



HOME-LEARNING KNOWLEDGE ORGANISERS



YEAR 8



HALF TERM 3



"AN INVESTMENT IN KNOWLEDGE PAYS THE BEST
INTEREST."

BENJAMIN FRANKLIN



Core Values

Our school community is built on three important values which underpin all we do. We believe that great learning comes from:

Politeness

- We treat every person and thing as we want to be treated
- We are respectful, polite and courteous at all times
- We help others at all times

Hard-work

- We never give up
- We remain positive so that we have the strength to persevere with even the hardest work
- We do what it takes, for as long as it takes

Honesty

- We are true to ourselves and others and we do not make excuses
- We look to ourselves to see what needs to be done.

What is learning?

A big part of learning is about getting knowledge to go into your long-term memory and then using this knowledge. Our brains will only remember knowledge in the long term if we think really hard about it. Just reading, or highlighting does not make our brains work hard enough. We must **practise** remembering things – this will feel difficult at the time but worth it in the end.

What is a knowledge organiser?

A knowledge organiser is a document that contains key facts and information. A knowledge organiser will not include every possible fact on a topic; it will include facts needed to understand the main points. Knowledge organisers make knowledge clear. So, even if a learner misses a lesson, they have a constant point of reference.

Why are knowledge organisers good for learning?

Research shows that our brains remember things more efficiently when we know the ‘bigger picture’ and can see the way that ‘nuggets’ of knowledge link. Making links helps information move into our long-term memory. A knowledge organiser shows linked facts on a single topic.

Knowledge organisers can be used for retrieval practice (practising remembering things). Regular retrieval of knowledge helps us remember more effectively with our long-term memory. Developing our long-term memory is a vital first step. Without knowledge we have nothing to work with, nothing to think about! Retaining knowledge over time is essential.

To help us understand learning better, Gateacre students and staff have created a series of videos that explain how memory works and what we can do to make it stronger. Follow the QR code or the [Learning to Learn](#) link to view them.



How can you best use your knowledge organiser?

There are many ways you can use a knowledge organiser. The most important thing to say, however, is ‘use it’. Owning one does not make you remember facts... **you must practise** if you are to improve at anything! There will be mistakes – this is how you learn. Ultimately, the best way to remember things is to try and remember facts that you can’t quite remember instantly... practice, practice and practice.

Here are some ways you could try to improve your **long-term memory** – they are all based on making you **think**, getting you to **test your memory**. That way your memory will get stronger:

Hide and seek

Read through a small section of your knowledge organiser (three or four key words), cover the facts and try to write out as much as you can remember. Check your answers and correct them if needed. Then choose your next words or check ones you have already done again.

Quiz

Test your memory by asking someone to quiz you on facts from your knowledge organiser. Write down your answers and see how many you get right. Correct any facts you get wrong.

Teach it!

Teach and explain to someone your key facts – you could even test them!

Back to front

Write down a fact from memory and then compose a question that would lead to that answer.

Sketch it

Draw pictures /diagrams to represent each of the facts or dates (time lines, flow diagrams, or labelled pictures are great ways of remembering parts of a system or orders of events).

Repackage it (from memory)

Create a mind map that brings different facts together under one title. Check that your key words are spelt correctly... or, take a key word and create a sentence that uses it.

Take pride in how you present your work. Each page should be clearly labelled with an underlined date. There should be at least one page of work.

Always check your answers and correct anything you got wrong.... You are allowed to get things wrong... That is how you learn! Getting yourself to think is the key!

Do not just copy a knowledge organiser out – that would not help learning and would only waste your time! Make sure you are having to think!

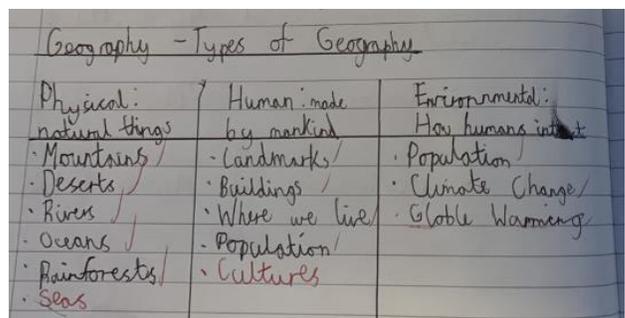
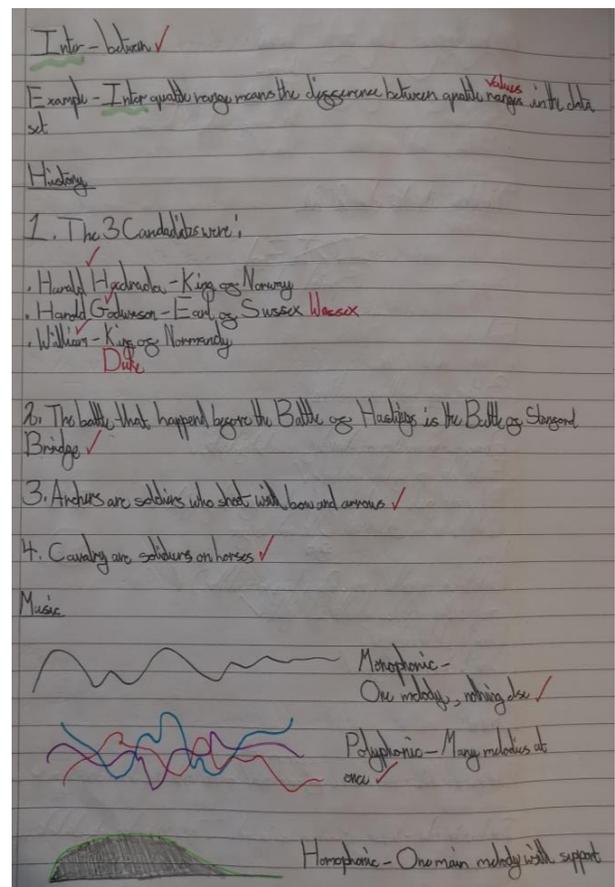
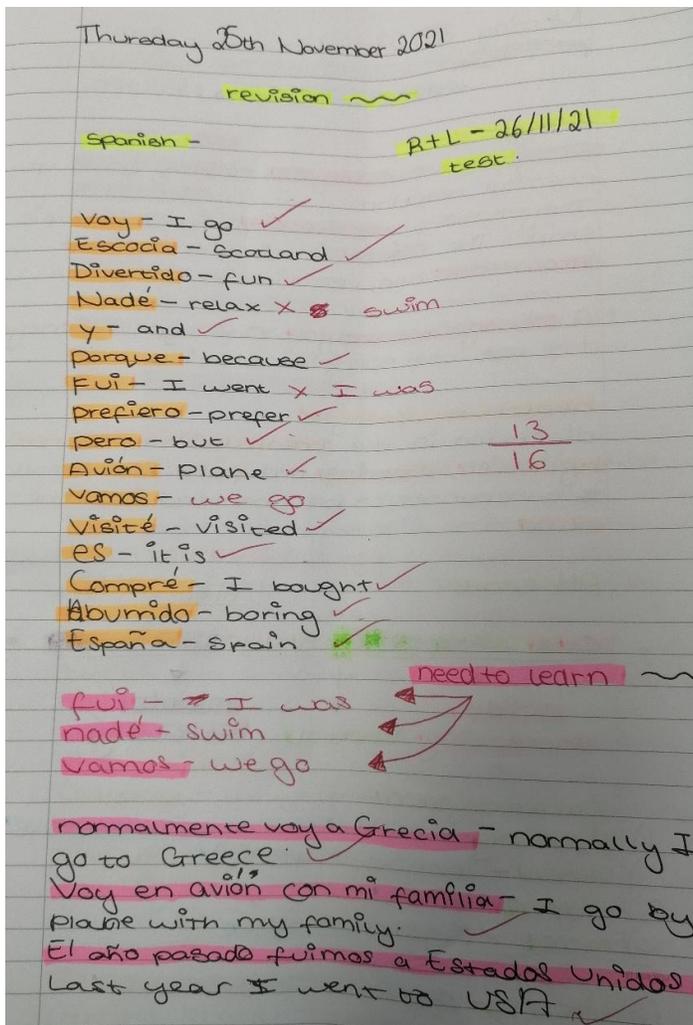


What does effective home-learning look like?

Here are some essential points to remember and some examples to see.

- Long term memories are created when you have to **think**. Simply copying does not help you remember. Testing yourself will make you **think** and remember
- The process of reflection and self-assessment is important if you are to fix mistakes. Do not worry about getting things wrong as long as you check, fix it and try again

All these learners have **read, thought, tested themselves** and then **checked** their work. They will start to develop long term memory which they can then use in the future.



MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Maths	ICT	English	Art	
History	Drama	Geography	Science [Knowledge Organisers]	
Music	Spanish	RS	Active Lifestyles	
← Science: Tassomai On-Line (complete one daily goal each day) →				

Where subjects share a slot it is for you to decide which one you know less about - which one should you revise? You decide which one to do.

Science: Remember, you should do a **Tassomai daily goal each day** to help your science learning.

Literacy: Do take time to engage with the **Listening Project**. Developing our vocabulary is immensely important if we are to develop as learners. The **listening project** is an opportunity to listen to interesting ideas, facts and make our vocabulary better. You can do this short activity at any point within the week.

Remember, you can always do more. Challenge yourself to be the best you can be!

How to use the 'Listen' Project

Start Here

Being read to is a vital part of learning - hearing words that we are unfamiliar with, ideas that we don't understand yet and thoughts we haven't had a chance to think.

Even simple stories create links from one idea to the next. The fairy tales we heard when we were babies give us the first step to understanding the adventure stories we read in school.

Take time out and listen...

Step 1 - Click the link and listen.

You can follow the text as you are read to or just listen.



Step 2 - Check the text.

Have a look at the texts. There are three pieces of writing.

The first piece may appear to be very simple, maybe even too young for you. These stories are some of the first we hear and often start our journey to understanding more complicated ideas.

The second text may be something you recognise or have read yourself. Is there a link to the first story?

The third is the most complex and may even leave you with a lot of questions.



Step 3 - What's the connection?

The final step is to think about what links these texts and stories together?

Where have you thought about these ideas before?

Do you think about any of these ideas in school?

You can go back and listen to the texts being read as many times as you like.



SCAN ME

Dogs

Hairy Maclary from Donaldson's Dairy

Out of the gate

And off for a walk

Went Hairy Maclary

From Donaldson's Dairy

And Hercules Morse

As big as a horse

With Hairy Maclary

From Donaldson's Dairy.

Bottomley Potts

Covered in spots,

Hercules Morse

As big as a horse

And Hairy Maclary

From Donaldson's Dairy.

Muffin McLay

Like a bundle of hay,

Bottomley Potts

Covered in spots,

Hercules Morse

As big as a horse

and Hairy Maclary

From Donaldson's Dairy.....

Humph.....

In the beginning of years, when the world was so new and all, and the Animals were just beginning to work for Man, there was a Camel, and he lived in the middle of a Howling Desert because he did not want to work, and besides, he was a Howler himself. So he ate sticks and thorns and tamarisks and milkweed and prickles, most 'scruciating idle; and when anybody spoke to him he said 'Humph!' Just 'Humph!' and no more.

Presently the Horse came to him on Monday morning, with a saddle on his back and a bit in his mouth, and said, 'Camel, O Camel, come out and trot like the rest of us.'

'Humph!' said the Camel; and the Horse went away and told the Man.

Presently the Dog came to him, with a stick in his mouth, and said, 'Camel, O Camel, come and fetch and carry like the rest of us.'

'Humph!' said the Camel; and the Dog went away and told the Man.

Presently the Ox came to him, with the yoke on his neck and said, 'Camel, O Camel, come and plough like the rest of us.'

'Humph!' said the Camel; and the Ox went away and told the Man.

At the end of the day the Man called the Horse and the Dog and the Ox together, and said, 'Three, O Three, I'm very sorry for you (with the world so new-and-all); but that Humph-thing in the Desert can't work, or he would have been here by now, so I am going to leave him alone, and you must work double-time to make up for it.'

That made the Three very angry (with the world so new-and-all), and they held a palaver, and an indaba, and a punchayet, and a pow-wow on the edge of the Desert; and the Camel came chewing on milkweed most 'scruciating idle, and laughed at them. Then he said 'Humph!' and went away again.

Man's Best Friend

This man (Thornton) had saved his life, which was something; but further, he was the ideal master. Other men saw to their dogs' welfare from a sense of duty; he saw to the welfare of his as if they were his own children. He had a way of taking Buck's head between his hands and resting his own head upon Buck's, and of shaking him back and forth. Buck knew no greater joy than that rough embrace. It seemed that his heart would be shaken out of his body.

When Thornton's two partners, Hans and Pete, arrived, Buck refused to notice them until he learned they were close to Thornton; after that he tolerated them in a passive sort of way.

For Thornton, however, Buck's love seemed to grow and grow. In the fall of the year, he saved John Thornton's life.

The three men were lining a boat down a stretch of rapids. Hans and Pete moved along the bank, snubbing with a rope from tree to tree, while Thornton remained in the boat, helping its descent by means of a pole.

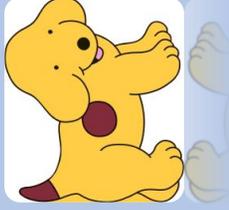
At a spot, where a ledge of barely submerged rocks jutted out into the river, Hans cast off the rope, and Thornton poled the boat out into the stream. The boat snubbed into the bank bottom up, while Thornton, flung sheer out of it, was carried downstream toward the worst part of the rapids, a stretch of wild water in which no swimmer could live.

Buck sprung in; and at the end of 300 yards, amid a mad swirl of water, he overtook Thornton. When he felt him grasp his tail, Buck headed for the bank. But from below came the fatal roaring where the wild current went wilder. Thornton scraped furiously over a rock, bruised across a second, and struck a third with crushing force. He clutched its slippery top with both hands, releasing Buck, and shouted: "Go, Buck! Go!"

Dogs

Animals play an enormous role in many of the texts that we read. From our youngest years, we read about **Spot the Dog** and **Meg and Mog**. Humans and animals have existed together for thousands of years and the relationship between pets and their owners can be very powerful.

Animal stories are not always simple or heartwarming. We can learn valuable lessons about the natural world from the stories we tell.



Humph...



Authors use animals to tell bigger, more valuable stories. We often call simple stories that try to tell bigger truths **allegories**. Rudyard Kipling wrote a series of short stories that explain how various animals came to be the way they are, both in terms of their character like the grumpy camel and the way they look. **Aesop's fables** also use animals to explain why things are the way they are or to teach valuable lessons.

Man's Best Friend

The story of Buck is told in **Jack London's *Call of the Wild***. The story is told from the perspective of Buck the dog and details his adventures in the Alaskan wilderness during the gold rush. Although the story is told from the animal's perspective, **London** works hard to retain **realism**. The short novel details just how tough the world can be for humans and animals alike and bond that can be created between them.

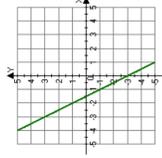
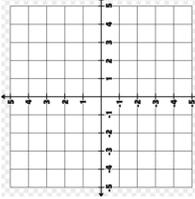


Mathematics

Your Maths Home Learning has two parts:

Part 1 is: Copy the definition of the key word and diagrams into your Home Learning Book, then use these to complete the task

Part 2 is: Scan the Corbett Code (or look up the video number) for extra practice.

Week	Key Word	Definition	Task	Corbett Code
1	Prism	A 3D shape which has the same cross section throughout Eg. So you can slice it anywhere and it would have the same face	In your home learning book, research a draw these prisms: Cuboid Cylinder Triangular Prism	
2	Probability	The chance that something will happen What is the probability of spinning blue?  Eg. There are 8 outcomes on the spinner. 3 of them are blue so the probability of spinning blue is $\frac{3}{8}$ This can also be given as 0.375 or 37.5%	In your home learning book, give the probability of rolling a dice and getting <ul style="list-style-type: none">• 5 on the dice• An odd number• A number greater than 4	 Scan here 244
3	Equation of a line	The equation of a straight line is given as: $y = mx + c$ x and y are any points on the line m is the gradient Example:  Other examples: $x = y$ $y = 4$ $x = -2$ $y = 2x - 7$ $y + x = 10$ $2y - 4x = 12$	In your home learning book, sketch an axis and plot the points: $(-1, -1)$ $(0, 1)$ $(1, 3)$ $(2, 5)$ 	 Scan here 84
4	Gradient	How steep a line is (going up or down) The larger the gradient the steeper the line A negative gradient means the line goes down Eg. $y = 5x + 3$ gradient is 5	In your home learning book, identify the gradient of $Y = 3x + 1$ $y = 3 + 2x$ $y = 4x + 2$ $Y = -2x + 3$ $y = 3 - 0.5x$ $y = -3x + 4$	 Scan here 191
5	Y-Intercept	The point where the line crosses the y axis ($x=0$) X is 0 so the line is on the y axis (see graph) Eg. $y = 3x - 4$ y intercept is -4	In your home learning book, identify the y intercept of $Y = 3x + 1$ $y = 3 + 2x$ $y = 4x + 2$ $Y = -2x + 3$ $y = 3 - 0.5x$ $y = -3x + 4$	 Scan here 191



Topic: **How did Britain change, 1750-1900?**

Overview

The years 1750-1900 were a time of great change for Britain. Key areas of change included:

- Agriculture - New tools, fertilisers and harvesting techniques were introduced, resulting in increased productivity and agricultural prosperity.
- Industry - factories sprung up all over the country creating more efficient ways to produce goods such as wool, cotton and coal. The increase in factories brought thousands of new jobs.
- Transport and communications - Thomas Telford built roads and canals in the 1700s and George Stephenson and Brunel oversaw the 'Railway Mania' of the 1800s. There had previously been no very fast way of transporting goods and people around the country.
- Technology - There were also many scientific discoveries and technological inventions that changed society and industry. Changes to sanitation (keeping clean) and medical treatment such as the work of John Snow who worked on understanding how diseases spread and Edward Jenner who developed the first vaccination improved people's quality of life.

Key People and Terms

John Snow

Snow was an English doctor who discovered that the water in his local area was making everyone ill. His work led to the discovery of Cholera and improved health for thousands.



Isambard Kingdom Brunel

One of the most influential engineers of the Industrial Revolution. Brunel built railways and ships and opened up Britain to a new network of industry.



Industrial revolution	A time of great change in Britain between 1750 to 1900
Population	The number of people living in a particular place
Invention	Something new which is created, can be an object or an idea
Economy	The system of how money is used within a particular country
Agriculture	The process of producing food, and fibres by farming of certain plants or raising animals
Poverty	The lack of basic human needs such as clean water, nutrition, healthcare, education and shelter
Sanitation	Sanitation is the system that disposes of human waste

Key inventions

The Steam Engine - 1717

Thomas Newcomen invents the first steam engine. It would later be improved by James Watt which meant steam engines could replace water and horse power in a wide variety of industries, which in turn allowed factories to be built anywhere.

The Water Frame -1769

Richard Arkwright invented a machine, powered by water, to spin cotton into yarn, quickly and easily. His machines did not need skilled operators so Arkwright paid unskilled women and others to work on them. This invention allowed factories and mills to be built.

Factory working conditions

Long working hours: Normal shifts were usually 12-14 hours a day, with extra time required during busy periods.

Low wages: A typical wage for male workers was about 15 shillings (75p) a week, but women and children were paid much less, with children three shillings (15p). For this reason, employers preferred to employ women and children.

Cruel discipline: There was frequent "strapping" (hitting with a leather strap). Other punishments included nailing children's ears to the table and dowsing them in water butts to keep them awake.

Accidents: Forcing children to crawl into dangerous, unguarded machinery led to many accidents and deaths.

Health: The air was full of dust, which led to chest and lung diseases and loud noise made by machines damaged workers' hearing.

Living conditions

Overcrowding: Due to large numbers of people moving to the cities, there were not enough houses for all these people to live in.

Disease: Typhus, Typhoid, Tuberculosis and Cholera all existed in the cities of England.

Overcrowding, low standard housing and poor-quality water supplies all helped spread disease.

Waste disposal: Gutters were filled with litter. Human waste was discharged directly into the sewers, which flowed straight into rivers.

Poor quality housing: houses were built very close together so there was little light or fresh air inside them. They did not have running water and people found it difficult to keep clean.

Lack of fresh water: People could get water from a variety of places, such as streams, wells and standpipes, but this water was often polluted by human waste.

The Spinning Jenny - 1770

James Hargreaves, a British carpenter and weaver, invents the spinning jenny. The machine spins more than one ball of yarn or thread at a time, making it easier and faster to make cloth. This allows more workers to make cloth more cheaply and increases the amount of factories built.

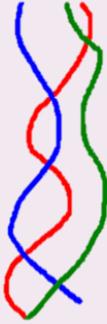
The Locomotive - 1814

Richard Trevithick was a pioneer in early steam engine technology. He developed a new high-pressure steam engine which could be used to reliably move goods and passengers. This invention made transport much easier and quicker.

ELEMENTS OF MUSIC 1

Texture:

Monophonic:  One melody – nothing else

Polyphonic:  Many melodies at once

Homophonic:  One main melody with support

Unison:  Two instruments playing the same melody at the same time

Harmony:

Chromatic: Complex harmony (notes added to chord)

Major: Positive harmony (happy, relaxed)

Minor: Negative harmony (sad, dark, gloomy)

Chord: A group of notes played together (often 3 notes)

Instruments:

Strings: Violin; Viola; Cello; Double Bass; Guitar; Sitar

Woodwind: Flute; Oboe; Clarinet; Bassoon; Saxophone

Brass: Trumpet; Trombone; French Horn; Tuba

Percussion: Drums (lots of types); Tambourine; Cow Bell; Timpani

Keyboards: Piano; Harpsichord (used in Baroque Music); Organ

Timbre: The sound itself e.g. an instrument might sound metallic, breathy, mellow.

Rhythm:

Time Signature: The regular count of the music. How many beats are in each bar?

3	4	6
4	4	8

4 Is the most common
4 time signature.

Syncopated: Playing off the beat. This will create a more complicated rhythm. Syncopation is common in jazz and popular music as well as much folk music (i.e. African drumming, Samba)

Ostinato: This is a repeated pattern. A repeated rhythm can be very effective in creating a strong sense of rhythm (**Samba** and **African drumming** use layers of **rhythmic ostinato patterns**).

Polyrhythms: layers of different rhythms played at the same time (again, Samba and African drumming use polyrhythms).

Task 1: Learn the names of the different textures and what they mean.

Task 2: Learn the harmony words and what they mean.

Task 3: Learn the rhythm words: **Time Signature; Syncopated; Ostinato** and what they mean.

Task 4: Learn which instruments are in the four instrument families (Strings; Woodwind; Brass Percussion) and what the word **timbre** means.

Task 5: Create a 10-question quiz based on **Texture** and **Harmony**.

Task 6: Create a 10-question quiz based on **Rhythm** and **Instruments**.

HTML - Using HTML to create websites

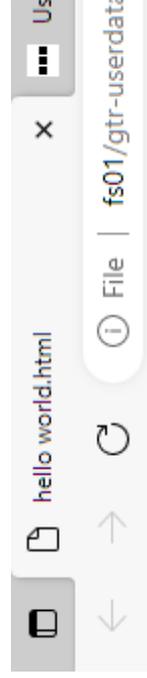
All web pages on the internet are created using a language called **Hypertext Markup Language (HTML)**. HTML describes:

- what information appears on a webpage
- how it appears on the page (formatting)
- any links to other pages or sites

HTML can be written in specialist software, or in a simple text editor like Notepad.

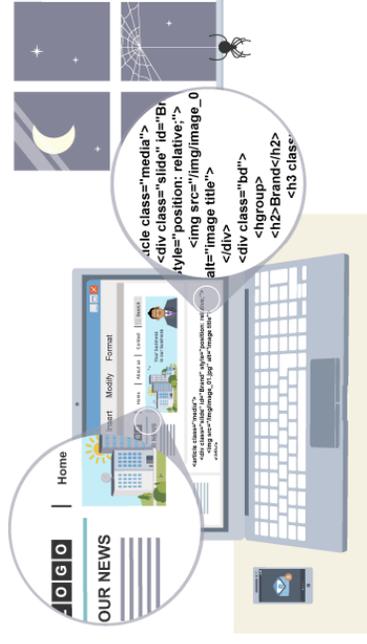
As long as the document is saved with the file extension '.html' it can be opened and viewed as a webpage from a browser.

Example webpage created in HTML



Hello world

This is my first webpage



Use the QR code to read about the internet and HTML and complete the quiz.

What was your score:/10

This example HTML code used to display the message on the webpage on your left:

`<html>`

`<body>`

`<h1>Hello world</h1>`

`<p>This is my first webpage</p>`

`</body>`

`</html>`

The code uses **tags** to describe the appearance of the information:

- `<html>` states that the document is a HTML document
- `<body>` states that the information appears in the body of the page
- `<h1>` states that the following text appears as a prominent heading
- `<p>` states that this is the beginning of a new paragraph



HTML – What are HTML tags?

What are HTML Tags?

- HTML tags help the browser to know how to display a web page to the user.
 - You need to be familiar with how Hypertext Markup Language (HTML) is used to create web pages.
- Tags start like `<tagname>` and usually end like this `</tagname>` although some can self-close.

Example webpage using the tags opposite in notepad:

```
title webpage - Notepad
File Edit Format View Help
<html>
<head>
<title>Title of webpage</title>
</head>
<body>
(The content of the webpage would be added here using relevant elements)
</body>
</html>
```

There are **four critical tags** that are used to create webpages

```
<html>...</html>
```

The opening and closing tags of an HTML file. Tells the browser the rest of the document contains HTML tags.

```
<head>...</head>
```

These tags include all information about the page itself as well as links to JavaScript and CSS files. Metadata is entered here that can be indexed by search engines.

```
<title>...</title>
```

The text included between the opening and closing `<title>` and `</title>` tags is the title of the webpage. The title appears on browser tabs, as a page title. It is also what appears as the title of the webpage on search result pages.

```
<body>...</body>
```

Content within the `<body>...</body>` tags is the content that users will see on the page.

Example webpage using the HTML code on the left



(The content of the webpage would be added here using relevant elements)



HTML – What are other HTML tags can we use in a webpage?

Headings

Heading tags tell the browser to format the text within them in bold and a larger font size. This means that the text can then be used as a paragraph heading.

`<h1></h1>` tags produce the heading with the **largest** font size.

`<h6></h6>` tags produce the heading with the **smallest** font size.

h2, h3, h4 and h5 tags produce headings with font sizes in between h1 and h6.

Tags - Other tags you can use which tell the web browser how you want the page to be formatted:

Paragraphs - The `<p></p>` This tag makes the text one **paragraph**

Break `
 </br>` This tag gives you a break between the text

Bold text ` ` This tag gives you bold text

Emphasise (italic text) ` ` This tag gives you italic text

Underline text `<u> </u>` This tag underlines your text

How to create a list on your webpage:

` ` creates an unordered (bulleted) list

` ` creates an ordered (numbered) list

` ` adds an item to the list created

Here is an example of how you can create a **numbered list**:

``

`insert text`

`insert text`

`insert text`

`insert text`

`insert text`

``

Tasks:

1. What does HTML stand for? Explain what HTML does.

HTML Tag	What it does
<code><h1></h1></code>	
<code><p></p></code>	
<code></code>	2. Complete this table in your home learning book:
<code><u></u></code>	
<code></code>	
Can you research any other HTML tags and explain what they do?	

3. Write the HTML for a website about you or something you like. Try to include: a heading; some bold text; some underlined text; some text in italics; a background colour and an image. *Don't forget to close the HTML tags!* `</>`

4. Draw what your web page will look like in a web browser.

THE 4 P'S

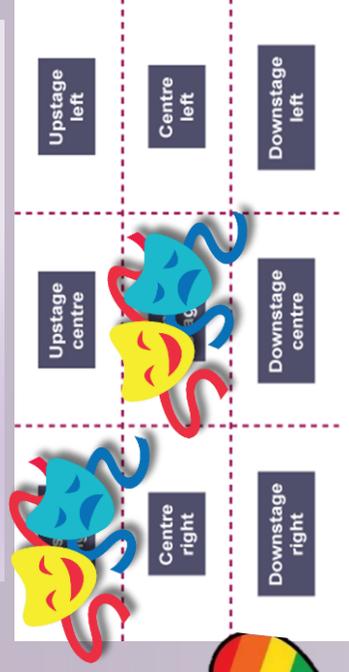
PACE
PITCH
PAUSE
PROJECTION

The next scheme of learning is:
Overcoming obstacles & AP1

Spread LOVE not Hate

New Skill/Technique ■ **Retrieval**

Stage Positioning

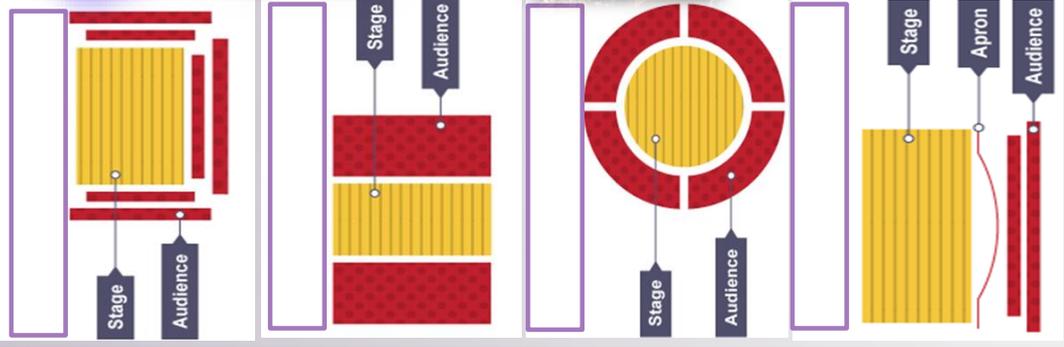


Audience →

The History Of Theatre

1650 - 1700

Stage Types



1700 - 1800

1800 - 1900

Knowledge/ skill	Definition
Stimuli	The starting point, idea or inspiration for your devised drama . It is what you base your drama around.
Sound design	The art and practice of creating sound tracks for a variety of needs in a performance.
Still Image or Freeze frame	This is where the action freezes as if someone has taken a picture midway through a performance. Conveys meaning and highlights the current scene.
Cross cutting	This term is used to describe two or more scenes which are performed on stage at the same time
Improvisation	A very spontaneous performance without specific or scripted preparation.
Placards	A printed or handwritten notice or sign used in a performance often to communicate a message to the audience.
Movement	Where we move to on and around the stage avoiding the blocking another actor.
Physical Theatre	Physical theatre is a well-known genre of theatrical performance that encompasses storytelling primarily through physical movement.
Role Play	Role play is the act of imitating the character and behaviour of someone who is different from yourself.
Motif	A spoken piece of dialogue that is repeated throughout a performance to create a dramatic affect/mark a moment/educate the audience.
Narration	A commentary delivered to accompany a performance.
Flashback	A flashback is an interjected scene that takes the narrative back in time from the current point in the story.
Hot seating	A character is questioned by the group about his or her background, behaviour and motivation.
Characterisation	Developing and portraying a personality through voice and movement.
Multirole	Multi-rolling is when an actor plays more than one character onstage
Thought tunnel	Thought tunnel or ' Conscience alley ' is a drama activity that can be used to support students to develop characters during narrative writing. The technique can also be used to support students to explore a book character in more depth
Transition	This is the process in which something changes from one state to another

Physical Skills SS.18.1.1-3 (Skills that involve using your BODY)

1. Body Language	How an actor uses their body to communicate meaning. For example, crossing your arms could mean you are fed up.
2. Posture	The position an actor holds their body when sitting or standing. For example, an upright posture.
3. Gait	The way an actor walks.
4. Facial Expressions	A form of non-verbal communication that expresses the way you are feeling, using the face.
5. Gestures	A movement of part of the body, especially a hand or the head, to express an idea or meaning.
6. Stance	The way you position yourself when standing to communicate your role. An elderly person would have a different stance to a child!

Vocal Skills SS.18.1.1-3 (Skills that involve using your VOICE)

1. Projection	Ensuring your voice is loud and clear for the audience to hear.
2. Volume	How loudly or quietly you say something. (Shouting, whispering)
3. Tone	The way you say something in order to communicate your emotions. (E.g. Angry, worried, shocked tone of voice)
4. Pace	The speed of what you say.
5. Pause	Moments of pause can create tension, or show that you are thinking.
6. Accent	Use of an accent tells the audience where your character is from.
7. Pitch	How high or low your voice is.
8. Emphasis	Changing the way a word or part of a sentence is said, in order to emphasise it. (Make it stand out.) Try emphasising the words in capital letters and see how it changes the meaning: "How could YOU do that?" "How could you do THAT?"

Week 1 & 2

Let's do some preparation for our AP1! Here are some tasks:

- On the first page of the Knowledge Organiser you will see a 'History of Theatre' timeline - there are blank boxes, using the theatre type titles provided – fill the blanks and complete the History of Theatre timeline in chronological order!
- What stage position are our Drama faces cheekily covering?
- Create a Roles and Responsibilities quiz and quiz whoever you can get involved!
- Fill in the blank stage types titles – the titles you need to fill in is:

- Theatre in the Round**
- Thrust stage**
- Proscenium Theatre**
- Traverse Theatre**

Key information and terminology for this term:

Theatre Roles And Responsibilities

Playwright	This is the name given to the person who writes the play.
Performer	A performer is an actor or entertainer who realises a role or performance in front of an audience.
Understudy	An actor who studies another's role so that they can take over when needed.
Lighting designer	The lighting designer is responsible for designing the lighting states and, if required, special lighting effects for a performance. The final design will result in a lighting plot which is a list of the lighting states and their cues.
Set designer	The set designer is responsible for the design of the set for a performance. They will work closely with the director and other designers so that there is unity between all the designs and the needs of the performance.
Costume designer	The person who designs the costumes for a performance. The costume department of a theatre is often called the wardrobe.

1650 - 1700 THE RESTORATION

- Theatres reopened when Charles II was restored to the English throne.
- The 'Theatre Royal' in Drury Lane was built with a Proscenium Arch stage which allowed actors to approach the audience. This proved a revolution in staging.
- Restoration comedies that poked fun at the rich and their way of life were the most popular form of theatre.
- For the first time women appeared on stage. Eleanor Gwyn, the mistress of Charles II, was the most prominent restoration actress.

Playwrights include: William Wycherley (The Country Wife) and Aphra Behn; Britain's first famous female playwright.

1700 - 1800 18th CENTURY THEATRE

- Theatre became extremely popular, particularly among the upper classes.
- Elaborate scenery was introduced and theatres became larger. Actors had to shout and use huge gestures to hold the audience's attention. Acting became stylised and artificial.
- Comedies that made fun of society, manners and etiquette were the dominant form of theatre: 'Comedy of Manners'.
- For the first time actors became 'celebrities'. Famous actors included David Garrick, John Kemble and Sarah Siddons.

Playwrights include: Richard Sheridan (The Rivals) and Oliver Goldsmith (She Stoops to Conquer).

1800 - 1900 VICTORIAN MELODRAMA

- Early melodramas thrilled audiences with lurid tales of ruined abbeys, dark dungeons and mysterious temples.
- Melodrama used stock characters; wicked villains, high-minded heroes and pure-hearted heroines. Stage effects were inventive and extravagant.
- People used the theatre to escape the monotony of their working lives during the industrial revolution.
- As the century developed, plays dealt with themes that touched ordinary people. It was 'popular' theatre guaranteed to make the audience gasp and weep.

Plays include: 'The Murder in the Red Barn' the true story of William Corder who murdered his mistress.

Week 3

- Research some facts about Homelessness and create a monologue or poem about the Obstacle of Homelessness

Week 4

- Listen to 'Where is the Love – Black eyed peas *clean version*' and write down all the phrases that come to mind.

Week 5

- Watch the History of Theatre videos and create your own History of Theatre Poster



Spanish - Key verbs and vocab

Key phrases

1. **Uso mi móvil para chatear con mis amigos** - I use my phone to chat with my Friends
2. **Siempre comparto mis vídeos favoritas** - I always share my favourite videos.
3. **Nunca hablo por Zoom ya que es aburrido** - I never talk on Zoom because it's boring.
4. **A veces escucho la música de Adele** - Sometimes I listen to Adele's music
5. **La melodía y las letras son muy impresionantes** - the melody and the lyrics are very impressive.
6. **Ayer saqué fotos con mi móvil** - Yesterday I took photos with my phone
7. **La semana pasada fui al cine** - Last week I went to the cinema
8. **Me encantan los documentales porque son educativos** - I love documentaries because they are educational.
9. **Las películas de terror son estúpidas** - horror films are stupid
10. **Voy a ver más concursos porque son entretenidos** - I'm going to watch more gameshows because they're entertaining.

Normalmente chateo con mis amigos o saco fotos porque es entretenido pero ayer fui al cine con mi familia. Vi una película de acción y fue muy emocionante pero a veces me gusta ver las películas de terror pero son un poco estúpidas. Veo los documentales cada día porque son educativos y también me gusta escuchar la música. Prefiero la música de Adele porque me encanta la letra pero voy a escuchar más la música pop porque me gusta la melodía.

Para ir más lejos: (To go further...)



Link to BBC Bitesize



Your teacher should have given you your username and password for **Languagenut**. Log in and complete some of the revision games on there. It's great for practising speaking and listening skills!

Task 1: Practice key phrases 1-5 - look, cover, write, check, correct x 3. Read the sentences out loud to practice your pronunciation.

Task 2: Practice key phrases 6 -10 - look, cover, write, check, correct x3. Read the sentences out loud to practice your pronunciation.

Task 3: Pick on of the boxes of vocab from page 2 and draw a picture to represent each phrase in that box.

Task 4: Read through the model paragraph and translate what you can into English.

Task 5: Re-write the model paragraph, changing the underlined words and phrases. Try to do this without looking at the vocab!

Task 6: Create mind maps under the following headings: Activities, present tense and opinions. Do this from memory and then add to it with your red pen from the vocab page.

Task 7: Teach it! Create a resource that will help teach others these key phrases. It could be a poster, a PowerPoint presentation, a leaflet or anything else. If you can, stick it in your home learning book.

Task 8: Write a paragraph about yourself **FROM MEMORY!** Then check it over with your red pen. Read it out loud to a member of your family to practice your pronunciation.



Spanish - Key verbs and vocab

El presente - Present tense	El pasado - Past tense	La televisión - TV
<p>Chateo con mis amigos - I chat with my friends Comparto mis vídeos favoritos - I share my favourite videos Descargo melodías o aplicaciones - I download ringtones or apps Hablo por Skype - I talk on Skype Juego - I play Leo mis SMS - I read my messages Mando SMS - I send messages Saco fotos - I take photos Veo - I watch Salgo con mis amigos - I go out with my friends Voy al cine - I go to the cinema Hago mis deberes - I do my homework</p>	<p>Chateé con mis amigos - I chatted with my friends Compartí mis vídeos favoritos - I shared my favourite videos Descargué melodías o aplicaciones - I downloaded ringtones or apps Hablé por Skype - I talked on Skype Jugué - I played Leí mis SMS - I read my messages Mandé SMS - I sent messages Saqué fotos - I took photos Vi - I watched Salí con mis amigos - I went out with my friends Fui al cine - I went to the cinema Hice mis deberes - I did my homework</p>	<p>Un programa de deportes - a sports programme Una comedia - a comedy Un concurso - a gameshow Un documental - a documentary Un reality - a reality show Una serie policíaca - a police series Un dibujo animado - a cartoon Una telenovela - a soap El telediario - the news Una película de terror - a horror film Una película de amor - a love/romantic film Una película de guerra - a war film Una película de acción - an action film Una película de ciencia-ficción - a sci-fi film</p>
<p>La música - music</p> <p>Escucho de todo - I listen to everything El rap - rap El R 'n' B - RnB El rock - rock La música clásica - classical music La música electrónica - electro music La música pop - pop music La música Latina - Latin music La música de los años sesenta - 60s music</p>	<p>La letra - the lyrics La melodía - the tune El ritmo - the rhythm ...canta bien - ...sings well</p>	<p>Las opiniones - opiniones</p> <p>educativo - educational útil - useful gracioso - funny entretenido - entertaining informativo - informative pueril/infantil - childish importante - important aburrido - boring inútil - pointless impresionante - impressive interesante - interesting bueno / malo - good/bad estúpido/tonto - stupid/silly emocionante - exciting</p>

Structure and Form

Term	Definition
Prologue	An introductory section to a piece of literature or drama.
Rhyming couplet	Two lines of the same length that rhyme.
Soliloquy	A character speaking alone, voicing their thoughts out loud.
Aside	A comment made by a character, only to be heard by the audience.

Themes

Theme	Description
Deception	Both Don Pedro and Don John come up with schemes to deceive other characters; Don Pedro wants to make Beatrice and Benedick confess their love but Don John wants to destroy Hero's reputation and marriage to Claudio.
Gender	Beatrice is a non-typical Shakespearean woman as she is unmarried, whilst Hero conforms to typical gender roles as she is helpless and naive.
Love	Love is seen in many forms throughout the play: Beatrice and Benedick eventually admit they love each other. Hero and Claudio fall in love at first sight and Leonato shows his fatherly love for his daughter and niece.

Year 8 William Shakespeare *Much Ado about Nothing*

Character	Description
Beatrice	Leonato's strong and independent niece. Claims she dislikes men and is unmarried.
Benedick	Older companion of Don Pedro. A proud bachelor.
Hero	Leonato's sweet and innocent daughter. Falls in love with Claudio.
Claudio	Younger companion of Don Pedro who is often naive and gullible. Falls in love with Hero.
Don Pedro	Prince of Arragon. Well liked and respected by everyone.
Don John	Don Pedro's illegitimate brother (know as "the bastard"). Causes most of the disruption in the play with his evil scheme.
Leonato	Governor of Messina. Hero's father and Beatrice's uncle. Has traditional values and can lose his temper.

Term	Definition
Simile	A comparison using the words 'like' or 'as' Example: "He will hang upon him like a disease"
Metaphor	A description saying something is something else Example: "God help the noble Claudio, if he hath caught the Benedick "
Personification	Giving human qualities to something that is not human. Example: "Four of his five wits went halting off "
Dramatic irony	When the audience knows something that the characters do not. Example: The audience know that Claudio will shame Hero at the altar but she does not.
Oxymoron	Two opposites used together to create an effect. Example: "There is a kind of merry war betwixt Signior Benedick and her"
Alliteration	A series of words that begin with the same letter for effect. Example: "For a hawk , a horse or a husband ."
Hyperbole	Exaggerating something for emphasis or effect. Example: "I would rather hear my dog bark at a crow than a man swear he loves me."

Week 1

Match the character to the description.
The first one has been done for you.

Leonato	Don Pedro's brother
Hero	Leonato's niece, cousin of Hero
Claudio	Governor of Messina, father of Hero
Beatrice	Daughter of Leonato
Benedick	Prince of Aragon, returned from war
Don John	A friend of Don Pedro and Benedick
Don Pedro	Friend of Claudio, returned from war

Week 2

Plot summary

Summarise the plot in 10 bullet points.

Week 7

Language Techniques

Using the knowledge Organiser over the page, revise the examples of language techniques used in the play e.g. Simile, Metaphor, personification etc.

Shakespeare - Much Ado about Nothing Home Learning Tasks

Week 3

Who am I?

Description	Character
'I am quite funny and clever. I have a love-hate relationship with one of the women in the play.'	
'I am very sweet and beautiful. I fall in love with a young soldier.'	
'I am a strong female character and I have a bit of a love-hate relationship with one of the male characters'	
'I am the governor of Messina and host of the party. I have a beautiful daughter.'	
'I am very brave soldier, but often led astray because I am young and naïve'.	

Week 7

Report it!

Write a police report for Borachio's involvement in the plot to stop the wedding of Claudio and Hero

OFFICIAL POLICE REPORT
Notes for the Reporting Officer: After explaining the scene of the crime and before speaking with witnesses, give complete details of what happened to aid in the investigation.

Who was involved? _____

What happened? _____

Where did the incident occur? _____

When did the incident happen? _____

Why do you think the accused did this? _____

How should he/she be punished? _____

Week 4

In their Shoes

Imagine you are one of the characters you met in Act 1. Pick one of the challenges below:

- Write a love letter from Claudio to Hero
- Write Don John's diary explaining how he feels about Don Pedro
- Write a soliloquy(see over page) for either Beatrice or Benedick to deliver to an audience, explaining how they feel about each other

Week 5

Shakesbook

Create a profile page for Shakesbook, a new social media platform. You could include:

- List of friends/family
- Comment wall for friends/family to post
- A profile pic
- Your age
- Your relationship status
- Likes/dislikes
- Memes which reflect your personality

Week 6 Translator

Match the word to the meaning

Disdain	Politeness, manners
Courtesy	Traitor, defector
Turncoat	A worn out horse
Pernicious	Already decided or arranged
Predestinate	Someone who repeats others
Jade	Harmful, Poisonous
Parrot teacher	Contempt, Scorn

Rainforest structure- definitions

- **Emergent-** 50m or taller. Usually supported by buttress roots.
- **Canopy-** A dense layer. Trees are 20-30m high. Many hardwood trees such as Mahogany.
- **Understory-**Dark and humid area containing saplings and shrubs.
- **Forest floor-** Covered with ferns and a deep layer of litter – fallen leaves and branches.



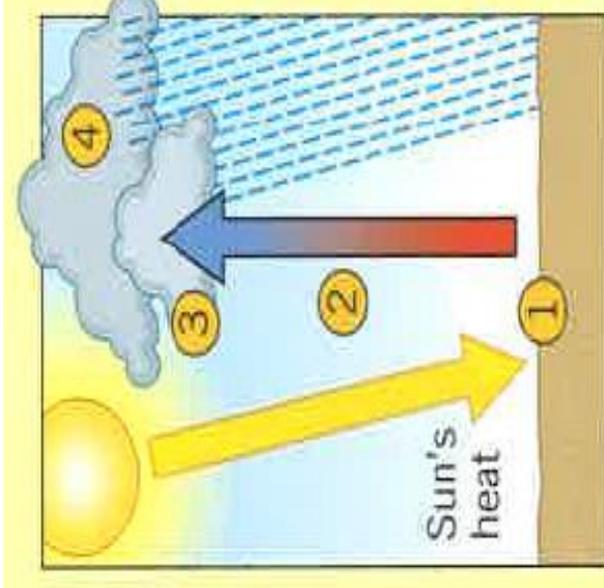
How the rainforest provides us with resources

- **Food-** Bananas, nuts, tea, coffee, palm oil. all originated in the rainforest.
- **Medicine-** Many types of medicine (more than 700) come from plants e.g. malaria (quinine). Heart conditions, diabetes, cancer (rosie periwinkle) etc.
- **Minerals-** Minerals such as gold and silver are found in rocks.
- **Materials-** Building materials such as wood- teak, mahogany.
- **Fuels-** Wood-can be burnt as a source of heat & energy.
- **Recreation-** Increasingly TRFs are exploited by travel companies bringing large groups of tourists. E.g. zip wires.

Convictional rainfall

This precipitation is caused by very HOT WEATHER heating the ground:

- 1.Sun beats down.
- 2.The ground becomes very hot and heats the air above it.
- 3.The hot air rises = evaporates.
- 4.When it reaches the cool air up in the atmosphere it condenses to form clouds.
- 5.It rains – usually hard as this is a quick and intense process.



Tasks- if you complete all 5, revisit some or all from memory

Task 1: Revise the diagram of rainforest structure, then cover it and sketch the diagram from memory, (using a pencil) then self assess and add any of the layer names you have missed.

Task 2: Learn the definitions of the names of layers of the rainforest.

Task 3: Revise how the rainforest provides us with resources. Cover and then create a mind map of all the resources you can remember. Check back and add any you have missed in red pen.

Task 4: Learn the key terms for 'services' and 'goods' and then go back to your mind map from task 3 and then use 2 colours to highlight those things that are goods and those that are services. Don't forget to create a key.

Task 5: Create a flow diagram showing the 4 stages in convectional rainfall.

Services- a service or action that the biosphere provides for us e.g. the green lungs.

Year 8 Geography

Goods- things which the biosphere gives us (products) e.g. meat and fruit.

How the rainforest provides us with resources

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- **Recreation-** Increasingly TRFs are exploited by travel companies bringing large groups of tourists. E.g. zip wires.

MORAL ISSUES

What are they?

A moral issue is one where there are many **different opinions** as to whether an action is right or wrong. In order to decide whether we should do it, people consider who they might help and who they might harm and then **weigh up the merits** of that action. Religious people will also look for **guidance in their holy books** and follow the **example of religious leaders**

SKILLS

- ✓ Consider two sides of an issue
- ✓ Understand religious teachings
- ✓ Share opinions respectfully

What do religious teachings say about this?

How could I argue the other side?

What do I think about this?

What harm does this do?

As we study think about...

RELIGIOUS TEACHINGS

"Rule over the birds of the air and the fish of the sea"
GOD TO ADAM

"The Earth is green and beautiful and Allah has appointed you his stewards over it"
MUHAMMAD

"Do not kill"

THE 6TH COMMANDMENT

"Consider the work of God. Who can straighten what he has made crooked?"
THE BIBLE

KEY WORDS:

MORAL ISSUE	An issue that has no right or wrong answer, instead there is debate about the harm or help it brings	GENES	These contain our DNA which controls how we are genetically put together
POLLUTION	The damage that is being done to our environment	GENETIC ENGINEERING	Changing genes for a specific outcome
STEWARD	Someone who cares for the world and the things in it	'PLAYING GOD'	Doing something that is really God's job
KHALIFAH	The Muslim word for steward, given responsibility to care for the world from Allah	POVERTY	The state of being poor, without basics such as money, food, shelter etc.
DOMINION	Being in charge of something. Many religious people believe we have dominion over the environment	RIGHTS	The guaranteed expectations of every person. These are protected by law.

SOME TASKS FOR YOU TO COMPLETE

Draw a symbol for each key word

Create a mind map of one of the world issues. Add the two sides in a different colour

Create a key word quiz or flash cards

Write your answers to 3 reflection questions

Investigate a world issue. Remember to consider different views

Write a persuasive argument for a world issue

Rewrite the religious teachings in your own words



GENETIC ENGINEERING

- We can grow better crops to feed people, which means less hunger and poverty
- **But we cannot be sure of the impact of these changes, e.g. whether they will cause disease in the future**
- Genetic engineering means we can cure diseases and stop people suffering, just like Jesus did.
- **But maybe we don't have the right to be 'playing God' and interfering with nature**
- We are being good stewards, using our brains and resources to make the world better
- **But embryos (potential life) are wasted in order to achieve these improvements. Many believe this is killing.**
- We can make our next generation healthier, cleverer and better looking
- **But we are using our skills for trivial purposes and may be creating prejudice and discrimination**



ANIMAL RIGHTS

- Animals have always been used by people to provide food, clothing, help with tasks and entertainment.
- **But sometimes the use becomes abuse and animals are cruelly mistreated**
- Animals are valuable in research. We can test products and drugs that keep people safe and cure diseases
- **But why should animals suffer for the sake of human health and safety**
- Animals are part of God's creation. He made them and gave us power over them.
- **But we should care for them responsibly, not just treat them like tools. Hindus believe Brahman is in all living things**
- Animal meat is a good source of protein and keeps us strong
- **But we have other food available that doesn't need killing**



ISSUES IN OUR WORLD



THE ENVIRONMENT

- The world is a precious gift from God and we should look after it as stewards
- **But God has given us dominion and we can use the resources when we need them**
- The planet gives us food, medicine and everything we need to survive. We should share and protect our resources
- **But business will be better and people will be richer if we use what we have**
- Many, especially Jews, believe we need to pass on a good world to future generations
- **But we need to make sure that people now have what they need before we worry about the future**

POVERTY & HUMAN RIGHTS

The UN and the law guarantees human rights such as shelter, healthcare, education, family life etc.

- **But sometimes people don't receive these because of bad governments, natural disasters, debt etc.**
- As humans we want to treat people with dignity and equality and give them freedom
- **But sometimes these are compromised for the sake of other needs (e.g. saving money, other priorities etc.)**
- Charities like Christian Aid try to ensure basic needs are met for people around the world with:
 - emergency help (shelter, food, medicine, clean water)
 - long term help (schools, hospitals, orphanages, farming equipment etc.)
- **But some people would like to see money spent on other things like support for the homeless or the NHS in the UK**



ART KNOWLEDGE ORGANISER

YEAR 8

Term 2 (January-March)
African Arts and Crafts

Topic: Africa: Kente patterns and Clay

Context:

The value of African art is in its history. African art reflects the history and culture of Africa. It is not just an art form but also a representation of the people who created it. African art often uses bright colours, geometric designs, and a wide range of subjects. Abstract themes and depictions are common in the art. African art includes art in many different forms of Art such media as sculpture, painting, pottery, textiles, masks, rock art and jewelry. Traditional African Art is characterised by bold bright colours and intricate geometric designs and patterns.

There is a traditional story or legend about how Kente Cloth came to be. The story describes how two young men were inspired how by a spider who was weaving its web with delicate, intricate patterns in the moonlight. The spider offered to show the two young men how to weave the designs in return for favours and rewards. Kente is a beautiful cloth or textile which comes from West Africa. Weaving Kente Cloth is a cultural tradition of the Asante people of Ghana and these fabrics were originally used exclusively to dress royalty. Kente Cloth is no longer reserved for royalty. Anyone who wants and can afford Kente Cloth can have it. Kente Cloth is now used for clothing, bags, shoes and even home furnishings. Designers worldwide are inspired by this African textile tradition.

Pottery making and ceramics is a very ancient craft in Africa, as some of the oldest pottery remains known in the world were discovered on this continent. Once the clay had been made and shaped, the clay would dry in the sun. Once the clay was dry, it would be covered in wood bark and cooked outdoors on an open fire. In some African countries real Kilns would be used to cook and bake the clay. In most cases ceramics were made by women. Clay was worked on entirely by hand, shaped and designed into the required shape. To this day, clay pots and vessels are used to cook food, store water and grains.

Tasks to complete:

Week 1: AP1 revision: Create a mind map on the Arts and Crafts of Africa. Add your key literacy words and maybe some small drawings. Look for about 30 words on the page.

Week 2: Practice key literacy vocab 1-6 - look, cover, write, check, correct x 3. Read the sentences again and check for understanding.

Week 3: Practice key literacy vocab 6-11 - look, cover, write, check, correct x3. Read the sentences again and check for understanding.

Weeks 4/5: Watch the story of The Spider Weaver and the clip showing you how to create and make your own Kente inspired weave. Using bright paper create your own Kente Cloth inspired design in your Home Learning books.

Weeks 6/7: Watch the video which shows you how to create your own African inspired design using African motifs and geometric patterns. In your home learning book, design one of your own.

Weeks 8/9: Watch a story about artists Yinka Shonibare, Rachel Jones and Abbas Zahedi. How did they decide to become artists? What inspires them? Learn about their art in these short videos.

Weeks 10/11: Watch the video showing how to make vessels from clay. In your home learning book create a simple design for a clay vessel inspired by African ceramics. Decorate your design with African motifs and geometric patterns. Use the clay pot outline to help you and look up African patterns and designs to inspire your decoration.

Key Literacy Vocabulary:

- Kente Cloth:** Kente Cloth is made from thin strips about 4cm wide woven together on narrow looms, typically by men.
- Legend:** A traditional story with cultural significance.
- Weave:** To make fabric/cloth from long threads on a weaving loom.
- Composition:** This is the way that different elements in a piece of artwork are combined and arranged.
- Repeat Pattern:** The repetition of lines, shapes, tones, colours, textures to create a design.
- Geometric Patterns** - patterns containing shapes, objects or pictures that repeat themselves.
- Motif:** A recurring pattern or design that appears in a work of art.
- Symmetry:** An object or image has symmetry if it can be divided into two identical halves.
- Earth colours** - colours of the earth, for example, brown, brownish-reds, reds, yellow, green and orange. Pigments and colours created from the earth/plants/flowers.
- Border:** An ornamental/decorative design on the outer part or edge of something.
- Ceramics:** making objects from clay, then firing them at a high heat.



Weeks 4/5 - Scan this QR code to watch and listen to the story of the Spider Weaver and the legend of Kente Cloth.



Scan the QR code below and watch the clip showing you how to create your own Kente Cloth inspired weave. Find some bright paper and have a go

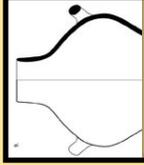


Weeks 6/7- scan this QR code to watch the video then create your own African inspired design with African motifs and patterns.



Weeks 8/9 - scan these QR codes to watch videos about Artists Yinka Shonibare, Rachel Jones and Abbas Zahedi to broaden your knowledge of Artists who have African heritage.

Weeks 10/11- Scan the QR code below to watch the video of West-African pottery being made in Burkina Faso.



Week One

Read your knowledge organiser focusing on **Separation Techniques** for 5 minutes. Turn to the page labelled **Separation Techniques Key Questions**.

Cover the answers or cut the page out and fold down the middle line.

Answers questions 1 - 10 in full sentences.

Mark your own work using the answers.

Week Two

Read your knowledge organiser focusing on **Separation Techniques** for 5 minutes. Turn to the page labelled **Separation Techniques Key Questions**.

Cover the answers or cut the page out and fold down the middle line.

Answers questions 11 - 20 in full sentences.

Mark your own work using the answers.

Week Three

Read your knowledge organiser focusing on **Separation Techniques** for 5 minutes. Turn to the page labelled **Separation Techniques Key Questions**.

Cover the answers or cut the page out and fold down the middle line.

Answers questions 21 - 30 in full sentences.

Mark your own work using the answers.

Week Four

Read your knowledge organiser focusing on **Separation Techniques** for 5 minutes.

Draw and label the equipment required to complete chromatography and distillation.

Write instructions detailing how to complete chromatography and distillation.

Week Five

Read your knowledge organiser focusing on **Separation Techniques** for 5 minutes.

Draw and label the equipment required to complete evaporation, crystallisation and filtration.

Write instructions detailing how to complete evaporation, crystallisation and filtration.

WE ARE USING



TASSOMAI

Have you completed your 4 daily goals?
Complete your 4 daily goals this week to
ensure you improve 😊

Home learning tips:

1. Answer any questions in full sentences.
2. Take your time reading through your knowledge organiser.
3. Read the task twice.
4. Ask your teacher in your next lesson if you are unsure about anything.
5. Not sure which week to do? Ask your teacher!

What do I need to be able to do?

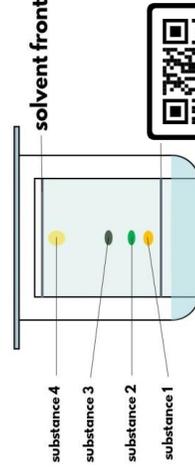
- The concept of a pure substance
- Mixtures, including dissolving
- Simple techniques for separating mixtures: filtration, evaporation, distillation and chromatography
- Select most appropriate technique to separate a mixture and perform it
- Identify pure substances and mixtures
- Plan investigations, identify and control variables
- Make observations and take measurements
- Make predictions and draw conclusions
- Attraction and repulsion of magnets
- The conservation of mass during dissolving
- Reversible nature of physical changes e.g. crystallisation
- Separation of coloured substances using chromatography
- Sugar/salt water not being separated by filtering

7. Chromatography

Paper Chromatography is used to separate mixtures of soluble substances. These are often coloured substances such as inks or food colourings.

The substances are separated based on their solubilities.

The more soluble substances in the mixture move further up the chromatography paper in the solvent.



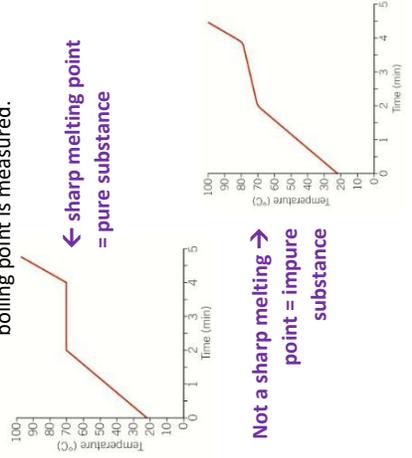
Scan here to see this being performed



1. Purity of a Substance

A pure substance – in Chemistry – is a singular element or compound.
e.g. bottled water is not pure as it does not only contain H_2O molecules, it also contains ions.

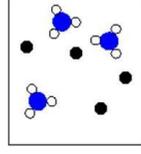
To identify a pure substance, it's melting, or boiling point is measured.



8.4 – Separation Techniques

2. Mixtures

A mixture is a substance that contains 2 or more different elements or compounds, that are not chemically bonded to each other



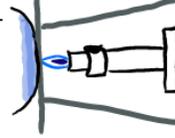
How are compounds and mixtures different?

Mixture	Compound
Different substances are not bonded together	Atoms of different elements are bonded together
The substances in the mixture keep their own properties	The properties of the compound are different to the properties of the elements it is made of
Easy to separate	Chemical reactions are needed to separate the elements
Amounts of each substance in the mixture can vary	Number of atoms of each element in the compound is fixed

5. Evaporation and Crystallisation

Crystallisation can separate a soluble solid from a liquid
e.g. salt and water.

The mixture is poured into an evaporating dish and heated until most of the water has evaporated.



The evaporating dish is then left to cool, and crystals form.

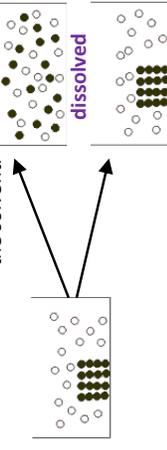


3. Solubility & Solutions

A solution is formed when a solute is dissolved in a solvent.

e.g. when sugar is dissolved in water, sugar is the solute, the water is the solvent and the sugary water is the solution

Dissolving particles of the solute do not disappear – they just fit between the particles in the solvent.

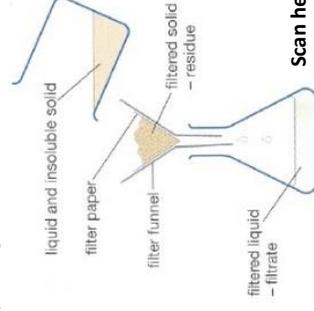


If 10g of sugar is added to 100g of water – then you'd have 110g of sugary water solution.

The mass of solute that dissolves in 100g of water to make a saturated solution is called its solubility. This is different for every substance. The solubility of most substances increases as the temperature of the solvent does.

4. Filtration

Filtration can separate an insoluble solid from a liquid. e.g. sand and water



Scan here to see this being performed

The particles of the insoluble solid are too big to fit through the tiny holes in the filter paper, whereas the particles of the liquid are not.



Separation Techniques – Key Questions

Questions



1. In everyday language what is a "pure" substance?
2. In chemistry what is a "pure" substance?
3. What is the main change noticed when a substance is impure?
4. How would you represent an element in a diagram?
5. How would you draw a diagram of a compound?
6. How does road gritting affect the properties of ice?
7. What is a mixture?
8. What is the solid that dissolves called?
9. What is the liquid the substance dissolves in called?
10. What do we call a mixture of a solvent and solute together?
11. What do we call a substance that does dissolve?
12. What is the difference between a clear and a colourless solution?
13. What do we call the point where no more solute will dissolve?
14. What are the units for solubility?
15. What is an independent variable?
16. What is a dependent variable?
17. Give two ways of increasing the rate of dissolving.
18. How does the process of filtration work?
19. What is the substance left in the filter paper after filtration called?
20. What is the liquid that has been filtered called?
21. What are the two stages of distillation?
22. How can distillation be used to separate two or more miscible liquids?
23. What are two errors that can occur when carrying out chromatography?
24. How does chromatography separate different pigments in ink?
25. How do we calculate the R_f value of a substance.
26. Why must the line be drawn in pencil on a chromatogram?
27. What change of state happens inside a Liebig condenser?
28. List the five pieces of equipment needed for evaporation.
29. What method would we use to separate salt from a salt solution?
30. How would you separate sand from salt?

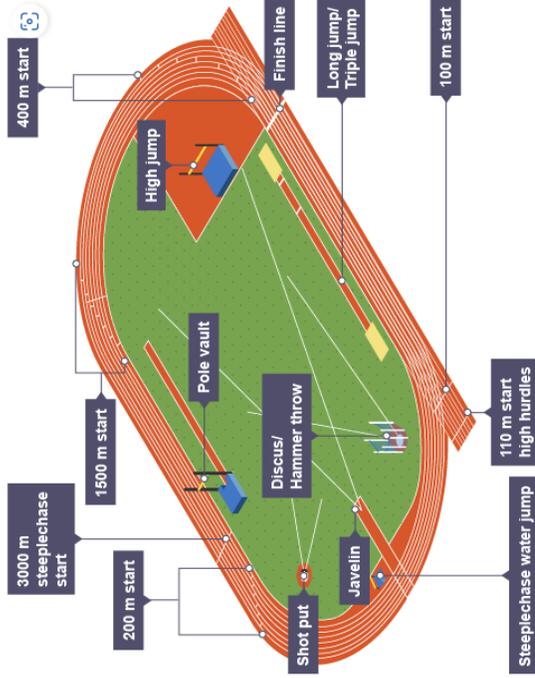
Answers



1. A substance that has had nothing added to it and is in its "natural" state.
2. A substance made of a single element or compound.
3. Impure substances have different melting and/or boiling points.
4. You would represent an element by only drawing one type of atom.
5. A compound would be represented by two or more different atoms joined together.
6. The salt in road grit lowers the melting point of ice.
7. A mixture is two or more substances not chemically joined together.
8. The solid that dissolves is called the solute.
9. The liquid that the solute dissolves in is called the solvent.
10. A mixture of a solvent and a solute mixed together is called a solution.
11. A substance that dissolves is described as soluble.
12. Clear and colourless solutions are both transparent but a clear solution can transmit colour.
13. The point where no more solute will dissolve is called the saturation point.
14. The units for solubility are g/dm³.
15. The independent variable is the variable you are investigating and that you change.
16. The independent variable is the outcome that you are measuring.
17. The rate of dissolving can be increased by stirring or heating.
18. Filtration is used to separate soluble from insoluble substances.
19. The substance left in the filter paper is called the residue.
20. The liquid that has been filtered is called the filtrate.
21. The two stages of distillation are heat (evaporate liquid) and then cool (condense).
22. Distillation can be used to separate miscible liquids if they have different boiling points.
23. Line drawn with a pen and solvent level above the ink being separated are the two most common errors in chromatography.
24. The different pigments have different solubilities and so move different distances relative to the solvent front.
25. The R_f value is the distance moved by the pigment divided by the distance moved by the solvent front.
26. If the line is drawn in ink, it will dissolve in the solvent and interfere with the chromatogram.
27. The change in state that happens inside a Liebig condenser is from gas to liquid.
28. An evaporating basin, tripod, gauze, heat proof mat and Bunsen burner are needed for evaporation.
29. Salt crystals can be separated from salt solution by evaporation and crystallisation.
30. You would separate sand from salt by dissolving in water, then filtering.

Athletics (Indoor)

SPIN FOR ANSWERS



Athletics is a collection of sporting events that consist of the three major areas of running, jumping and throwing. The running events include sprints, middle and long-distance events and hurdling. Jumping events include the long jump, high jump, triple jump and pole vault, while the throwing events include the discus throw, hammer throw, javelin throw and shot put.

Track events – these races are started with an electronic pistol which is only sounded again on a false start. In races that are very close, officials use a digital line-scan camera across the finish line to give them a photo finish picture. The clock stops when an athlete has passed through the finish line.

Jumping (field) events – these events are measured from the front edge of the take-off board to the first mark made in the sand by the athlete. The distance is always measured to the nearest centimeter and athletes will always be given a minimum of three jumps.

Throwing (field) events – these events are measured from the front edge of the throwing line to the first mark made in the ground by the implement. The distance is always measured to the nearest centimeter and athletes will always be given a minimum of three attempts.

Key words:
Jumping
Throwing
Sprinting
Distance
Measured

Task 1
Components of fitness in athletics

- 1) When is reaction time needed in a 100m race?
- 2) Why does a javelin thrower need power?
- 3) Why does a long jumper need speed?

Task 2
True or False

- 1) The pole vault is a throwing event
- 2) The 4x100m relay is performed by 4 athletes
- 3) When landing in the sand on the triple jump it is measured from the closest landing mark to the take off board.

Task 3
Answer if the following events are field or track

1. 800M race
2. 400M race
3. 100M race
4. Shot putt
5. Long jump
6. 400M Relay
7. High jump

Task 4

What components of fitness may be relevant to the field and track events from task 3.

NOTE: there may be more than one component for each event.

5
TASK
Watch all 5 videos multiple times to learn and understand the techniques to become an even better performer



Answers:
Task 1:
1) At the start reacting to the gun
2) A javelin thrower needs speed in their run up and strength in their throw

3) A long jumper needs power to jump far and power is made up of strength and speed

Task 2:

- 1) False
- 2) True
- 3)

Task 3

1. Track
2. Track
3. Track
4. Field
5. Field
6. Track
7. Field

Task 4

1. Cardiovascular endurance
2. Speed
3. Speed
4. Power, strength
5. Power, speed, balance
6. Speed, reaction time
7. Power, speed

PERFECT
PRACTICE
MAKES
PERFECT



SCAN ME

Learning to Learn



SCAN ME

The 'Listen' Project #1