information on everything from managing their workload to writing a winning CV. Students have access to a wide variety of video and written content, and interactive quizzes and tests, information about careers and the local labour market and emerging industries.



Students can access Unifrog through the LCF Student Navigator page or searching for Unifrog online. Students initially sign up to the platform by clicking a link in their welcome email, where they create a password and can begin using the platform. They sign in to Unifrog using their Hans Price email address and password and they can do so from any computer, tablet, or smartphone. We would encourage you to use the platform with your child so you can support them through the process of deciding their next step.

You can also have your own Unifrog account. You'll be able to research careers, attend webinars delivered by employers and universities to learn more about their opportunities, and compare pathways so you can support your child in making an informed decision about their next steps. The sign up code you need is: **HPAMParents** and you can sign up here: [www.unifrog.org/code](http://www.unifrog.org/code). You can also sign up to Unifrog's parent/carer newsletter when you first sign



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# PERFORMING ARTS OPPORTUNITIES



## **SCHOOL MUSICAL:**

SCHOOL MUSICAL IS IN JULY - REHEARSALS ARE TUESDAY & WEDNESDAY AFTER SCHOOL READY FOR THE SHOW IN JULY.

## **DANCE SHOW:**

YOU CAN AUDITION FOR THE DANCE SHOW IN APRIL. AUDITIONS ARE USUALLY 3 WEEKS BEFORE THE SHOW.

## **MUSIC SHOW:**

YOU CAN AUDITION FOR THE MUSIC SHOW IN FEBRUARY. AUDITIONS ARE USUALLY 3 WEEKS BEFORE THE SHOW.

PLEASE SEE YOUR MUSIC TEACHER FOR A LIST OF UP TO DATE CLUBS.

## **DANCE CLUB:**

DANCE CLUB WITH ANGELS DANCE ACADEMY IS EVERY FRIDAY LUNCH IN THE DANCE STUDIO.

	Monday	Tuesday	Wednesday	Thursday	Friday
<b>Before School</b>			<b>Touch Rugby</b> 7.15 - 8am Years 9&10 Astro		<b>Just Dance</b> 8 - 8.30am All students Dance Studio
<b>Lunch</b>	<b>I.S Club</b> Years 7, 8 & 9 G7	<b>I.S Club</b> Years 7, 8 & 9 G7	<b>I.S Club</b> Years 7, 8 & 9 G7	<b>I.S Club</b> Years 7, 8 & 9 G7	<b>I.S Club</b> Years 7, 8 & 9 G7
<b>After School</b>	<b>I.S Club</b> Years 7, 8 & 9 LS3	<b>Futsal</b> Year 11 Sports Hall	<b>Futsal</b> Year 9 Sports Hall	<b>Chess Club</b> All students F6	<b>Dance Club</b> All Students Dance studio
<b>Enrichment Timetable Term 1</b>		<b>Hero Club</b> All Students G2	<b>Film Club</b> All years Library	<b>I.S Club</b> Years 7, 8 & 9 G7	<b>I.S Club</b> Years 7, 8 & 9 G7
		<b>Girls Football</b> All years Outside Changing Rooms	<b>Hula Hoop Club</b> All years Dance Studio	<b>Futsal</b> Year 10 Sports Hall	<b>Futsal</b> Year 8 Sports Hall
		<b>Cheerleading</b> All Students Inside Changing Rooms	<b>I.S Club</b> Years 7, 8 & 9 LS3	<b>Football</b> Years 7&8 Outside Changing Rooms	
		<b>Football</b> Years 9&10 Outside Changing Rooms		<b>Methall</b> Years 7, 8 & 9 Inside Changing Rooms	<b>I.S Club</b> Years 7, 8 & 9 LS3
		<b>Rugby</b> All Students Outside Changing Rooms		<b>Basketball</b> All students Inside Changing Rooms	<b>Parkour</b> 5.45-6.45pm Externally delivered sessions free to CLF/HPA students G3
		<b>Drama Club</b> All Students Drama Studio (A6)		<b>I.S Club</b> Years 7, 8 & 9 LS3	
		<b>I.S Club</b> Years 7, 8 & 9 LS3			

For all lunchtime sports clubs please bring trainers and remove tie and blazer