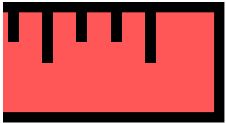




HOME-LEARNING KNOWLEDGE ORGANISERS



YEAR 9



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!

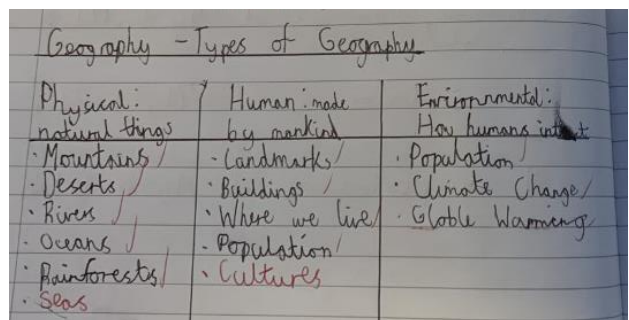
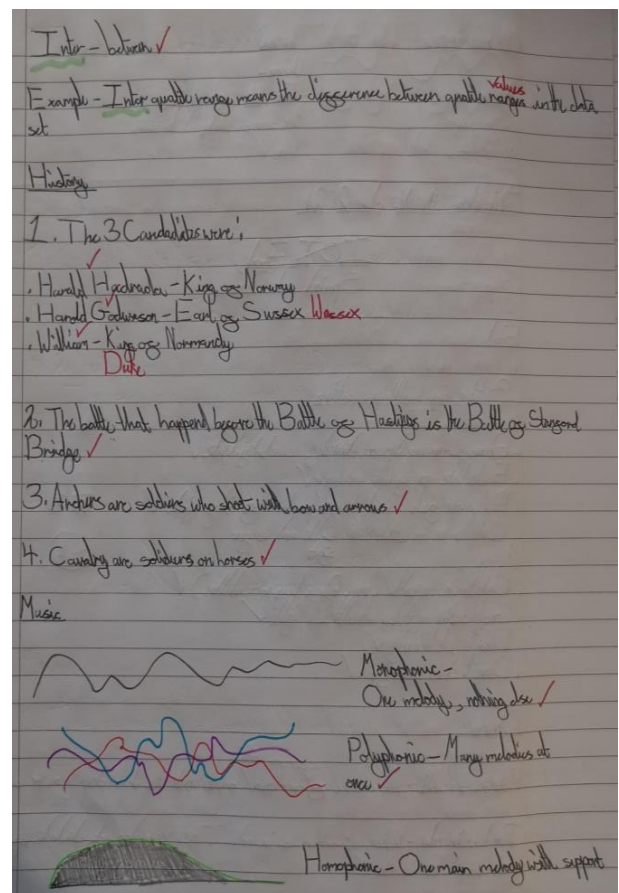
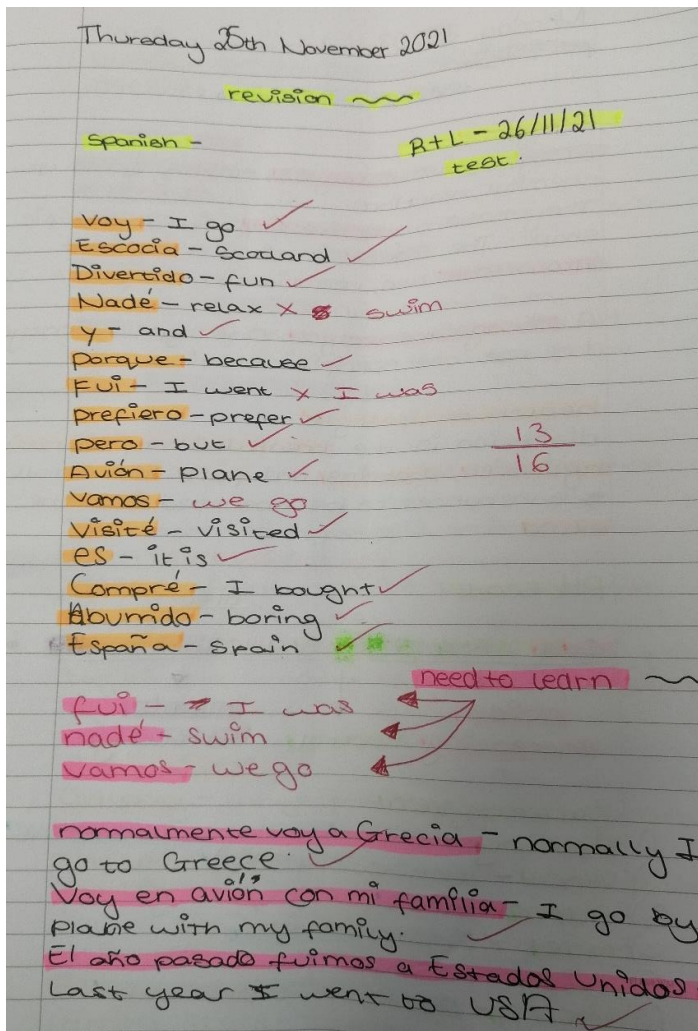


What does effective home-learning look like?

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.



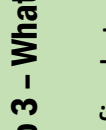
Step 2 - Check the text.

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.

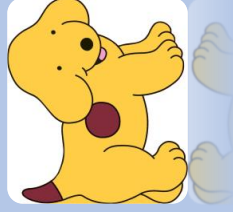
At a spot, where a ledge of barely submerged rocks jutted out into the river, Hans cast off the rope, and Thornton poled the boat out into the stream. The boat snubbed into the bank bottom up, while Thornton, flung sheer out of it, was carried downstream toward the worst part of the rapids, a stretch 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 heart-warming. We can learn valuable lessons about the natural world from the stories we tell.



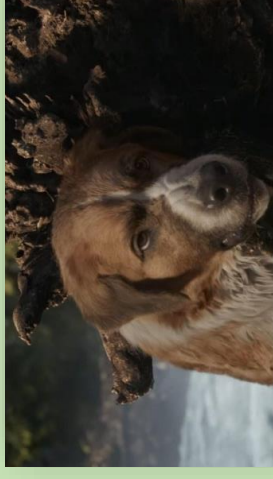
Humph...



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	Sector	A part of a circle from the centre to the edge. Made up of 2 radii and an arc. Eg. Think of a slice of cake	Draw three circles and sketch a sector in each using a different colour pen.	61  Scan here
2	Arc	A piece of the curve of a circle Arc length is found using the formula: $\frac{\theta}{360} 2\pi r$	Draw three circles and sketch an arc in each using a different colour pen.	58  Scan here
3	Surface Area	The area of all the faces of a 3D shape.	Sketch this net of a cuboid, find the area of all the sides then the total surface area	61  Scan here
4	Cubic Graph	A graph which contains a x^3 Can be recognised through the graph 'turning' twice	Sketch 3 different cubic graphs	310  344
5	Reciprocal	A graph made by dividing by an x term eg. $Y = 1/x$ It will never touch the axis on a graph because you cannot divide by x	Sketch out a reciprocal graph in your Home Learning book	 346



Topic: Why did the Second World War break out and what was the impact in Britain?

Overview







The road to World War Two: Appeasement

When Hitler came to power he had promised the German people that he would make Germany great again and abolish the hated Treaty of Versailles. To achieve this Hitler knew that he would have to expand Germany's borders into neighbouring countries. He had seen both Japan in 1932 and Italy in 1935 invade other countries without serious opposition. With the failure of the **League of Nations** to prevent countries from invading one another world leaders tried to find other ways to prevent war.

After Hitler came to power in 1933 Britain and France adopted a policy of **appeasement** towards Hitler, (this meant that Britain and France would give Hitler what he wanted as long as the demands were reasonable). **Appeasement** was widely supported by the British people who wanted to avoid another war and now thought that the terms of the Treaty of Versailles were unfair. By appeasing Hitler, Britain and France gave Hitler the confidence to expand Germany without the fear of France and Britain stepping in to stop him. Between 1936 and 1939 Britain and France seemed to be putting up little resistance to Hitler who became increasingly ambitious in his aims for German expansion.

Hitler decided to invade Poland on the 1st September 1939. He believed that France and Britain had weak leaders who would not stop the German invasion. However, Britain had promised to intervene if Germany invaded Poland. The policy of appeasement had failed. On the 3rd September Britain and France declared war on Germany. Hitler's gamble had also failed; Germany was now at war.

Main Participating Countries

ALLIED POWERS		AXIS POWERS	
Country	Date Joined	Country	Date Joined
 FRANCE	3 rd Sep, 1939	 GERMANY	1 st Sep, 1939
 UK	3 rd Sep, 1939	 ITALY	11 th Jun, 1940
 SOVIET UNION	22 nd Jun, 1941	 HUNGARY	27 th Jun, 1941
 USA	8 th Dec, 1941	 JAPAN	7 th Dec, 1941

Death Toll

	600,000 1.44% of population in 1939		approx. 7,200,000 8.5% of population in 1939
	450,900 0.94% of population in 1939		approx. 500,000 1.14% of population in 1939
	approx. 24,000,000 13.7% of population in 1939		464,000 5.08% of population in 1939
	419,400 0.32% of population in 1939		approx. 3,000,000 4.1% of population in 1939

Key People





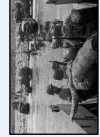
Sir Winston Churchill – was a British politician who served as the Prime Minister between 1940 and 1945 and again from 1951 to 1955. He took over after a disastrous start to the war in which Nazi Germany conquered much of Europe. He did his best to rally the nation in defiance of Adolf Hitler.



Adolf Hitler – was a German politician who was the Führer of Germany from 1934-1945. He gained a loyal following through his ideas, powerful speeches and charisma. Hitler's Germany invaded Poland in Sep 1939 to start the war, and he initiated the Holocaust. He is therefore significantly responsible for millions of deaths. He committed suicide on 30th Apr 1945, when the war was clearly lost.



Major Events

Event	Description	Date/s	Fact
WWII Begins 	On 1 st September 1939, Germany invaded Poland, using the 'Blitzkrieg' strategy. Britain and France (Poland's allies) gave a notice period for the Germans to withdraw their troops from Poland. When they did not, Britain and France declared war on 3 rd September. Britain initially responded with bombing raids over Germany. Nearly six years of war in Europe was to follow.	1 st -3 rd September 1939	Hitler claimed to attack Poland to give the German people 'Lebensraum' – living space.
Evacuation of Children 	People expected cities to be bombed, as enemy planes tried to hit targets, for example warehouses and factories. This would have put city children (in schools and houses close by) in grave danger, and so thousands were evacuated to the countryside. Many were extremely homesick, but some enjoyed their new lives.	September 1939 onwards	About 800,000 children left their homes throughout the war.
Evacuation of Dunkirk 	Large numbers of British, French, and Belgian troops were surrounded by German soldiers at the French coastal town of Dunkirk, and seemed set to be killed or captured. Remarkably, 338,226 were saved by a fleet of 800 small boats. The event is also known as the 'Miracle of Dunkirk.'	26 th May – 4 th June 1940	These events have been the basis for the recent film entitled <i>Dunkirk</i> .
Battle of Britain 	In the Battle of Britain, the Royal Air Force (RAF) successfully defended the UK against attacks by Nazi Germany's air force, the Luftwaffe. It has been described as the first military campaign fought entirely by air forces.	10 th July – 31 st October 1940	This was seen by many as Germany's first major defeat in the war.
D-Day Landings 	The Normandy Landings, also known as D-Day, were a series of landing operations by the Allies to claim back Europe. It was the largest seaborne invasion in history. The operation began the liberation of north-western Europe from being under German control.	10 th July – 31 st October 1940 6 th June 1944	Between 14,000 and 19,000 men died in the D-Day landings.

Key Terms

Allies: Two countries/groups who have joined together. In war allied countries fight together against a common enemy.

Anderson Shelter: A small air-raid shelter meant to protect one family during an air raid. Made of corrugated steel and covered in soil.

Appeasement: Giving in to demands to avoid a future war.

Atlantic Wall: Coastal fortifications built by the German Army during WW2 along the French and Scandinavian coast. It was built to push back an allied attack.

Blitzkrieg: German for "Lightning War". Hitler's attack strategy involves an intense military campaign which overwhelms the opposing army and brings about a quick victory.

Blitz Spirit: A determination and belief that everyone is in this together.

Bomber Command: The division in the RAF responsible for all of the RAF bomber squadrons and the military operations they took part in.

British Expeditionary Force: The professional British Army sent to France 1939-40.

Evacuation: To move someone from one area to another because of danger.

Fighter Command: Part of the RAF in charge of the organisation and deployment of the RAF fighter planes like Spitfires and Hurricanes.

Luftwaffe: German Air force.

Morale: Confidence or faith in someone or something.

Munitions: Military weapons and/or ammunition like bombs, bullets and grenades.

Operation Dynamo: Codename for the mass evacuation of British and Allied troops at Dunkirk.

Rations: A fixed amount of goods a person is allowed. During World War One and Two goods were rationed. During WW2 one adult was allowed 4 thin slices of ham or bacon, 1 egg, 3 pints of milk, 57g of butter and 227g of sugar.

Rearmament: To equip the armed forces with new supplies.

Squadrons: A group of military air planes that work and fly together.

U-boats: German submarines.

Tasks

Task 1

Look at the "Overview" section on the page above. Explain why many historians think the policy of appeasement was a mistake.

Task 2

Look at the 'Major Events' section on the page above. Choose the event you find the most shocking and, using the descriptions and facts linked to that event, explain why you are most shocked by this event.

Task 3

Create a 10-question quiz based on your knowledge organiser. Use this quiz to test someone you know. If they don't know the answer, teach them!

Task 4

Go to the Liverpool Blitz page on the Imperial War Museum website. Explain which of the 6 sources you find the most interesting and why. You could ask the people you live with if they knew about the impact of the war on our city too!

<https://www.iwm.org.uk/history/the-liverpool-blitz>



Task 5

Read through **BBC Bitesize** – *World War Two: An Overview* and complete the 10-question quiz at the end to test your knowledge.

<https://www.bbc.co.uk/bitesize/topics/zk94jxs/articles/z6vff82#zws5pp4j9>



Watch some Samba in action!

<https://www.youtube.com/watch?v=RP5r2wi98aA>

or use QR code below

Brazilian Samba is:

- performed in outdoor carnivals by large groups of musicians
- performed on **percussion** instruments
- not normally written down but passed on through the **oral tradition**
- includes **call and response** sections
- made up of **layers of ostinato** rhythms
- is often very **syncopated** (off beat rhythms)
- The stops and starts are controlled by a leader using a whistle

Samba instruments include:

- The Surdo
- The timbale
- Claves
- Agogo Bells



Surdo



Agogo bells



Watch some African drumming!

<https://www.youtube.com/watch?v=6dFtIcqGW50>

or use QR code below



Djembe

African Music is:

- often part of everyday activities - everyone joins in!
- often part of ceremonies where it is performed by specialists
- not normally written down but passed on through the **oral tradition**
- **call and response** is a common musical feature
- **syncopated** (see Samba)
- made up of **layers of ostinato** rhythms

African Drums include:

- **Djembe** (three different 'notes' can be produced - Bass, Tone Slap)
- **The Talking Drum**
- **Congas**

The influence of **black African music** is widespread. It went to America with the African slaves, combined with other music of the European settlers to produce new styles of music such as blues, gospel and jazz.

Key Terms: Samba and African Drumming

Ostinato: a repeated musical pattern

Syncopated: a rhythm that is 'off the beat' normally a complicated rhythm

Polyrhythm: two different rhythms played at the same time

Improvise: make it up 'on the spot'

Call and response: a musical phrase (the call) answered by other musicians with a different phrase (the response)

Unison: all play the same music at the same time

Oral tradition: when music is shared by listening and copying – not by writing it down

TASKS:

1. Revise what samba is about and the names of the instruments.
2. Use the QR code to watch a Youtube clip of samba. Which of the key elements of samba and instruments can you identify?
3. Revise what African drumming is about and the names of the instruments.
4. Use the QR code to watch a Youtube clip of African drumming. Which of the key elements of African drumming and instruments can you identify?
5. Create a 10 mark quiz that contains questions about both Samba and African drumming.
6. Create a Venn diagram showing what features Samba and African drumming have in common and also their differences.



Computing Department Knowledge Organiser: Year 9 Mobile App Development

What is an App?	
<p>'App' is an abbreviation for application.</p> <p>An App is a computer program or piece of software designed with a purpose so that you can download on to your smartphone. E.g. WhatsApp, Tassomai</p>	<p>Task 1: Can you name 5 educational apps? Task 2: Describe an app in your own words Task 3: Describe an idea for an app that could be made that is linked to a hobby or interest that you have. Task 4: What does debugging an app mean? Task 5: What events can be used for user input?</p>
<p>Advantages of mobile phone apps</p> <ul style="list-style-type: none">• Simplicity. Mobile apps generally need very little instruction on how to use them• They help to engage pupils in education as well as providing them with greater access to educational materials• They create more interactive ways for us to communicate with family and friends across the world• They allow more opportunities for flexible working, such as working from home or outside normal office hours	<p>Disadvantages of mobile phone apps</p> <ul style="list-style-type: none">• Apps may have to be coded for two or more environments (e.g., iOS and Android).• Mobile apps may require access to personal information on your phone. This may feel invasive and could be a potential security weakness• An app may not contain all the information or functionality of the full website version e.g. the Facebook app has less features than the website version of Facebook• In some cases, mobile apps may be more of a distraction from learning in educational settings. Some studies say using apps for too long can accelerate information overload so remember to take a break.



Computing Department Knowledge Organiser: Year 9 Mobile App Development

You are developing a **mobile app** in your Computing lessons using the <https://code.org/educate/applab> website.

Top Tip: You can use the **hour of code** website to learn how to code or create an app from home. <https://hourofcode.com/uk/learn>

COMPUTATIONAL THINKING



EVENT DRIVEN PROGRAMMING

User action such as:

- Mouse clicks
- Touchscreen
- Key presses
- Hovering over a picture
- Voice input ("OK Google", Siri, Alexa)

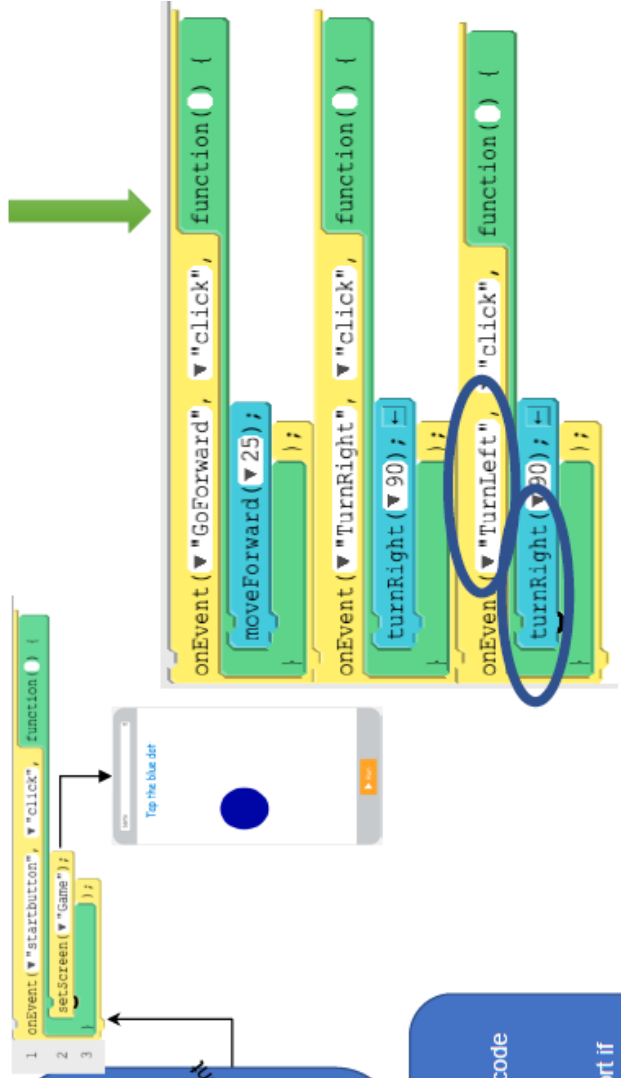
Events can also be triggered by:

- Sensors (e.g. if movement is sensed turn the light on)
- Messages from other programs

PAIR PROGRAMMING

The driver: To control the keyboard and mouse and place the code blocks into the correct places.

The navigator: To help support the driver by watching for any mistakes, reading instructions to the driver, and seeking support if needed.





Computing Department Knowledge Organiser: Year 9 Mobile App Development

USER INPUT

Text boxes – allowing the user to input a string.

Checkboxes - allowing for the user to indicate a yes or no response.

Button – linked to an event that will capture and process the data when it is clicked

```
val id = getText("id")
```

GETTEXT

getText ("id") is a built-in subroutine that collects the text entered into a textbox; "id" is to be replaced with the name given to the text box.

VARIABLE (VAR)

Sometimes we need computers to remember the information we give it and that it calculates during programs. A variable can be thought of as a box that the computer can use to store a value. The value held in that box can change or 'vary'. A program can use as many variables as it needs it to.

SELECTION – BOOLEAN LOGIC (IF/ELSE/ELIF)

Selection is the process of making a decision based on a condition. Selection allows you to add more avenues and routes to your coding.

```
if (score > 10) {
  setText("feedback_label", "Great Work!");
} else if (score > 6) {
  setText("feedback_label", "Not Bad!");
} else {
  setText("feedback_label", "Hard Luck!");
}
```

EVENT HANDLER

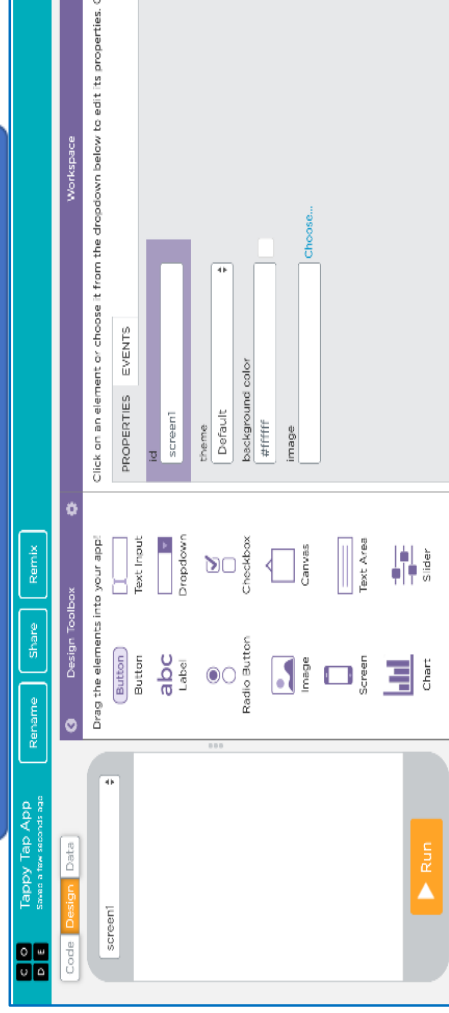
You can use an event handler to determine when to collect the data and what to do with it once it has been collected and linked with a variable.

```
onEvent("login", "click", function () {
  var username = getText("username");
});
```

For example:

```
>>> money_in_bank = 20
>>> total_money = money_in_bank + 10
>>> print(total_money) 30
```

GRAPHICAL USER INTERFACE (GUI)

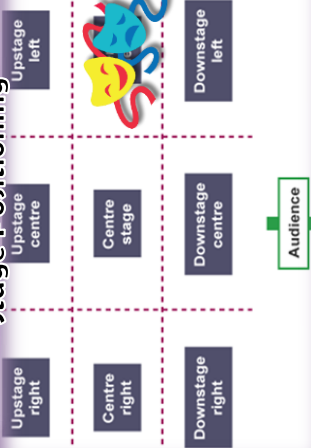


EVALUATION

Verb

"To judge or calculate the quality, importance, amount, or value of something"

Stage Positioning



The scheme in focus during this half term is:

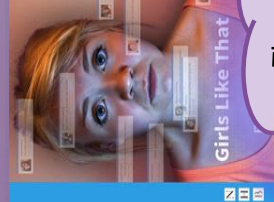
Theatre Practitioners/ Script

exploration

AP1

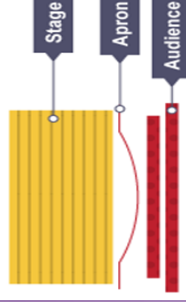
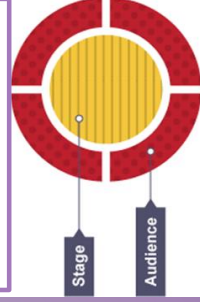
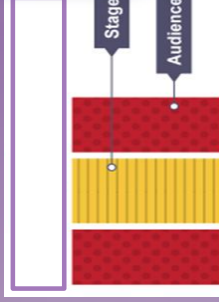
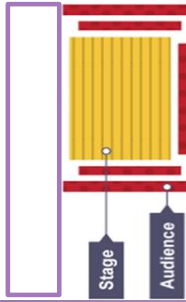
New Skill/Technique Retrieval

We are going to be exploring a number of scripts this term whilst also keeping focus on our theatre practitioners!



The History Of Theatre

Stage Types



1860 - Present



1920 - Present



1945 - 1960



1956 - 1970



Knowledge/skill	Definition
Alienation effect	It involves the use of techniques designed to distance the audience from emotional involvement in the play through jolting reminders of the artificiality of the theatrical performance.
Split role	This is where more than one actor plays the same character. For instance, the actor playing the main character might rotate from scene to scene.
Physical theatre	A well-known genre of theatrical performance that encompasses storytelling primarily through physical movement.
Verbatim	A form of documented theatre in which plays are constructed from the precise words spoken by people interviewed about a particular event or topic.
Choral Work	The chorus in Classical Greek drama was a group of actors who described and commented upon the main action of a play with song, dance, and recitation.
Subtext	This is content underneath the dialogue. Under dialogue, there can be conflict, anger, competition, pride, showing off, or other implicit ideas and emotions. Subtext is the unspoken thoughts and motives of characters — what they really think and believe.
Improvisation	A very spontaneous performance without specific or scripted preparation.
Synchronisation	When two or more performers perform the same moves at the same time
Hot seating	A character is questioned by the group about his or her background, behaviour and motivation.
Theatre in education	Theatre in Education (TIE) is a process that uses interactive theatre/drama practices to help aid the educational process
Movement	Where we move to on and around the stage avoiding the blocking another actor.
Chair Duets	This is a technique by the incredible Frantic Assembly. This is a physical theatre performance that primarily takes place on chairs and performers create dynamic movements directing each other.
Direct address	Speaking directly to the audience to break the fourth wall and destroy any illusion of reality.
Gesture	In acting gesture is defined as a sign that communicates a character's action, state of mind and relationship with other characters to an audience.
Soundscape	A collection/layering of sounds created either by the actors themselves or by using recorded methods.

Week 1

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 – 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. You should 100% know these by now!

1860 - Present

NATURALISM

- 'Naturalism' refers to dramas that attempt to recreate 'real life'.
- English playwright, Tom Robertson experimented with Naturalism in the 1860's. His plays were labelled 'Cup and Saucer Dramas' as he used real food and drink on stage.
- Konstantin Stanislavski developed 'The Method': a system that helped actors relate to their characters' emotions.
- Naturalism is now an accepted form in theatre, film and television. Eastenders and Coronation Street are both naturalistic dramas.

Playwrights include: Henrik Ibsen (*A Doll's House*) and August Strindberg (*Miss Julie*).



POLITICAL THEATRE

1920 - Present

- The horrors of World War I had a huge impact on people across the world.
- German director Erwin Piscator believed theatre could be used to make people think about political issues.
- Bertolt Brecht wanted audiences to be challenged and think about injustice. He became one of the most influential playwrights and theorists of the twentieth century.
- British playwrights such as Joan Littlewood and Tony Marchant have continued to use theatre as a forum to make audiences think about political issues.

Playwrights include: Bertolt Brecht (*The Caucasian Chalk Circle*) and Joan Littlewood (*Oh! What a Lovely War*).



Key Theatre maker terminology for this term

Role 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.
Sound designer	The sound designer is responsible for designing the sound required for a performance. This may include underscoring, intro and outro music as well as specific effects. The final design will result in a sound plot which is a list of the sounds required 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.
Puppet designer	The person who designs the puppets for a performance.
Technician	A person who works backstage either setting up technical equipment such as microphones or rigging lights before a production or operating technical equipment during a performance.
Director	A director is in charge of the artistic elements of a production. A director will often have the initial creative idea ('concept') for a production, will work with the actors in rehearsal, and will collaborate with designers and the technical team to realise this idea in performance.
Stage manager	The Stage Manager is in charge of all aspects of backstage, including the backstage crew. They will oversee everything that happens backstage before, during and after a performance. During the rehearsal period, the Stage Manager and their team will make sure that all props are found or made, scene changes are rehearsed and smooth, and all other aspects of backstage are prepared. They are also in charge of the rehearsal schedule.
Theatre manager	This is the person who is responsible for and manages the front-of-house team who deal with the audience during the production (for example, the box office manager, ushers and similar staff).

Week 2

Scan the QR code provided and watch the video

Create a history of Theatre Poster

Listen to Fleetwood Mac 'Albatross' and write down all the words/phrases that come to mind.

Week 3



Week 4

Week 5

Scan the QR code and catch up on The Drama Maga-Scene issues!

THEATRE OF THE ABSURD

1945 - 1960

- World War II made people further question the meaning of life. Playwrights once again used theatre to make people question the point of their existence.
- One of the most famous plays from this period is 'Waiting for Godot' by Samuel Beckett. Although the play is comic, it also makes many serious points about the futility of life.
- The influential British playwright, Harold Pinter was influenced by 'Theatre of the Absurd', particularly in his early works such as 'The Birthday Party'.

Playwrights include: Eugène Ionesco (*The Chairs*) and N.F. Simpson (*One Way Pendulum*).



KITCHEN SINK DRAMA

1956 - 1970

- In 1956, director George Devine commissioned a number of playwrights to write plays for the Royal Court Theatre.
- One play: 'Look Back in Anger' by John Osborne featured a young male character who criticised middle class values. This type of character was labelled an 'Angry Young Man' and refers to anyone who challenged the establishment.
- When censorship was abolished, playwrights were given complete freedom to use theatre to challenge ideas and beliefs.
- This 'revolution in theatre' also had a massive impact on television and film.

Playwrights include: Shelagh Delaney (*A Taste of Honey*) and Arnold Wesker (*Chips with Everything*).





Spanish - Key verbs and vocab

Key phrases

1. Trabajo como **abogado** - I work as a lawyer
2. **Mi madre es enfermera** - My mum is a nurse
3. **Mi padastro trabaja en una oficina** - My step-dad works in an office
4. **Mi hermana trabajaba como periodista** - My sister used to work as a journalist
5. **Es un trabajo muy estresante y exigente** - It's a very stressful and demanding job
6. **Va a ser bastante fatigante** - It's going to be quite tiring
7. **Creo que soy una persona ambiciosa y trabajadora** - I think I'm a very ambitious and hard-working person
8. **Me gustaría trabajar en contacto con la gente** - I would like to work with people
9. **Sería variado y creativo** - It would be varied and creative
10. **Espero tener un buen trabajo** - I hope to have a good job
11. **Quiero ser feliz** - I want to be happy
12. **Voy a ser rico** - I'm going to be rich

Mi madre es **profesora** y trabaja en **un instituto** en mi ciudad. Dice que es un trabajo **estresante** pero **variado**. Mi padre trabaja en **un garaje** como **mecánico** pero no le gusta su trabajo porque es muy **exigente**. En el futuro yo voy a ser **diseñadora** porque soy muy **creativa** y sería **variado** y **práctico**. Cuando era más joven mi madre era **repcionista** pero ahora no. También en el futuro espero casarme y **tener tres hijos**. Además me gustaría **viajar por el mundo** y **ser rico**.

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 1-6 - look, cover, write, check, correct x 3. Read the sentences out loud to practice your pronunciation.

Task 2: Practice key phrases 7 -12 - 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

Los trabajos - Jobs	<p>ingeniero - engineer abogado - lawyer profesor - teacher dependiente/a - shop assistant enfermero - nurse cocinero - chef camarero - waiter periodista - journalist médico - doctor conductor - driver soldado - soldier dentista - dentist carpintero - carpenter jardinero - gardener mecánico - mechanic peluquero - hairdresser escritor - writer diseñador - designer futbolista - footballer cantante - singer comerciante - businessman/woman repcionista - receptionist electricista - electrician</p>	Mis sueños - my hopes and dreams	<p>Espero - I hope Quiero - I want Me gustaría - I would like casarme - to get married tener un buen trabajo - to have a good job comprar una casa grande - to buy a big house tener hijos - to have children ser rico/a - to be rich tener un auto deportivo - to have a sports car viajar por el mundo - to travel the world ser feliz - to be happy vivir al extranjero - to live abroad ser famoso/a - to be famous</p>	Lugares de trabajo - Places of work	<p>un hospital - a hospital un instituto - a school una oficina - an office un teatro - a theatre un hotel - a hotel un garaje - a garage un taller - a workshop una tienda de ropa - a clothes shop un supermercado - a supermarket un restaurante - a restaurant una clínica del dentista - a dentist's surgery</p>	La personalidad - personality	<p>organizado/a - organised trabajador/a - hard-working fuerte - strong ambicioso/a - ambitious activo/a - active paciente - patient dinámico/a - dynamic honesto/a - honest inteligente - clever práctico/a - practical creativo/a - creative responsable - responsible extrovertido/a - outgoing comunicativo/a - communicative serio/a - serious</p>
<p>Challenge: Using this vocab, how many sentences can you make in Spanish about jobs and future plans?</p>		Descripciones - descriptions	<p>creativo - creative práctico - practical manual - practical/manual fatigante - tiring variado - varied fácil - easy repetitivo - repetitive</p> <p>monótono - monotonous/repetitive difícil - hard estresante - stressful exigente - demanding interesante - interesting</p>				

Key definitions	Erosion- sub types
<ul style="list-style-type: none"> • Erosion- The wearing away of rocks and other deposits on the earth's surface by the action / movement of water, ice, wind, etc. • Transportation- the movement of material from one place to another-material can be moved in different ways depending on its weight/size. • Deposition- when material is dropped because there is no longer enough energy to transport it. • Weathering- is the breaking down of rocks in situ (in place). 	<ul style="list-style-type: none"> • Hydraulic action- The explosion of compressed air trapped in cracks of the cliffs by the waves. • Attrition- When the waves cause rocks and pebbles to bump into each other and break into smaller pieces. • Abrasion- When large waves hurl beach material against the cliff. • Solution/corrosion- When salts and other acids in sea water dissolve the rocks of the cliff.

Weathering- sub types	Year 9 Coasts- Geography		
<p>There are 3 main types of weathering:</p> <table border="1"> <tr> <td data-bbox="203 1018 646 1371"> <p>1. Physical / Mechanical: Disintegration of rock without a chemical change e.g. freeze-thaw- sometimes called frost shattering. Another type is exfoliation- which involves changes in temperature.</p> </td> <td data-bbox="203 669 646 1018"> <p>2. Chemical: The decomposition of the rocks is caused by a chemical reaction within the rock e.g. acidic rainwater / alkaline seawater and limestone.</p> </td> </tr> </table> <p>3. Biological: Living things such as burrowing animals e.g. badgers and foxes can burrow into banks of soil causing them to collapse. Plant roots weather rocks and weakening their structures by searching for water and nutrients that have often collected in cracks in the rocks.</p>	<p>1. Physical / Mechanical: Disintegration of rock without a chemical change e.g. freeze-thaw- sometimes called frost shattering. Another type is exfoliation- which involves changes in temperature.</p>	<p>2. Chemical: The decomposition of the rocks is caused by a chemical reaction within the rock e.g. acidic rainwater / alkaline seawater and limestone.</p>	<p>Tasks- if you complete all 6, revisit some or all from memory</p> <p>Task 1: Learn the 4 key definitions. Task 2: Learn the definitions of 4 sub types of erosion. Task 3: Learn the definitions of the 4 sub types of transportation. Task 4: Go to your 4 sub type definitions of transportation and create 4 labelled diagrams to illustrate each type. Task 5: Revise the types of weathering and create 5 quiz questions with answers to test someone. Task 6: Read about how waves are formed. Cover and hide the information and then rewrite the bullet points in your own words.</p>
<p>1. Physical / Mechanical: Disintegration of rock without a chemical change e.g. freeze-thaw- sometimes called frost shattering. Another type is exfoliation- which involves changes in temperature.</p>	<p>2. Chemical: The decomposition of the rocks is caused by a chemical reaction within the rock e.g. acidic rainwater / alkaline seawater and limestone.</p>		

How are waves formed?	Year 9 Coasts- Geography
<ul style="list-style-type: none"> • Waves form when the <u>wind blows over the sea</u>. <u>Friction</u> with the surface of the water causes small ripples in the water, which develop in to waves. • The energy of the wind causes the water particles to rotate as it passes over it, this causes the wave to move forward. • The distance the wind blows across the water is called the <u>fetch</u>. The longer the fetch, the more powerful the wave. • Waves can also be formed when earthquakes and volcanic eruptions shake the seabed. These waves are known as <u>tsunami</u> waves. 	<p>The size and strength of a wave depend on:</p> <ol style="list-style-type: none"> 1) The speed of the wind 2) Length of time the wind blows 3) The distance the wave has travelled: (Fetch)

Transportation- sub types
<ul style="list-style-type: none"> • Traction - Where large rocks and boulders are rolled along the river bed. • Saltation - Where smaller stones are bounced along the river bed in a leap frogging motion. • Suspension- Where very small grains of sand or silt are carried along with the water. • Solution - Where some material is dissolved (like sugar in a cup of tea) and is carried downstream.

RESPONDING TO SUFFERING

BACKGROUND

- Despite promises of 'Never Again' there have been a number of genocides and atrocities committed since the Holocaust
- After these atrocities, countries and communities have had to find ways of working together to unite and reconcile people.
- Suffering can make people question God's existence but also inspire people to respond with courage and compassion

Which is worse; natural or moral evil?

How can God be loving and still allow people to suffer?

What makes it hard to forgive?

How do we respond when we see suffering or bad things?

Why do you think genocides happen again and again?

How do we show we are sorry?

As we study think about...

If you want to achieve enlightenment then you must not hold onto anger.
A Buddhist teaching

KEY WORDS:

GENOCIDE	The systematic killing of a whole race, ethnic group, nationality or religious group	BENEVOLENT	The belief that God is loving
RECONCILIATION	When two people or groups of people become friendly again after they have argued or fought	OMNIPOTENT	The belief that God is all-powerful
RWANDA	A country in Africa where genocide occurred between the Hutus and Tutsis	OMNISCIENT	The belief that God is all-knowing
MYANMAR	A country currently experiencing persecution of the Rohingya people	FREE WILL	Our free right to choose to do good or evil
FORGIVENESS	The release of resentment or anger after a person admits their wrong-doing	THE FALL	The Biblical account of when Adam and Eve ate the forbidden fruit and brought evil into the world
NATURAL EVIL	Suffering caused by the natural environment	MORAL EVIL	Suffering caused by humans
YOM KIPPUR	A Jewish holy day of repentance and forgiveness	SCAPEGOAT	A symbolic animals who carries the sins of the Jews away into the desert

SOME TASKS FOR YOU TO COMPLETE

Draw a symbol for each key word

Create a mind map of one of the genocides we have studied

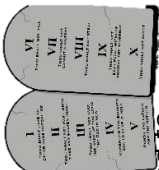
Create a key word quiz or flash cards

Write your answers to 3 reflection questions

Rewrite the religious teachings in your own words

Investigate an issue in the media that shows people responding to suffering

Write a conversation between 2 people discussing the problem and responses to evil



FORGIVENESS IN JUDAISM

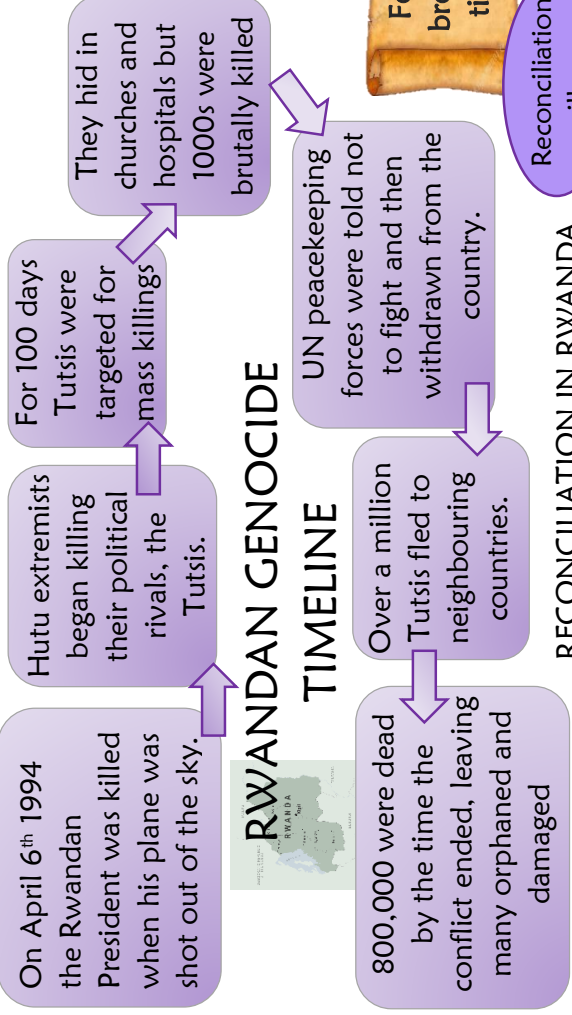
- Yom Kippur is for 10 days after the Jewish new year
- Jews confess and repent of their sins done to God and to others
- They fast for 25 hours (sundown to sundown) as a sign of atonement
- Judaism teaches that those who are genuine in their confession will have their name written in the Book of Life

FORGIVENESS IN OTHER RELIGIONS

Forgive your brother 70 x 7 times (Jesus)

For every person you forgive you heal a wound of your own (Buddhism)

Allah is merciful so Muslims should show mercy too



RECONCILIATION IN RWANDA

To bring communities together again they created: Local law courts, Reconciliation villages, Community service

THE PROBLEM OF EVIL

God doesn't cause suffering, the Devil does. God is loving but the Devil is not **BUT can God not stop the Devil?**

God is testing us through suffering to see if we remain faithful to him **BUT it is a harsh test**

God gave us free will to choose our actions. Some people make wrong choices and cause suffering

Suffering helps us develop as human beings. It teaches us an important lesson and we often become better for it

Suffering gives us an opportunity to do good and help each other

God is omniscient

so he must know about the suffering that goes on

God is omnipotent but he doesn't seem to do anything to stop suffering

God is benevolent

but he lets people suffer, this doesn't seem very loving

GENOCIDE IN MYANMAR

The Buddhist Rohingya have lived in Muslim Myanmar for centuries but recently they have become victims of persecution. The Myanmar government doesn't recognise them as citizens and has blamed them for many of the country's failings.

More than 1.3 million Rohingya have been targeted with many reports of killings, rape and villages being burned.

Many of the Rohingya people fled to Bangladesh and live in overcrowded refugee camps, causing one of the greatest refugee crises in modern times.

The camps spread disease, lack clean water and are unsafe environments for girls and women. Children are not supported and 1 in 4 are malnourished.



Charities



Campaigning



Forgiving



ART KNOWLEDGE ORGANISER

YEAR 9
TERM 2 (January-March)
Contemporary Mixed Media Art

Topic: People and Places

Context:

Artists have been inspired by the theme People and Places for centuries. As time has evolved, the approach to this theme has changed with the times and the technologies available. Painters and artists have explored this theme throughout many different art movements ranging from Impressionism (1860's), Cubism (early 1900's), Pop Art (1950's) and more contemporary styles of art today, for example Mixed media and Digital art. Street and graffiti artists create art in public places such as on a building or wall, usually to convey a political/social message or commemorate an event. One of Britain's most famous street artists is Banksy. Banksy began his unconventional artistic career as a graffiti artist in Bristol in the 1990s, and came to prominence painting political murals on buildings. His signature style became black and white portraits painted using stencils, often showing human or animal figures performing an action or interacting with the world around them. Another artist who is inspired by people: mainly celebrities is a French Artist called Argadol. He is known for his bright, bold portraits of icons and superheroes. Argadol creates his artwork using media and will fill up the entire composition and background with messages, symbols and other pop culture references. Argadol has a unique style and uses spray and acrylic paint, stencils, collage and paint pens in his work. Argadol loves music, in particular classic rock. His dream was to be a musician. Music still plays a crucial role in his art. He will always paint while listening to music. Argadol tries to show deep messages in his artwork. All his artworks have black borders and black drips, to signify the dark side of society, showing that everything isn't as it can appear.

Task List

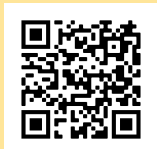
Week 1: Ap 1 revision; Find an image of a celebrity you admire. Using pencil produce a tonal drawing of your celebrity, remembering to apply the correct proportions to the face and apply the drawing techniques you learned about last term while completing your work on portraits.
Week 2: Practice key literacy vocab 1-6 - look, cover, write, check, correct x 3. Read the sentences again and check for understanding. **Week 3:** Practice key phrases 7 -12 - look, cover, write, check, correct x3. Read the sentences again and check for understanding.
Weeks 4/5: Watch the video about Graffiti: Is it Art? Or Vandalism? After watching the video, create a mind map exploring both sides of the argument. See if you can draw your name in a graffiti style.
Week 6: Research Banksy's work and pick a favourite image that you like. Write about what it is you like about this work and why you find it interesting.
Weeks 7/8: Select an image of Banksy's work and complete a drawing of this work (or a section if it is a big piece). Try to think carefully about composition, in particular text the message portrayed in his work.
Weeks 9/10 Watch the video clips showing the French artist Argadol at work. Write about what it is you like about his work and why you find it interesting.
Week 11: Produce a collage about a celebrity you like and admire. Aim to capture the celebrities identity in the collage you create.

Key Literacy Vocabulary:

- Landmarks - an object or feature of a landscape or town that is easily seen and recognized from a distance.
- Publicity - notice or attention given to someone or something by the media.
- Iconic - someone who is a celebrity, politician or famous for doing a particular thing.
- Public places - an indoor or outdoor area, which the public have right of access to, for example a park or a street.
- Graffiti - writing or drawings sprayed on a wall or other surface in a public place
- Celebrity - someone who is well known and famous.
- Pop Art - the art movement in which artist explored everyday objects, celebrities and comic books. Artists include: Roy Lichtenstein and Peter Blake.
- Street Art - artwork that is created in a public place.
- Headlines - the title of the story in a newspaper or magazine.
- Mixed Media - a variety of media used in a work of art.
- Contemporary - living or occurring at the same time, modern, present day.
- Inspiration - the process of being mentally stimulated to do or feel something, especially creative.



Week 1
Watch the video clip to refresh your memory on how to draw a portrait from a photograph, before you do your own pencil drawing.



Weeks 4/ 5 - Scan the QR code to watch the video, then explore both sides of the argument about Graffiti.



Week 6
Watch the Banksy clips to find out a little bit of information about this mysterious British Political/Street Artist.



Weeks 9/10
Watch the video clips showing the French artist Argadol at work.



Week One

Read your knowledge organiser focusing on **Atomic Structure** for 5 minutes. Turn to the page labelled **Atomic Structure 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 **Atomic Structure** for 5 minutes. Turn to the page labelled **Atomic Structure 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 **Atomic Structure** for 5 minutes. Turn to the page labelled **Atomic Structure 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 **Atomic Structure** for 5 minutes. Turn to the page labelled **Atomic Structure Questions**.

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

Answers questions 31-40 in full sentences.

Mark your own work using the answers.

Week Five

Read your knowledge organiser focusing on **Atomic Structure** for 5 minutes. Turn to the page labelled **Atomic Structure Questions**.

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

Answers questions 41-50 in full sentences.

Mark your own work using the answers.

WE ARE USING



TASSOMAI

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

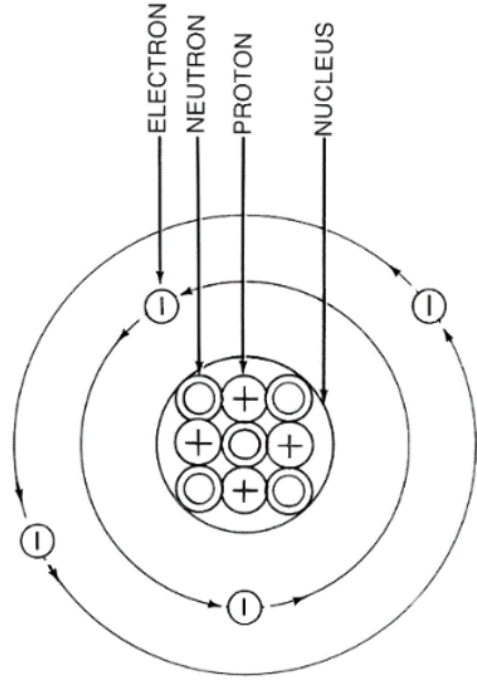
Home learning tips:

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!

Chemistry topic 1: Atomic structure

1. Keywords

1. Atom	The smallest possible piece of an element. Has a radius of 0.1nm (or $1 \times 10^{-10}\text{m}$)
2. Element	A substance in which all the atoms have the same atomic number
3. Isotope	Atoms with the same number of protons but different numbers of neutrons
4. Molecule	Two or more atoms bonded together
5. Compound	Two or more <u>different</u> atoms bonded together
6. Mixture	At least two different elements or compounds together. Can be separated easily
7. Nucleus	The centre of an atom. Contains protons and neutrons
8. Proton	A positively charged particle found in the nucleus
9. Neutron	A neutral particle found in the nucleus. Has no charge
10. Electron	A negatively charged particle found in energy levels (shells) around the nucleus

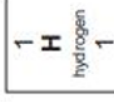


2. Properties of sub-atomic particles

Particle	Relative mass	Relative charge	Location
Proton	1	+1	Nucleus
Neutron	1	0	Nucleus
Electron	0	-1	Shells

Key

relative atomic mass
atomic symbol
name
atomic (proton) number

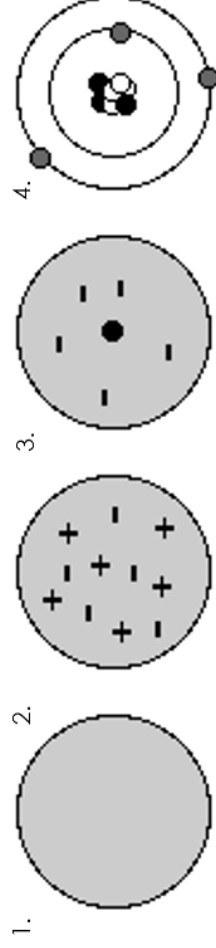


3. Using the periodic table

Number of..	Is the...	Found by..
Protons	Atomic (proton) number	Smaller number on periodic table
Electrons	Atomic (proton) number	Smaller number on periodic table
Neutrons	Difference between the atomic mass and atomic number	Big number – small number

4. History of the atom

Discovery	By	Model	Diagram
Solid particle called atom	John Dalton	Particle: solid spheres	1
The electron	JJ Thompson	Plum pudding: positive 'cake' with negative 'plums'	2
Nucleus	Rutherford	Nuclear: Positive nucleus surrounded by electrons	3
Neutron	James Chadwick	Nuclear: Now with protons and neutrons in nucleus	3
Energy levels (shells)	Niels Bohr	Planetary: Electrons now 'orbit' in different shells	4



5. Electron arrangement rules

1.	Always fill from the inside to the outside
2.	The first shell can only hold 2 electrons
3.	The second and third can hold 8 electrons

6. History of the Periodic Table

Developed by	Dmitri Mendeleev , a Russian scientist.
Arranged	In order of atomic mass , and by their chemical properties
What was special about it?	Predicted the existence of other elements not discovered, and left gaps for them in his table
Why was it used?	New elements were discovered that matched these gaps

7. Properties – metals and non-metals

Property	Metals	Non-metals
Density	High (they feel heavy for their size)	Low (they feel light for their size)
Strength	Strong	Weak
Malleable or non-malleable	Malleable (they bend without breaking)	Brittle (they break or shatter when hammered)
Conduction of heat	Good	Poor (they are insulators)
Conduction of electricity	Good	Poor (they are insulators) apart from graphite

8. Layout of the periodic table

Period	No. of shells	Groups																																																					
1	1																																																						
2	2																																																						
3	3																																																						
4	4																																																						
5	5																																																						
6	6																																																						
7	7																																																						
TL/DR:		<table border="1"> <thead> <tr> <th>Group</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8*</th> </tr> </thead> <tbody> <tr> <td>Electrons in outer shell</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8*</td> </tr> <tr> <td>Charge of ion</td> <td>+1</td> <td>+2</td> <td>+3</td> <td>N/A</td> <td>-3</td> <td>-2</td> <td>-1</td> <td>N/A</td> </tr> <tr> <td>Number of covalent bonds</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>4</td> <td>3</td> <td>2</td> <td>1</td> <td>N/A</td> </tr> </tbody> </table>																		Group	1	2	3	4	5	6	7	8*	Electrons in outer shell	1	2	3	4	5	6	7	8*	Charge of ion	+1	+2	+3	N/A	-3	-2	-1	N/A	Number of covalent bonds	N/A	N/A	N/A	4	3	2	1	N/A
Group	1	2	3	4	5	6	7	8*																																															
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Number of covalent bonds	N/A	N/A	N/A	4	3	2	1	N/A																																															
		N/A = not applicable (does not do it)																																																					

(* Except Helium)

9. Properties – Groups 1, 7 and 0

Group 1 (I)	Melting point	Density	Reactivity	Group 7 (VII)	Melting point	Density	Reactivity	Group 0 (VIII)	Melting point	Density	Reactivity
Lithium (Li)	Decreases down the group	Increases down the group	Increases down the group	Fluorine (F)	Increases down the group	Increases down the group	Decreases down the group	Helium (He)	Increases down the group	Increases down the group	INERT (DO NOT REACT)
Sodium (Na)				Chlorine (Cl)				Neon (Ne)			
Potassium (K)				Bromine (Br)				Argon (Ar)			
Rubidium (Rb)				Iodine (I)				Xenon (Xe)			

11. Common separation techniques

<p>1. Chromatography Used to separate a mixture of dyes in ink.</p>
<p>2. Filtration Used to separate insoluble solids from liquids (e.g. sand from water).</p>
<p>3. Evaporation Used to separate a soluble salt from solution. The solution is heated strongly in an evaporating basin until dry crystals are left.</p>
<p>4. Crystallisation Used to separate a soluble salt from solution. The solution is heated gently in an evaporating basin until crystals form; the remaining liquid is filtered out.</p>
<p>5. Simple distillation Is used to separate a liquid from a solution – e.g. water from ink. A condenser is used to cool hot gas until it forms a liquid.</p>
<p>6. Fractional distillation Used to separate a mixture of liquids with different boiling points.</p>

Atomic Structure – Key Questions

Questions



1. What is an atom?
2. What is an element?
3. What is a compound?
4. What is a molecule?
5. What is a mixture?
6. Name the three subatomic particles
7. State the masses of the subatomic particles
8. State the relative charges of the subatomic particles
9. How are the subatomic particles arranged in an atom?
10. What is the plum pudding model of the atom?
11. What did the gold foil experiment prove?
12. What is the atomic number of an atom?
13. What is the mass number of an atom?
14. Why is the number of electrons in an atom equal to the number of protons?
15. How do you calculate the number of neutrons in an atom?
16. How are the electrons arranged in atoms?
17. How many electrons can go in the first shell?
18. How many electrons can go in the second and third shells?
19. What are groups in the periodic table?
20. What can the group tell you about the electrons in an atom?
21. What are periods in the periodic table?
22. What can the period tell you about the electrons in an atom?
23. Why did Mendeleev put some elements in groups?
24. Why did Mendeleev leave gaps in his periodic table?
25. How can I find out how many electrons are in an element?

Answers



1. An atom is the smallest part of an element that can still be recognised as that element
2. An element is a substance made of only one type of atom
3. A compound is a substance made of two or more different atoms chemically bonded together
4. A molecule is a substance made of more than one atom chemically bonded together (these can be atoms of the same type!)
5. A mixture is a substance made of more than one thing not chemically bonded together
6. The three subatomic particles are the Proton, neutron and electron.
7. The masses of the subatomic particles are: Protons: 1, neutrons: 1, electrons: 0
8. The relative charges of the subatomic particles are: Protons: +1, neutrons: 0, electrons: -1
9. Within an atom, the Protons and neutrons are found in the nucleus, whilst electrons are found orbiting in shells.
10. The plum pudding model of the atom is a ball of positive charge with negative electrons studied into it.
11. The gold foil experiment proved that atoms have a dense nucleus with a positive charge.
12. The atomic number of an atom tells us the number of protons in an atom.
13. The mass number of an atom is the number of protons + the number of neutrons in an atom.
14. The number of electrons in an atom is equal to the number of protons as their charges cancel out - the protons attract an equal number of electrons.
15. You calculate the number of neutrons in an atom by using the equation: Mass number - atomic number
16. Electrons are arranged in the atom on shells, with 2 on the first shell and 8 on each shell after that.
17. The number of electrons that can go on the first shell in an atom is 2.
18. The number of electrons that can go on the second and third shells of an atom is 8.
19. The groups in the periodic table are the columns, numbered 1, 2, 3, 4, 5, 6, 7, 0.
20. The group number of an element tells us how many electrons are in the outer shell. E.g. carbon is in group 4 so has 4 electrons in the outer shell.
21. The periods in the periodic table are the rows, Helium is in the first row.
22. The period of an element tells us how many shells an atom has. E.g. carbon is in the second period so has two shells.
23. Mendeleev put some elements in groups as they had similar properties (e.g. they reacted violently with water).
24. Mendeleev left gaps in his periodic table for elements that had not been discovered yet.
25. You can find out how many electrons are in an element as it is the same as the atomic number on the periodic table.



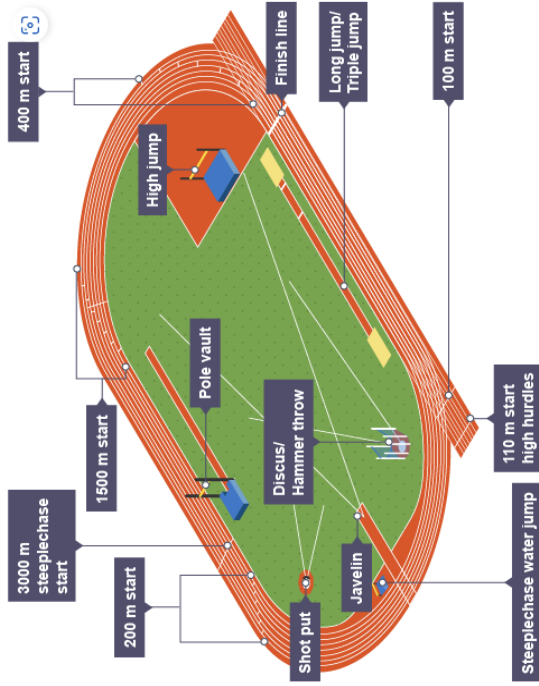
26. In terms of electrons, what do group 1 elements have in common?
27. In terms of electrons, what do group 7 elements have in common?
28. In terms of electrons, what do group 0 elements have in common?
29. What is more reactive, lithium or sodium?
30. What is more reactive, chlorine or bromine?
31. Define inert
32. Explain why the noble gases are inert
33. What is a trend?
34. State the trend in the melting points of the alkali metals
35. What state is fluorine at room temperature?
36. What state is chlorine at room temperature?
37. What state is bromine at room temperature?
38. What state is iodine at room temperature?
39. Balance the equation: $\text{Li} + \text{H}_2\text{O} \rightarrow \text{LiOH} + \text{H}_2$
40. Balance the equation: $\text{K} + \text{H}_2\text{O} \rightarrow \text{KOH} + \text{H}_2$
41. Name LiOH
42. Name KOH
43. Explain why the group 1 elements are called alkali metals
44. What is a displacement reaction?
45. Explain why the following reaction does not proceed: $\text{KBr} + \text{I}_2$
46. Balance the below equation and explain why it is a displacement reaction: $\text{KBr} + \text{Cl}_2 \rightarrow \text{KCl} + \text{Br}_2$
47. Explain why fluorine is more reactive than chlorine
48. Explain why potassium is more reactive than lithium (3 marks)
49. Explain why bromine is less reactive than chlorine (3 marks)
50. Explain why sodium is less reactive than caesium (3 marks)



26. 1 electron in the outer shell
27. 7 electrons in the outer shell
28. Full outer shell
29. Sodium
30. Chlorine
31. Unreactive
32. They have full outer shells, so do not need to gain or lose electrons
33. A pattern in properties
34. Gets lower down the group
35. Gas
36. Gas
37. liquid
38. solid
39. $2\text{Li} + 2\text{H}_2 \rightarrow 2\text{LiOH} + \text{H}_2$
40. $2\text{K} + \text{H}_2 \rightarrow 2\text{KOH} + \text{H}_2$
41. Lithium hydroxide
42. Potassium hydroxide
43. They are metals that form alkalis when they react with water
44. A reaction in which a more reactive element takes the place of a less reactive element in a compound
45. Iodine is less reactive than bromine so cannot displace it
46. $2\text{KBr} + \text{Cl}_2 \rightarrow 2\text{KCl} + \text{Br}_2$, chlorine has displaced bromine as it is more reactive
47. Fewer shells/electrons, less shielding (or stronger attraction from nucleus), easier to gain electrons
48. More shells/electrons, less shielding (or weaker attraction from nucleus), easier to lose electrons
49. More shells/electrons, more shielding (or weaker attraction from nucleus), harder to gain electrons
50. Fewer shells/electrons, less shielding (or stronger attraction from nucleus), harder to lose electrons

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.

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

5
TASK



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