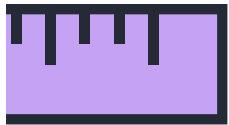


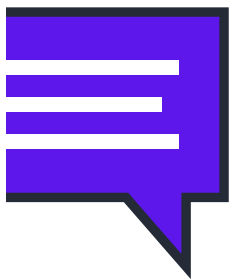


# HOME-LEARNING

## 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!

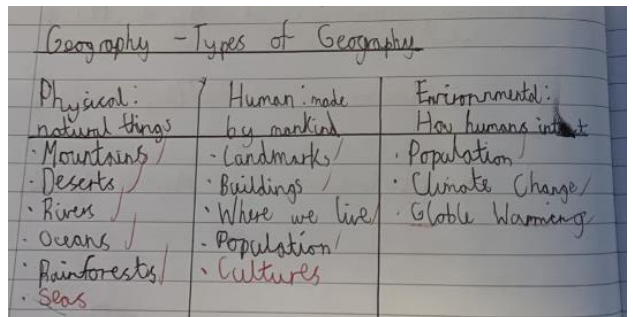
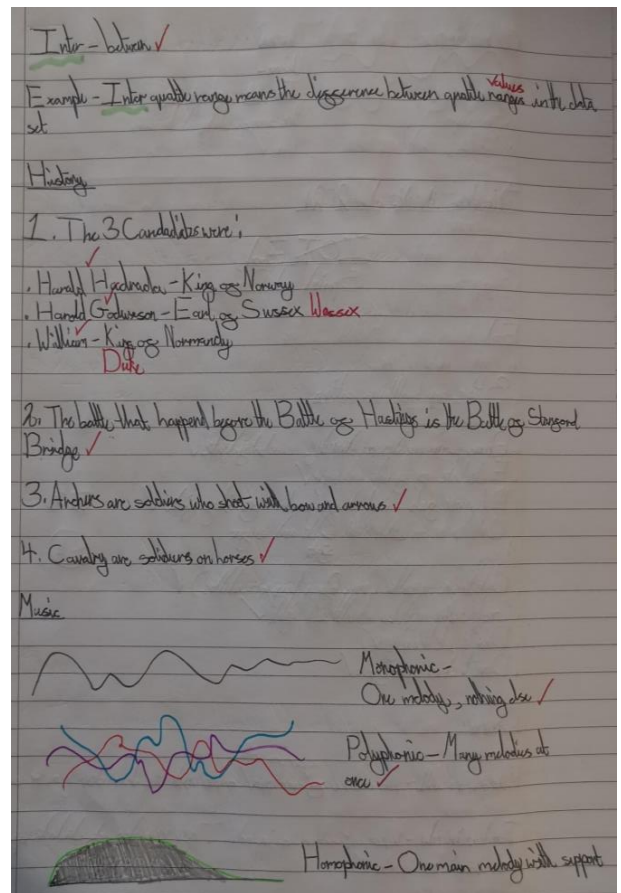
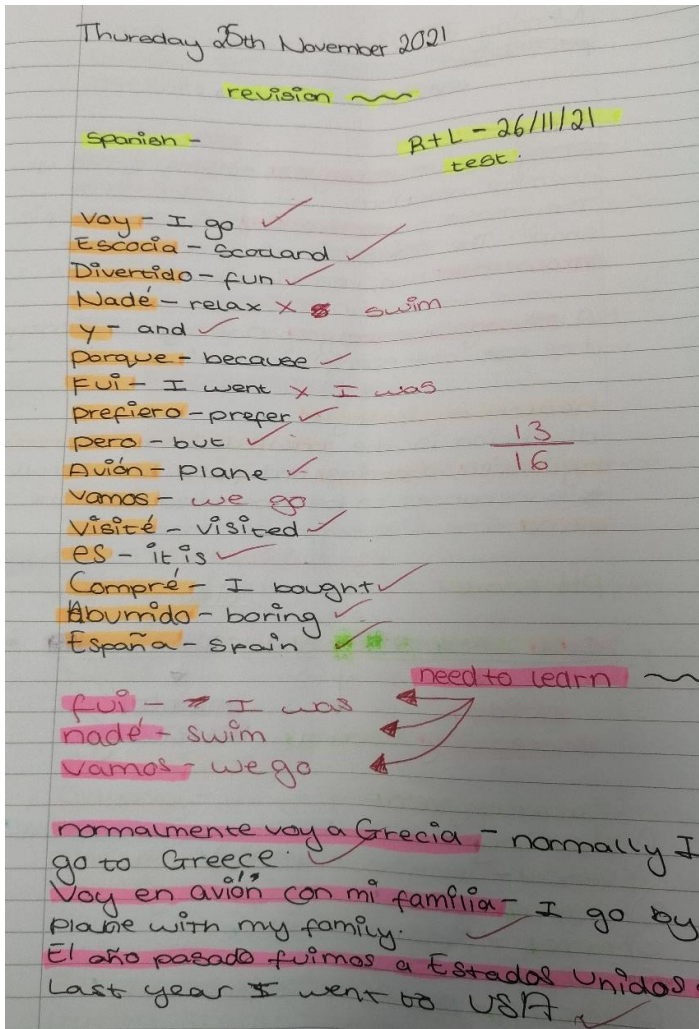


# What does effective home-learning look like?

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
<b>Maths</b> [Hegarty Maths On-Line and Prefixes & Suffixes]	<b>ICT/ Food</b>	<b>English</b> [Supported by Educake Tasks]	<b>Art/Dt</b>	
<b>History</b>	<b>Drama</b>	<b>Geography</b>	<b>Science</b> [Knowledge Organisers]	
<b>Music</b>	<b>Spanish</b>	<b>RS</b>	<b>Active Lifestyles</b>	
← <b>Science: Tassomai On-Line (complete one daily goal each day)</b> →				

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*

## 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

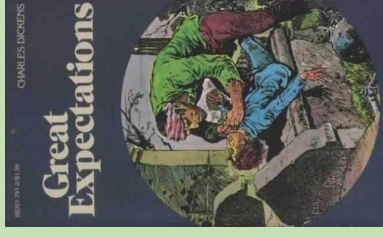


Stories about children looking after themselves and using their own skills and wits to survive in tough circumstances are very popular. Some of the older stories you might be familiar with are the **Famous Five** and **Secret Seven** books by **Enid Blyton**. Even **Harry Potter** might be a story of 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

You will have two tasks each week.

Task 1 will be done in your Home Learning book, Task 2 will be to log on and complete your Hegarty Maths quiz.

**Each Monday your teacher will set you a new Hegarty Maths task.**

⇒ Access it on [www.hegartymaths.com](http://www.hegartymaths.com)

⇒ Watch the video, making notes in your book.

⇒ Complete the quiz.

You can always do some extra MemRi tasks if you have time!



Week Beginning	Focus	Video	Task 1
31st October	Key Skill 05	178	Copy Key Skill 05 in your book and try to remember them
7th November	Class Focus		Copy the first Key word and their definition into your book.
14th November	Key Skill 06	77	Copy Key Skill 06 in your book and try to remember them
21st November	Class Focus		Copy the second Key word and their definition into your book
28th November	Key Skill 07	85	Copy Key Skill 07 in your book and try to remember them
5th December	Class Focus		Copy the third Key word and their definition into your book
12th December	Key Skill 08	197	Copy Key Skill 08 in your book and try to remember them
19th December	Class Focus		Copy the fourth Key word and their definition into your book

## When will I use this?

Sequences can be used when waiting time for bus  
An arithmetic sequence can help you calculate the time you will have to wait before the next bus arrives



Key Skills Retrieval	Key Skill
<b>Skill 05</b> Solve one step algebraic equations	Use the inverse operation to find the value of the letter, remembering that whatever you do to one side of an equation you must do to the other to keep it balanced. E.g. Solve: $x - 7 = 12$ Get rid of the -7 here by using the inverse operation: +7 on both sides $\begin{array}{r} x - 7 = 12 \\ (+7) \quad (+7) \\ \hline x = 12 \end{array}$
<b>Skill 06</b> Find a fraction of an amount	Draw a diagram to represent the fraction you want to find. E.g. Find $\frac{2}{3}$ of £210 $\begin{array}{ c c c } \hline \text{£210} & & \\ \hline \text{70} & \text{70} & \text{70} \\ \hline \end{array} \quad \begin{array}{l} \leftarrow \text{£210} \\ \leftarrow \text{70} \end{array} \quad \begin{array}{l} \text{210} \div 3 = 70 \\ \text{70} \times 2 = \text{£140} \\ \text{70} \times 3 \end{array}$ In other words, divide by the denominator then multiply by the
<b>Skill 07</b> Find a percentage of an amount	Find 10% (and 5% if needed) then use these to find the percentage you want. E.g. Find 35% of 80g $10\% = \text{£8}$ , $5\% = \text{£4}$ . $35\% = \text{£8} + \text{£8} + \text{£8} + \text{£4} = \text{£28}$
<b>Skill 08</b> Find the missing term in a sequence	Decide what the rule is for the sequence then use this to find the missing term. E.g. Find the next term in the sequence 3 8 13 18 23 The rule here must be +5, so the next term is $23 + 5 = 28$
Key Words	Definition
Inverse	Inverse means opposite: so add and subtract are inverse and multiply and divide are inverse.
Fraction	It is a small part or amount of something. The numerator (top number) represents the amount looking at (shaded) and the denominator (bottom number) represents the total amount.
Percentage	Percentage means any proportion or share in relation to a whole. Percent means 'out of 100' so to find 10% we divide by 10
Sequence	A sequence is a pattern of numbers following a rule 2, 5, 7, 9, 11. This sequence goes up in 2. So the rule is +2

## When will I use this?

Using fractions when shopping: Think about the time you went shopping for a new school bag. There was half off on everything due to a sale, so you calculate the new price using fractions.





### Claimants to the throne

Edward the Confessor was the Anglo-Saxon King of England from 1042 to 1066. Following his death there were a number of **claimants to the throne**. The 3 men below all believed that they should become the next King of England.



Earl, Harold Godwinson of Wessex



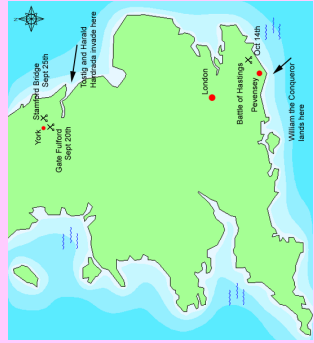
King Harald Hardraada of Norway



William, Duke of Normandy

### The Battle of Hastings

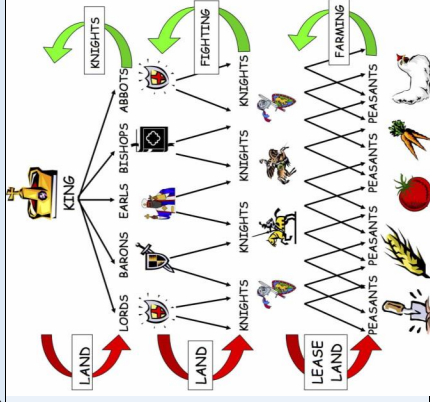
**In October 1066 whilst Harold Godwinson was in the North, William Duke of Normandy, landed on the south coast.** Harold had marched from the South to the North of England when Harald Hardraada invaded. The battle between Harold Godwinson and Harald Hardraada in the north is known as the **Battle of Stamford Bridge**. When Harold Godwin had won, he then had to march south as William of Normandy had invaded. This meant that Harold Godwinson's army had been weakened, were tired and had lost men.



### How William kept control of England

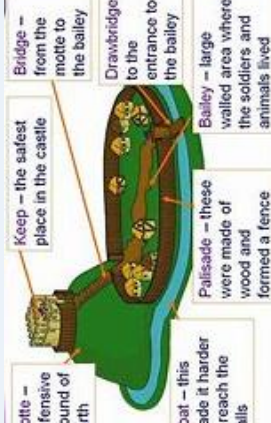
William took over all the land and gave some to loyal **Norman Nobles** and some to the Church. This meant he had loyal followers helping him to rule England.

The **Feudal System** involved people being given land in return for a service. It helped William keep control of people in England.



**Motte** – this made it harder to reach the walls

The Normans built many castles. The first castles were known as **Motte and Bailey castles** and were made of wood. Castles provided a safe home. People lived in an area known as the **palisade**.



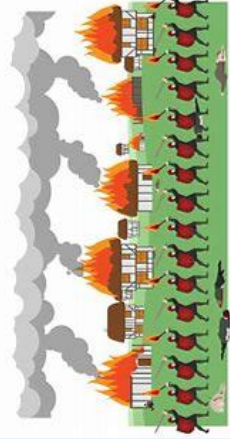
In 1086 a survey was carried out known as the **Domesday Survey**. This included asking people lots of questions about what they owned so that William knew how much **tax** he could charge each person. These surveys were all put together into what became known as the **Domesday Book**.

The survey was considered so thorough that one Englishman wrote:



"...so very thoroughly did William have the inquiry carried out, that he had the single piece of land, not even an ox, cow or pig which escaped the notice of the survey."

William punished **rebels** (those who refused to follow him) in the North harshly by executing the leaders of the rebellion, killing animals, burning crop fields and adding salt to the fields so that crops would not grow. This was all to punish people and meant that they would go hungry. This is known as the **Harrying of the North**.



## Key Terms

**Archers:** Soldiers who used bow and arrows.

**Cavalry:** Soldiers who would fight riding horses.

**Claimants to the throne:** When somebody believes they should be the next person to become king.

**Domesday Survey:** A set of questions asked so that William of Normandy knew how much tax he could demand.

**Feudal System:** A system of rewards and duties that William of Normandy used to keep control of England after the Battle of Hastings.

**Harrying of the North:** When William of Normandy ordered the crops to be destroyed and 100,000 people starved to death.

**Medieval:** A period of time from 1066 until 1500 AD.

**Motte and Bailey castle:** The first type of castles in England made of wood and earth.

**Noble:** A person with a title and land. The Norman Nobles were from Normandy in northern France.

**Rebellion (rebels):** When people use force to resist and fight with the leader.

## Tasks

### Task 1

Look at the 'Claimants to the throne' and the 'Battle of Hastings' sections on the page above. Create a timeline of events from the death of Edward the Confessor to Harold Godwinson's defeat at the Battle of Hastings.



### Task 2

Watch the video at the following link:

<https://www.bbc.co.uk/bitesize/topics/zshtyrd/articles/z9mw8hv>



Complete a comparison of the Saxon army and the Norman army.

Saxons	Normans
<ul style="list-style-type: none"><li>• Iron helmets</li><li>• On top of Senlac Hill</li></ul>	<ul style="list-style-type: none"><li>• Iron helmets</li></ul>

### Task 3

Write a short summary of the events of the Battle of Hastings and how William kept control of England as king. Try to use every key term (in the box to the left) in your summary.

### Task 4

Look at the 'How did William keep control' section on the page above.

Rank the 4 methods of control from 1 – the most important for William keeping control to 4 – the least important for William to keep control of England. Briefly explain why you have placed the 4 methods of control in this order (explain your thinking).

### 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 page on the Battle of Hastings topic at the following link and complete the quiz at the end.

<https://www.bbc.co.uk/bitesize/topics/zshtyrd/articles/z9mw8hv>



# 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?**

# Eatwell Guide

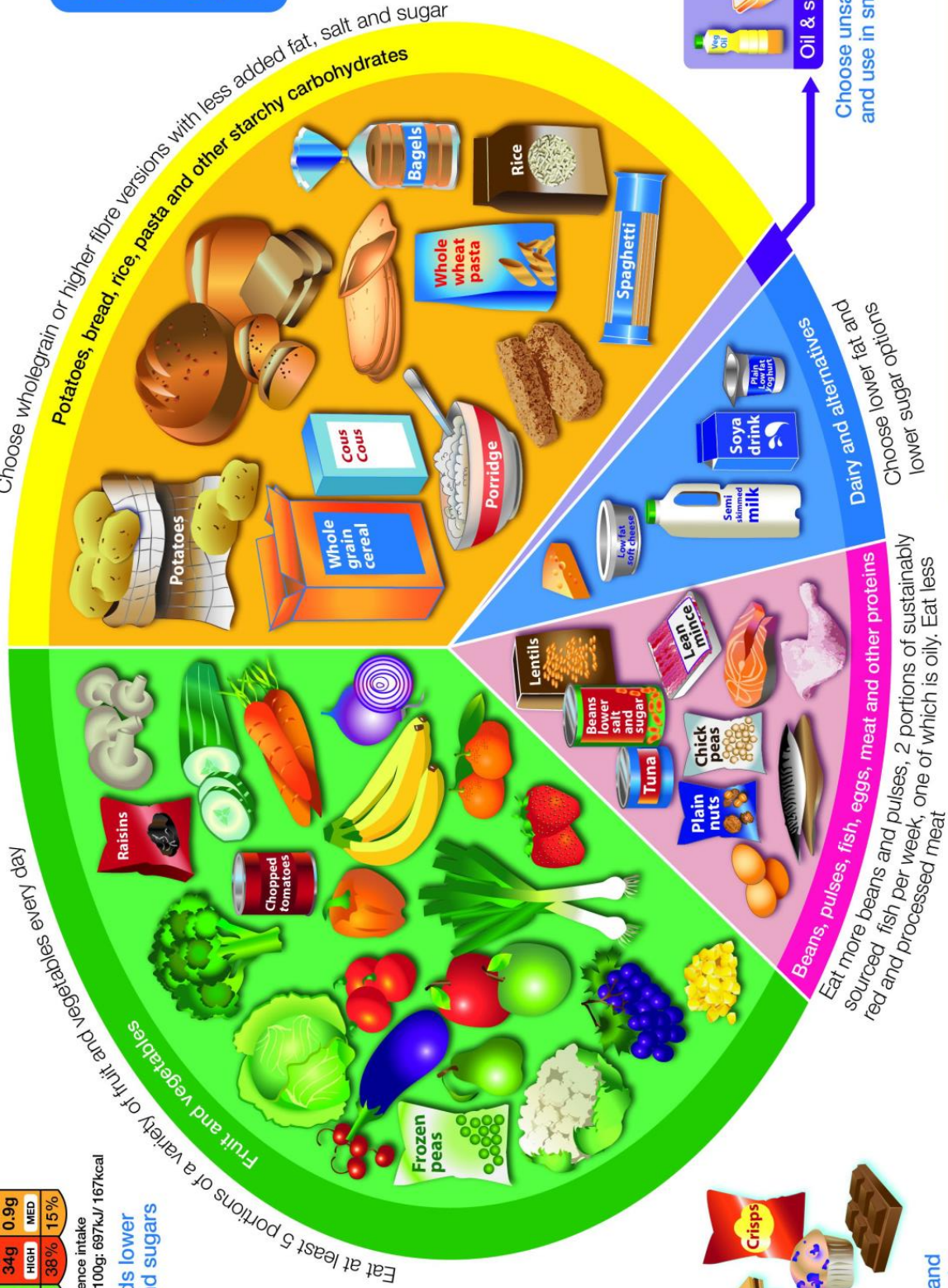
Use the Eatwell Guide to help you get a balance of healthier and more sustainable food. It shows how much of what you eat overall should come from each food group.

Check the label on packaged foods

Each serving contains		of an adult's reference intake	
Energy	1046kJ	Saturates	34g
	250kcal	Sugars	0.9g
Fat	5g	Salt	0.9g
	LOW		HIGH
	7%		38%
			15%

Typical values (as sold) per 100g: 697kJ/ 167kcal

Choose foods lower in fat, salt and sugars



Water, lower fat milk, sugar-free drinks including tea and coffee all count.  
Limit fruit juice and/or smoothies to a total of 150ml a day.



Eat less often and in small amounts

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

# The Eatwell Guide - Year 7

## Fruits and Vegetables

- Most of us still are not eating enough fruit and vegetables. They should make up over a third of the food we eat each day.
- Aim to eat at least 5 portions of a variety of fruit and veg each day. Choose from fresh, frozen, tinned, dried or juiced.
- Remember that fruit juice and smoothies should be limited to no more than a combined total of 150ml a day.
- Fruit and vegetables are a good source of vitamins, minerals and fibre.



## Fats and Oils

- Unsaturated fats are healthier fats and include vegetable, rapeseed, olive and sunflower oils.
- Remember all types of fat are high in energy and should be eaten sparingly.

## Dairy and Alternatives

- Milk, cheese, yoghurt and fromage frais are good sources of protein and some vitamins, and they're also an important source of calcium, which helps keep our bones healthy.
- Try to go for lower-fat and lower-sugar products where possible, like 1% fat milk, reduced-fat cheese or plain low-fat yoghurt.

## Proteins

- These foods are good sources of protein, vitamins and minerals. Pulses, such as beans, peas and lentils, are good alternatives to meat because they're lower in fat and higher in fibre and protein, too.
- Choose lean cuts of meat and mince, and eat less red and processed meat like bacon, ham and sausages.
- Aim for at least 2 portions of fish every week, 1 of which should be oily, such as salmon or mackerel.
- Find out about pulses, fish, eggs and meat.

## Weekly Tasks

**Week 1** - In your book, list all the fruits and vegetables you eat in your diet - are you eating at least 5 a day?

**Week 2** - Makes a list of 10 meals that have starchy carbohydrates as a main ingredient.

**Week 3** - Try and find as many products as you can that contain dairy. Make a list in your book.

**Week 4** - Plan a high protein menu - include a starter, main and a dessert.

**Week 5** - Quiz a family member or friend on the Eatwell Guide. Note the questions and answers in your book..

**Week 6** - Create your own Eatwell Guide. Place the foods you eat as part of your diet into the correct sections.

**Week 7** - Evaluate your Eatwell Guide. How can you improve your diet to make it more balanced? Can you reduce snacks?





# 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.

A strong password should have:

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

Who can you report inappropriate content to online?



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.



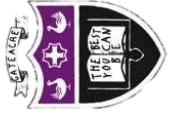


# Computing Department Knowledge Organiser: Year 7 Online Safety

## 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/>

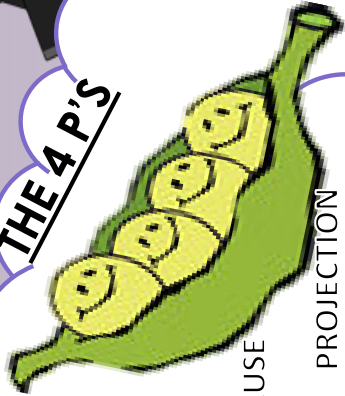
**THE 4 P'S**

PACE

PITCH

PAUSE

PROJECTION



The next scheme we are exploring is:

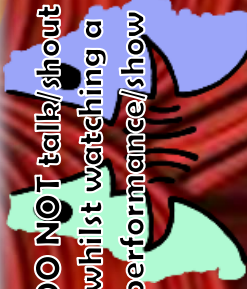
holes



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



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



# THEATRE ETIQUETTE

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



**BUT DO ENJOY YOURSELVES!**



Week 6

What stage positions are our drama faces covering?

Week 5

**RECALL:** What performance skills have you already learnt that could be used in a staged debate?

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



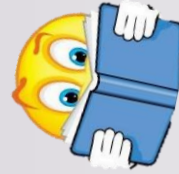
Scan this to access K3 BBC Bitsize Drama Portal



Sketch out a Promenade Theatre

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

Watch Holes for free by scanning the QR code!



Holes the Book by Louis Sachar

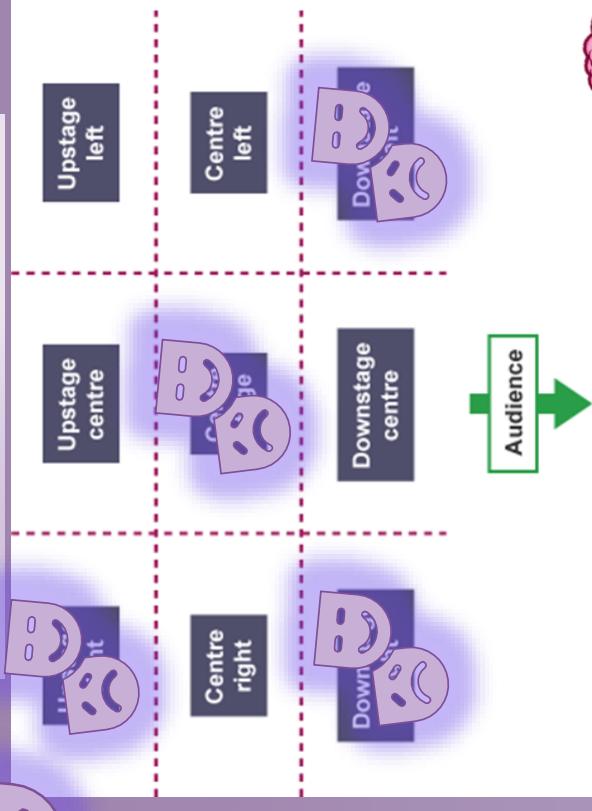


Just some of the skills you will learn/recall upon this term!

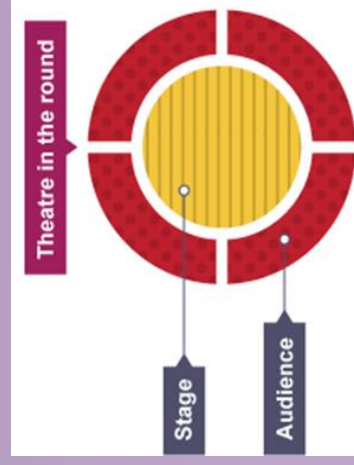
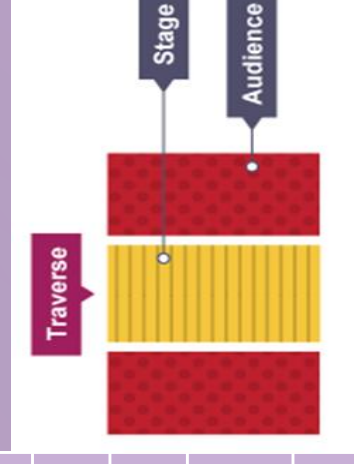
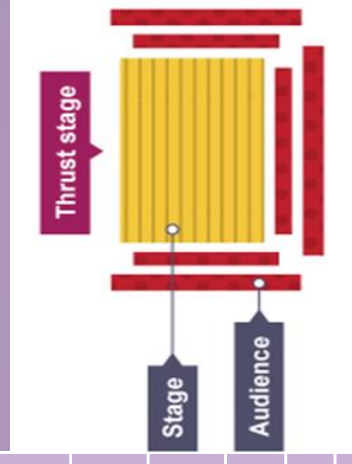
**New Skill/Technique** ■ **Retrieval**

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

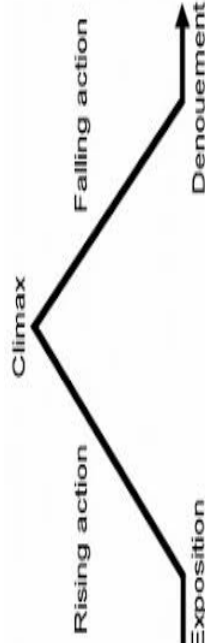
## Characterisation

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. .

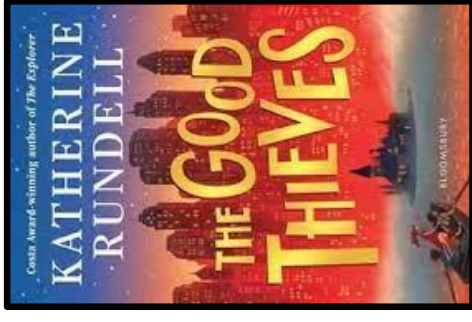
**Setting**- were the narrative takes place e.g. a forest

**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.

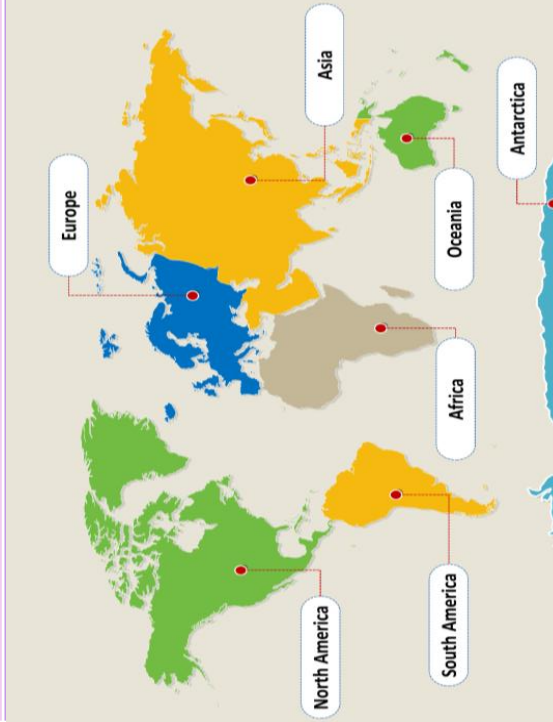
**Explanation: how you know**

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

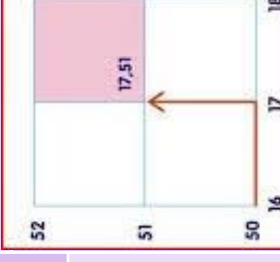


## Types of Geography

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.



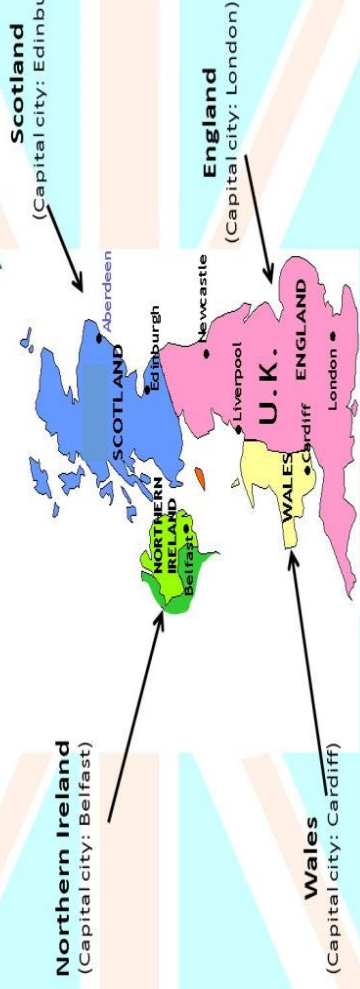
**Six-figure grid references**  
In your head, you should be able to divide all sides of the square into ten equal sections. By doing this, you can pinpoint locations within the square – these are called six-figure grid references.

## 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 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**

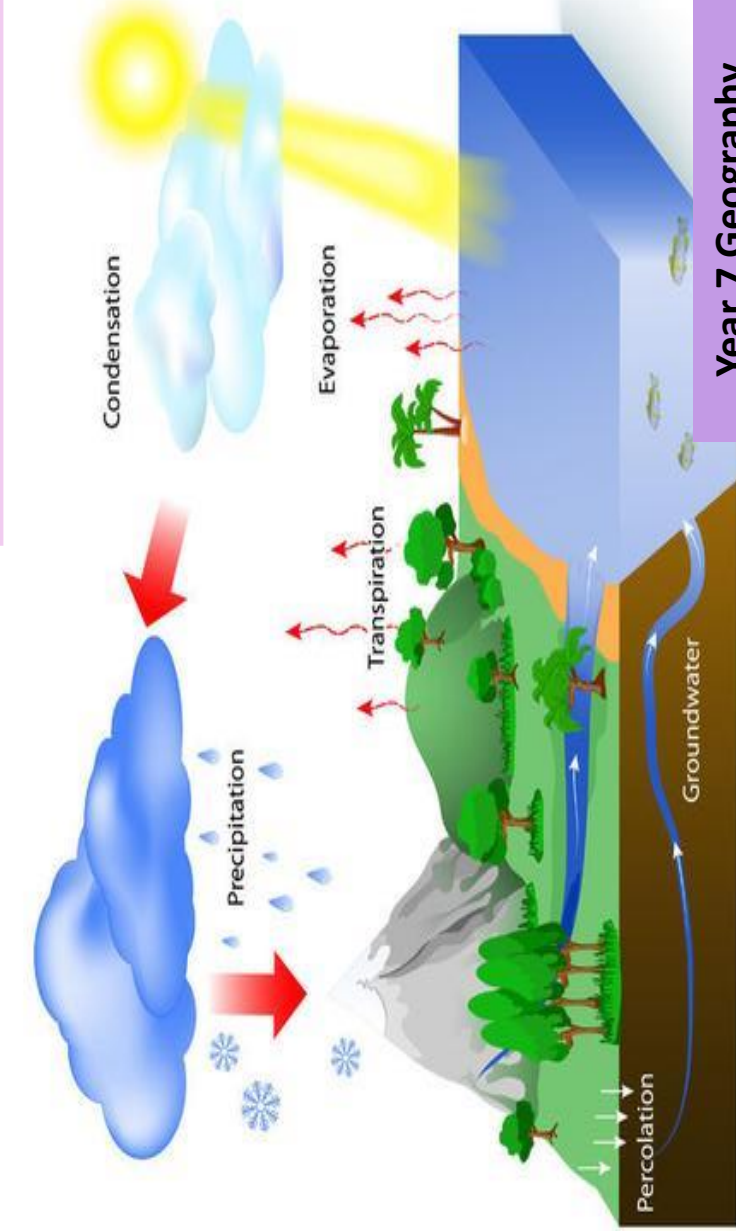
England, Wales, Scotland, Northern Ireland.

**Great Britain**

England, Wales, Scotland.



Key process- erosion	Key process- transportation	The hydrological cycle- key terms
<p><b>Abrasion-</b> This is the process by which the bed and banks are worn down by the river's load. The river throws these particles against the bed and banks, sometimes at high velocity.</p> <p><b>Hydraulic Action-</b> This process involves the force of water against the bed and banks.</p> <p><b>Corrosion-</b> This is the chemical action of river water. The acids in the water slowly dissolve the bed and the banks.</p> <p><b>Attrition-</b> Material (the load) carried by the river bump into each other and is smoothed and broken down into smaller pieces.</p>	<p><b>Traction</b> - Where large rocks and boulders are rolled along the river bed.</p> <p><b>Saltation</b> - Where smaller stones are bounced along the river bed in a leap frogging motion.</p> <p><b>Suspension</b>- Where very small grains of sand or silt are carried along with the water.</p> <p><b>Solution</b> - Where some material is dissolved (like sugar in a cup of tea) and is carried downstream.</p>	<p><b>Evaporation</b>-The change of water from a liquid to a gas.</p> <p><b>Condensation</b>- The change of water from a gas to a liquid.</p> <p><b>Precipitation</b>- Water falling from the sky (e.g. rain, sleet, hail, snow).</p> <p><b>Transpiration</b>- The release of water vapour from the leaves of trees of plants.</p> <p><b>Throughflow</b>- Flow of water through the soil.</p> <p><b>Infiltration</b>- When water soaks down through the ground.</p>
<p><b>Key process- deposition</b></p> <p>When a river loses energy, it deposits (drops) its load.</p>		



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

Task 1: Learn the key processes of erosion.

Task 2: Learn the key processes of transportation.

Task 3: Revise the diagram of the hydrological cycle, then cover it and draw the diagram from memory, then self assess and add any detail you have missed.

Task 4: Learn the key terms linked the hydrological cycle.

Task 5: Draw 4 small diagrams that help you remember the key processes of transportation.

Task 6: Create a quiz linked to erosion, transportation and deposition. Max 10 questions.

Task 7: Extension- find out what the key terms percolation and groundwater mean and write down a definition for each. Make sure the definitions link to rivers & geography.

# 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:

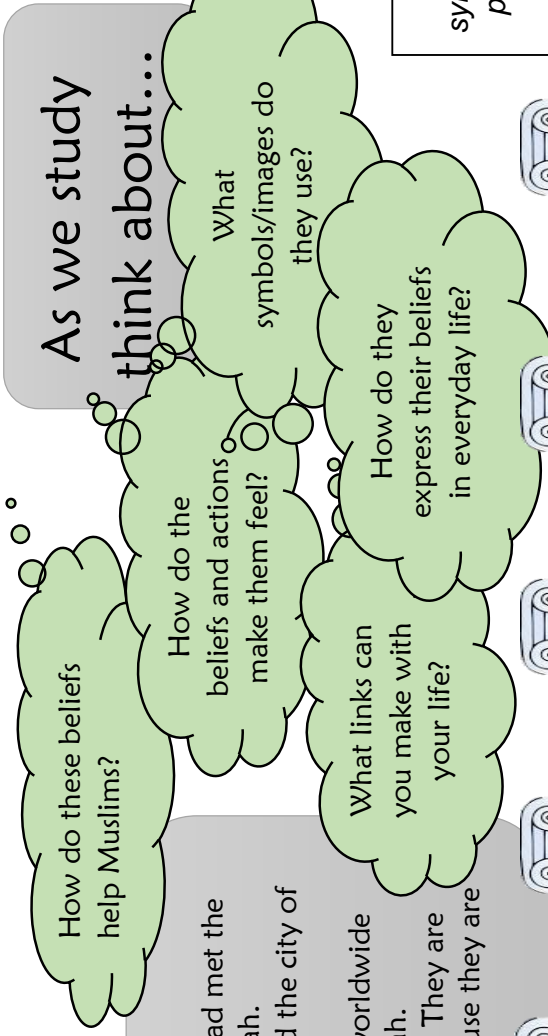
**SHAHADAH:**  
The belief that there is one god, Allah, and Muhammad is his prophet

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

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

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

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



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

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/SAWUM	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

## KEY WORDS:

# 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
Provider	Merciful	Seeing	Creator
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)





# 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 some Pop Art artists, both British and American. Below is some information about two of these artists:

#### 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!

#### Andy Warhol

Andy Warhol was a leading American artist in the Pop art movement. He was famous for his paintings, printmaking, film and photography. He was a successful magazine and advertisement illustrator until he began to paint everyday objects in harsh and vivid colours, which soon became famous. When he graduated from University with a degree in Fine Art in 1949 he moved to New York, America to start his career. By the late 1950's, he paid more attention to his paintings until he developed his first 'Pop art' work, which mainly focused on mass produced, commercial goods and objects.

### 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:** Andy Warhol created his artwork through the process of screen-printing. Scan the QR code and watch the video of the step-by-step process. Design a small poster with the steps you need to follow to complete a screen-print and any important tips.

**Week 6:** Use the video to help you create your own Andy Warhol inspired portrait. Last term we asked you to make an Andy Warhol inspired picture of an everyday object. This time we'd like you to focus on portraits.

**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.

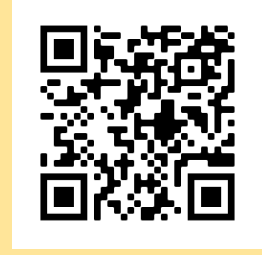
### Key Literacy Vocabulary:

- 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 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'



Task 5 – scan this QR code to watch the video on how to make a screen print like Andy Warhol!

Task 6 – scan this QR code to watch the video which will help you to create your own Andy Warhol inspired portrait.



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





# DESIGN TECHNOLOGY KNOWLEDGE ORGANISER

YEAR 7 DT

## Topic: Keeping your desk tidy

### My Tool Box



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



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



**Try Square** – Used to mark out right angles.



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



**Laser-cutter**- Used to laser-cut and engrave material.



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



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



**Machine vice** – Used to hold workpiece securely during drilling.



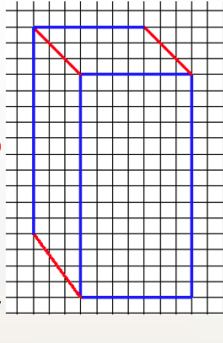
**Belt Sander** – Used to sand/smooth down different materials

### Focused Topics



### Oblique drawing

In oblique projection the drawing is made up of a series of parallel horizontal and vertical lines and parallel 45 degree lines.



### Polymers

#### THERMOPLASTICS



(Can be melted repeatedly)

#### THERMOSETS



(Once shaped, cannot be melted)

### Key Terms

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

**Computer aided design (CAD)**-The process of creating a 2D or 3D design using computer software.

**Computer aided manufacture (CAM)**-The manufacture of a part or product from a computer aided design (CAD) using computer-controlled machinery, such as a 3D printer or laser cutter.

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

**Laser cutting**- a technology that uses a laser to cut materials

**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:



### Week One

Pick 4 key words from the knowledge organiser page title **the Particle Model**. Using those 4 key words make as many links between the words as you can.

Remember to include:

3. The 4 key words you have chosen
4. The links you have made between the words, these should be written along the arrow that connects them.

### Week Two

Read your knowledge organiser focusing on **energy** for 5 minutes. Then turn the organiser over and write a short summary of the topic.

The summary should include:

1. No more than 40 words
2. And should be written in full sentences.

### Week Three

Using your Home Learning book, make a quiz containing at least 10 questions from the topics **forces, the particle model and energy**

Remember to include:

1. Answers to each question written in full sentences,
2. A variation in the type of question, Draw/state/explain etc.

### Week Four

Pick 4 key words from the knowledge organiser page title **energy**. Using those 4 key words make as many links between the words as you can.

Remember to include:

1. The 4 key words you have chosen
2. The links you have made between the words, these should be written along the arrow that connects them.

### Week Five

Pick 4 key words from the knowledge organiser page title **Atoms, Elements and Compounds**. Using those 4 key words make as many links between the words as you can.

Remember to include:

1. The 4 key words you have chosen
2. The links you have made between the words, these should be written along the arrow that connects them.

### Week Six

Read your knowledge organiser focusing on **Atoms, Element and Compounds** for 5 minutes. Then turn the organiser over and write a short summary of the topic.

The summary should include:

1. No more than 40 words
2. And should be written in full sentences.

WE ARE USING



TASSOMAI

Have you completed your 4 daily goals?  
Complete 4 daily goals each week to  
ensure success in Science! 😊

Home learning tips:

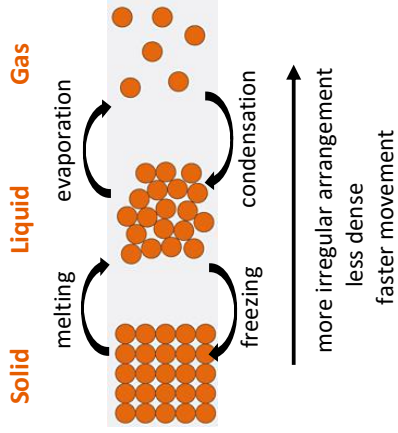
1. Answer any questions in full sentences.
2. Take your time reading through your knowledge organiser.
3. Read the task twice.
4. Ask your teacher in your next lesson if you are unsure about anything.
5. Not sure which week to do? Ask your teacher!

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

- Draw particle diagrams for the 3 states of matter
- Describe the changes of state between the 3 states of matter
- Describe changes of state as reversible reactions
- Compare the arrangement and movement of particles in the 3 states of matter
- Describe the properties of substances in the 3 states of matter
- Define diffusion and explain factors that increase the rate
- Describe the cause of gas pressure and explain factors that increase it
- Plot and interpret heating/cooling curves
- Use melting and boiling point data to identify the state of a substance at a certain temperature
- Describe the Brownian motion of gases

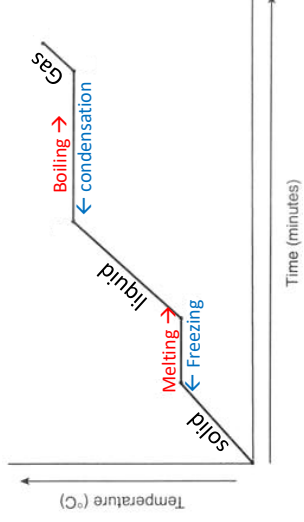
## 7.2 – Particles & Their Behaviour

### 1. The Particle Model



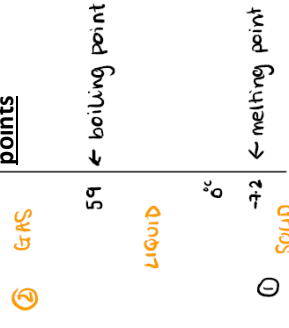
Property	Solid	Liquid	Gas
Fixed shape	✓		
Compressible			✓
Take shape of container		✓	✓
Fill container			✓

### 2. Heating Curves



Key	Horizontal line	Diagonal line
• Denotes the melting and boiling points		
• Temperature does not increase as the time heating does, as the additional energy is used to overcome forces between particles and change state		
• As the time spent heating increases, so does the temperature		

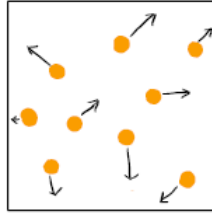
### 3. Interpreting Melting and Boiling points



**Example:** What state is bromine at 25°C?  
Mpt = -7.2°C    Bpt = 59°C

1. Draw a number line and plot the melting and boiling points.
2. Mark on the states of matter:  
**Solid** – below melting point  
**Gas** – above boiling point  
**Liquid** – between melting and boiling point
3. Where does the temperature in the question fit onto the number line?  
**Bromine is a liquid at 25°C**

### 4. Gas Pressure



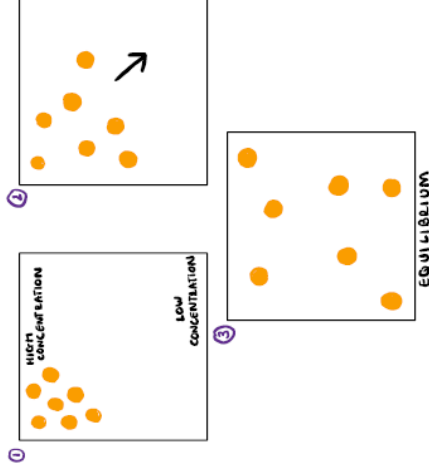
Gas **pressure** is caused by the force of fast-moving gas particles colliding with the walls of their container

**Factors increasing gas pressure:**

- Increase temperature
- Decrease volume
- Increase concentration

### 5. Diffusion

Occurs in fluids (liquids and gases)



**Factors increasing the rate of diffusion:**

- Increase temperature
- Increase the concentration gradient

### 6. Brownian Motion

Gas particles move very quickly and in random directions. They collide with each other and other particles often, and when they do - this causes them to change direction

**Brownian motion** is the random movement of particles suspended in a **fluid**. It can be visualised using a large visible particle e.g. soot



SCAN ME

### 7. Density

The density of a substance is its mass per unit of volume

**It is calculated using the equation:**

$$\text{Density (kg/m}^3\text{)} = \frac{\text{mass (kg)}}{\text{Volume (m}^3\text{)}}$$

The **mass** of the substance/object is measured using a scientific balance

The **volume** of a cuboid is calculated using the equation:

$$\text{Volume} = \text{width} \times \text{length} \times \text{height}$$

## 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	<ul style="list-style-type: none"> <li>finite resource</li> <li>Contributes to global warming and acid rain</li> </ul>
Non-renewable resources	
<ul style="list-style-type: none"> <li>cheap and easy to obtain</li> <li>Infrastructure already in place</li> </ul>	<ul style="list-style-type: none"> <li>slow start up time</li> <li>Radioactive waste</li> <li>High decommissioning costs</li> <li>Risk of catastrophic accidents</li> </ul>
Nuclear	
<ul style="list-style-type: none"> <li>≈ 165 years left</li> <li>Doesn't contribute to global warming</li> <li>Large amounts of energy released per gram</li> </ul>	<ul style="list-style-type: none"> <li>Uranium, plutonium</li> </ul>

Renewable energy resources	
Solar, wind, tidal, H.E.P, wave, geothermal, biomass	
<ul style="list-style-type: none"> <li>infinite</li> <li>do not contribute to global warming</li> </ul>	<ul style="list-style-type: none"> <li>construction is costly</li> <li>some are; unreliable, can only be used in certain locations, have major ecological impacts</li> </ul>

## 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

## 5. Efficiency

Efficiency is the measure of the proportion of input energy to a system that is transferred usefully

$$\text{Efficiency} = \frac{\text{useful output energy}}{\text{total input energy}}$$

$$\text{Efficiency} = \frac{\text{useful output power}}{\text{total input power}}$$

(J or W) (J or W)

**Hint – no system is 100% effective and will waste some energy – so you will always be dividing a smaller number by a larger one**

Efficiency can be expressed as a decimal or x 100 for a percentage

### Worked example:

The energy supplied to a light bulb is 200 J. A total of 28 J of this is usefully transferred. How efficient is the light bulb?

$$\text{Efficiency} = \frac{\text{useful output}}{\text{total input}}$$

$$\text{Efficiency} = \frac{28 \text{ J}}{200 \text{ J}}$$

$$\text{Efficiency} = 0.14 \text{ or } (0.14 \times 100 = 14\%)$$

## 7.3 – Energy

### 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

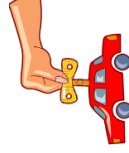
e.g.



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

### 6. Power & Energy Costs

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

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

(W) (J) (s)

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:

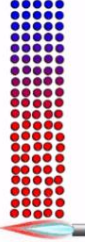
$$\text{Total cost} = \text{power (W)} \times \text{time (h)} \times \text{cost per unit}$$

### 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

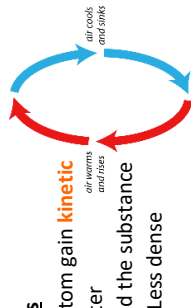
Particles transfer energy by colliding with adjacent particles when they vibrate and making them vibrate also.



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



### 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.

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

(J) (N) (m)

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.

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

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

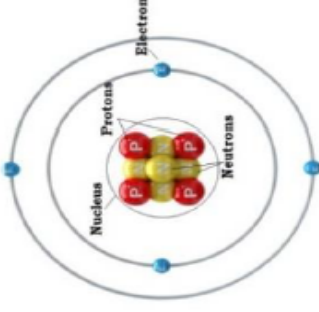
$$\text{work done} = 24,000 \text{ J}$$





### Structure of the Atom

- An atom is made up of three subatomic particles: protons, electrons and neutrons.
- Protons are in the nucleus and have a positive charge.
- Neutrons are in the nucleus and have no charge.
- Electrons are in the shells and have a negative charge.
- Protons and neutrons are the same size, where electrons have hardly any mass.
- In an atom, there are equal numbers of protons and electrons because the positive and negative charges need to balance.

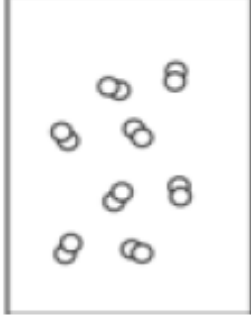
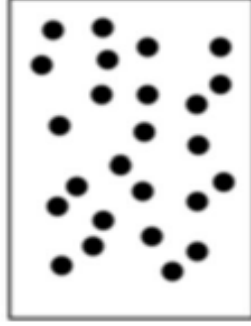


Key Terms	Definitions
Atom	What all matter is made up off
Atomic number	The number of protons in an atom
Mass Number	The total number of protons + neutrons in the nucleus

## Science Department Y7 Atoms, Elements and Compounds Knowledge Organiser

### Elements

- Elements are substances made up of one type of atom.
- All 118 elements are found listed in the Periodic Table.
- The atoms in an element can either be single, or go around in pairs. It doesn't matter, as long as the atoms are **the same**.
- Elements that go around in pairs are called diatomic elements.



## Compounds

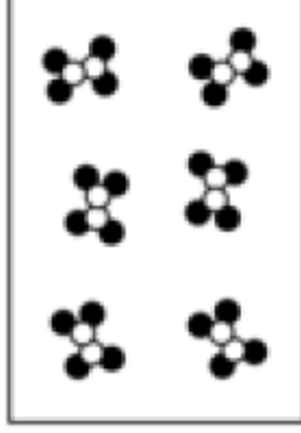
- Compounds are substances made up of **different elements** which are chemically bonded.
- Compounds can be formed by chemically reacting elements together e.g.:



- Often, the compound formed has different properties to the elements that make it. E.g. magnesium is a shiny metal, oxygen is a colourless gas and magnesium oxide is a white powder
- In order to separate the elements in a compound you would need to carry out another chemical reaction.
- Compounds are still pure because, although they contain different atoms, those atoms are bonded to make **one particle**

- Examples of compounds are:

- Carbon dioxide (CO<sub>2</sub>)
- Water (H<sub>2</sub>O)
- Anything else that has more than one element



## Chemical Formulae

To show how many atoms are bonded together in an element or a compound, scientists use chemical formulae.

A small number after an element symbol, tells you how many of that type of atom are in the substance.

For example: Cl<sub>2</sub> This means that there are **2 chlorine atoms** chemically bonded together.

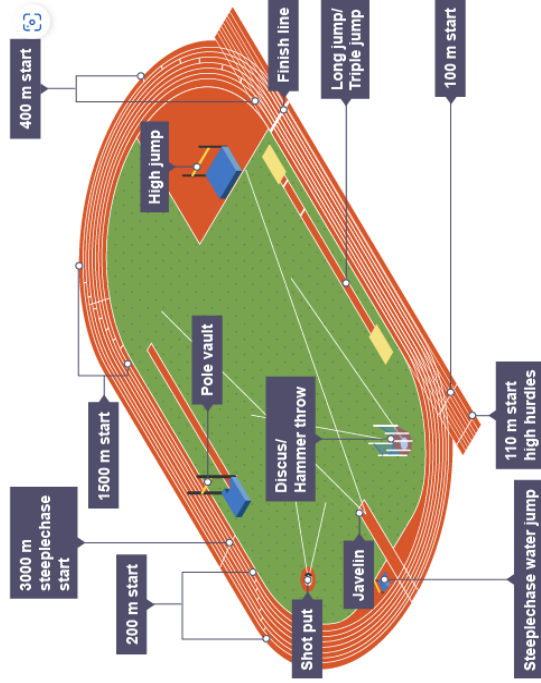
For example: H<sub>2</sub>O This means there are **2 hydrogen atoms and 1 oxygen atom**, chemically bonded together.

For example Fe<sub>2</sub>O<sub>3</sub> This means that there are **2 Iron and 3 oxygen atoms**, chemically bonded together.

## Keywords

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

# Athletics (Indoor)



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 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 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.

**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?

Watch all 5 videos multiple times to learn and understand the techniques



**TASK**  
3

**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 mark to the take off board.

**Spin for answers**

- 1) False
- 2) True
- 3) 3

Task 2:

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

throw

- 2) A javelin thrower needs speed in their run up and strength in their

- 1) At the start reacting to the gun

Answers:  
Task 1:

PERFECT  
PRACTICE  
MAKES  
PERFECT



Learning to Learn



The 'Listen' Project #1