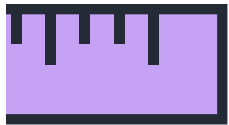


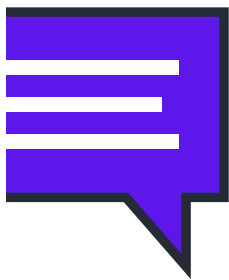


# HOME-LEARNING

## YEAR 7



# HALF TERM 2



"EDUCATION IS THE PASSPORT TO THE FUTURE, FOR TOMORROW BELONGS TO THOSE WHO PREPARE FOR IT TODAY."

MALCOLM X



## **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!

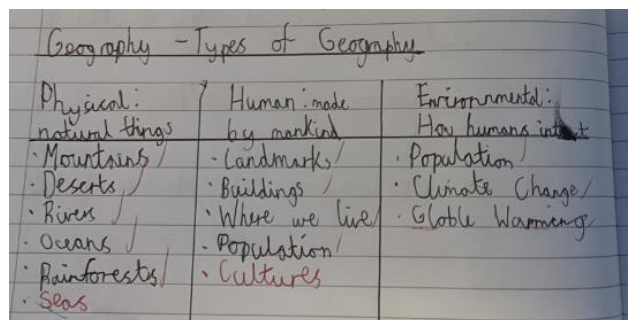
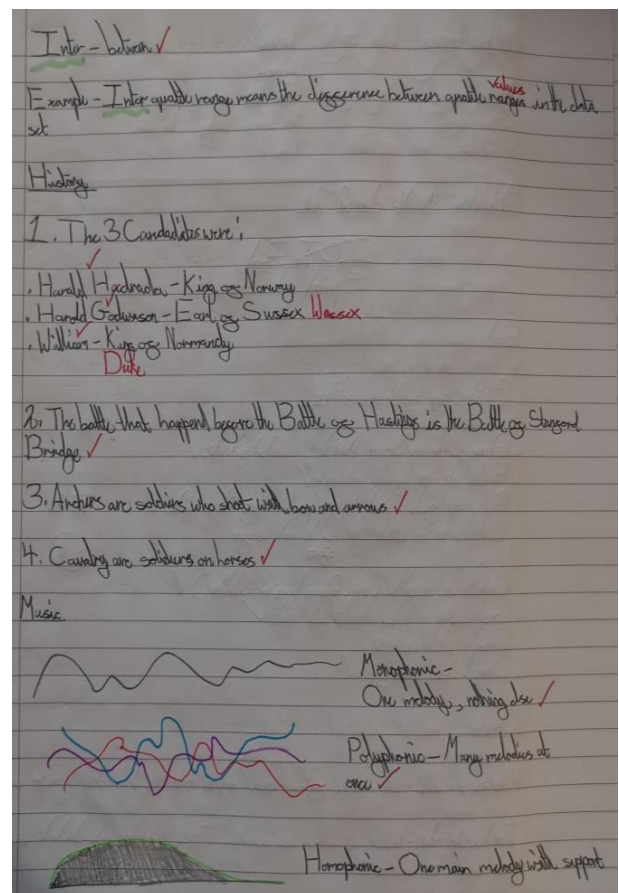
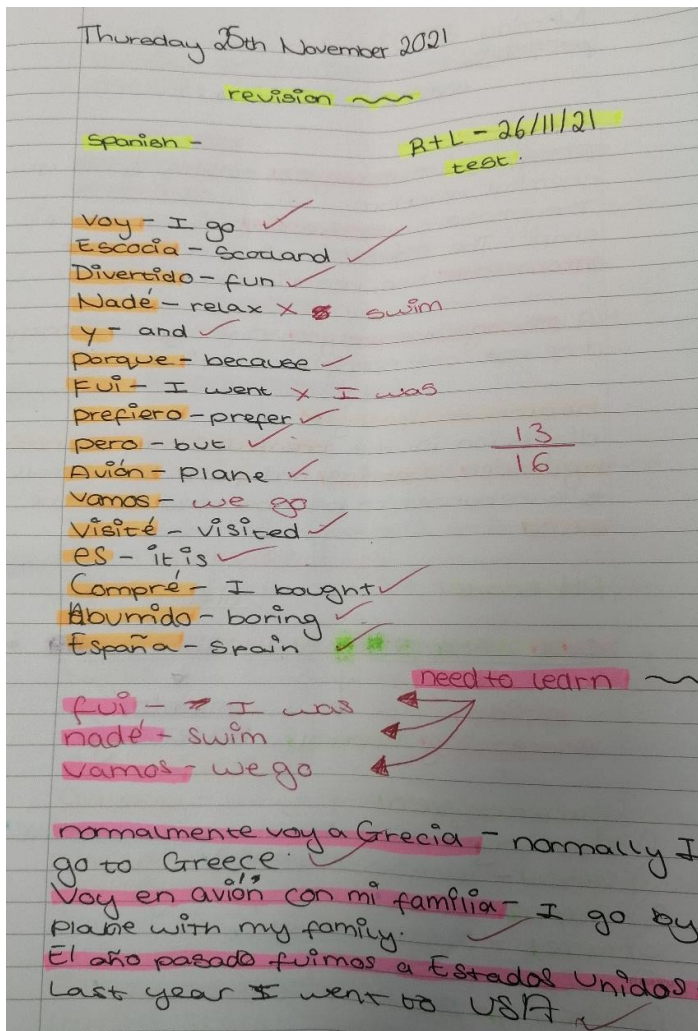


# What does effective home-learning look like?

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	Food	English	Art	
History	Drama	Geography/Computing	Science	
Music	Spanish	DT	Active Lifestyles/RS	

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 focus on.

Literacy: Do take time to engage with the **Listen Project**. Developing our vocabulary is immensely important if we are to develop as learners. The **listen 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.

The 'Listen' Project #1



SCAN ME

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.



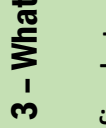
**Step 2 - Check the text.**

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*

## Gingerbread

There is a great famine in the country and the woodcutter's family is starving. His wife suggests to take their children, Hansel and Gretel, into the woods, so they would have two hungry mouths less to feed.

After some hesitation he agrees and they leave the children in the wood. Hansel and Gretel have heard about the plan and return home thanks to the stones Hansel was using to mark the path. But at the next attempt, Hansel can't load his pocket with stones because the doors were locked. Instead of stones he used bread crumbs, but they are eaten by the birds, so the woodcutter and his wife succeeded and children were lost in the woods.

They find a mysterious hut made of gingerbread. There is a witch living inside. She is a wicked witch and intends to eat Hansel!

But they are too lean, so she decides to feed Hansel first, using Gretel as a slave and for some time children manage to postpone their tragic end.

The Witch, being sold, has very poor sight, so she is checking Hansel's fat by pinching his finger. Instead of the finger he gives her a chicken bone, what postpones his death for a few days.

Finally, the witch prepares an oven and plans to bake both kids. Fortunately, Gretel outsmarts her and throws the witch in her oven where she is killed. The children search the hut, find gold, jewelry and other valuables and with a help of some birds safely return home.

Their stepmother and father are sorry for what they've done and they lived happily ever after.

## That's Unfortunate

Violet Baudelaire, the eldest, liked to skip rocks. Like most fourteen-year-olds, she was right-handed, so the rocks skipped farther across the murky water when Violet used her right hand than when she used her left. As she skipped rocks, she was looking out at the horizon and thinking about an invention she wanted to build. Anyone who knew Violet well could tell she was thinking hard, because her long hair was tied up in a ribbon to keep it out of her eyes. Violet had a real knack for inventing and building strange devices, so her brain was often filled with images of pulleys, levers, and gears, and she never wanted to be distracted by something as trivial as her hair. This morning she was thinking about how to construct a device that could retrieve a rock after you had skipped it into the ocean.

Klaus Baudelaire, the middle child, and the only boy, liked to examine creatures in tide-pools. Klaus was a little older than twelve and wore glasses, which made him look intelligent. He was intelligent. The Baudelaire parents had an enormous library in their mansion, a room filled with thousands of books on nearly every subject. Being only twelve, Klaus of course had not read all of the books in the Baudelaire library, but he had read a great many of them and had retained a lot of the information from his readings. He knew how to tell an alligator from a crocodile. He knew who killed Julius Caesar. And he knew much about the tiny, slimy animals found at Briny Beach, which he was examining now.

Sunny Baudelaire, the youngest, liked to bite things. She was an infant, and very small for her age, scarcely larger than a boot. What she lacked in size, however, she made up for with the size and sharpness of her four teeth. Sunny was at an age where one mostly speaks in a series of unintelligible shrieks. Except when she used the few actual words in her vocabulary, like "bottle," "mommy," and "bite," most people had trouble understanding what it was that Sunny was saying. For instance, this morning she was saying "Gack!" over and over, which probably meant, "Look at that mysterious figure emerging from the fog!"

## Philip Pirrip

"Hold your noise!" cried a terrible voice, as a man started up from among the graves at the side of the church porch. "Keep still, you little devil, or I'll cut your throat!"

A fearful man, all in coarse grey, with a great iron on his leg. A man with no hat, and with broken shoes, and with an old rag tied round his head. A man who had been soaked in water, and smothered in mud, and lamed by stones, and cut by flints, and stung by nettles, and torn by briars; who limped, and shivered, and glared and growled; and whose teeth chattered in his head as he seized me by the chin.

"O! Don't cut my throat, sir," I pleaded in terror. "Pray don't do it, sir."

"Tell us your name!" said the man. "Quick!"

"Pip, sir."

"Once more," said the man, staring at me. "Give it mouth!"

"Pip. Pip, sir."

"Show us where you live," said the man. "Pint out the place!"

I pointed to where our village lay, on the flat in-shore among the alder-trees and pollards, a mile or more from the church.

The man, after looking at me for a moment, turned me upside down, and emptied my pockets. There was nothing in them but a piece of bread. When the church came to itself - for he was so sudden and strong that he made it go head over heels before me, and I saw the steeple under my feet - when the church came to itself, I say, I was seated on a high tombstone, trembling, while he ate the bread ravenously..



## Gingerbread

Perhaps one of the most famous **fairy tales** collected by the **Grimm** brothers is **Hansel and Gretel**. The dark tone of the story is similar to a lot of early fairy stories and is nothing like the retellings by Disney! We might find it difficult today to understand how a family might give up their children like this but times were very hard.

Fairy tales often serve as warnings or lessons; for instance – don't go into those woods alone!



## That's Unfortunate

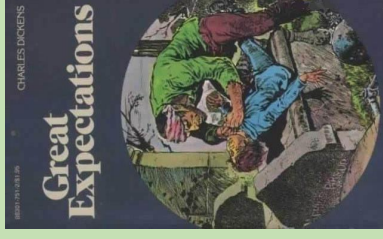


Stories about children looking after themselves and using their own skills and wits to survive in tough circumstances are very popular. Some of the older stories you might be familiar with are the **Famous Five** and **Secret Seven** books by **Enid Blyton**. Even **Harry Potter** might be a story of surviving against the odds. **A Series of Unfortunate Events** may break the mould by promising us an unhappy ending!

## Philip Pirrip

**Philip Pirrip, or Pip**, is the name of the main character in **Charles Dickens's** novel, **Great Expectations**. The young boy is alone in the world until he is taken under the wing of an escaped criminal, **Magwitch**, and his adventures begin.

The **Victorian era** that Dickens's lived in relied heavily on class and family to provide you with opportunities. Pip has very few **expectations** but things change as his life unfolds.








# 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	Expression	A mathematical statement written using <b>symbols, numbers or letters, no equal sign</b>	Tick the expressions $2m$ $3m2 + y$ $2x + y = 4$	 16 Scan here
2	Equation	A mathematical statement written using <b>symbols, numbers or letters, containing an equal sign</b>	Tick the equation $2m$ $3m2 + y$ $2x + y = 4$	 110 Scan here
3	Multiplier	The <b>number</b> you <b>multiply</b> a quantity by to <b>increase or decrease</b> it by a <b>percentage</b> .	The multiplier for increasing by 12% is 1.12 The multiplier for decreasing by 12% is 0.88	 239 Scan here
4	Substitution	<b>Replace letters with numbers.</b>	$a = 3, b = 2$ and $c = 5$ $3a - 2b + c =$ $3 \times 3 - 2 \times 2 + 5 = 10$	 20 Scan here
5	Square Root	The <b>number you multiply by itself</b> to get another number.	$\sqrt{36} = 6$ because $6 \times 6 = 36$	 228 Scan here

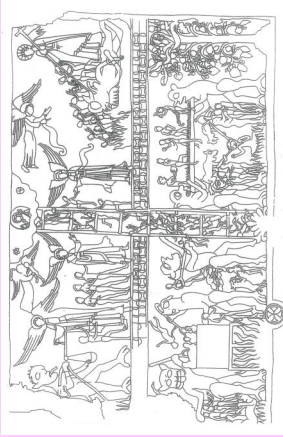


### Overview

Religion was very important in the Medieval period (1250-1500). Everyone believed in God and there was no science to explain things like illness. Doom paintings show that people believed that they would go to heaven if they lived a good life and go to hell if they committed sins (broke religious rules).

There were a number of crusades, known as Holy Wars, during this period. In 1095 the Pope asked Christian Kings to send armies to the Holy Land. The Pope wanted to evict (get rid of) the Turks who controlled that area. These journeys were known as the Crusades (wars of the cross).

People went on the Crusades for a number of reasons. They included to get rid of sins, to become a hero, for adventure and to see the world. The Crusades helped England gain new products like cotton, silk and new knowledge (including a new number system and better maps).



### Key People and Terms

#### Thomas Becket

Thomas Becket was made Archbishop of Canterbury by King Henry II. They later fell out. He carried on the quarrel (argument) after he had returned to England and he knew that this would put him in danger. He had a good chance to escape but refused to go. He seemed to want to be a martyr (die for what he believed in) so that he could serve God and the Church.



#### Henry II

Henry II was King of England and made his friend, Thomas Becket, Archbishop of Canterbury. Henry became angry with his former friend who was causing so much trouble by taking his new role seriously and going against King Henry II. He wanted Thomas out of the way. He more or less ordered his murder by saying out loud "will no-one rid me of this troublesome priest...."



### Medieval Life

#### Peasants

Life for medieval peasants (villeins) was tough. They worked outside in the fields from sunrise to sunset whenever there was work to do. Most of the land was owned by someone else (the Lord of the Manor) who was usually a knight or a baron. The lord let peasants live on his land in return for obedience (doing as they were told), a payment and several days of work a week.

Peasant families lived in wooden huts that they would build themselves. Each had a small garden where they grew vegetables and fruit.

#### Towns

About 90% of people lived in small villages in the countryside. After 1066, towns began to grow. Some villages grew in size and became towns. If you saved up you could buy your freedom and land. A town charter gave people the chance to run the town themselves.

#### Medieval Health

There were 4 main beliefs for the cause of disease in Medieval England. 1) God sent disease as punishment for sins. 2) Miasma - bad air caused disease. 3) Astrology - the alignment of planets caused people to become ill. 4) The Four Humours - the idea that fluids in the body were out of balance. They were black bile, yellow bile, blood and

#### Black Death in England (1348-49)

The Black Death arrived in England in 1348. It had spread across Europe and was carried by infected rats and people on ships that were transporting goods. Almost half of the population died. People did not understand rats carried the disease and believed it was a punishment sent by God for sins or caused by bad air (called miasma).



Symptoms included swellings in the armpits and groin, fever, bleeding under the skin, coughing blood, spasms and black spots called buboes. The effects of the Black Death were not all negative. There was more land for people. It also led to changes including more freedom and better pay. There was too much food so many people began farming sheep and selling wool. The Government passed a law to try to keep wages low. It did not work.

## Key Terms

- Buboes:** The black spots people developed with the Black Death (plague). They were filled with puss.
- Crusades:** Holy Wars or Wars of the Cross. These were religious wars fought by the Latin Church between 1096 and 1271.
- Doom paintings:** Wall paintings in Medieval churches. They show what they believe heaven and hell is like.
- Holy land:** An area in the Middle East which is very important to Christians, Muslims and Jews.
- Lord of the Manors:** The owner of large estates of land, often given power by the King.
- Martyrs:** Someone who dies for what they believe in.
- Miasma:** The belief that bad smells caused illness.
- Sins:** Breaking religious rules. People of Medieval England believed they would go to hell if they sinned.
- Symptoms:** Something that you can link to a disease. Symptoms of a cold include sneezing and a fever.
- Villeins:** Peasants (farmers) who worked for and were controlled by the Lord of the Manor. They worked the land to grow food and did services in return for land.

## Tasks

### Task 1

Look at the "Overview" section on the page above. Create your own recruitment poster of the Crusades. You will need to include:

- What were the Crusades?
- What would people gain by joining up?

### Task 2

Look at the 'Key People and Terms' Section on the page above. Create a short dialogue (script) of a conversation between Henry II and Thomas Beckett. Include one reason why the two fell out.

### Task 3

You have travelled back in time to Medieval England. Using the 'Medieval Life' and 'Key Terms' section, write a short description of what life was like in Medieval England. (Try to include as many of the key terms as possible).

### Task 4

Using the 'Black Death in England (1348-49)' section, draw and complete the table below:

Causes	Symptoms
Punishment from God	

### Task 5

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 6

Read through the BBC Bitesize – Black Death topic and complete the quiz at the end.

<https://www.bbc.co.uk/bitesize/topics/za1wrxnb/articles/zdkssk7>



SCAN ME

# THE HISTORY OF MUSIC

<p style="text-align: center;"><b>ROMANTIC</b> [1800...ish - 1900...ish]</p>	<p style="text-align: center;"><b>The music sounds...</b> Dramatic Emotional</p>	<p style="text-align: center;"><u><b>Composers</b></u> Chopin Liszt Brahms</p>	<p style="text-align: center;"><u><b>Instruments</b></u> Large Orchestra More Brass Percussion</p>	<p style="text-align: center;"><u><b>Form</b></u> Opera Symphony Concerto</p>	<p style="text-align: center;"><u><b>Texture</b></u> Various: Homophonic Polyphonic Monophonic</p>
<p style="text-align: center;"><b>CLASSICAL</b> [1750 - 1800...ish]</p>	<p style="text-align: center;"><b>The music sounds...</b> Polite Elegant</p>	<p style="text-align: center;"><u><b>Composers</b></u> Haydn Mozart Beethoven</p>	<p style="text-align: center;"><u><b>Instruments</b></u> 'Medium'-sized orchestra  Piano Clarinet</p>	<p style="text-align: center;"><u><b>Form</b></u> Opera Symphony Concerto</p>	<p style="text-align: center;"><u><b>Texture</b></u> Mainly Homophonic</p>
<p style="text-align: center;"><b>BAROQUE</b> [1600...ish - 1750...ish]</p>	<p style="text-align: center;"><b>The music sounds...</b> Decorative Busy</p>	<p style="text-align: center;"><u><b>Composers</b></u> J. S. Bach Handel Vivaldi</p>	<p style="text-align: center;"><u><b>Instruments</b></u> Small orchestra Harpsichord Strings</p>	<p style="text-align: center;"><u><b>Forms</b></u> Opera Sonata Concerto</p>	<p style="text-align: center;"><u><b>Texture</b></u> Mainly Polyphonic</p>

**Task 1:** Learn the information in the *Baroque* period box. Test yourself to check your memory!

**Task 2:** Learn the information in the *Classical* period box. Test yourself to check your memory!

**Task 3:** Learn the information in the *Romantic* period box. Test yourself to check your memory!

**Task 4:** Create a mind map for each of the 3 musical periods **from memory – no peeking!** Include the following information: **dates – sounds like – composers**. **Self-assess** - fill any gaps **in red pen**.

**Task 5:** Create a mind map for each of the 3 musical periods **from memory – no peeking!** Include the following information: **instruments – forms – texture**. **Self-assess** - fill any gaps **in red pen**.

**Task 6:** Design a 'Musicals Periods' timeline as a poster that shows what the main fashions of Baroque, Classical and Romantic music were.

**\*\*PLEASE LISTEN TO MUSIC BY COMPOSERS FROM THE BAROQUE, CLASSICAL AND ROMANTIC PERIOD ON YOUTUBE. CAN YOU HEAR THE DIFFERENCE BETWEEN THESE MUSICAL FASHIONS?**

# Food Technology

**Importance of Cleanliness and Safety:** It's really important to understand why being clean and safe when handling food is crucial. This means things like washing your hands and wearing aprons. These practices keep the food you're working with safe to eat and prevent any contamination.

**Working Cooperatively in Pairs:** Working with a partner is not just about this lesson; it's a useful skill in the kitchen. It helps get things done efficiently and lets you share ideas and insights with others. In our case, it will help us discuss where different foods come from and encourage everyone to participate.

**Introduction to Food Provenance:** "Food provenance" is a fancy way of saying knowing where our food comes from. Understanding this concept is important because it affects the food's quality, how it impacts the environment, and even the economy. It's about being aware of the origins of the food we eat.

**Understanding Food Origins:** This is all about knowing where different foods come from in the world. When you know where your food is from, you can learn about the culture, history, and even the environment related to that food. It's like taking a journey through the world of food and discovering how diverse it can be.

**Differences Between Local and Global Food:** You need to understand the big differences between "local" and "global" food. Local food is usually from nearby, while global food comes from far away. This knowledge helps you understand the choices you make when it comes to where your food is from.

## Benefits and Drawbacks of Local and Global Foods:

There are good and not-so-good sides to both local and global foods. Local foods can help our local community, reduce harm to the environment, and connect us to our culture. But global foods bring variety and are available all year round, even though they might have some downsides like a bigger carbon footprint.

## Factors Influencing Food Choices:

Understanding why you choose one type of food over another is important. It's about your taste, what's available, what's good for the Earth, and what you can afford. Knowing these factors helps you make better choices about what you eat.



## Knowledge...

### Food Provenance and Origins:

**Food Provenance:** The term refers to the origin or source of a food item, including where it was grown, produced, or made.

**Cleanliness:** Cleanliness involves maintaining a state of being free from dirt, germs, or contaminants, especially in the context of food handling, it ensures food safety.

**Safety Measures:** Safety measures are precautions and actions taken to prevent accidents, harm, or contamination when handling food, such as hand-washing and wearing aprons.

**Collaboration:** Collaboration means working together with others towards a common goal, often in pairs or groups, sharing ideas, and contributing to tasks.

**Geographical Sources:** This term indicates the specific regions or places where different foods originate or are produced, providing insight into their geographic roots.

### Local vs. Global Food:

**Local Food:** Local food is food that is grown, produced, or sourced from nearby regions or within your local community. It is often fresher and has a lower environmental impact due to reduced transportation.

**Global Food:** Global food refers to food that is sourced from distant locations or even from other countries. It may provide variety and is available year-round but may have a higher carbon footprint due to transportation.

**Sustainability:** Sustainability means using resources and making choices in a way that ensures they will be available and viable for future generations. It includes practices that reduce environmental impact.

**Culture:** Culture encompasses the beliefs, traditions, customs, and way of life of a particular group of people. It can influence food

choices and preferences.

**Economy:** Economy relates to the system of producing, distributing, and consuming goods and services in a region or country. It can be affected by choices regarding local and global food.

**Carbon Footprint:** The carbon footprint measures the total greenhouse gas emissions, particularly carbon dioxide, produced directly and indirectly by an individual, organization, event, or product. It's used to assess environmental impact.

### Making Hybrid (Cereal) French Toast:

**Hybrid (Cereal) French Toast:** A dish made by coating slices of bread with a mixture of crushed cereal and egg, then frying them. It's a variation of traditional French toast.

**Food Safety Practices:** These are precautions and steps taken to ensure that the food being prepared is safe to eat, including practices like hand-washing to prevent contamination.

**Demonstration:** A demonstration is a practical or visual explanation of a process or technique, often used to show how to do something, like cooking.

**Collaboration:** Collaboration means working together with others, in this case, working in pairs to prepare and cook food.

**Hedonic Testing Chart:** A hedonic testing chart is a tool used to evaluate the taste and texture of food. It helps assess the quality and enjoyment of a dish.

**Clean-Up Process:** The clean-up process involves tidying up and washing dishes, utensils, and equipment after cooking. It ensures that the kitchen is left in a clean and organized state. year-round but may have a higher carbon footprint due to transportation.



## Tasks:

### Task 1: Food Origin Riddle (Geography and Culture)

Research the origin of a familiar food item like potatoes or pasta. Now, create a riddle that hints at this food's origin without directly revealing it. Challenge your family to solve the riddle and guess the food's source based on your clues.

### Task 2: Kitchen Safety Detective (Food Safety)

As a kitchen safety detective, identify potential safety hazards in your kitchen. Create a list and provide solutions to make the kitchen safer. Explain the reasons behind each hazard and the steps you would take to prevent accidents.

### Task 3: Food Choices Dilemma (Sustainability and Food Choices)

Imagine you're in a scenario where you must choose between buying a local or global product. Write a short story that explores the factors influencing your decision, the consequences of your choice, and how it impacts the environment and your community.

### Task 4: Recipe Redesign Challenge (Cooking Skills)

Select a favorite family recipe. Redesign it to make it healthier while keeping it delicious. Explain why you made these changes and how they impact the nutritional value of the dish. Encourage your family to try your revamped recipe and share their feedback.

### Task 5: The Meal Time Capsule (Cultural Awareness)

Interview a family member and ask them about a memorable meal from their childhood. Imagine you're creating a time capsule with items from that meal. Explain your choices, including what you'd include, why it's significant, and what it says about that time.

### Task 6: Sustainable Shopping Plan (Geography and Sustainability)

Imagine you have a limited budget for groceries. Create a shopping plan that maximizes your purchase of local and sustainable foods. Explain your choices, taking into account cost, environmental impact, and nutritional value.

### Task 7: Edible Art Gallery (Creativity and Geography)

Using ingredients like fruits and vegetables, create an edible art gallery with a theme or story. Think about how you can represent different places or cultures through your food art. Write a short description for each piece explaining your creative choices and the cultural significance.

The next scheme we are exploring is:

holes

**THE 4 P'S**

PACE

PITCH

PAUSE

PROJECTION

**DO NOT** put your feet up on the chair in front of you

Turn OFF your phone

**DO NOT** talk/shout whilst watching a performance/show

**DO NOT** get out of your seat unless you have asked a member of staff

**BUT DO ENJOY YOURSELVES!**

Scan this to access K3 BBC Bitsize Drama Portal



Sketch out a Promenade Theatre

WATCH/READ LIST FOR THIS TERM (IF YOU CAN):

# THEATRE ETIQUETTE

Watch "Dig it" the Holes soundtrack



Theatre Etiquette:



Holes the Book by Louis Sachar



Week 6

What stage positions are our drama faces covering?

Week 5

Watch the Holes Soundtrack "Dig it" and write your own verse.

Week 4

**RECALL:** Write down 3 rules for a good debate!

Week 3

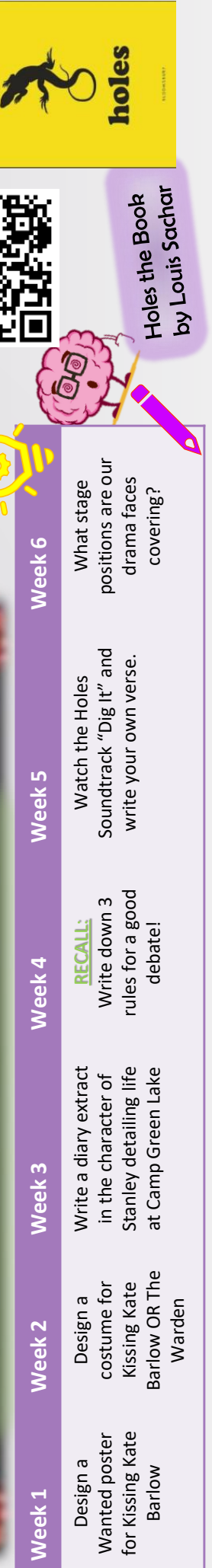
Write a diary extract in the character of Stanley detailing life at Camp Green Lake

Week 2

Design a costume for Kissing Kate Barlow OR The Warden

Week 1

Design a Wanted poster for Kissing Kate Barlow



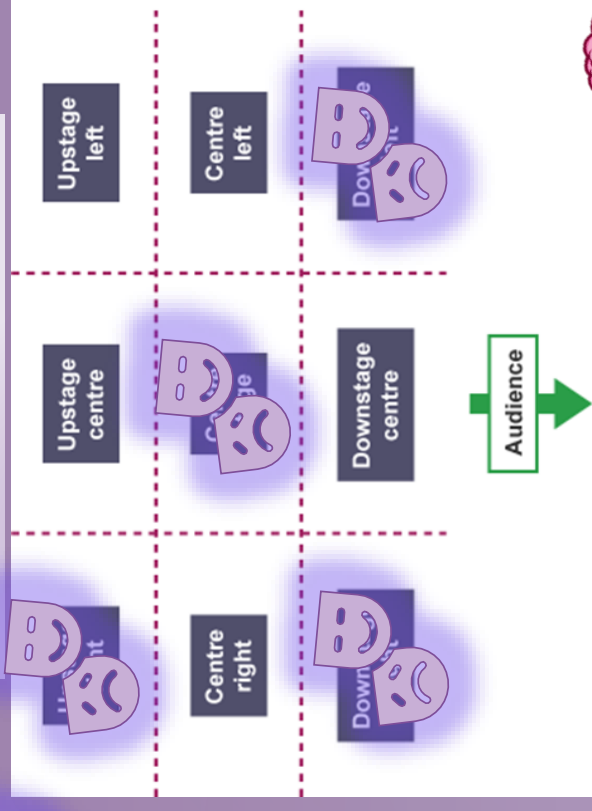


Just some of the skills you will learn/recall this term!

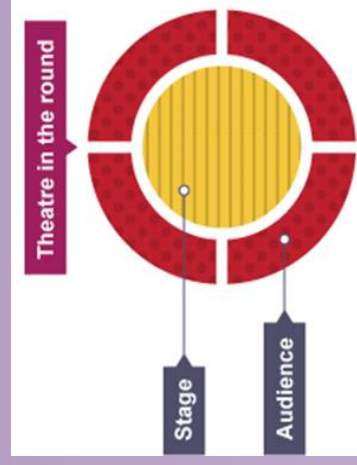
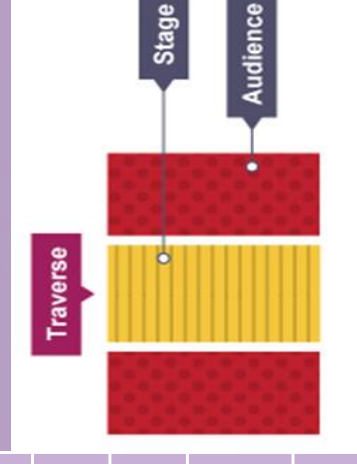
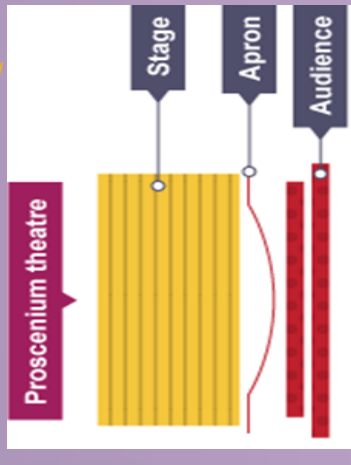
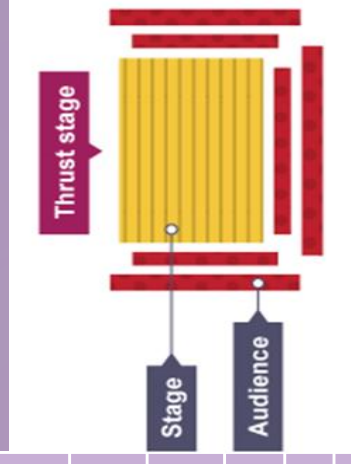
**New Skill/Technique** ■ **Retrieval**

Knowledge/skill	Definition
<b>Characterisation</b>	Developing and portraying a personality through voice and movement.
<b>Gesture</b>	In <b>acting gesture</b> is defined as a sign that communicates a character's action, state of mind and relationship with other characters to an audience.
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.
<b>Flashback</b>	A <b>flashback</b> is an interjected scene that takes the narrative back in time from the current point in the story.
<b>Improvisation</b>	A very spontaneous performance without specific or scripted preparation.
<b>Hot seating</b>	A character is questioned by the group about his or her background, behaviour and motivation.
<b>Using Stimuli</b>	A starting point which inspires you to create a whole performance
<b>Role Play</b>	Role play is the act of imitating the character and behaviour of someone who is different from yourself.
<b>Monologue</b>	A long speech by one actor in a play
<b>Narration</b>	A commentary delivered to accompany a performance.
<b>Transitions</b>	This is the process in which something changes from one state to another
<b>Teacher in role</b>	The teacher plays a role. They may ask questions of the students, perhaps putting them into role as well.
<b>Role on the wall</b>	A role on the wall diagram is an outline of a person with emotions/context of the character you are exploring written on it.
<b>Status</b>	Refers to the power difference in the relationship between two characters. A character in a high status behaves dominantly towards a character in a lower status.
<b>Mime</b>	The theatrical technique of expressing an idea or mood or portraying a character entirely by gesture and bodily movement without the use of words.

## Stage Positioning



## Stage Types





# Spanish - Key verbs and vocab

## Key phrases for this half term - All about me

1. Me llamo... - My name is
2. Tengo \_\_\_ años - I am \_\_\_ years old
3. Mi cumpleaños es el \_\_\_ de \_\_\_ - My birthday is the \_\_\_ of \_\_\_
4. Soy muy simpático y generoso - I am very nice and generous
5. Mi madre es un poco seria - My mum is a bit strict
6. No soy tímido - I'm not shy
7. Tengo dos hermanos y una hermana - I have two brothers and one sister
8. Mi familia es bastante grande - my family is quite big
9. Tengo los ojos verdes - I have green eyes
10. Tengo el pelo castaño - I have brown hair

Hola, me llamo Diego y tengo quince años. Tengo el pelo rubio y los ojos azules. Vivo en Madrid con mi madre, mi padre y mis dos hermanas. También tengo un perro. Mi madre es muy simpática pero mis hermanas son bastante tontas. Me gusta mi perro porque es muy divertido.

Para ir más lejos: (To go further...)



Scan this QR code with your phone or tablet. It will take you to BBC Bitesize where you can practice the basic information we've been learning and do a quiz at the end.



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!

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

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

**Week 3:** Translate the paragraph into English.

**Week 4:** Create a 10 question quiz of key vocabulary or phrases.

**Week 5:** Create a mind map of any key phrases you can remember and then fill it in with red pen using this knowledge organiser.

**Week 6:** 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.

**Week 7:** 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.

# Knowledge Organiser: The Good Thieves

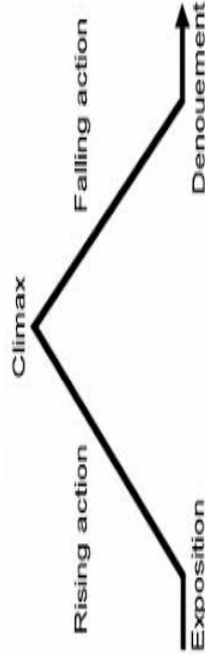
## Characterisation

This term you will be studying the novel **The Good Thieves**. Whilst studying this novel you will be focussing on **characterisation** and will be assessed on your ability to evaluate how the writer has presented the **character** through the use of language.

## Characters

**Vita:** protagonist,  
**Grandpa:** Vita's grandfather who is tricked out of his family castle  
**Silk, Arkady & Samuel:** Vita's friends  
**Victor Sorrotorre:** An Italian/American gangster who conned Vita's Grandpa out of his castle  
**Dillinger:** Sorrotorre's accomplice

## Narrative structure:



## PEE structure

Schema for essay writing

**Point:** **What you know** make a statement about what you have learned about the character

**Evidence:** **why you know** a quotation from the text that has made you think this about the character.

**Explanation:** **how you know**

Briefly explain the meaning of the quotation and *how* it supports your point about the character.

**Comment on key word:** identify any key words from your evidence, what is the effect/ meaning of this specific word? What does it show us about their character?

## Vocabulary

**Characterisation**- the creation of a fictional character, including how they act, look and their emotions.

**Plot**- the main events of a novel. .

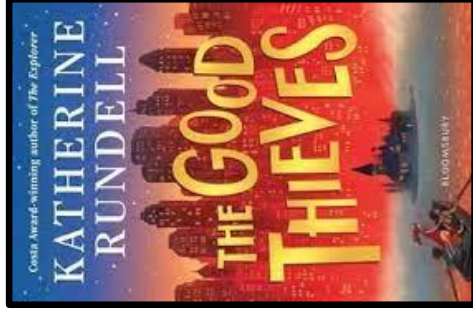
**Setting**- were the narrative takes place e.g. a forest

**Narrator**- a person who recounts the events of a novel or narrative poem.

**Imagery**- When the writer uses language to create an image in the reader's mind.

**Dialogue**- a conversation between two or more people as a feature of a book, play, or film.

**Protagonist**- the leading character in a novel



"It's not always sensible to be sensible"

# Home Learning tasks

Week	Easy	More challenging	Challenging
1	Research life in America in the 1920's	Research what life was like in 1920s America and write a report of your findings.	Research what life was like in 1920s America. Write a diary entry as child living in New York in the 1920's.
2	Research the Mafia in 1920s America.	1. Research the Mafia in 1920s America. 2. Write the diary of a citizen of New York experiencing difficulties with the Mafia in their neighbourhood.	1. Research the Mafia in 1920s America. 2. Imagine you were a member of the Mafia, Write a letter to a friend, describing what life is like for you and your feelings about what you do.
3	Design a poster for the circus.	Describe a visit to a circus	Create a leaflet promoting a circus and encouraging people to visit.
4	Write about the character of Vita using quotations to support your ideas.	Write two paragraphs about what you have learned about Vita's character using the PEE chain.	Write about how the character of Vita is presented using the PEE chain.
5	Write three similes to describe weather.	Write a description of the weather and include three similes.	Write a poem about the weather creating imagery using simile and metaphor
6	Write the headline for a newspaper report about Sorrotore's crimes.	Write the opening paragraph to a newspaper report on Sorrotore's crimes	Write a newspaper report about Sorrotore's crimes.
7	Design a new book cover for 'The Good Thieves'	Design a new book cover for 'The Good Thieves'	Design a new book cover for 'The Good Thieves' and write the blurb or Synopsis for the back cover.

**PEE structure**  
Schema for essay writing

**Point: What you know**  
make a statement about what you have learned about the character

**Evidence: why you know**  
a quotation from the text that has made you think this about the character.

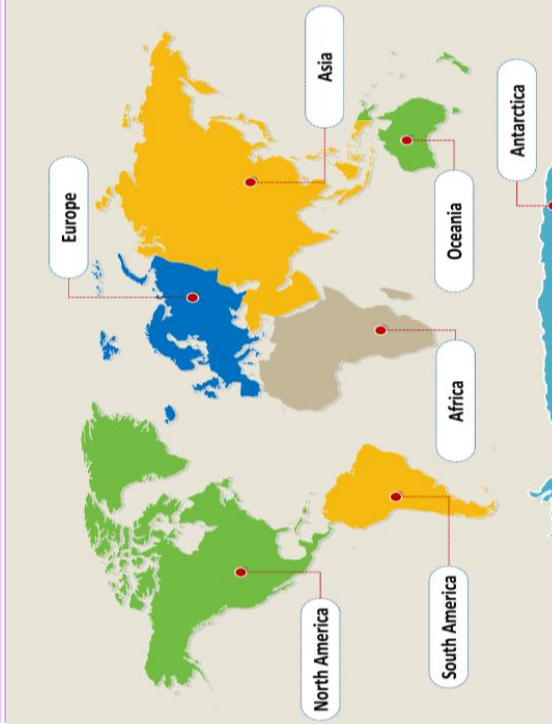
**Explanation: how you know**

Briefly explain the meaning of the quotation and how it supports your point about the character.

**Comment on key word:**  
identify any key words from your evidence, what is the effect/meaning of this specific word? What does it show us about their character?

## Continents and oceans

A continent is a large land mass containing different countries. An ocean is a large mass of water unobstructed by continents

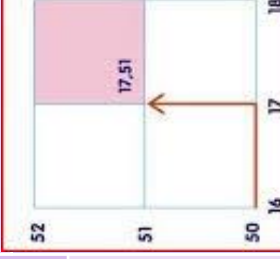


## Types of Geography

Physical: natural things	Human: made by mankind	Environmental: How humans interact
<ul style="list-style-type: none"> <li>Mountains</li> <li>Oceans</li> <li>Rivers</li> <li>Seas</li> <li>Deserts</li> </ul>	<ul style="list-style-type: none"> <li>Cities</li> <li>Population</li> <li>Cultures</li> <li>Where we live</li> </ul>	<ul style="list-style-type: none"> <li>Pollution</li> <li>Climate change</li> <li>Global Warming</li> </ul>

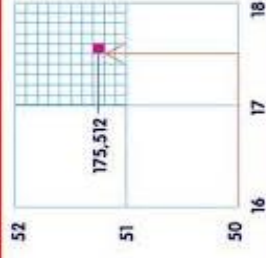
## Grid references

We use 4 figure grid references to help us to locate features on a map. You use them as follows:



**Four-figure grid references**  
Each square has a grid reference which you get by putting together the numbers of the easting and northing that cross in its bottom left hand corner.

**Six-figure grid references**  
In your head, you should be able to divide all sides of the square into ten equal sections. By doing this, you can pinpoint locations within the square – these are called six-figure grid references.

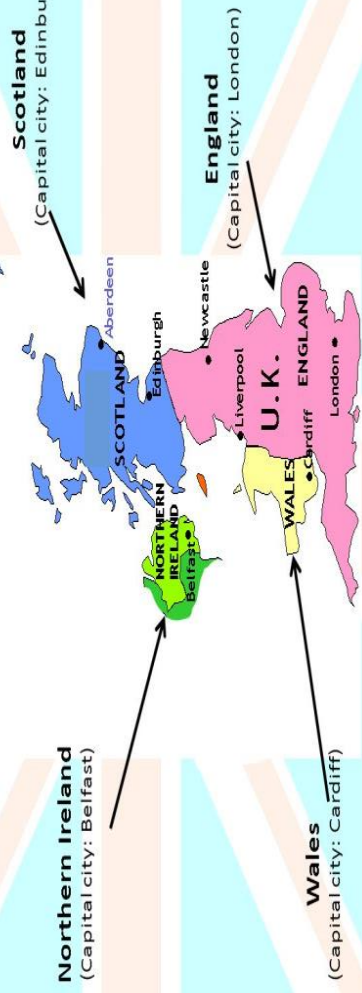


## Geography Exploring My World Year 7

### Tasks- if you complete all 7, revisit some or all from memory

- Task 1: Learn the names of 7 continents and their location.
- Task 2: Learn the definitions for a continent and an ocean.
- Task 3: Know the differences between the United Kingdom, the British Isles and Great Britain by using the map and table.
- Task 4: Using the United Kingdom map revise the location of the countries that are part of it.
- Task 5: Look over the different type of Geography, cover and from memory try to classify under the 3 headings.
- Task 6: Add some more types of Geography to your list from task 5 e.g. earthquakes- physical.-
- Task 7: Look over the information on grid references and then write down the information on grid references and then write down the difference between 4 and 6 figure grid references. Then go to mapzone.com and take part in some of the activities and games to improve your map skills.

## The United Kingdom (Capital city: London)



**British Isles**

England, Wales, Scotland, Northern Ireland, Republic of Ireland.

**United Kingdom**

England, Wales, Scotland, Northern Ireland.

**Great Britain**

England, Wales, Scotland.



# Computing Department Knowledge Organiser: Year 7 Online Safety

## Stay safe online:

1. Don't post personal information online.
2. Think carefully about posting any images or videos of yourself.
3. Keep privacy settings as high as possible.
4. Keep your password safe.
5. Don't befriend people you don't know.
6. Don't meet up with people you have met online.
7. Think before you say.
8. Treat others with respect, don't be rude!
9. If you see something which makes you feel unsafe, scared or uncomfortable. Report it.

Who can you report inappropriate content to online?



A strong password should have:

- Letters,
- Capital letters,
- Numbers,
- Symbols,
- 8 or more characters.
- No dictionary words

Key vocab	
<b>File</b>	An object on a computer that stores data, information, settings, or commands used with a computer program.
<b>Folder</b>	A way to organize computer files. A folder is a storage space that many files can be placed into to group them together and organize the computer.
<b>Website links:</b>	
▶ Think you know -	<a href="https://www.thinkuknow.co.uk/">https://www.thinkuknow.co.uk/</a>
▶ CEOP -	<a href="https://ceop.police.uk/">https://ceop.police.uk/</a>
▶ Childline -	<a href="https://www.childline.org.uk/">https://www.childline.org.uk/</a>
<b>E-safety</b>	Maximizing personal safety and security risks to private information and property associated with using the internet
<b>Username</b>	Identification used by a person with access to a computer, network, or online service. (eg. 17B1...)
<b>Password</b>	A secret word, phrase, or string of characters that allows access to a computer, interface, or system.
<b>Private information</b>	Information that can be used to identify, contact or locate a person.
<b>Public information</b>	Information that has been made available for anyone to access.
<b>Inappropriate content</b>	Content that is not suitable for its setting – this could include offensive, illegal or irrelevant images or text.



# Computing Department Knowledge Organiser: Year 7 Online Safety

## What is Online Safety?

This can also be called 'internet safety', 'online safety', 'online safety' or 'e-safety safety'. Online safety is often defined as the safe and responsible use of technology. This includes the use of the internet and also other means of communication using electronic media (e.g. text messages, gaming devices, email etc.)

Issues online		Advice
<b>1. Online activity</b>		Remember that people online may not be who they say they are.
<b>2. How much personal information do you share online?</b>		Don't share personal information online including your full name, photos, addresses, school information, telephone numbers and places you like to spend time.
<b>3. How old is your password?</b>		Change your password regularly, just in case somebody guesses it and begins to access your account.
<b>4. Is your password strong enough</b>		A strong password should contain letters, numbers, symbols and a mixture of uppercase and lowercase letters
<b>5. Sending images and videos online</b>		Be very careful sending Selfies, photos or videos online. Once you have sent a picture or video on the internet, it will always be there for people to see or share.
<b>6. Online friends</b>		If a friend you have made online asks to meet you in the offline world, talk to your parents or a trusted adult about it. You should never meet up with someone you have met online without an adult going with you because it is dangerous.
<b>7. Age restrictions</b>		Did you know it is illegal to have a Social Media account if you are not 13 yet?



# Computing Department Knowledge Organiser: Year 7 Online Safety

## What is Cyberbullying?

Cyberbullying is bullying that takes place using electronic technology. Electronic technology includes devices and equipment such as mobile phones, computers, and tablets as well as communication tools including social networking sites, text messages, chat, and websites. Examples of cyberbullying include mean text messages or emails, rumours sent by email or posted on social networking sites, and embarrassing pictures, videos, websites, or fake profiles.

### 5 steps to take if you're being bullied online

1. **Tell an adult you trust-** Bullying can be hard to talk about but you shouldn't feel that you have to handle it alone. Talk to an adult you trust. This could be your mum or dad, your aunt, a teacher, your Form Tutor, Head of Year or Assistant Head of Year. We will support you and help you to make it stop.
2. **Talk to someone your age.**-Talk to a friend or if you don't want to talk to someone you know, you can post messages and get advice on Childline's website. <https://www.childline.org.uk/>
3. **Block the bullies-** Most websites will let you block people to stop them communicating with you. Find out how on most popular sites
4. **Keep the evidence-**Keep any nasty emails, texts or web pages so you can show someone what's been going on.
5. **Report** mean videos, pictures, comments or pages to the website you've found them on. <https://www.thinkuknow.co.uk/>





# DESIGN TECHNOLOGY KNOWLEDGE ORGANISER

YEAR 7 DT

## Topic: Keeping your desk tidy – Wooden Christmas decoration

### My Tool Box



**Tenon Saw** – Used to cut straight lines in wood.



**Coping Saw** – Used to cut curves and internal shapes in wood.



**Hand Vice** – Allows secure clamping of material for drilling.



**Line Bender** - Used to bend thermo-plastics like acrylic.



**Pillar/Bench Drill** – Used to drill holes into different materials.



**Hand file** – Used to smooth out different materials



**Belt Sander** – Used to sand/smooth down different materials

### Focused Topics

**PERSONAL PROTECTIVE EQUIPMENT(PPE)**

**EAR PROTECTION**  
USE IN NOISY AREAS TO AVOID HEARING LOSS

**SAFETY HELMET**  
USE TO PROTECT YOUR HEAD FROM FALLING OBJECTS

**RESPIRATORY EQUIPMENT**  
USE TO PROTECT FROM INHALING DUST AND OTHER CONTAMINANTS

**SAFETY GLASSES**  
USE TO PROTECT EYES FROM FLYING PARTICLES

**SAFETY GLOVES**  
USE TO PROTECT YOUR HANDS FROM INJURY

**REFLECTIVE CLOTHING**  
USE TO MAKE SURE YOU ARE HIGHLY VISIBLE TO OTHER PERSONNEL

**SAFETY SHOES**  
USE TO PROTECT YOUR FEET FROM FALLING OR ROLLING OBJECTS

**YOU ONLY HAVE ONE BODY!**

### THERMOPLASTICS



(Can be melted repeatedly)

### THERMOSETS



(Once shaped, cannot be melted)

### Key Terms

**Aesthetics** - how humans perceive and judge objects according to their attractiveness

**Hazzard** - Anything with the potential to cause harm

**Control measure** – Something put in place to prevent harm to people

**PPE** – (Personal Protective Equipment) Equipment that provides a barrier between the person and the hazard.

**Drilling**- the action of making a hole in something by boring with a drill.

**Line-bending**- a process used to bend thermoplastics in a straight line.

### Tasks

**Task 1:** Cover the knowledge organiser then write down all the tools you have learnt. Check and red pen mistakes.

**Task 2:** Do the same as task 1 for Key words & definition.

**Task 3:** Name & describe 6 types of PPE (Personal Protective Equipment) – explain their use in a workshop.

**Task 4:** Draw two tools and write what they are for.

**Task 5:** Create a quiz based on task 1, 2 or 3. Get someone to test you.

**Task 6:** Create a mind map for the information you remember and red pen anything you've forgotten.

**Task 7:** Teach it. Create a task that can be used to teach some of the information from here.

### To go further:

Introduction to oblique sketches:



More information about polymers:





# ART KNOWLEDGE ORGANISER

YEAR 7  
Term 1b-Pop  
Art project

Topic: Pop Art (Responding to the work of Pop Art artists)

### History/Context:

During this term we will be looking at the work of Pop Art and some Pop Art artists, both British and American. Pop art, or popular art, was an art movement of the 1950s and 60s in America and Europe. It made use of popular imagery, such as comics, films, advertising and household objects. Pop Art is characterized by bright colours such as red, blue and yellow, as well as images of celebrities or fictional characters from TV or comics, particularly in Roy Lichtenstein's body of work.

#### Peter Blake

Peter Blake is an English Pop-artist. He is known as an important figure within the pop art movement. Blake is very interested in pop culture and enjoys using this topic in all of his work. Blake studied at Gravesend Technical College and then at the Royal College of Arts, London. He became part of the Royal Academy in 1981 and was knighted by Prince Charles at Buckingham Palace. Pieces of his work were held in the TATE, London in 1983 and then TATE, Liverpool in 2008!

#### Roy Lichtenstein

Another well-known pop artist was Roy Lichtenstein. His paintings and prints looked just like comic strips, including his most well-known work entitled *Whaam!* Roy Fox Lichtenstein lived from October 27, 1923 until September 29, 1997. He was an American pop artist from New York. His work was influenced by popular advertising and the comic book style.

Task 3 - scan this QR code to watch Peter Blake in his studio



Task 4 - use these images to help inspire your own 'Museum of Me'

### Home Learning tasks:

**Week 1:** Practice key literacy vocab 1-5 - look, cover, write, check, correct x 3. Read the sentences again and check for understanding.  
**Week 2:** Practice key phrases 6-10 - look, cover, write, check, correct x3. Read the sentences again and check for understanding.

**Week 3:** Watch the video of Peter Blake working in his studio. Think about the work that he is doing now he is a bit older. Write five questions you'd like to ask him about his life and his artwork if you had the opportunity to interview him.

**Week 4:** Peter Blake created artwork titled 'A Museum for Me'. These were art frames, filled with everyday objects that were important to him during his life. Look at the images below, and your task this week is to draw or create and photograph your own 'Museum of Me'. Think carefully about what types of objects you'd like to put into it.

**Week 5:** Research the work of Roy Lichtenstein, try to find out a little bit about how he created his work, what inspired him and pick out one of your favourite drawings of his and write about what you like about the piece and why.

**Week 6:** Create a piece of artwork using the everyday object 'a Coca-Cola can' in the style of Roy Lichtenstein. Make sure your drawing has: Bold primary and secondary colours, a black outline, the cola can, Pop art patterns and Onomatopoeia: which links with the sound of a fizzy drink eg: FIZZ, POP, etc.

**Week 7:** Pop artists were often inspired by comic books. This week we'd like you to create your own pop-art inspired comic strip. This could be a story about anything and include your own characters.



Task 5 - scan this QR code to watch the video discussing Roy Lichtenstein.



### Key Literacy Vocabulary:

- Iconic Figures** - These may be celebrities or famous people, someone who is instantly recognizable.
- Bold Colour** - Pop art is symbolized by the bright colours used. Mostly, artists used primary colours in their work.
- Black Outlines** - The use of black outlines helps the work to "pop" from the background.
- Comics** - Comic books were incredibly popular in the 1950/60s and featured heavily in Pop-artwork.
- Media** - This refers to the type of materials used to create a piece of work. For example, paint, pens, printing etc.
- Oversized Images** - Often in pop-art, everyday objects were shown as "larger than life" in the paintings and prints that were created.
- Everyday Objects** - This could be a simple as a pair of shoes, or indeed a paint can. Everyday objects inspired young pop-artists.
- Current Events** - This refers to the news of the day, affairs that are happening around the world.
- Brand Names** - Brands of objects are well-known names, for example, Heinz Ketchup
- Packaging** - This is the way something is packaged when you purchase it in a shop.



Task 6 Create a piece of Artwork that with a Coca-Cola can. Think of a sound the drink makes when you open the can.

Task 7 - use these images as inspiration for your very own comic strip.

### Week One

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

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

Answers questions 1-6 in full sentences.

Mark your own work using the answers.

### Week Two

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

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

Answers questions 7-12 in full sentences.

Mark your own work using the answers.

### Week Three

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

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

Answers questions 13-19 in full sentences.

Mark your own work using the answers.

### Week Four

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

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

Answers questions 20-27 in full sentences.

Mark your own work using the answers.

### Week Five

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

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

Answers questions 28-33 in full sentences.

Mark your own work using the answers.

### Week Six

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

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

Answers questions 34-39 in full sentences.

Mark your own work using the answers.



**Have you completed your 4 daily goals?  
Complete your 4 daily goals each 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!

## 7.3 – Energy

### 1. Energy Stores

Energy is measured in Joules (J)

There are different types of energy stores:

Name	Energy stored...	Example
Magnetic	When repelling poles are pushed closer or attracting poles pulled apart	Fridge magnets, compasses
Electrostatic	When repelling charges are moved closer/ attracting charges pulled apart	Thunder and lightning
Internal (thermal)	In the total potential and kinetic energy of the particles in an object	Hot drinks, ice cubes
Chemical potential	In chemical bonds	Food, fuels
Gravitational potential	In objects at height	Kite, aeroplane
Elastic potential	When an object is stretched or squashed	Stringed spring.
Kinetic	In moving objects	Car, comet
Nuclear	In the nucleus of an atom	Uranium

### What do I need to be able to do?

- Describing changes in the amounts of energy in stores during processes that involve energy transfer.
- Understand internal energy stored in materials.
- Describe the intermediate pathways that bring about energy changes in systems
- Describe the energy transfer from hotter to cooler objects, via conduction, convection or radiation; to reduce the temperature difference until equilibrium
- Explain the use of insulators to reduce the rate of thermal energy transfer
- Calculate work done & energy changes, including on deformation of an object
- Evaluate fuels and renewable energy resources.
- Describe simple machines as giving a bigger force as the result of a smaller movement
- Describe the energy changes in changes of state; motion & arrangement of particles
- Describe the cycles of materials and energy
- Understand energy as a quantity that can be quantified, calculated, and is conserved
- Calculate fuel costs in a domestic context
- Compare power ratings of appliances in W & kW

### 4. Renewable & Non-renewable Resources

Fossil fuels	Coal, oil and natural gas
✓ cheap and easy to obtain	✗ finite resource
Infrastructure already in place	Contributes to global warming and acid rain
Nuclear	Uranium, plutonium
✓ ≈ 165 years left	✗ slow start up time
Doesn't contribute to global warming	Radioactive waste
Large amounts of energy released per gram	High decommissioning costs
	Risk of catastrophic accidents

### Renewable energy resources

<b>Solar, wind, tidal, H.E.P, wave, geothermal, biomass</b>	✗ construction is costly some are unreliable, can only be used in certain locations, have major ecological impacts
✓ infinite do not contribute to global warming	

### 2. Conservation of Energy

Energy cannot be created or destroyed, only transferred from one store to another

The total amount of energy before and after a transfer remains constant

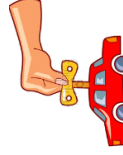
e.g.



The gravitational potential energy store decreases and the kinetic energy store increases. Mechanical work is done



The internal energy store of the surroundings decreases, and the internal energy store of the ice cube increases. Work is done via heating



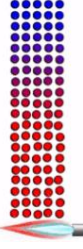
The elastic potential energy store decreases and the kinetic energy store increases. Mechanical work is done

### 3. Methods of Heat Transfer

Heating a substance increases the internal energy store of the object – the particles are moving with more kinetic energy

#### Conduction

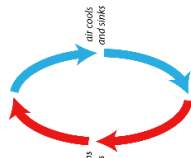
Particles transfer energy by colliding with adjacent particles when they vibrate and making them vibrate also.



Heat transfer occurs until all particles have the same amount of kinetic energy – all areas are at the same temperature

#### Convection – in fluids

- Particles at the bottom gain kinetic energy and move faster
- They spread out and the substance becomes less dense. Less dense substances rise
- As they rise, they lose kinetic energy and move closer together. The substance becomes denser and sinks
- The process repeats, a convection current is created



### 6. Power & Energy Costs

Power is the rate at which energy is transferred or work is done

$$\text{Power} = \frac{\text{energy transferred (work done)}}{\text{time}}$$

Power is measured in Watts (W)

$$1 \text{ W} = 1 \text{ J per second}$$

**Worked example:**

An oven transfers 36000 J of energy in 3 seconds. Calculate the power of the oven.

$$\text{power} = \frac{\text{energy}}{\text{time}}$$

$$\text{power} = \frac{36\,000 \text{ J}}{3 \text{ s}}$$

$$\text{power} = 12\,000 \text{ J}$$

To calculate the cost of energy transfer:

$$\text{Total cost} = \text{power (W)} \times \text{time (h)} \times \text{cost per unit}$$

### 7. Work Done

Work is done when energy is transferred from one store to another. Work is also done when a force causes an object to move.

$$\text{Work done} = \text{force} \times \text{distance}$$

Work done is equal to the energy transferred and so is also measure in Joules

#### Worked example:

A doctor weighs 600 N. A lift moves her 40 m to the top floor of a hospital. Calculate the work done on the doctor by the lift.

$$\text{work done} = \text{force} \times \text{distance}$$

$$\text{work done} = 600 \text{ N} \times 40 \text{ m}$$

$$\text{work done} = 24,000 \text{ J}$$



# Energy – Key Questions

## Questions

1. Name the 8 stores of energy.
2. Name the energy store of moving objects.
3. Name the energy store of food, batteries and fuels.
4. Name the energy store of objects at a height.
5. What unit is energy measured in?
6. State the 'law of the conservation of energy'
7. Describe the changes in energy stores in a battery-operated torch.
8. Describe the changes in energy stores and in a remote controlled car.
9. Describe the changes in energy stores in a slingshot as it is released.
10. Describe the changes in energy stores as water is heated on a stove.
11. If a ball has 50 J in its gravitational potential energy store as it is raised in the air, how much energy increases in the kinetic energy store as it falls? Explain your answer.
12. What is the difference between "heat" and "temperature"?
13. Define "internal energy".
14. How does the volume of a substance, such as hot water, affect the rate at which it cools?
15. How does the temperature of a substance, such as hot water, affect the rate at which it cools?
16. Define the term conduction.
17. What do we call a poor conductor?
18. Give an example of a material that is a good conductor.
19. Define convection.
20. Describe how a radiator warms a room via convection.

## Answers

1. The 8 stores of energy are: magnetic, electrostatic, gravitational potential energy, chemical potential energy, elastic potential energy, nuclear, magnetic, and kinetic.
2. The energy store of moving objects is called the kinetic store.
3. The energy stored in food, batteries, and fuels is called chemical potential energy.
4. The energy stored in an object at height is called gravitational potential energy.
5. Energy is measured in Joules (J).
6. The law of the conservation of energy is that energy cannot be created or destroyed, only transferred.
7. Chemical potential energy of the batteries decreases and the thermal store of energy of the surroundings increases.
8. Chemical potential energy of the batteries decreases, the kinetic store of the car increases, and the thermal store of energy of the surroundings increases.
9. The elastic potential store of the slingshot decreases and the kinetic energy of the object fired increases.
10. Chemical potential energy of the fuel decreases and the thermal store of energy of the surroundings increases.
11. As energy cannot be created or destroyed, if there is 50J of GPE to start with, there must be 50J of kinetic energy to end with.
12. Heat is the movement of energy from one thermal store to another, whereas temperature is a measure of the average kinetic energy of the particles in a substance.
13. Internal energy is the sum of the kinetic and potential energy of all particles in a system.
14. The larger the volume of an object, the longer it will take to cool down.
15. The hotter and object is compared to its surroundings, the faster it will cool.
16. Conduction is the transfer of energy (vibrations) from particle to particle in a solid.
17. A poor conductor is referred to as an insulator.
18. An example of a material that is a good conductor is (any named metal).
19. Convection is the transfer of energy in fluids.
20. A radiator increases the energy of the air particles, making them move apart, and the air less dense. The hot air rises. The cooler, more dense air then falls towards the radiator. This is known as a convection current.

## Energy – Key Questions

### Questions



21. What are the correct scientific terms for "give out" and "take in" when talking about radiation.
22. True or false? The hotter an object is, the less radiation it emits.
23. What types of surface are the best emitters and absorbers of infrared radiation?
24. What types of surface are the best reflectors of infrared radiation?
25. What is the equation that links work done, force, and distance?
26. What is the correct unit for work done?
27. What is the equation that links power, energy and time?
28. What is the definition of power in the context of energy usage?
29. What is the correct unit of measurement for power?
30. What is 1 Watt?
31. How do we calculate efficiency?
32. Name the three fossil fuels.
33. What is meant by a "renewable energy resource"?
34. What is meant by a "non-renewable energy resource"?
35. What effect does carbon dioxide have on our atmosphere?
36. What effect does sulphur dioxide have on our atmosphere?
37. State seven examples of renewable energy resources.
38. State the equation to calculate the cost of energy at home, from the power, time, and price per unit.
39. How do you convert watts into kilowatts?

### Answers



21. "Give out" is known as "emit". "Take in" is known as "absorb."
22. False - this should read, "The hotter an object is, the more infrared radiation it emits."
23. Matt black surfaces are the best absorbers and emitters of IR radiation.
24. Light, shiny, surfaces are the best reflectors of IR radiation.
25. Work done = Force x Distance
26. Work done is measured in Joules
27. Power = Energy / Time
28. Power is the rate of energy transfer.
29. Power is measured in Watts (W).
30. 1 Watt is 1 Joule of energy transferred per second.
31. Efficiency is useful output / total input.
32. Coal, Oil, and Natural Gas (Methane) are fossil fuels.
33. Renewable energy resources are those that are being replenished as we use them.
34. Non-renewable means we are using them faster than they can be replenished.
35. Carbon dioxide is a greenhouse gas which means it can contribute to global warming and climate change.
36. Sulphur dioxide dissolves in rainwater causing it to be slightly more acidic. This can damage plants and buildings over time.
37. Solar, wind, waves, tidal, hydroelectric, geothermal, and biomass are all examples of non-renewable energy resources.
38. Cost=power(kw) x time(hours) x price(per kWh)
39. Divide by 1000

### Task 1:

Have someone quiz you on what test is needed for each components of fitness

## Fitness Testing

### Best Practice:

Youtube the tests and you can practice them in your own time to improve your score

Component of fitness	Test to perform	Sporting example
<b><u>Speed</u></b>	30m speed test	A defender catching up to his opponent who is running through on goal
<b><u>Strength</u></b>	Handgrip Dynamometer	Pushing with all one's force in a rugby scrum against the resistance of the opposition pack
<b><u>Agility</u></b>	Illinois agility test	A tennis player moving around the court from back to front and side to side at speed
<b><u>Muscular endurance</u></b>	30 second sit up test	A rower repeatedly pulling their oar against the water to move the boat towards the line
<b><u>Flexibility</u></b>	Sit and reach test	A gymnast training to increase hip mobility to improve the quality of their split leap on the beam

Component of fitness	Test to perform	Sporting example
<b><u>Cardiovascular endurance</u></b>	Bleep test/Cooper run	Completing a marathon
<b><u>Balance</u></b>	Standing stalk test	A sprinter holds a perfectly still sprint start position
<b><u>Power</u></b>	Standing long jump	A javelin thrower applies great force to the spear while moving their arm rapidly forward
<b><u>Reaction time</u></b>	Ruler drop	A boxer dodging a punch from his opponent
<b><u>Coordination</u></b>	Alternate hand wall toss test	A trampolinist timing their arm and leg movements to perform the perfect tuck somersault

### Task 4

List down how you could improve your scores for each test

#### Task 2

Randomly select and write out 5 sporting examples and without looking match them up with the correct component of fitness

#### Task 3

To do the same as task 2 but with the other remaining sporting examples

# ISLAM

## BACKGROUND

- Islam began in 7<sup>th</sup> century CE when Muhammad met the angel Jibril who gave him a message from Allah.
- Muhammad shared his message and converted the city of Makkah and other parts of Arabia
- The message of Muhammad has spread and worldwide there are currently 1.8 billion followers of Allah.
- Many Muslims face persecution for their faith. They are labelled as terrorists and treated unfairly because they are different



## THE PILLARS OF ISLAM:

**SHAHADAH:**  
The belief that there is one god, Allah, and Muhammad is his prophet

**SALAH:**  
The act of prayer - worshipping Allah

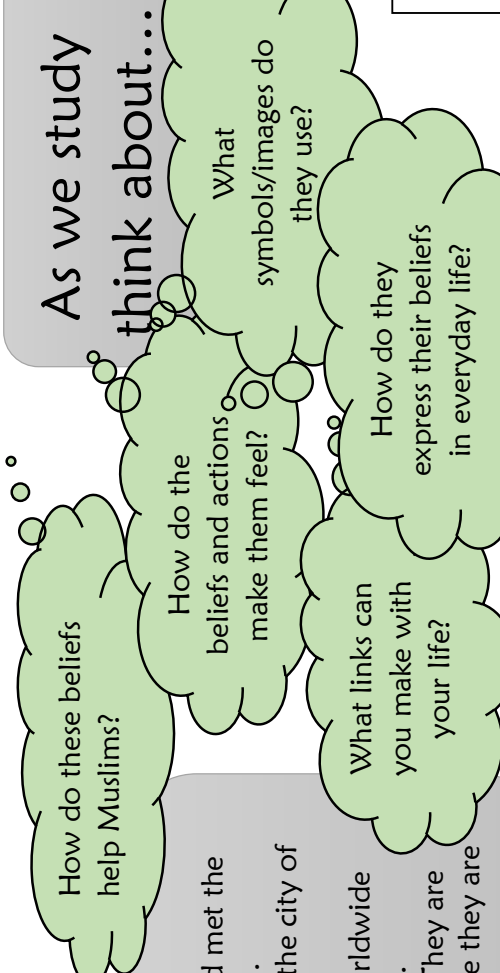
**ZAKAH:**  
The act of giving to charity (e.g. 2.5% of income)

**SAWAM:**  
Fasting during the month of Ramadan

**HAJJ:**  
Making a pilgrimage to Makkah, the holy city

## KEY WORDS:

ISLAM	The name of the religion. It means peace and submission to God	MOSQUE	The Muslim place of worship and community
MUSLIM	The word for a follower of Islam	PILGRIMAGE/HAJJ	A holy journey to an important place
ALLAH	Means 'the God'	FASTING/SAWAM	Giving up food and drink
MUHAMMAD	The most important figure in Islam. He brought the message from Allah	RAMADAN	A month where Muslims fast and pray to show discipline and understanding
PROPHET	A person with a message from God. Muslims believe Muhammad was the most important prophet	MAKKAH/MECCA	The holy city that Muhammad captured for Allah
IDOL	A false god. Muhammad tried to remove these from Makkah	MADINAH/MEDINA	The city where the first mosque was built



SOME TASKS FOR YOU TO COMPLETE

Create key word flash cards or a quiz

Create a symbol for each pillar and key word

Write your answers to 3 reflection questions

Create a flowchart of the life of Muhammad

Draw a mindmap summary of Muslim worship

Investigate Muslim art using the names of Allah



# THE LIFE OF MUHAMMAD

- Muhammad lived in Makkah, a city of drunkenness and idol worship but he was true to Allah.
- He became a prophet of Allah after seeing angel Jibril in a cave
- He was told by the angel to learn and recite Allah's words. He did this and told people to follow Allah's teachings.
- Many believed him and he gathered a group of followers who became Muslims and began a new way of life
- They faced danger and persecution from enemies who didn't like being told what to do and many didn't believe he was a prophet
- In the end he escaped with his followers to set up a mosque in Madinah to be a place of worship, community and safety
- He fought battles to get rid of false idols and to make Makkah a better, more holy city

We should be able to choose who we worship!

Who is he to tell us what to do?

He could be crazy or lying!

## OPINIONS ABOUT THE MESSAGE

His message makes sense and is helping our city

The idols disrespect Allah and lead us to wrong behaviour

Muhammad has given us safety and a community



## Where do they worship? IN THE MOSQUE:

- Muslims are called to prayer 5 times a day. They pray wherever they are either at home, at work or in the mosque. The call to prayer is sung by a *muezzin* from the *minaret*
- When they enter the mosque Muslims perform *wudu*. This is a ritual of washing so they are clean to worship. They also remove their shoes.
- The mosque has separate spaces for men and women to pray but they will all face Makkah
- The direction of Makkah is shown by the *mihrab*
- The leader of the mosque is called an *Imam*.
- Most mosques also have a *madrasah* for teaching the children of the community about Islam

## WHO IS ALLAH?

Muslims have 99 names for Allah including:

The	The	The All-	The	Creator
Provider	Merciful	Seeing		
of Peace				

Muslims will not draw Allah or Muhammad or have images of people in their mosques. They believe this is idolatry (making false gods)



PERFECT  
PRACTICE  
MAKES  
PERFECT



Learning to Learn



The 'Listen' Project #1