



Frank Field
Education Trust

*“Knowledge is power.
Information is liberating.
Education is the premise
of progress, in every
society, in every family”*

- Kofi Annan



Year 8 Knowledge Organiser

Learning Programme 2

Pupil Name:

Form Group:

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Instructions

Every school day you should be studying at least 1 section of your Knowledge Organiser (KO) for homework.

The timetable on the page 5 tells you which subjects you should be studying on which days (it doesn't matter if you have that subject on that day or not, you should follow the timetable).

You are to use your exercise book to show the work you have done. Each evening you should start a new page and put the date clearly at the top.

You need to bring your KO and exercise book with you EVERYDAY to the academy.

Your parents should tick off your homework every evening using the grid in your KO on page 4.

Your KO and exercise book will be checked regularly in form time, failure to show homework for ALL FIVE days of the week will result in an after school detention that day.

You will also be tested in your lessons on knowledge from the organisers.

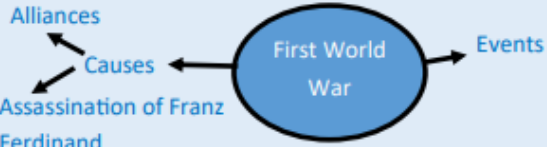
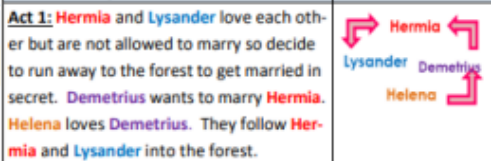
Self-testing

You can use your KOs and book in a number of different ways but you should not just copy from the Knowledge Organiser into your book. Use the 'How to self-test with the Knowledge Organiser' booklet to help you.

Below are some possible tasks you could do in your workbooks, no matter which task you do you should always check and correct your work in a different coloured pen.

- Ask someone to write questions for you
- Write your own challenging questions and then leave it overnight to answer them the next day
- Create mind maps
- Create flashcards
- Put the key words into new sentences
- Look, cover, write and check
- Mnemonics
- Draw a comic strip of a timeline
- Use the 'clock' template to divide the information into smaller sections. Then test yourself on different sections
- Give yourself spelling tests
- Definition tests
- Draw diagrams of processes
- Draw images and annotate/label them with extra information
- Create fact files

How do I self quiz?

<p>How to use...Flashcards</p> <ol style="list-style-type: none"> 1. On one side of the flash card, write the word or question. 2. On the other side, write the definition for the word, or answer to the question. 3. Once you have completed your set of cards, put them in a pile. Then for each card, see if you can remember the definition or answer to the question. Tick or cross when you get it right or wrong. 4. When you get the card right, place it in the 'correct' pile. When you get it wrong, place it in the 'wrong' pile. Repeat until all cards are in the 'correct' pile. <p>You can also use the Leitner Method: https://www.youtube.com/watch?v=C20EvKtdJwQ</p>	<p>How to use... Look, Cover, Write, Check and Correct</p> <ol style="list-style-type: none"> 1. Write your key words into the 'Look, Cover' column and then cover it. 2. Write out the meaning, definition or spelling in the 'Write' column. 3. Put a 'tick' or 'cross' in the 'Check' column depending on if you got the answer right. 4. If you got the answer incorrect, write the correct answer in the 'Correct' column. <table border="1" data-bbox="835 635 1408 871"> <thead> <tr> <th>Look , Cover</th> <th>Write</th> <th>Check</th> <th>Correct</th> </tr> </thead> <tbody> <tr> <td>Noun</td> <td>A person, place or</td> <td>✓</td> <td></td> </tr> <tr> <td>Algorithm</td> <td>Algorithm</td> <td>X</td> <td>Algorithm</td> </tr> </tbody> </table>	Look , Cover	Write	Check	Correct	Noun	A person, place or	✓		Algorithm	Algorithm	X	Algorithm	<p>How to use... Mind Maps</p> <ol style="list-style-type: none"> 1. Write out your topic or idea in the centre. E.g. The First World War. 2. Off of the main bubble, write out important categories to organise your ideas. E.g. causes of WWI and events in WWI 3. Then add your knowledge off of these branches. You might even be able to make connections between them. 4. Once made, then redraw as many of the connections as possible from memory. Correct any errors. 
Look , Cover	Write	Check	Correct											
Noun	A person, place or	✓												
Algorithm	Algorithm	X	Algorithm											
<p>How to use... Explaining a process/ idea further</p> <p>Your teacher might ask you to explain a key idea, process or event from your learning. This could be the water cycle (Geography), photosynthesis (Science) or something else. In your answer, try to use the words because, but, and so. These will help you to:</p> <ol style="list-style-type: none"> 1. Because: helps to explain a reason, cause or why something works. 2. But: helps to explain a limitation or problem. 3. So: helps to explain what happens next in a sequence, process or event. <p>Check your sentences to see if your explanations or right or wrong. Correct any errors.</p>	<p>How to... Summarise a process/idea</p> <p>Rather than expand or explain a process, your teacher might ask you to summarise it into its key parts. E.g. summarising the plot 'A Midsummer Night's Dream' in English.</p> <ol style="list-style-type: none"> 1. Read through the relevant part of your knowledge organiser as directed by your teacher. 2. Write out the (up to) 5 most important parts in your KO book, leaving a two lines in-between. 3. For each part, add one main idea. 4. E.g. here, the 4 key characters are picked out, and the direction of love is shown through the arrows. Check and correct any errors. 	<p>How to use... Subject Specific Tasks or Questions</p> <p>Your teacher might choose to set a task that is not outlined here, and which is specific to that topic or their subject.</p> <p>In this case, your teacher will outline specifically what it is you need to do, and how. This will still include you checking and correcting any errors.</p> 												

Homework diary

Week	Date	Subject	Task
LP2.1	Monday 21 st October	Maths Drama	Create a mind map detailing elements of a cartesian plane. Make notes on the style, key influences and intention of Frantic Assembly.
	Tuesday 22 nd October	English Art	Learn key vocabulary and concepts from the knowledge organiser by reading through the information and transforming the key information into a revision poster, flash cards, brainstorm, summary, quiz or any other format of your choosing. Draw a 3x3 box in your book and complete it with a range of textures, using line.
	Wednesday 23 rd October	Science ICT	Research and write a description of 4 acids and 4 alkalis which are used in the home. Design a webpage based on an interest that you have. Annotate the design with justifications for why you have designed it the way you have.
	Thursday 24 th October	History Music	Create your own definition for 5 of the key vocab words. Create a flashcard about instruments used in Samba music and how they are played.
	Friday 25 th October	Geography PE	List 8 facts about China. Use the 'Look, cover, write, check' method to list the key training principles/key terms of your sport or activity.

Week	Date	Subject	Task
LP2.2	Monday 4 th November	RE Technology	Create flash cards of the key words and learn them. Define the statement: Product Design.
	Tuesday 5 th November	MFL	Log onto your personal Languagenut account and complete the appropriate homework task.
	Wednesday 6 th November	Maths Drama	Make a revision card about coordinates in four quadrants. Look at the keywords. Learn their spelling and definition. Then use look, cover, write, check to test yourself.
	Thursday 7 th November	English Art	Imagine you are living in Salem during the witch trials. Design a poster warning people about the dangers of witches. Use persuasive language and include some "evidence" or "signs" people should watch out for. Be dramatic and creative! Complete an observational drawing of a kitchen utensil.
	Friday 8 th November	Science ICT	Write a paragraph to explain how to treat heart burn. Use the words neutralization, acid, alkali and anti-acid. Pick a website that you use – How does it use HTML, CSS and JavaScript.

Week	Date	Subject	Task
Review learning week	Monday 11 th November	ALL	This week is an opportunity to work on knowledge that has been identified during lessons as key areas for development. This could be additional revision and recall tasks from the knowledge organisers or it could be specific tasks set by classroom teacher.
	Tuesday 12 th November		
	Wednesday 13 th November		
	Thursday 14 th November		
	Friday 15 th November		

Week	Date	Subject	Task
LP2.3	Monday 18 th November	History Music	Create a mind map of the parts of the Slave Trade Triangle. Draw a grid showing the different note values as shown on your knowledge organiser.
	Tuesday 19 th November	Geography PE	Find 3 recent newspaper headlines about China and list them. Create a list of the positions (team sports) or events in your sport (athletics).
	Wednesday 20 th November	RE Technology	Summarise the story of Siddhartha Gautama into 5 key points. Draw a 'Geometric' clock design.
	Thursday 21 st November	MFL	Log onto your personal Languagenut account and complete the appropriate homework task.
	Friday 22 nd November	Maths Drama	In one paragraph explain the difference between the gradient and the y-intercept. Create flashcards for the techniques used by Frantic Assembly showing the technique and the definition. Save these for the next homework as you will need them.

Week	Date	Subject	Task
LP2.4	Monday 25 th November	English Art	Choose one character (John Proctor, Abigail Williams, or Elizabeth Proctor) and write a diary entry from their perspective. Focus on one important event from the play and describe how they feel about it, what they are worried about, and what they plan to do next. Create an artist fact file on Jim Dine using your knowledge organizer.
	Tuesday 26 th November	Science ICT	Show in a table the similarities and differences between chemical reactions and physical changes. Using the internet – make a list of 10 hexadecimal colour codes.
	Wednesday 27 th November	History Music	Look, cover, check to learn the key colonies of the British Empire. What is CALL and RESPONSE? Define this key term, then describe its use in Samba music.
	Thursday 28 th November	Geography PE	Describe what is happening to urban and rural populations in China. Make flashcards on the tactics you could use within your sport/activity to gain an advantage (e.g. how to get a head start).
	Friday 29 th November	RE Technology	Describe the Four Noble Truths and suggest why they are important. Create a keyword bank for: Bauhaus & Memphis to describe the movement.

Week	Date	Subject	Task
LP2.5	Monday 2 nd December	MFL	Log onto your personal Languagenut account and complete the appropriate homework task.
	Tuesday 3 rd December	Maths Drama	Create a mind map about scatter graphs. Explain how you have used three of the techniques in your own performances in lessons during this learning programme.
	Wednesday 4 th December	English Art	Write a short persuasive speech from the perspective of a villager who either supports or is against the witch trials. Explain why you believe the trials are either necessary to save the town, or why they are unfair and dangerous. Make sure your argument is convincing! Create an outline drawing of 3 – 5 kitchen utensils, showing thought into composition, and in the style of Jim Dine.
	Thursday 5 th December	Science ICT	Explain how a metal reacts with oxygen. Write different equations to explain the reactions of 3 metals with oxygen. Research why hexadecimal colour codes are used on websites.
	Friday 6 th December	History Music	Create a fact file for two abolitionists. Create a revision card about the key terms used on your knowledge organiser.

Week	Date	Subject	Task
LP2.6	Monday 9 th December	Geography PE	List 5 key terms and draw an image to represent what each means. Practice some of the key techniques that are used within your sport/activity at home.
	Tuesday 10 th December	RE Technology	What is the Vihara? How might Buddhists worship there? Create a diagram exploring the Iterative Design Process.
	Wednesday 11 th December	MFL	Log onto your personal Languagenut account and complete the appropriate homework task.
	Thursday 12 th December	Maths Drama	List and define the keywords of the cartesian plane. Create an informative poster to summarise the work of Frantic Assembly.
	Friday 13 th December	English Art	Write a creative dialogue between two villagers who disagree about the guilt of one of the characters. One villager believes the person is guilty of witchcraft, while the other believes they are innocent. Use the conversation to explore different points of view. Explore creating the following marks: stippling, Cross hatch, and Hatch – create light, medium and dark tones in each.

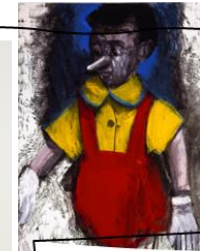
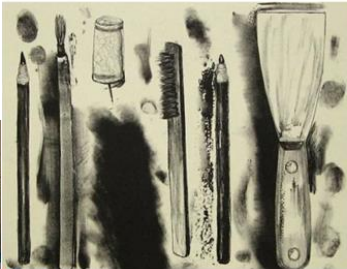
Week	Date	Subject	Task
LP2.7	Monday 16 th December	Science ICT	Draw and label the reactivity series. Explain how you can tell the difference between a reactive element and a non-reactive one. Research how different websites use JavaScript.
	Tuesday 17 th December	History Music	Revise the definition for 5 T3 vocab words. Listen to a piece of Samba music, write down the name of it, then describe how devices such as Call and Response, Syncopation, Ostinato, Dynamics and Tempo are used in this piece.
	Wednesday 18 th December	Geography PE	Describe what a population pyramid shows. Use a method of your choice to revise the rules for your sport/activity.
	Thursday 19 th December	RE Technology	Name the parts in the Eightfold Path and give an example for each. Summarise the Iterative Design Process.
	Friday 20 th December	MFL	Log onto your personal Languagenut account and complete the appropriate homework task.

Y8 Tools

JIM DINE was born in Cincinnati, Ohio on June 11,

1935.

Jim Dine is a world renowned artist. For over forty years, Dine has produced more than three thousand paintings, sculptures, drawings, and prints, as well as performance works, stage and book designs, poetry, and even music. His art has been the subject of numerous individual and group shows and is in permanent collections of museums around the world.



Jim Dine's bathrobes are self-portraits. They are stand-ins for himself. It is believed he drew his first bathrobe from an ad in a newspaper.



Throughout his career Jim Dine has used common objects in his work that were meaningful in his own life, such as tools, bathrobes, and hearts. He used these objects over and over using many different media, such as painting, printing and sculpting. When people saw a heart they knew right away it was created by Jim Dine.



Tools

Tools are very important to Dine because they are part of his own self portrait or who he is. When he was growing up in Cincinnati he spent a lot of time in his family's hardware store, and has said that his earliest memories are of being around hand tools. Tools are an extension of himself as he creates.

Creative Thinking

What object would you draw for yourself?



His mother died when he was 12 years old. When Dine was 14, he and his brother went to live with his grandparents. He always knew he wanted to be an artist; and when he was 16, he drove to the Art Academy of Cincinnati where he took adult education classes in painting.

Jim Dine is a successful artist. However, he struggled in school. When he was young, he had a hard time reading. It took him a long time to read a sentence. He had to guess a lot. And he tells us,

"...I was a bad boy in school primarily because I couldn't read well, because I'm dyslexic. And the only thing I could read was poetry till I was 22 and I started to read novels. But you know, poetry kept me in the world of language."

Poetry is written a few words or short sentences. This made it easy for Mr. Dine to read. Today he is an avid reader and he has written numerous poetry and art books.

Drama

STYLE

Frantic Assembly use a **physical theatre** style; combining movement, design, music and text. Their work spans over theatre, dance, television and film. They collaborate with playwrights to develop a text in an innovative and fun way. Typically, they begin their approach is through creating movement first through building blocks.



KEY INFLUENCES

- Volcano Theatre company
- DV8

AIMS/INTENTION

Create thrilling, energetic and unforgettable theatre. Attract new young audiences with work that reflects contemporary culture.

KEY WORDS

- **Collaboration** - Working together with other individuals.
- **Atmosphere** - Mood or feeling in a performance.
- **Ensemble** - a group or chorus of actors.
- **Devising** - the process of creating theatre.
- **Round by through** - A building block device to create movement with a partner.
- **Chair duets** - A building block device using chairs to create movement.
- **Hymn hands** - A building block device to create contact work.

Frantic Assembly

PHYSICAL THEATRE

WHO?

Frantic Assembly are a theatre company that tells stories through movement. **Scott Graham** is the Artistic Director of Frantic Assembly, co-founding the company in 1994.

TECHNIQUES

Approaching devising as a series of tasks: Each broken down into building blocks, allowing performers to take each moment back to their basic form.

Mirror and Mirror Variation: Use of communication between partners. Person B has to mirror the exact movement person A does.

Demonstrative movement:

As well as dance and mime, all moves are designed to convey a message.

10 touches: Involves a series of touches, embraces, flirtations and rejections.

Round-by-through: 3 individual movements of 'round', 'by' and 'through' into one piece to convey emotion or theme.

Chair duet: In pairs, explore different movement patterns while sitting down.

Hymn hands: A sequence of movement only with the hands.

Lifts: Can be in pairs or larger groups.

Fluff picking: Take turns to do the gesture of 'picking' fluff off the other person.

English – The Crucible, by Arthur Miller

Plot Summary:

The Crucible is set in the Puritan town of Salem, Massachusetts, during the 1692 witch trials. The play follows a group of young girls who, caught in the web of fear and hysteria, start accusing townsfolk of witchcraft to deflect attention from their own misdeeds. Central to the narrative is John Proctor, a local farmer, who struggles with his guilt and moral integrity as the accusations spiral out of control, threatening to destroy the community. As paranoia escalates and the town becomes increasingly divided, themes of power, betrayal, and the consequences of unchecked authority unfold, leading to intense confrontations and moral dilemmas. The atmosphere of fear and suspicion ultimately reveals the fragility of justice and the human spirit in the face of mass hysteria.

Key Characters:

John Proctor - Protagonist, a farmer struggling with guilt over an affair and seeking to expose the truth.

Abigail Williams - Antagonist, manipulative girl who accuses others of witchcraft to pursue revenge against Elizabeth Proctor.

Elizabeth Proctor - John's loyal wife, accused of witchcraft; a moral compass in the story.

Reverend John Hale - Minister who initially supports the trials but later regrets his involvement.

Deputy Governor Danforth - Authoritative judge prioritizing the court's reputation over justice.

Reverend Parris - Town minister focused on his reputation; his daughter's involvement fuels chaos.

Mary Warren - Proctors' servant torn between the group's hysteria and her own morals.

Giles Corey - Principled farmer challenging the court's authority, facing tragic consequences.

Tituba - Parris's slave, scapegoated in the witch hunt.

Francis Nurse - Respected landowner fighting for justice and to save his wife, Rebecca.

Key Words:

McCarthyism: The aggressive investigation and persecution of individuals accused of communism, often without solid evidence, during the early Cold War in the U.S.

Hysteria: An uncontrollable emotional outbreak, often characterized by extreme fear or excitement.

Integrity: The quality of being honest and having strong moral principles.

Persecution: The act of oppressing or harassing individuals based on their beliefs or identity.

Betrayal: The act of being disloyal or treacherous to someone or something.

Reputation: The beliefs or opinions that are generally held about someone or something.

Allegation: A claim or assertion that someone has done something illegal or wrong, typically without proof.

Deference: Respectful submission or yielding to the judgment or opinion of another.

Paranoia: An irrational and persistent feeling of being persecuted or harmed.

Manipulation: The action of controlling or influencing someone or something cleverly or unscrupulously.

Dogma: A principle or set of principles laid down by an authority as incontrovertibly true.

Dramatic Conventions in the Play:

Monologue: Extended speeches revealing character thoughts and motivations.

Soliloquy: A character's spoken thoughts, providing insight into inner struggles.

Dialogue: Conversations that develop relationships and drive the plot.

Irony: Contrast between appearance and reality, highlighting hypocrisy.

Foreshadowing: Hints about future events, building tension.

Symbolism: Objects or events representing larger ideas (e.g., the poppet).

Dramatic Tension: Suspense and conflict that engage the audience.

Flashback: Scenes providing context for characters' actions.

Stage Directions: Instructions for actors that enhance understanding of emotions and atmosphere.

Allegory: The play serves as a metaphor for broader social issues, like McCarthyism.

Key Skills:

LP2.1: Approaching Unseen Plays

Learn to form first opinions based on references.

Use sensory details and references to create an engaging opening description of the opening of the play.

LP2.2: Effects of Writer's Methods

Explore how the writer's techniques affect the audience.

Write a descriptive passage that illustrates how specific language choices create a particular mood or tone.

LP2.3: Understanding Key Aspects

Show understanding of themes and characters with personal engagement.

Use descriptive language to bring a character to life.

LP2.4: Supporting Ideas with Quotes

Use direct quotations and relevant terminology to back up responses.

LP2.5: Analysing Form and Structure

Recognize how form and structure influence meaning.

Experiment with different structures in your descriptive writing to see how they change the impact of your narrative.

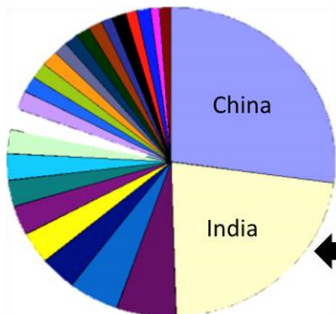
LP2.6: Comments on Choice of Form

Analyse the writer's choice of form and structure throughout the play.

Geography

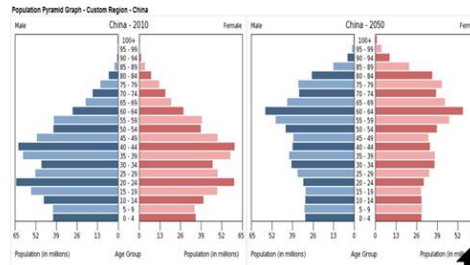
Geography Knowledge Organiser: China

China is located in the South East Asia. With 14 land borders it is also home to both the Gobi desert and the Himalayan mountains. Its capital is Beijing but also has other large cities such as Shanghai and Hong Kong.

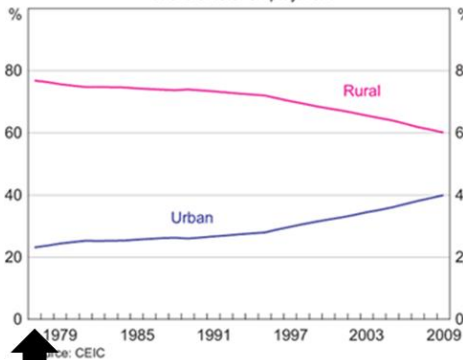


China – Employment
Share of total employment

China is home to over a quarter of the world's population, this mean one in four living people were born in China. This create huge challenge and opportunities for the country.



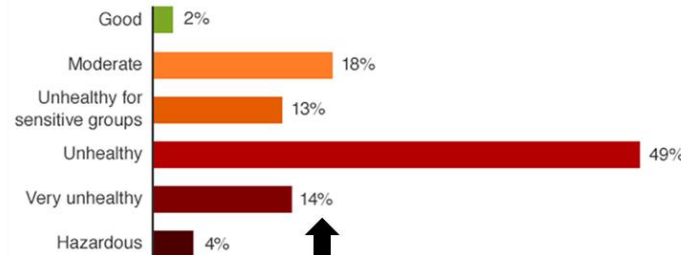
Population pyramids show the following information: age; gender. China has a ageing population, meaning that it has a limited number of young people and a growing number of elderly people. This is because of lower birth rates and better health care.



China is experiencing high levels of rural to urban migration. This is when people leave the countryside and move to the city. This is caused by higher wages and a better quality of life in urban areas (cities)

Beijing air quality 2008-2015

Daily average air quality index (AQI) at US embassy, based on PM2.5 concentration readings



China is constantly struggles with poor quality air. Unhealthy air quality was recoded in Beijing 49% of the time, with hazardous air recorded 4% of the time.



Key Term	Definition
Population	The number of people living in a certain area.
Desert	An area that receive less than 5cm of rainfall per year.
Mountain	A landform that has an altitude of more than 2000 ft.
Fertility Rate	The average number of births per women.
Life expectancy	The average number years a person lives for in a certain area.
Rural	An area with a low population often referred to as the countryside.
Urban	An area with a high population often referred to as a city.



History

Y8 LP2 Empire and Slavery Knowledge Organiser

Olaudah Equiano



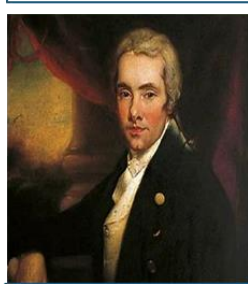
Ex-slave who wrote a book on his experience and became an anti-slavery campaigner

Harriet Tubman



Born a slave, escaped in 1849 and used the Underground Railroad to help others escape. She led 300 people to safety.

William Wilberforce



British MP and abolitionist

Josiah Wedgwood



Pottery maker from Stoke-on-Trent. Campaigner for the abolition of slavery and made famous anti-slavery medallion

Key events for the British Empire

1586 Sir Walter Raleigh organised a small settlement in America named Virginia in honour of Elizabeth I.

1620: The Mayflower ship set sail for America taking the first English colonisers called the Pilgrim Fathers.

1770: Captain Cook claimed Australia for Britain. It became a penal colony.

1775-83: Britain was defeated in the American War of Independence and lost its 13 American colonies. Remembered in America on 4th July.

1876: Queen Victoria was declared Empress of India.

1919 The Amritsar massacre. The British massacre peaceful protestors who wanted Indian independence.

1921: Southern Ireland won its independence from Britain.

1947: India gained independence from Britain's Empire

1960's most of Britain's colonies become independent countries

Triangular Trade



Key Places/Colonies:
Australia
Caribbean
Africa
India

Slavery key events timeline

1562-9: John Hawkins becomes the first Englishman definitely known to have traded in Africans. He sells them to the Spanish in exchange for pearls, hides, sugar and ginger.

1765: Granville Sharp begins legal challenges to the British slave trade with the case of Jonathan Strong.

1833: Slavery Abolition Act is passed in Parliament, taking effect in 1834. This act gives all enslaved people in the Caribbean their freedom. However, ex-slaves in the Caribbean are forced to undertake a period of 'apprenticeship' (working for former masters for a low wage) which means that slavery is not fully abolished in practice until 1838

Key Words

T2 Words for the World	
Empire	A group of countries, people or land ruled by one single country referred to as the "mother" country.
Colony	A country that is part of an empire.
Commonwealth	A group of countries that were once part of Britain's Empire
Archaic	Out of date, no longer used.
Infrastructure	The basic structures and facilities needed to run a country, such as roads, hospitals etc.
Exploitation	Treating someone unfairly to benefit from them (usually for money).
Transatlantic	Going across the Atlantic ocean
Plantation	A large farm on which crops such as coffee, sugar and tobacco were grown.
Auction	Slaves were sold to the highest bidder.
T3 History specific words	
Underground Railroad	The network of routes that helped slaves escape. Conductors helped the slaves who were referred to as passengers to escape. Between 40,000 and 100,000 slaves managed to escape to the northern states of America or Canada using the Underground Railroad.
Imperialism	The act of building an empire.
Middle passage	The journey of slaves on ships from Africa to America. Took 8-12 weeks. 1 in 4 died on the way.
Slave Triangle	A three-part trading journey between Europe, Africa and America trading cloth, guns, iron pots, swords, African slaves, sugar, cotton, tobacco.
Abolitionist	Someone who campaigned to end the slave trade





By 1901, Britain ruled the largest empire the world had ever known. This included over 450 million and covered $\frac{1}{4}$ of the surface of the world.

ICT


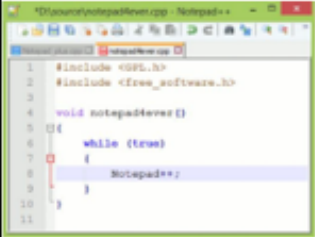
Key Vocabulary	
Vocabulary	Definition
Internet	Where websites are found.
Website	A page on the internet a user can browse and interact with.
HTML	Hypertext Markup Language – The programming language used to create websites.
CSS	Cascading Style Sheets – A programming language used to make websites look visually appealing.
Text editor	A program on the computer which can be used to write HTML and CSS code in.
Browser	A program which allows the user to use the internet.
JavaScript	A programming language used to make websites functional and interactive.
Tags	What HTML uses to understand what you are asking it to do.
Debugging	Finding errors in your code and fixing them by using problem solving skills.

Knowledge

`<h2 style="color:red;">Title</h2>`
 An example of HTML code using tags

Different internet browsers

An example of a text editor, Notepad++

cssoverview - Notepad

```
File Edit Format View Help
{
  font-family: Arial, Helvetica, sans-serif;}


body {
  background-color: #F3FBFE;}

h1, h2 {
  color: #3375FF;}

.break {
  color: #4C1A81;}

#tech {
  color: #8888FF;}
```

CSS example – h1, h2 are telling the code where to edit (heading 1 or heading 2) and what colour to change it to (by using color). The code with the # on is a **hexadecimal** code for a colour.



Colours with their hexadecimal colour value.

YEAR 8 - REPRESENTATIONS...

Working in the Cartesian plane

@whisto_maths

What do I need to be able to do?

- By the end of this unit you should be able to:
 - Label and identify lines parallel to the axes
 - Recognise and use basic straight lines
 - Identify positive and negative gradients
 - Link linear graphs to sequences
 - Plot $y = mx + c$ graphs

Keywords

- Quadrant:** four quarters of the coordinate plane.
- Coordinate:** a set of values that show an exact position.
- Horizontal:** a straight line from left to right (parallel to the x axis)
- Vertical:** a straight line from top to bottom (parallel to the y axis)
- Origin:** (0,0) on a graph. The point the two axes cross
- Parallel:** Lines that never meet
- Gradient:** The steepness of a line
- Intercept:** Where lines cross

Coordinates in four quadrants

Coordinate (x, y) **(6, 4)**

From the origin this coordinate is 6 places along the positive x axis and 4 places up the positive y axis.

$(0, a)$ will be always be a point on the y axis. (a can be any number)

$(a, 0)$ will be always be a point on the x axis. (a can be any number)

Always the position on the x axis first.

Always the position on the y axis second.

(x, y)

Lines parallel to the axes

All the points on this line have a x coordinate of 'a'

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

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

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

eg (3, -2) (7, -2) (-2, -2)

All lay on this line because the y coordinate is -2

a can be ONLY positive or negative value (not 0)

Recognise and use the line $y=x$

This means the x and the y coordinate have the same value

Examples of coordinates on this line: (0, 0) (-3, -3) (5, 5)

The axes **scale is important** - if the scale is the same $y = x$ will be a straight line at 45°

Recognise and use the lines $y=kx$

Note: $y = kx$ is the same as $y = k$

The bigger the value of k , the **steeper** the line will be

The closer to 0 the value of k , the closer the line will be to the x axis

They will **always** go through (0,0)

Direct Proportion using $y=kx$

The line must be straight to be directly proportional - variables increase at the same rate k

Direct proportion graphs always start at (0,0) as they are describing relationships between two variables

Lines with negative gradients

Any straight line graph with a negative x value has a negative gradient.

Eg $y = -2x$
 $y = -x$ $y = x - 12$

Direction of all negative gradients

Lines in the form $y = x + a$

All the lines are **parallel** because the gradients are the same

This shows the translation of that line of that line eg $y = x + 5$ is the line $y = x$ moved 5 places up the graph

This is the line $y = x$ when the y and x coordinate are the same

$y = x + a$

This means the translation of that line of that line eg $y = x + 5$ is the line $y = x$ moved 5 places up the graph

5 has been added to each of the x coordinates

Plotting $y = mx + c$ graphs

$y = 3x - 1$

x	-3	0	3
y	-10	-1	8

This represents a coordinate pair (-3, -10)

You only need two points to form a straight line

Plotting more points helps you decide if your calculations are correct (if they do make a straight line)

Remember to join the points to make a line

YEAR 8 - REPRESENTATIONS...

Representing Data

@whisto_maths

What do I need to be able to do?

- By the end of this unit you should be able to:
 - Draw and interpret scatter graphs
 - Describe correlation and relationships
 - Identify different types of non-linear relationships
 - Design and complete an ungrouped frequency table
 - Read and interpret grouped tables (discrete and continuous data)
 - Represent data in two way tables

Keywords

- Variable:** a quantity that may change within the context of the problem
- Relationship:** the link between two variables (Items) Eg Between sunny days and ice cream sales
- Correlation:** the mathematical definition for the type of relationship.
- Origin:** where two axes meet on a graph
- Line of best fit:** a straight line on a graph that represents the data on a scatter graph
- Outlier:** a point that lies outside the trend of graph
- Quantitative:** numerical data
- Qualitative:** descriptive information, colours, genders, names, emotions etc.
- Continuous:** quantitative data that has an infinite number of possible values within its range.
- Discrete:** quantitative or qualitative data that only takes certain values
- Frequency:** the number of times a particular data value occurs

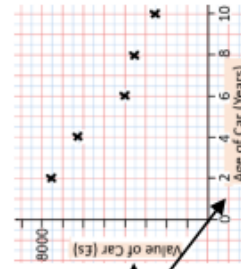
Draw and interpret a scatter graph

Age of Car (Years)	2	4	6	8	10
Value of Car (£k)	7500	6250	4000	3500	2500

- This data may not be given in size order
- The data forms information pairs for the scatter graph
- Not all data has a relationship

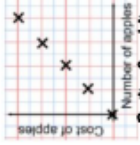
"This scatter graph show as the age of a car increases the value decreases"

The link between the data can be explained verbally



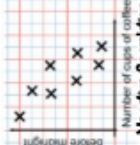
The axes should fit all the values on and be equally spread out

Linear Correlation



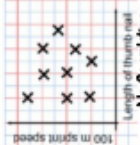
Positive Correlation

As one variable increases so does the other



Negative Correlation

As one variable increases the other variable decreases



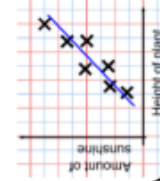
No Correlation

There is no relationship between the two variables

The line of best fit

The Line of best fit is used to make estimates about the information in your scatter graph

- Things to know:**
 - The line of best fit **DOES NOT** need to go through the origin (the point the axes cross)
 - There should be approximately the same number of points above and below the line (it may not go through any points)
 - The line extends across the whole graph

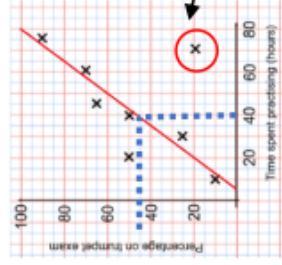


It is only an estimate because the line is designed to be an average representation of the data. It is always a straight line.

Using a line of best fit

Interpolation is using the line of best fit to estimate values inside our data point

eg 40 hours revision predicts a percentage of 45



Extrapolation is where we use our line of best fit to predict information outside of our data
 This is not always useful – in this example you cannot score more than 100%. So revising for longer can not be estimated
 This point is an 'outlier' it is an outlier because it doesn't fit this model and stands apart from the data

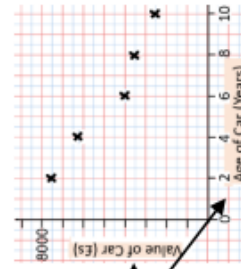
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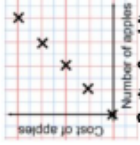
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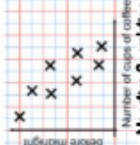
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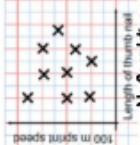
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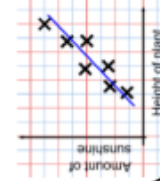
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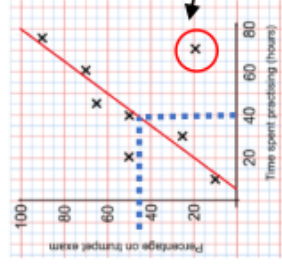


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Ungrouped Data

The number of times an event happened

Number of sabbings	0	2	3	4
Frequency	2	0	3	1

2 people had 0 sabbings. This means there are 0 sabbings to be counted here

$$2 \times 2 + 2 \times 0 + 3 \times 2 + 1 \times 4 = 8$$

2 people have 3 sabbings so there are 6 sabbings in total

OVERALL there are
 $0 + 3 + 6 + 4 = 13$
Sabbings - 13 sabbings

Best represented by discrete data (Not always a number)

Grouped Data

If we have a large spread of data it is better to group it. This is so it is easier to look for a trend. Form groups of equal size to make comparison more valid and spread the groups out from the smallest to the largest value.

Cost of TV (£k)	Tally	Frequency
101 - 150	THL III	7
151 - 200	THL THL I	11
201 - 250	THL	5
251 - 300	III	5

The groups do not overlap

We do not know the exact value of each item in a group – so an estimate would be based to calculate the overall total (Midpoint)

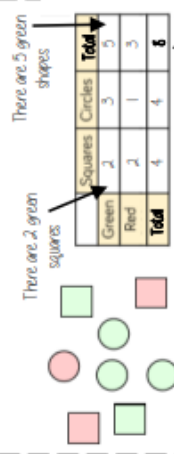
x	Frequency
Weight(kg)	
$40 < x \leq 50$	1
$50 < x \leq 60$	3
$60 < x \leq 70$	5

To make sure all values are included inequalities represent the subgroups

70kg

Representing data in two-way tables

Two-way tables represent discrete information in a visual way that allows you to make comparisons, find probability or find totals of sub groups



There are 2 green squares

There are 5 green shapes

Using your two-way table

There are 5 items in total

To find a fraction

eg what fraction of the items are red? $\frac{3}{8}$ but **8 items in total**

There are 3 red items

Hint: Use your fraction, decimal percentage equivalence knowledge

Knowledge Organiser Year 8

Todo sobre mi vida – all about my life

¿Qué haces con tu móvil?

What do you do on your phone

Chateo con mis amigos	<i>I chat with my friends online</i>
Comparto videos	<i>I share videos</i>
Descargo melodías	<i>I download ringtones</i>
Descargo aplicaciones	<i>I download apps</i>
Hablo por Skype	<i>I talk on Skype</i>
Juego	<i>I play</i>
Leo mis SMS	<i>I read my texts</i>
Mando SMS	<i>I send texts</i>
Saco fotos	<i>I take photos</i>

¿Con qué frecuencia?

How often?

<i>Todos los días</i>	<i>everyday</i>
Dos veces a la semana	<i>twice a week</i>
A veces	<i>sometimes</i>
De vez en cuando	<i>from time to time</i>
Nunca	<i>never</i>

¿Qué tipo de música te gusta?

What type of music do you like?

El rap	<i>rap music</i>
El R'n'B	<i>R'n'B</i>
El rock	<i>rock music</i>
La música clásica	<i>classical music</i>
La música electrónica	<i>electronic music</i>
La música pop	<i>pop music</i>
Escucho rap	<i>I listen to</i>
Escucho la música de,,,	<i>I listen to ...'s music</i>
Escucho de todo	<i>I listen to everything</i>
¿Qué tipo de música escuchas?	
<i>What type of music do you listen to?</i>	

Opiniones

Me gusta (mucho)
Me encanta
No me gusta (nada)
La letra
La melodía
El ritmo
Porque es...
Guay
Triste
¿Te gusta la música de?
Me gusta la música de...
Mi canción favorita es...
Mi cantante favorito/a es
Mi grupo favorito es

Opinions

<i>I like...(very much)</i>
<i>I love</i>
<i>I don't like (at all)</i>
the lyrics
<i>the tune</i>
<i>the rhythm</i>
<i>because it is</i>
<i>cool</i>
<i>sad</i>
<i>Do you like ...'s music?</i>
<i>I like ...'s music</i>
<i>my favourite song is...</i>
<i>My favourite singer is...</i>
<i>My favourite group is</i>

Prefiero las comedias

Un programa de deportes
Ua comedia
Un concurso
Un documental
Un reality
Una serie policíaca
Un telediario
Una telenovela
Más...que...
Divertido/a
Informativo
Interesante
Aburrido
Emocionante

I prefer comedies

<i>a sports programme</i>
<i>a comedy</i>
<i>a gameshow</i>
<i>a documentary</i>
<i>a reality show</i>
<i>a police series</i>
<i>the news</i>
<i>a soap opera</i>
<i>more...than...</i>
<i>funny</i>
<i>informative</i>
<i>interesting</i>
<i>boring</i>
<i>exciting</i>

¿Qué hiciste ayer?

Bailé en mi cuarto
Fui al cine
Hablé por Skype
Hice gimnasia
Hice karate
Jugué en línea
Jugué tres horas
Monté en bici
Vi una película
Salí con mis amigos
No hice los deberes
Ayer
Luego
Por la mañana
Por la tarde
Un poco más tarde

What did you do yesterday?







<i>I danced in my room</i>
<i>I went to the cinema</i>
<i>I talked on Skype</i>
<i>I did gymnastics</i>
<i>I did karate</i>
<i>I played online</i>
<i>I played for 3 hours</i>
<i>I rode my bike</i>
<i>I watched a film</i>
<i>I went out with my friends</i>
<i>I didn't do my homework yesterday</i>
<i>later/then</i>
<i>in the morning</i>
<i>in the afternoon</i>
<i>a bit later</i>

Palabras muy frecuentes

High frequency words

Así que	<i>so (that)</i>
Mi/mis	<i>my</i>
Su/sus	<i>his/her</i>
Normalmente	<i>normally</i>
No	<i>no/not</i>
Nunca	<i>never</i>
O	<i>or</i>
Además	<i>in addition/ furthermore</i>
Porque	<i>because</i>
también	<i>also</i>
Sin embargo	<i>however</i>
Y	<i>and</i>

Year 8—Learning Programme 2—Samba

1. Rhythmic notation		
Note Symbol	Note Name	Note Value
	Minim	2 beats
	Semibreve	4 beats
	Crotchet	1 beat
	4 semiquavers	4 quarter beats (1 whole beat)
	Pair of quavers	2 half beats (one whole beat)
	Quaver	Half a beat



3. Samba instruments

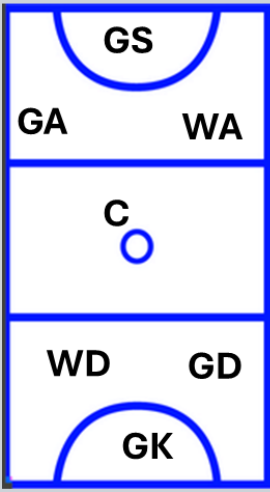
			
Ganza (shaker)	Agogo bells	Surdo	Tamborim

Try listening to some samba music whilst doing your homework!

2. Key Words — Samba	
Bateria	A Portuguese and Spanish word meaning drum kit. It is the term used to refer to the set of drums used in Samba music.
Apito	A whistle. It is used by the leader to signal transitions. These transitions could include changes in timbre or rhythmic pattern.
Call and response	One person plays (or sings) a musical phrase which is then responded to by a group. They may copy the call or perform a different phrase, like a musical conversation.
Polyrhythm	The use of several rhythms performed simultaneously, often overlapping to create a thick, polyrhythmic texture.
Syncopation	A way of changing a rhythm by making some notes sound a bit early, often so that they cross over the main beat of the music, emphasising the weak or off beats.
Cyclic rhythm	A rhythm which is repeated over and over again.
Ostinato	A rhythm that is played over and over again. A repeated pattern.
Groove	The main ostinato that is heard most of the way through a piece of samba music.
Rest	A silent beat .
Pulse	A regular beat that is felt throughout much music .
Rhythm	A series of notes of different lengths that create a pattern. Usually fits with a regular beat or pulse

Physical Education

<i>Year 8 - Key Skills - Netball</i>		<i>Key Terms</i>	
Passing	Creating power and accuracy when passing. Various passes are used within a game; chest, bounce, overhead and shoulder.	<i>Tactical Skills</i>	<i>Physical Fitness</i>
Catching	Improve control when catching. A skill used to receive the ball, enabling the team to keep possession of the ball.		
Footwork	Improving control when catching the ball performing both two- and one-foot landing.		
Dodging	Advanced techniques to outwit opponents. A change of speed and direction in order to get free into space to receive the ball		
Shooting	Improve control and accuracy when shooting. A skill used by Goal Attack and Goal Shooter within the game to score a goal		
		Attack and Defence	Coordination
		Free Space	Agility
		Losing an opponent	Reaction time
		Change of speed	Power
		Timing	Stamina
		Decision making	Strength

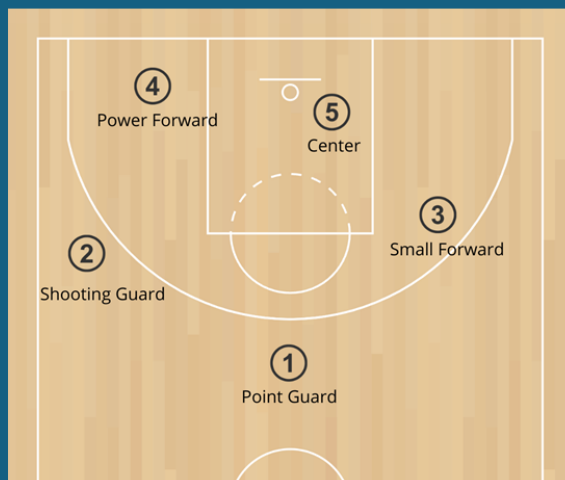
<i>Positions</i>	<i>Key Rules</i>
	During the game, a player with the ball can only pivot with their landing foot.
	A player must pass or shoot for goal within three seconds of receiving the ball
	A player's movement is restricted by which position they play, so they must stay within their designated area.
	The ball cannot be thrown over a complete third of the court without being touched by another player
	Setting of play; a player must set the free/penalty pass with umpire. Taking the pass in the wrong place may result in a free pass the other team

Year 8 - Key Skills - Basketball

Key Terms

Passing	Creating power and accuracy when passing. Various passes are used within a game; chest, bounce, overhead and shoulder.	Tactical Skills Attack and Defence Free Space Losing an opponent Change of speed Timing Decision making	Physical Fitness Coordination Agility Reaction time Power Stamina Strength
Catching	Improve control when catching. A skill used to receive the ball, enabling the team to keep possession of the ball.		
Protective Dribbling	Bouncing the ball whilst protecting it from a defender.		
Dodging	Advanced techniques to outwit opponents. A change of speed and direction in order to get free into space to receive the ball.		
Shooting	Improve control and accuracy when shooting. A skill used by any player within the game to score a basket.		

Positions



Key Rules

A player cannot run with the ball, unless dribbling. The player must throw it from the spot on which he catches it. Allowance to be made for a man who catches the ball when running at a good speed if he tries to stop.

The ball may be thrown in any direction with one or both hands (never with the fist).

Players must not make any physical contact with another player on the court.

RE KNOWLEDGE ORGANISER

What do Buddhist people believe?

Y8 LP2



TERM	DEFINITION
The Four Sights	Four things Siddhartha saw when he left the palace: an old person, ill person, funeral and a holy man.
Suffering	Feeling physical or emotional pain.
Dukkha	Buddhist word for suffering.
Noble	Something to be respected, as it is morally good or honorable.
Vihara	The name for the Buddhist sacred space/temple.
Meditation	Stilling the body and mind to deepen thinking and allow focus.
Mudras	Hand positions of Buddha statues or pictures that represent different actions or teachings.
Samsara	The cycle of death and rebirth.
Karma	Getting what you deserve, good or bad.
Enlightenment	Achieving a state of no longer wanting more than you have.
Nirvana	When a person becomes free of the cycle of samsara. The highest goal of Buddhist belief.

THE FOUR NOBLE TRUTHS

Buddha taught the Four Noble Truths as a way of explaining suffering in the world. They are:

1. Suffering exists.
2. Suffering has a cause. The cause of suffering is greed (wanting more than you have).
3. Suffering can be stopped. The way to stop suffering is to stop wanting things we can't have.
4. The way to stop wanting more than we have is to follow the steps of the Noble Eight-Fold Path.



THE NOBLE EIGHT-FOLD PATH

Eight steps that tell Buddhist people how to live:

RIGHT ACTION (BEHAVING IN A SKILFUL WAY AND NOT HARMING OTHERS)

RIGHT SPEECH (SPEAKING TRUTHFULLY)

RIGHT LIVELIHOOD (EARNING A LIVING IN A WAY THAT DOESN'T CAUSE SUFFERING OR HARM TO OTHERS)

RIGHT MINDFULNESS (BEING AWARE OF YOURSELF AND THE EMOTIONS OF OTHERS)

RIGHT EFFORT (PUTTING EFFORT INTO MEDITATION AND POSITIVE EMOTIONS)

RIGHT CONCENTRATION (DEVELOPING FOCUS SO THAT YOU ARE ABLE TO MEDITATE)

RIGHT VIEW/UNDERSTANDING (REMEMBERING THAT ACTIONS HAVE CONSEQUENCES)

RIGHT INTENTION (BEING CLEAR ABOUT FOLLOWING THE BUDDHIST PATH)



THE STORY OF SIDDHARTHA GAUTAMA:

Siddhartha Gautama was born in Northern India around the 6th Century BCE. He was a prince who lived a life of luxury. As a result, he had never seen any pain or suffering in his life as he was sheltered from anything negative. He always had whatever he wanted.

Siddhartha felt like he was missing out and wanted to see what was outside of the palace walls, so one day he left the palace to see what it was like in the city. He was horrified. He saw an old person, an ill person and a funeral, none of which he had ever experienced. He didn't know that people get old, ill or that they die. He saw suffering and did not know why it happened or how to stop it. He also saw a holy man and realized that this man was happier than many others he had seen.

Siddhartha decided he would leave the palace and went to live as a holy man. He starved himself, but still did not get the answers he was looking for.

Eventually, Siddhartha decided that he would sit under a tree and think about how to stop suffering. He meditated and eventually, after many days, came up with the answers he was looking for. These became the Four Noble Truths and the Noble Eight-Fold Path. Siddhartha was then known as the Buddha.

THE VIHARA

In the Vihara, you might experience: statues of the Buddha, candles, incense, people sitting on the floor, offerings to the Buddha and to Buddhist monks, the Buddhist flag, the wheel of Buddhism, books of Buddhist teachings, people meditating and many more things.

RE KNOWLEDGE ORGANISER

What do Buddhist people believe?

Y8 LP2

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HUMANIST BUDDHISM?

Buddhism is different from many other faith traditions in that it is not centered on the relationship between humans and a high god. Buddhists do not believe in a personal Creator God. In a sense then, Buddhism is more than a religion; it is a tradition that focuses on personal spiritual development. To many, it is more of a philosophy and a humanistic way of life which can be summed up as striving to lead a moral life; being aware of one's thoughts and actions; and developing wisdom, compassion and understanding.

CRIMINAL REHABILITATION

Rehabilitation is the process of re-educating and preparing those who have committed a crime, to re-enter society. The goal is to address all of the underlying root causes of crime in order to ensure inmates will be able to live a crime-free lifestyle once they are released from prison.



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3. Suffering can be stopped. The way to stop suffering is to stop wanting things we can't have.
4. The way to stop wanting more than we have is to follow the steps of the Noble Eightfold Path.



THE NOBLE EIGHT-FOLD PATH

Eight steps that tell Buddhist people how to live:

RIGHT ACTION (BEHAVING IN A SKILFUL WAY AND NOT HARMING OTHERS)

RIGHT SPEECH (SPEAKING TRUTHFULLY)

RIGHT LIVELIHOOD (EARNING A LIVING IN A WAY THAT DOESN'T CAUSE SUFFERING OR HARM TO OTHERS)

RIGHT MINDFULNESS (BEING AWARE OF YOURSELF AND THE EMOTIONS OF OTHERS)

RIGHT EFFORT (PUTTING EFFORT INTO MEDITATION AND POSITIVE EMOTIONS)

RIGHT CONCENTRATION (DEVELOPING FOCUS SO THAT YOU ARE ABLE TO MEDITATE)

RIGHT VIEW/UNDERSTANDING (REMEMBERING THAT ACTIONS HAVE CONSEQUENCES)

RIGHT INTENTION (BEING CLEAR ABOUT FOLLOWING THE BUDDHIST PATH)



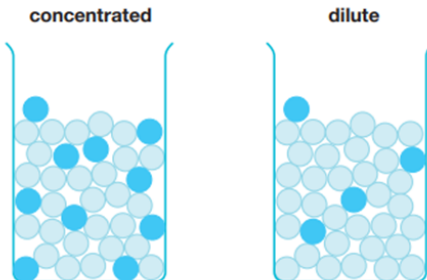
Science

Acids and alkalis

Acids and **alkalis** are special solutions which are chemical opposites to each other.

If a solution is between acid and alkaline it is **neutral**.

Acids and alkalis can be:



Lots of acid/alkali particles for the amount of water.

A small number of acid/alkali particles in the same amount of water.

Acids and alkalis are **corrosive**. This means that they can cause burns if they get on your skin.



Acids and alkalis can be extremely dangerous, depending on the type of acid/alkali and its concentration.

As a general rule the more concentrated the solution, the more dangerous it can be.

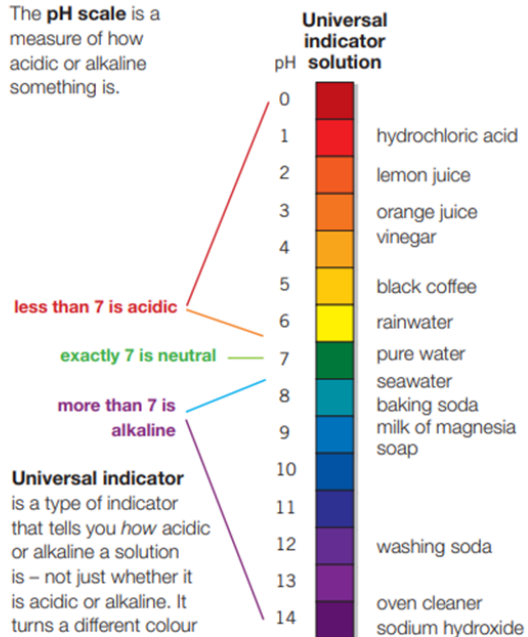
Indicators

If you want to know if something is acidic or alkaline, you need to use an **indicator**. Indicators contain a dye that turns different colours in acidic and alkaline solutions.

Litmus paper is a type of indicator. It can be either **pink** paper or **blue** paper.

- in acid – **blue** paper turns **pink**
- in alkali – **pink** paper turns **blue**

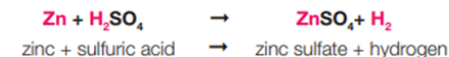
The **pH scale** is a measure of how acidic or alkaline something is.



Universal indicator is a type of indicator that tells you *how* acidic or alkaline a solution is – not just whether it is acidic or alkaline. It turns a different colour at each pH – the pH scale shows the colours of universal indicator in solutions of different pH.

Reactions with acids

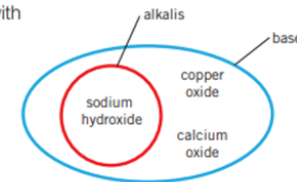
When an acid reacts with a metal element or compound a **salt** is formed. The hydrogen atoms of the acid are replaced with atoms of the metal element.



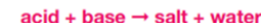
A **base** is a compound that can react with an acid to make a neutral solution.

This is called **neutralisation**.

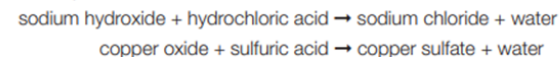
Bases that are soluble in water are **alkalis**.



Neutralisation reactions produce water and a salt.

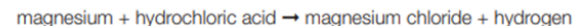


for example,



Metals can also react with acids, but they produce a salt and hydrogen gas.

for example,



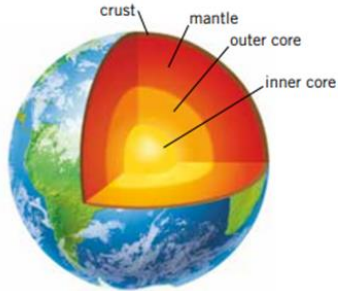
Naming salts

The name of the metal comes first, for example, **magnesium** chloride.

Different acids produce different types of salt:

- hydrochloric acid produces metal **chlorides**
- sulfuric acid produces metal **sulfates**
- nitric acid produces metal **nitrates**

The Earth

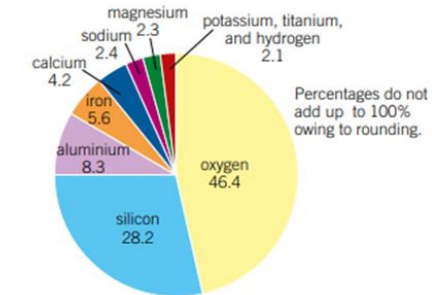


The Earth is made of several layers:

- The **crust** is rocky and solid.
- The **mantle** is solid rock but can flow.
- The **outer core** is liquid metal and the **inner core** is solid metal.

The crust

The Earth's crust contains many naturally-occurring elements in different proportions.

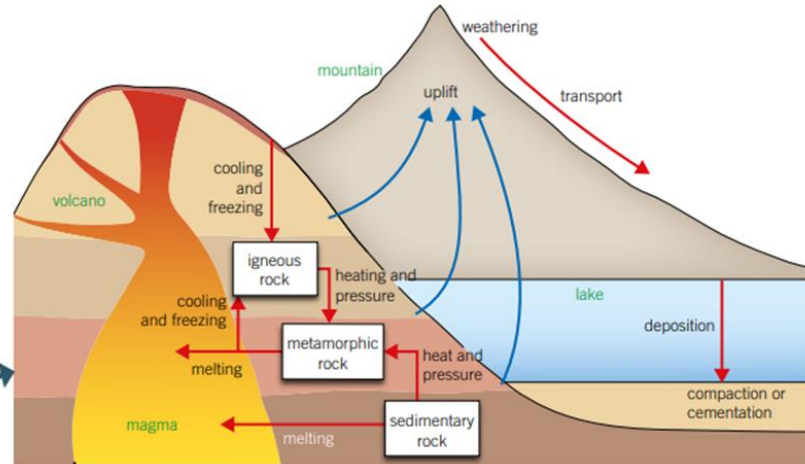
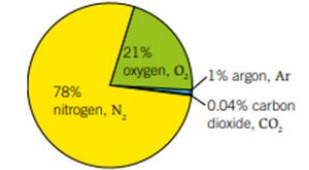


Types of rock

There are three types of rock that make up the Earth's crust. These are formed by different processes in the **rock cycle**, and have different properties.

The atmosphere

The **atmosphere** is a layer of gas surrounding the Earth. It is mainly comprised of nitrogen and oxygen.



The rock cycle

Because the different rocks can turn into each other, we say that there is a rock cycle.

Type of rock	How it is formed	Properties	Uses
sedimentary rock	<ul style="list-style-type: none"> • sediment piles up in one place and over many years stick together by compaction or cementation • compaction: weight of sediments above squeeze them into rocks • cementation: another substance sticks the sediments together 	<ul style="list-style-type: none"> • porous: made of small grains stuck together so there are holes that water can pass through • soft: easy to break apart the sediments 	building materials (e.g., <i>sandstone</i> and <i>limestone</i>)
igneous rock	<ul style="list-style-type: none"> • when liquid rock cools it turns into igneous rocks these are made of crystals locked tightly together • Magma: liquid rock underground – cools slowly and forms large crystals. • Lava: liquid rock above the ground – cools quickly and forms small crystals. 	<ul style="list-style-type: none"> • Durable and hard (difficult to damage): the crystals are locked tightly together • Not porous: there is no space between crystals 	pavement rail tracks
metamorphic rock	<ul style="list-style-type: none"> • other rocks under the Earth are heated and put under pressure • over time, these rocks become metamorphic 	<ul style="list-style-type: none"> • Not porous: there is no space between crystals 	marble used for kitchens slate used for roofing tiles

•Key Vocabulary - Acids

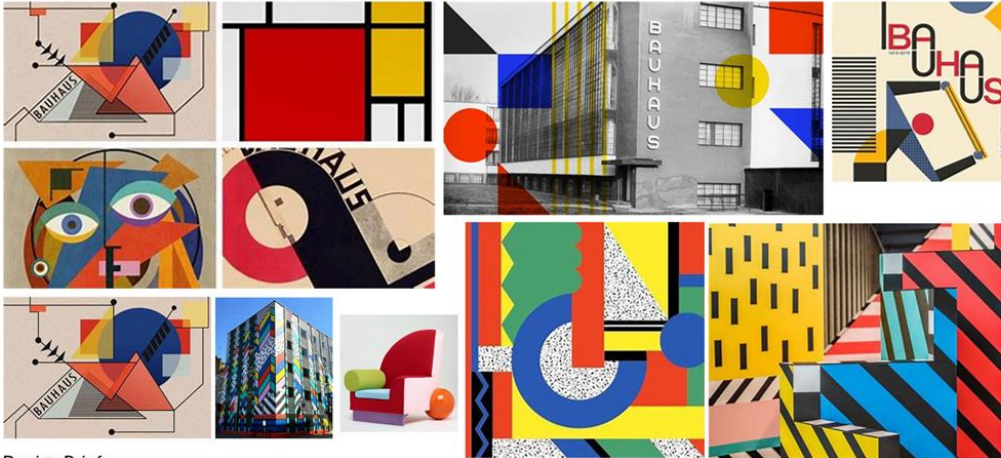
- Neutral** - not acidic or alkaline; having a pH of 7.
- Corrosive** - having the ability to wear away or break down other materials, often associated with strong acids or alkalis.
- Concentration** - the amount of a substance (acid or alkali) in a given volume of solution.
- Dilute** - making a solution weaker or less concentrated, typically by adding more solvent (e.g., water).
- Indicator** - a substance that changes color in the presence of an acid or alkali, used to determine the pH.
- Neutralization** - the chemical reaction between an acid and an alkali that results in the formation of a neutral solution (water and salt).
- Salt** - a compound formed when an acid reacts with a base or alkali, typically resulting in water and the salt.
- Reactant** - a substance that takes part in and undergoes change during a reaction.
- Universal indicator** - a pH indicator composed of a mixture of substances that shows a gradual color change over a wide range of pH.
- pH scale** - a scale used to specify the acidity or basicity (alkalinity) of an aqueous solution, ranging from 0 to 14.
- Alkaline** - having the properties of an alkali or containing alkali; having a pH greater than 7

•Key Vocabulary – The Earth

- Crust** - the outermost solid layer of the Earth.
 - Mantle** - the thick layer of rock between the Earth's crust and core.
 - Core** - the innermost part of the Earth, consisting of a liquid outer core and a solid inner core.
 - Erosion** - the process by which rock, soil, and other surface materials are worn away and transported.
 - Weathering** - the breaking down of rocks and minerals by natural forces like wind, water, and temperature changes.
 - Sediment** - particles of rock, soil, or organic material that are carried by wind, water, or ice and settle in a new location.
 - Fossil** - the preserved remains or traces of organisms that lived in the past, often found in sedimentary rock.
 - Mineral** - a naturally occurring, inorganic solid with a definite chemical composition and a crystalline structure.
 - Rock cycle** - the continuous process in which rocks are formed, broken down, and reformed over geological time.
 - Magma** - molten rock beneath the Earth's surface.
 - Lava** - molten rock that reaches the Earth's surface through a volcano or fissure.
 - be replenished naturally over time (e.g., solar, wind).
 - Non-renewable** - referring to a resource that cannot be replenished once it is used (e.g., fossil fuels).
-

Y8 – Product Design Knowledge Organiser - Bauhaus & Memphis Clocks

Product design is the process of creating new products for sale businesses to its customers. It involves the generation and development of ideas through a systematic process that leads to the creation of innovative products.



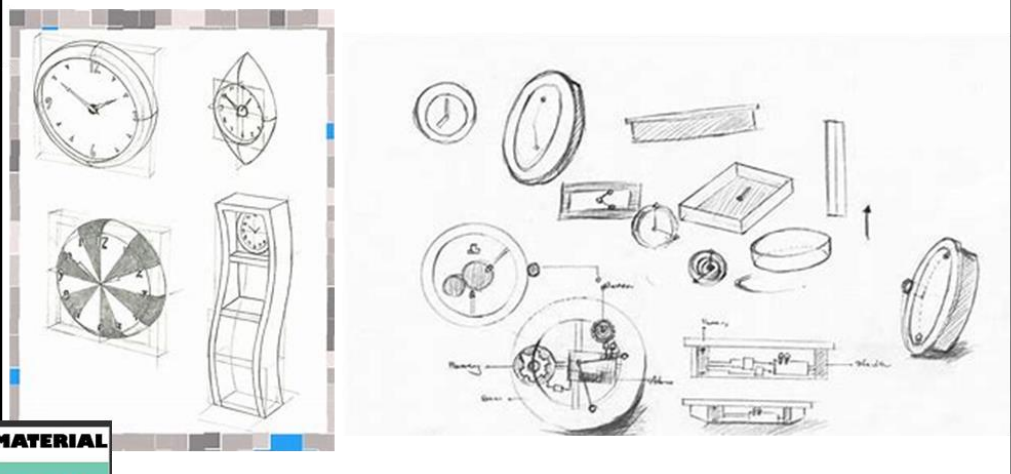
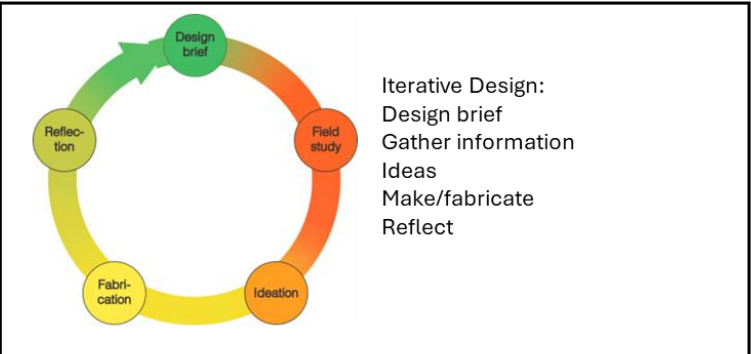
Keywords:
 Geometric
 Angles
 Red
 Blue
 Yellow
 Vibrant
 Square
 Rectangle
 Triangle

How to create a design:
 Various sketches
 Sketch, then go over with fineliner
 Add colour to final design
 Label the different parts and where the inspiration came from

TIER3 Vocabulary:
 CAD: Computer Aided Design
 CAM: Computer Manufactured Design
 2D and 3D modelling and construction

Geometric: characterized by or decorated with regular lines and shapes: "a geometric pattern"

Design Brief:
 To create an analogue clock, using the Bauhaus and Memphis style. It is to be aimed at your age group +. You will be able to explore 2D and 3D design practices and create your design using acrylic plastic.



MathsWatch / SENECA / Kerboodle Instructions

MathsWatch

Please navigate to vle.mathswatch.co.uk using your preferred browser (we do recommend Google Chrome but IE, Safari and others should work just as well).

You will be presented with this login page:

The screenshot shows the MathsWatch login interface. At the top left is the MathsWatch logo. Below it is a blue header bar. The main content area is titled 'Login' and contains two input fields: 'Username' with the value '19smifre@bircheshead' and 'Password' with the value 'maths1'. Below the input fields are two buttons: 'View Demo' and 'Login'. A blue box in the top-right corner contains the text 'Firstname's account Logout 365 days until renewal'. Annotations include a speech bubble pointing to the username field with the text 'A year 10 student (Y7 in 2019) with the name Fred Smith', another speech bubble pointing to the password field with the text 'Generic password that can be changed upon first login', and a blue-bordered box at the bottom right with the text 'To do that, click on [Firstname's account Logout 365 days until renewal] in the top-right corner and then choose "My Details" from the drop-down menu.'

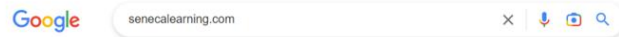
Use the login details given by your teacher.

SENECA

Information for Students: How to Sign up to Seneca

Please use the information below to learn how to sign up to Seneca Learning. This is where all of your English homework will be set.

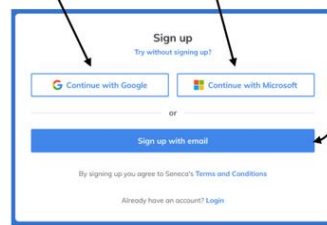
Step 1 – Go to a search engine (Google or Chrome) and go to **senecalearning.com**



Step 2 – Find the **sign up** button (top right of the screen) and click on it.

- Note: registering an account with Seneca is completely **free**. You will not be asked to enter any payment details.

Step 3 – You can **sign up** with your Gmail account, your Microsoft account or with your email address. Click on the icon.



Step 4 – Enter your details.

- If you have a Gmail or Microsoft account that you already use, just enter your details.
- If you do not have an email address, click 'Sign up with email.'**
- If you have clicked on the sign up with email button, you will be taken to a screen which looks like this:

If you do not have your own email address, use this formula:

firstname.surname@bircheshead.com

e.g, if your name is Charlie Walker, it would be:

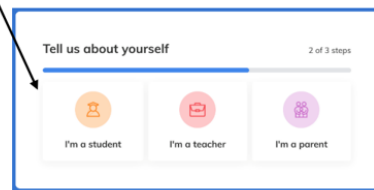
charlie.walker@bircheshead.com

The password is **password**

Write your new email here:

@bircheshead.com

Step 5 – Click on the **student icon** and then type in the school name and select your year group.

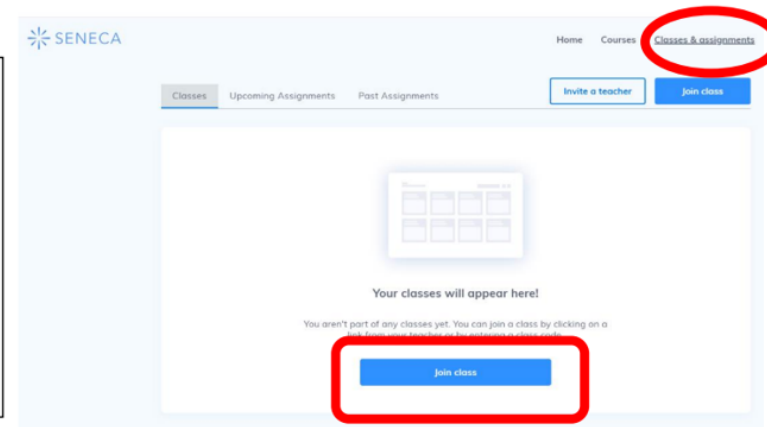


- You don't need a parent's email address, just **click the box** to say that you're over 13.

- Click the **Finish** sign up button.

Step 6 – Join your class by clicking on the **Classes & Assignments** button at the top right. Then click on the **Join class** button. Enter your **class code** given to you by your English teacher.

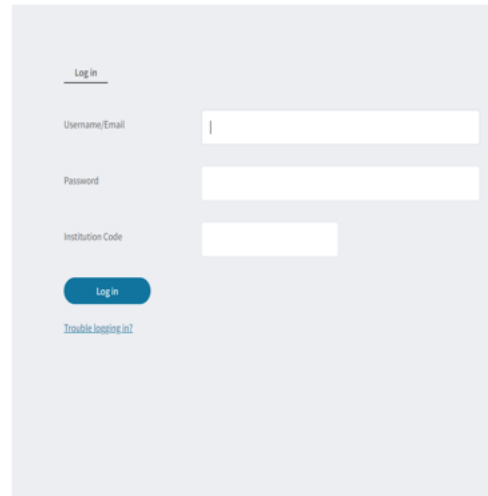
Write your class code here:



Now you'll be able to access any homework set by your English teacher. Make a copy of your login details in your planner.

Kerboodle

- Go to www.Kerboodle.com
- It will look like this:



- Your username is your first initial and your complete surname. E.g.
- Joe Bloggs would be jbloggs
- Your password is the same as your username the first time you login.
- The institution code is: ua3

- The first time you login you can change your password

