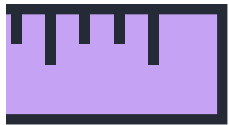


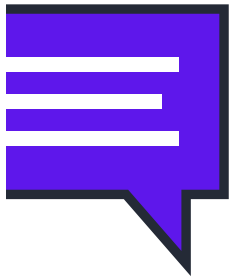
HOME-LEARNING KNOWLEDGE ORGANISERS



YEAR 7



HALF TERM 3



"AN INVESTMENT IN KNOWLEDGE PAYS THE BEST
INTEREST."

BENJAMIN FRANKLIN



Core Values

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

Politeness

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

Hard-work

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

Honesty

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

What is learning?

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

What is a knowledge organiser?

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

Why are knowledge organisers good for learning?

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

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

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



How can you best use your knowledge organiser?

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

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

Hide and seek

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

Quiz

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

Teach it!

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

Back to front

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

Sketch it

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

Repackage it (from memory)

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

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

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

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

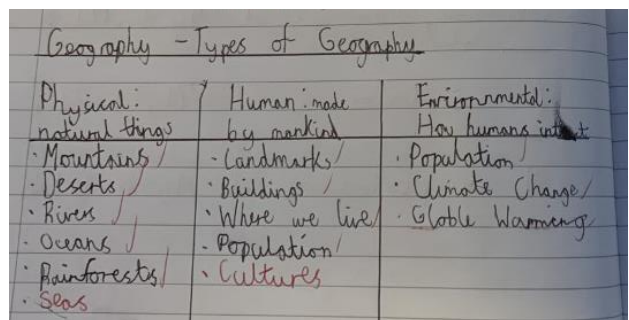
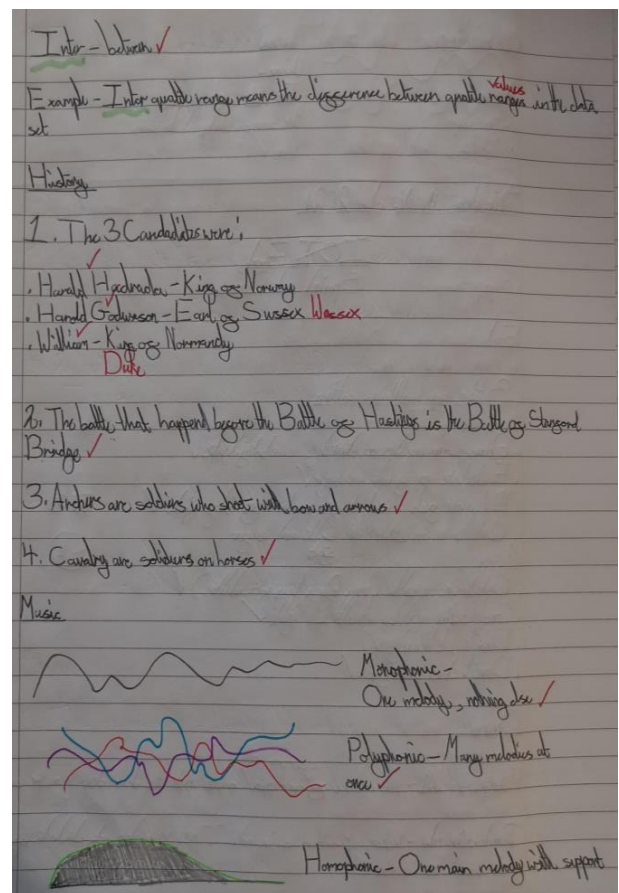
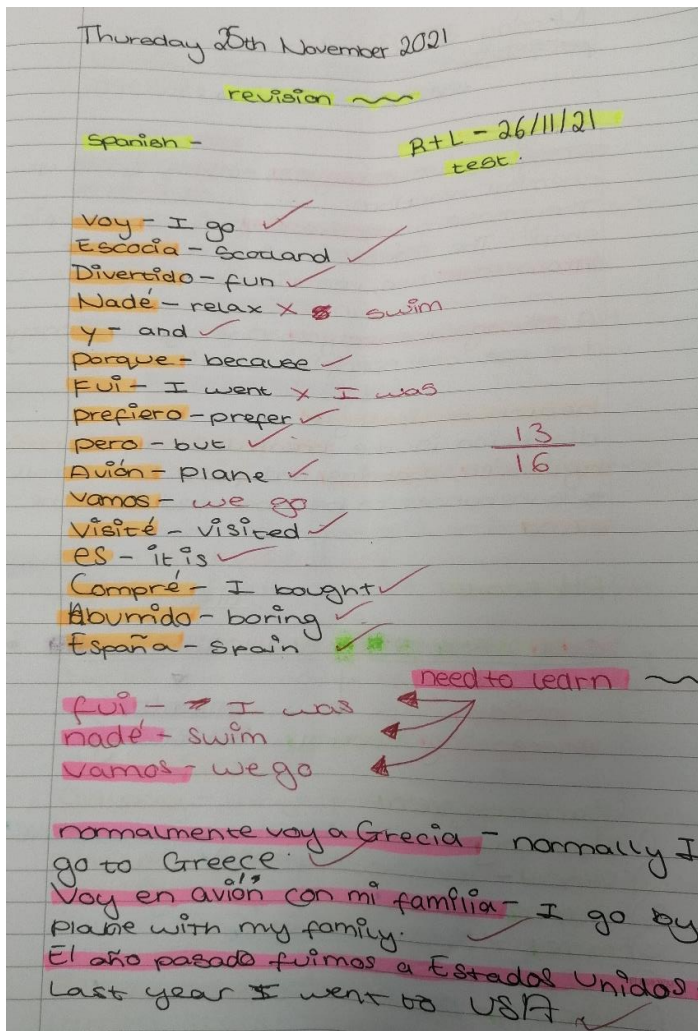


What does effective home-learning look like?

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

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

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



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

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

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

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

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

How to use the 'Listen' Project

Start Here

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

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

Take time out and listen...

Step 1 - Click the link and listen.

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



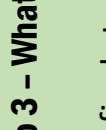
Step 2 - Check the text.

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

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

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

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



Step 3 - What's the connection?

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

Where have you thought about these ideas before?

Do you think about any of these ideas in school?

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



SCAN ME

Dogs

Hairy Maclary from Donaldson's Dairy

Out of the gate

And off for a walk

Went Hairy Maclary

From Donaldson's Dairy

And Hercules Morse

As big as a horse

With Hairy Maclary

From Donaldson's Dairy.

Bottomley Potts

Covered in spots,

Hercules Morse

As big as a horse

And Hairy Maclary

From Donaldson's Dairy.

Muffin McLay

Like a bundle of hay,

Bottomley Potts

Covered in spots,

Hercules Morse

As big as a horse

and Hairy Maclary

From Donaldson's Dairy.....

Man's Best Friend

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

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

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

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

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

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

Humph.....

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

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

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

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

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

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

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

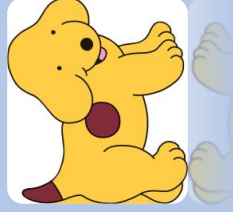
At the end of the day the Man called the Horse and the Dog and the Ox together, and said, 'Three, O Three, I'm very sorry for you (with the world so new-and-all); but that Humph-thing in the Desert can't work, or he would have been here by now, so I am going to leave him alone, and you must work double-time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

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

Dogs

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

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



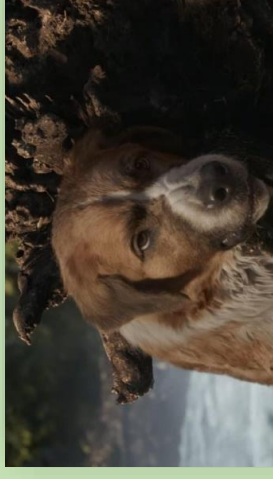
Humph...



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

Man's Best Friend

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



Mathematics

Your Maths Home Learning has two parts:

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

Part 2 is: Access www.hegartymaths.com → Watch the video , making notes in your book → Complete the assigned quiz

Week	Key Word	Definition	Task	Hegarty Task
9th January	Ratio	<p>Two or more numbers separated by two dots :</p> <p><u>Representing a ratio</u></p> <p>This is the 'whole' -- boys and girls together</p> <p>This represents the 5 boys</p> <p>This represents the 3 girls</p>	<p>In your home learning book, draw ratio boxes for:</p> <ul style="list-style-type: none"> • 5 boys and 3 girls • 3 boys and 6 girls • 2 boys and 4 girls 	328
16th January	Unit Ratio	<p>A ratio compared to one</p> <p>This is asking you to cancel down until the part indicated represents 1</p> <p>Show the ratio 4:20 in the ratio of 1n</p> <p>The question states that the part has to be 1 unit. Therefore Divide by 4</p> <p>This one has to be divided by 4, 100 -- to keep in proportion</p>	<p>In your Home Learning book, simplify</p> <ul style="list-style-type: none"> • 4:40 • 3:21 • 2:7 	331
23rd January	Sequence	<p>Pattern of numbers which follow a rule</p> <p>3, 5, 7, 9,..... So the rule is plus 2</p> <p>2, 4, 8, 16, 32 So the rule is multiply by 2</p>	<p>In your Home Learning book, find the rule for:</p> <ul style="list-style-type: none"> • 4, 7, 10, 13, 1 • 1, 3, 9, 27 • 20, 10, 5, 2.5 	197
30th January	Linear Sequence	<p>Pattern of numbers going up or down by the same amount</p> <p>4, 7, 10, 13, 16 is a linear sequence (+3)</p> <p>2, 4, 8, 16, 32 is NOT a linear sequence (x2)</p>	<p>In your Home Learning Book:</p> <ul style="list-style-type: none"> • Create three sequences by writing a rule and then giving the first 5 terms of the sequence 	198
6th February	Significant Figure	<p>A number not zero</p> <p>680000 has two significant figures</p> <p>543564 rounded to one significant figure is 500000</p>	<p>In your Home Learning book:</p> <ul style="list-style-type: none"> • State how many significant figures in each <ul style="list-style-type: none"> • 500, 600, 650, 82400 	130

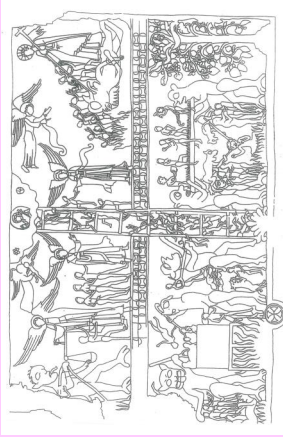


Overview

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 GUITAR

Guitar Key Technical Words:

Chord: playing many notes at once (often all six strings)

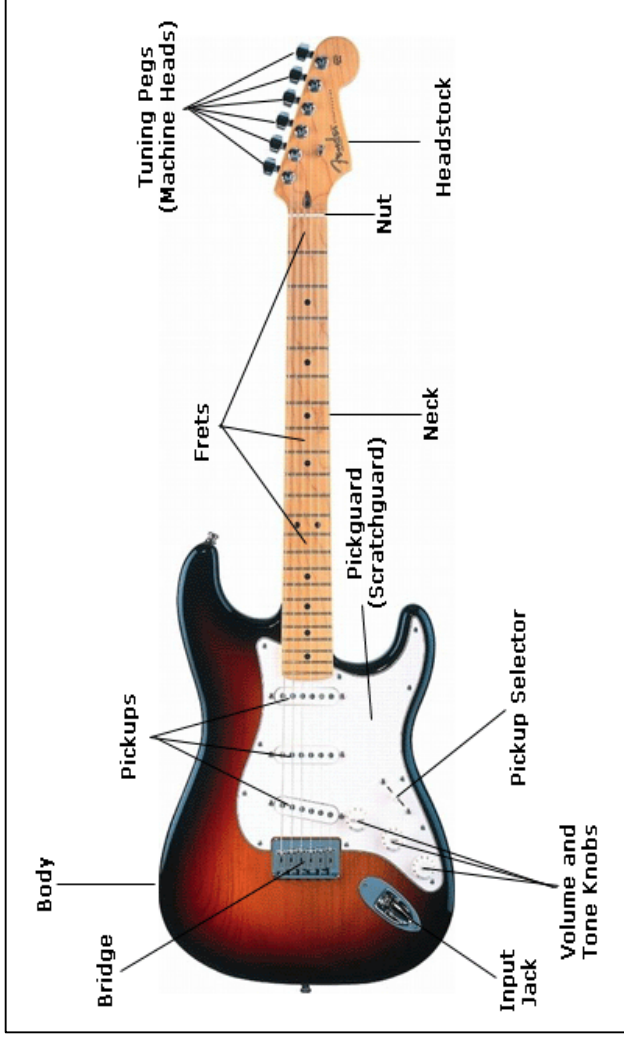
Strumming: Playing all required strings in one go

Picking: Plucking the individual strings

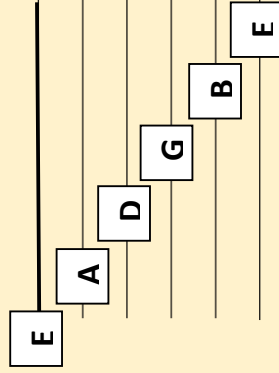
Fret: The spaces on the neck where you press your fingers down

Acoustic: a guitar that does not need an amplifier to be heard

Jack Lead: The cable that connects a guitar to the amplifier



Tuning the open strings:



Other Guitar-like String Instruments:

Ukulele	Hawaii (USA)
Lute	'Old' European
Banjo	Africa/America
Sitar	India



Task 1 link.

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

Task 1: Learn the names of the open strings on guitar and watch the clip on the QR code or Youtube link.

Task 2: Learn the key technical words.

Task 3: Revise Tasks 1 and 2, then Learn the instrument names of other guitar-like instruments, and which country they come from.

Task 4: Draw a diagram of the guitar **without the labels**. After revising these labels, complete the diagram **from memory – no peeking!** Add any gaps in **red pen**.

Task 5: Create a 10 mark quiz based on the guitar. Get someone to test you!

Task 6: Listen to some famous guitarists on Youtube.

For example, Jimi Hendrix, Eric Clapton, B. B. King, John Williams.

Year 7 – Sensory Evaluation of Fruits and Vegetables

Key Vocabulary

Sensory Evaluation: judging food on its appearance, aroma, flavour and texture.

Sensory attributes: appearance, aroma, flavour, and texture of foods detectable by our senses, often used to evaluate food quality.

Sensory Descriptor: a word used to describe food by its appearance, aroma, flavour, and texture

Fruits and Vegetables

- We should all aim to have at least 5 portions of a variety of fruit and vegetables each day.
- Fruit and vegetables should make up around one third of what we eat each day.
- Fruit and vegetables are a very important part of a healthy, balanced diet, as they are good sources of fibre, as well as providing essential vitamins and minerals.
- Eating lots of fruit and vegetables can help maintain a healthy weight and having your 5 A DAY could reduce your risk of some diseases.

Types of Fruits

Fruits are split into different groups:

- Soft fruits – strawberries and raspberries
- Citrus fruits – oranges, lemons and limes
- Stone fruits – peaches, mangos and plums
- Tree fruits – apples and pears
- Exotic fruits – banana, kiwis and melons

Types of Vegetables

Vegetables are split into different groups:

- Fruit vegetables – aubergine, tomato and cucumber.
- Seeds and pods – peas, beans and lentils.
- Flower vegetables – broccoli and cauliflower.
- Leafy vegetables – spinach, cabbage, and lettuce.
- Stem vegetables – asparagus, fennel and celery.
- Tubers – potatoes, sweet potatoes and yams.
- Fungi – different types of mushrooms.
- Bulbs – onions, garlic, shallots and leeks.
- Roots – beetroot, swede, carrot and radish.

Weekly Tasks

Task 1: Design a set of revision cards for the different types of fruits.

Task 2: Design a set of revision cards for the different types of vegetables

Task 3: Choose your favourite food or snack and carry out a sensory evaluation. Choose 2 words to describe the appearance, aroma, flavour and texture.

Task 4: Create your own sensory word bank like the one in your knowledge organiser. Think of 10 words for each of the senses.

Task 5: Design a pizza with lots of difference toppings. Using the word bank, make a list of tastes you would/wouldn't like on a pizza.

Sensory Evaluation

When eating food, you are judging the following characteristics

Appearance (what does the food look like?)

Flavour (what does the food taste like?)

Aroma (what does the food smell like?)

Texture (what does the food feel like?)

Judging food based on these characteristics is called sensory evaluation.



Year 7 – Sensory Evaluation of Fruits and Vegetables

Sensory Word Bank

Appearance

- * Attractive
- * Bright
- * Colourful
- * Golden Brown
- * Cracked
- * Crispy
- * Crumbly
- * Crunchy
- * Delicate
- * Dry
- * Dull
- * Firm

- * Flaky
- * Fragile
- * Fresh
- * Heavy
- * Moist
- * Pale
- * Smooth
- * Soggy
- * Spongy
- * Stringy
- * Wet

A products size, shape and colour and surface texture can be described.



Taste

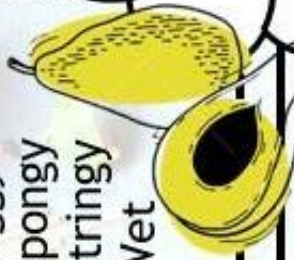
- * Acidic
- * Aftertaste
- * Artificial
- * Bitter
- * Bland
- * Creamy
- * Dry
- * Fruity
- * Overpowering

- * Plain
- * Rich
- * Savoury
- * Sharp
- * Sickly
- * Stale
- * Sweet
- * Sugary
- * Tangy
- * Yeasty
- * Citrus
- * Nutty
- * Meaty
- * Tasteless
- * Zesty
- * Flavoursome

Sensory Vocabulary

When we evaluate our products it is so important to use specialist terminology. Can you talk like a food critic? When you evaluate look at the different characteristic of food:

Appearance, Aroma, Taste and Texture



Aroma

- * Artificial
- * Bland
- * Floral
- * Fruity
- * Minty
- * Natural
- * Nutty
- * Plain
- * Zesty

- * Rich
- * Salty
- * Smokey
- * Sour
- * Spicy
- * Sweet
- * Stale
- * Yeasty
- * Cheesy
- * Burnt
- * Lemony
- * Minty
- * Savoury
- * Spicy
- * Tart

The nose detects volatile aromas released from food.
The intensity can also be recorded.



Texture

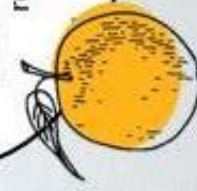
- * Bitty
- * Brittle
- * Bubbly
- * Chewy
- * Crispy
- * Dry
- * Firm
- * Flaky
- * Fluffy

- * Grainy
- * Hard
- * Lumpy
- * Moist
- * Rubbery
- * Smooth
- * Soft
- * Soggy
- * Spongy

- * Stodgy
- * Tough
- * Wet
- * Stretchy
- * Thick



The tongue can detect four basic tastes; sweet, sour, salt and bitter. The intensity can also be recorded.





Computing Department Knowledge Organiser: Year 7 Spreadsheets

Why do we use Spreadsheets?

- Spreadsheets are used to store information and data.
- Once we have our information in a spreadsheet we can run powerful calculations, make graphs and charts and analyse patterns/trends.
- Charts/Graphs can be used to clearly display the information in a spreadsheet
- How to use spreadsheets. Use this QR code to learn and test yourself on the BBC Bitesize website www.bbc.co.uk/bitesize/guides/zdydmp3/revision/1

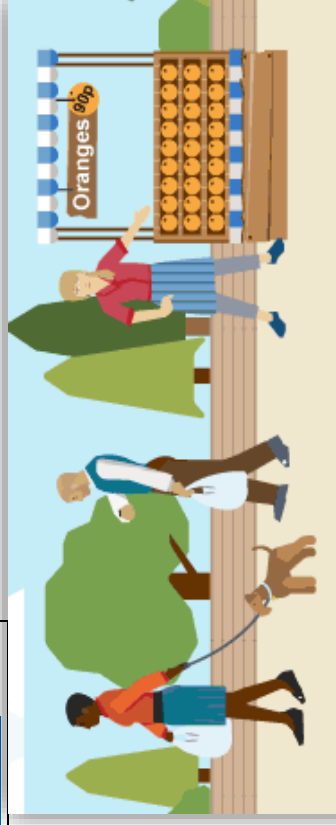


How spreadsheets work – what software do we need?

- The most popular spreadsheet program is Microsoft Office Excel.
- You can use the online version of Excel for free or download it for free with your Gateacre school log in at: www.office365.com

What can spreadsheets be used for?

- Spreadsheets are used by many businesses around the world. Some examples:
- Budget tracker e.g. working out the costs for a school prom
- Stock tracking of a business such as a market stall selling fruit and vegetables (see example image on the right)
- A teacher may also use it to keep a record of grades.



	A	B	C	D	E
1	Produce	Unit	Number sold	Price	Sales
2	Apples	kg	7	£0.70	£4.90
3	Potatoes	25kg	8	£6.00	£48.00
4	Oranges	kg	6	£0.90	£5.40
5	Carrots	25kg	8	£8.50	£68.00
6	Sprouts	kg	4	£1.40	£5.60
7	Cabbage	kg	6	£0.70	£4.20
8	Onions	kg	9	£0.56	£5.04
9				Total	£141.14



Computing Department Knowledge Organiser: Year 7 Spreadsheets

What if?

- Modelling gives you the chance to test certain scenarios out before they happen.
- These are commonly known as 'what if' questions. Look at the examples for ticket sales on the right, you can work out your overall costs and prize fund.
- You can use the BBC Bitesize website to revise and test yourself on 'What if?'
- www.bbc.co.uk/bitesize/guides/zdydmp3/revision/1



Modelling with spreadsheets

- In computing, modelling is used to look at large amounts of data to help with scientific or engineering projects. A computer model is a representation of a real-life system or situation.
- Simple models can be built in a spreadsheet. A spreadsheet model could be used to plan a school prom. To make sure it came in on budget the spending on food, drinks, entertainment, and the price of tickets could be varied.

Spreadsheets Key words

Axis labels on charts	A label for a chart or graph's horizontal or vertical axis that explains what the value relates to.
Cell	An individual spreadsheet box where you enter data.
Cell reference	Names of individual cells (B3 for example).
Column	Cells that go down the spreadsheet page.
Computer model	Predicts and investigates how real-life devices might behave in different situations.
Data	Values, typically letters or numbers.
Formatting cells	The appearance of a document, including the fonts, colours, size and rotation.
Formula	Makes automatic calculations that update when the data does.
Function	Makes more complex calculations.
Row	Cells that go across the spreadsheet page.
Sort / Filter	Sorting data organises it alphabetically or numerically. Filtering data makes it easy for us to find a piece of data.



Computing Department Knowledge Organiser: Year 7 Spreadsheets

Formulas	Functions
Formulas and functions are extremely useful features. They make automatic calculations that update when the data changes.	
<ul style="list-style-type: none">Formulas are usually simple calculations, e.g. adding two or more numbers together.They always start with an equals sign (=).There are a number of symbols used in formulas or calculations.These are the most common ones:<ul style="list-style-type: none">'+' add'-' subtract'*' multiply'/' divide	<ul style="list-style-type: none">Functions make more complex calculations.Like formulas, all functions start with an equals sign (=) followed by the function's name, e.g. =SUM, =MIN, =MAX, etc.Simple and regularly used functions include:<ul style="list-style-type: none">SUM – adds values in selected cellsMIN – finds smallest valueMAX – finds largest valueAVERAGE – finds the average valueCOUNT – counts how many of the selected cells have numbers in them
Advanced functions	
<ul style="list-style-type: none">IF – change the value of a cell if something is true, e.g. if a customer's total bill is over £100, deduct 10% from their bill.COUNTIF – adds up cells that meet a certain rule, e.g. count the number of students that achieved level 6.	
Tasks	
<ul style="list-style-type: none">Task 1 - Why do we use Spreadsheets?Task 2 - What software do you need to create a spreadsheet?Task 3 - What can spreadsheets be used for? Give some examples in your answer.Task 4 - Describe what 'what if' means in spreadsheet?Task 5 - What does 'modelling with spreadsheets' mean? Give some examples.Task 6 - What does a formula do? Give some examples of the most common formula used in your answer.Task 7 – What does a function do? Give some examples of different functions in your answer.Task 8 - Identify and describe two advanced functions?	

Stage Positioning



New Skill/Technique

Retrieval

The next scheme we are exploring is:

Ernie's incredible illucinations / ap1



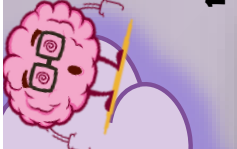
Scan the QR codes to learn the history of theatre! Take notes!



Knowledge/ skill

Definition

Stimuli	The starting point, idea or inspiration for your devised drama. It is what you base your drama around.
Hot seating	A character is questioned by the group about his or her background, behaviour and motivation.
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.
Body as Prop	A genre (type) of drama that tells a story using over exaggerated movement: and physicality. Body as Prop Using your body to create props and objects on stage.
Teacher in role	The teacher plays a role. They may ask questions of the students, perhaps putting them into role as well.
Transition	This is the process in which something changes from one state to another
Movement	Where we move to on and around the stage avoiding the blocking another actor.
Flashback	A scene that takes the narrative back in time from the current point in the story.
Characterisation	Developing and portraying a personality through voice and movement.
Promenade theatre	In promenade theatre there is no formal stage, both the audience and the actors are placed in the same space.
Narration	A commentary delivered to accompany a performance.
Monologue	A long speech by one actor in a play
Soundscape	A collection of sounds created either by the actors themselves or by other means like cd/computer.
Slow Motion	Where our movements are more exaggerated and are at a slower pace to create a dramatic effect
Thought Track	A technique where the actor says what the character is thinking at a particular moment in the action.
Marking the Moment	Doing something specific i.e. still image, slow motion, thought track to make a particular moment stand out in the play.

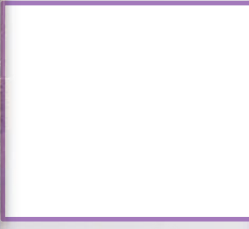


This may be important for your AP1! *WINK*

1200BC-500AD



1500-1700

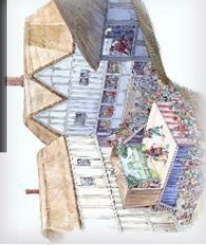


Greek Theatre
Elizabethan & Jacobean Theatre

500 - 1500

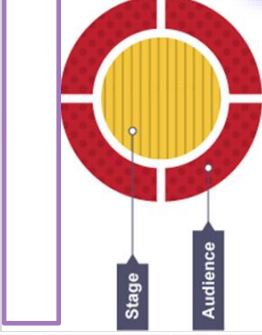
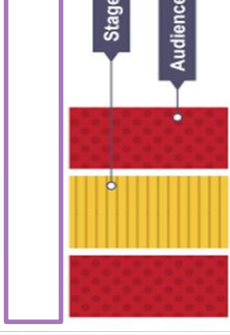
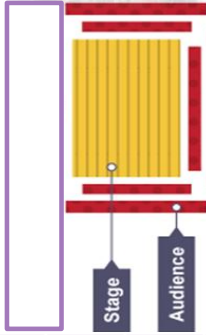


1550-1650



Medieval Theatre
Commedia Dell'Arte

Stage Types



GREEK THEATRE

1200BC - 500AD

- The word drama comes from the Ancient Greek word 'dram' meaning 'to do'.
- The Greeks created three types of plays: **Comedies**, **Tragedies** and **Satyr**s. Performances were held in open-air amphitheatres that were capable of holding large audiences.
- Greek plays involved three actors and a chorus. The chorus commented on the story, sang, danced and wore masks to help portray their character.
- Greek plays were later adapted and translated to suit the Romans.

Playwrights include: Sophocles (*Oedipus Rex*) and Aristophanes (*Lysistrata*).

Theatre Roles And Responsibilities

Playwright
This is the name given to the person who writes the play.

Performer
A performer is an actor or entertainer who realises a role or performance in front of an audience.

Understudy
An actor who studies another's role so that they can take over when needed.

Lighting designer
The lighting designer is responsible for designing the lighting states and, if required, special lighting effects for a performance. The final design will result in a lighting plot which is a list of the lighting states and their cues.

Set designer
The set designer is responsible for the design of the set for a performance. They will work closely with the director and other designers so that there is unity between all the designs and the needs of the performance.

Costume designer
The person who designs the costumes for a performance. The costume department of a theatre is often called the wardrobe.

COMEDIA DELL'ARTE

1500 - 1700

- Commedia dell'Arte began in Italy.
- Skilled comic performers improvised stories that mocked human failings.
- The characters were always the same and included: **Pantalone** - a money grabbing old man, **Il Dottore** a 'know it all' doctor and **Arlecchino** (**Harlequin**) a devious servant.
- Commedia troops did not use scripts. They improvised scenes and built in comic devices and practical jokes.

Playwrights include: Carlo Goldoni (*The Servant of Two Masters*).

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Playwrights include: Carlo Goldoni (*The Servant of Two Masters*).

You have learnt so much this year so far!

Week 1 & 2

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

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

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

Week 3

Draw a stage design for the boxing granny scene of Ernie's Incredible Illucinations!

Week 4

Write down a list of the skills you have so far explored this term.

Week 5

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

Don't forget to give AP1 your best shot! Stay calm - you've got this!

Elizabethan & Jacobean

1550 - 1650

- In 1576, James Burbage - a carpenter and actor, built 'The Theatre'. By 1600 there were at least 4 other theatres in London, including 'The Globe'.
- William Shakespeare lived and wrote during this period. His plays were popular with all classes, from 'groundlings' (the poor) to Queen Elizabeth I.
- When Elizabeth I died in 1603, James I became king and people were anxious and afraid. Plays became darker and increasingly violent.
- In 1642, the Puritans came to power and closed theatres to stop the plague spreading.

Playwrights include: John Webster (*The Duchess of Malifi*).



Spanish - Key verbs and vocab

Key phrases

1. **Tengo el pelo largo y ondulado** - I have long and wavy hair
2. **Tengo los ojos azules** - I have blue eyes
3. **Tengo dos perros blancos** - I have two white dogs
4. **Mi gato es muy divertido** - My cat is really fun
5. **Me encanta leer** - I love reading
6. **No me gusta navegar por internet** - I don't like browsing the internet
7. **Siempre toco la guitarra** - I always play the guitar
8. **Nunca canto karaoke** - I never sing karaoke
9. **Cuando hace sol juego al fútbol** - When it's sunny I play football
10. **Cuando llueve voy al cine** - When it rains I go to the cinema
11. **¿Te gustaría ir al la bolera?** - Would you like to go to the bowling alley?
12. **Lo siento, no puedo** - I'm sorry, I can't

Me llamo Sara y tengo trece años. Tengo el pelo rubio y corto y los ojos verdes. Hay cinco personas en mi familia y tengo un conejo negro. Es muy divertido.

En mi tiempo libre me encanta escuchar música o jugar a los videojuegos porque es divertido sin embargo odio ver la televisión porque es aburrido. Los lunes siempre salgo con mis amigos y cuando hace sol juego al tenis en el parque. En mi opinión leer es entretenido pero nunca bailo porque es estúpido. A veces saco fotos y hablo con mis amigos todos los días porque es muy interesante.

Para ir más lejos: (To go further...)



Link to BBC Bitesize

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

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

Task 2: Practice key phrases 7 -12 - look, cover, write, check, correct x3. Read the sentences out loud to practice your pronunciation.

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

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

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

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

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

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



Spanish - Key verbs and vocab

Opiniones - opinions

Me gusta - I like
Me gusta mucho - I really like
Me encanta - I love
Me chifla - I'm crazy about
No me gusta - I don't like
No me gusta nada - I really don't like
Odio - I hate
No soporto - I can't stand
porque... - because
porque es... - because it is
porque no es... - because it isn't
interesante - interesting
guay - cool
divertido/a - funny
estúpido - stupid
aburrido/a - boring
entretendido - entertaining
activo - active
sano - healthy
relajante - relaxing
emocionante - exciting

Actividades - activities

chatear en línea - to chat online
escribir correos - to write emails
escuchar música - to listen to music
jugar a los videojuegos - to play videogames
leer - to read
mandar sms - to send text messages
navegar por internet - to surf the net
salir con mis amigos - to go out with my friends
ver la televisión - to watch t.v
jugar al fútbol - to play football
salir con mis amigos - to go out with my friends

El tiempo - the weather

Cuando... - when
hace calor - it's hot
hace frío - it's cold
hace sol - it's sunny
hace buen tiempo - it's nice weather
llueve - it's raining
nieva - it's snowing

Adverbios de tiempo - Time phrases

A veces - sometimes
De vez en cuando - From time to time
Nunca - never
Todos los días - everyday
Siempre - always
Los lunes - On Mondays, every Monday
Los martes - On Tuesdays, every Tuesday
Los miércoles - On Wednesdays, every Wednesday
Los jueves - On Thursdays, every Thursday
Los viernes - On Fridays, every Friday
Los sábados - On Saturdays, every Saturday
Los domingos - On Sundays, every Sunday
En primavera - in Spring
En verano - in Summer
En invierno - in Winter
En otoño - in Autumn

El presente - present tense

bailo - I dance
canto karaoke - I sing karaoke
hablo con mis amigos - I talk with my friends
monto en bici - I ride my bike
saco fotos - I take photos
salgo con mis amigos - I go out with my friends
toco la guitarra - I play the guitar
hago artes marciales - I do martial arts
hago atletismo - I do athletics
hago equitación - I do/go horse riding
hago natación - I go swimming
juego al baloncesto - I play basketball
juego al fútbol - I play football
juego al tenis - I play tennis
juego al voleibol - I play volleyball

Y7 Growing Up Poetry Knowledge Organiser

Things we will explore

- Friendship** issues and how we develop our friendships.
- Bullying** and how it can effect us.
- Decisions** we make throughout life and how each decision can effect our life.
- Relationships** and all the ups and downs within relationships, ranging from parents to friends.
- Memories** and how they stay with us as we grow older.
- Youth** and how it is presented in poetry.

P
Point

Sum up the main idea in your paragraph.

- In my opinion...
- Arguably...
- The writer uses...
- Similarly
- Firstly...
- Secondly...
- Both...
- In contrast...
- One of the language features used is...

E
Evidence

Provide Evidence for the point you are making.

- For example...
- An example of this is...
- This is shown...
- This can be seen...
- This is demonstrated when...
- We know this because...
- The evidence for this is...

E
Explanation

Why is the quotation significant?
What effect does the quotation have on the reader?
Why has the writer used this technique?

- This shows
- This suggests...
- This implies...
- This is effective because...
- The writer has chosen this technique because...
- This would make the reader feel...
- This has been used because...

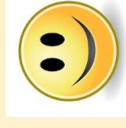
Poetic Devices

- Alliteration** - When words placed together start with the same sound.
- Metaphor** - When you compare something to something else.
- Simile** - When you compare two things using the words like or as.
- Onomatopoeia** - Words that sound like what they are. "Meow" or "crash".
- Assonance** - The repetition of a vowel sound "Go slow over the road".
- Personification** - when an object or animal is given human qualities.
- Figurative language** -When writers use similes, metaphors or personification to describe something in a non-literal way.
- Structure** - The way that the poem is arranged/organised
- Sibilance** - A repeated 's', 'sh' or 'z' sound.
- Enjambment** - When one line runs into another without a pause.

Poets we will

study:

- Brian Olley
- Elizabeth Jennings
- William Blake
- Vernon Scannell
- Wendy Cope
- Liz Lochhead
- William Shakespeare
- Carol Ann Duffy



T itle

O verview

S tructure

M ood

I magery

L anguage

E ffect

Structuring a poetry essay:

- Read the question carefully and make sure you understand what the question is asking you about the poem.
- Introduction- write a paragraph which summarises the poem to show your understanding. Include a sentence which links to the question.
- Main body- answer the question using PEE paragraphs.
- Conclusion- summarise your main argument in response to the question. E.g. Overall growing up is presented as turbulent, quick and a happy experience in the poem.

English Home Learning - Growing Up Poetry



Poetic Devices

Alliteration - When words placed together start with the same sound.

Metaphor - When you compare something to something else.

Simile - When you compare two things using the words like or as.

Onomatopoeia - Words that sound like what they are. "Meow" or "crash".

Assonance - The repetition of a vowel sound "Go slow over the road".

Personification - when an object or animal is given human qualities.

Figurative language - When writers use similes, metaphors or personification to describe something in a non-literal way.

Weekly Homework Tasks

Week	Stage 1	Stage 2	Stage 3
1	Create a revision card for TOSMILE	Pick a poem of your choice and use TOSMILE to break it down.	Recap 'Infant Joy' and use TOSMILE to analyse.
2	Create a mind map for friendship.	Write a letter to friend describing why they are a good friend.	Write your own poem to a friend.
3	Draw a picture of Tich Miller.	Create a story board of Tich Miller.	Create an anti-bullying leaflet.
4	Create a memory board of Primary lessons.	Write about a lesson that you enjoyed and why.	Describe 'In Mrs Tilschers class' as a story.
5	Research Simon Armitage.	Choose a superhero and write your own poem about them.	Write a set of 10-12 quiz questions about the poems you have studied so far.
6	Create a mind map of your poetic terms.	Create a revision guide of the poetic terms.	Create a revision guide for the poetic terms with examples from the poems you have studied.

Key process- erosion

Abrasion- 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.

Hydraulic Action- This process involves the force of water against the bed and banks.

Solution (Corrosion) - This is the chemical action of river water. The acids in the water slowly dissolve the bed and the banks.

Attrition- Material (the load) carried by the river bump into each other and is smoothed and broken down into smaller pieces.

Key process- transportation

Traction - Where large rocks and boulders are rolled along the river bed.

Saltation - Where smaller stones are bounced along the river bed in a leap frogging motion.

Suspension- Where very small grains of sand or silt are carried along with the water.

Solution - Where some material is dissolved (like sugar in a cup of tea) and is carried downstream.

Key process- deposition

When a river loses energy, it deposits (drops) its load.

The hydrological cycle- key terms

Evaporation-The change of water from a liquid to a gas.

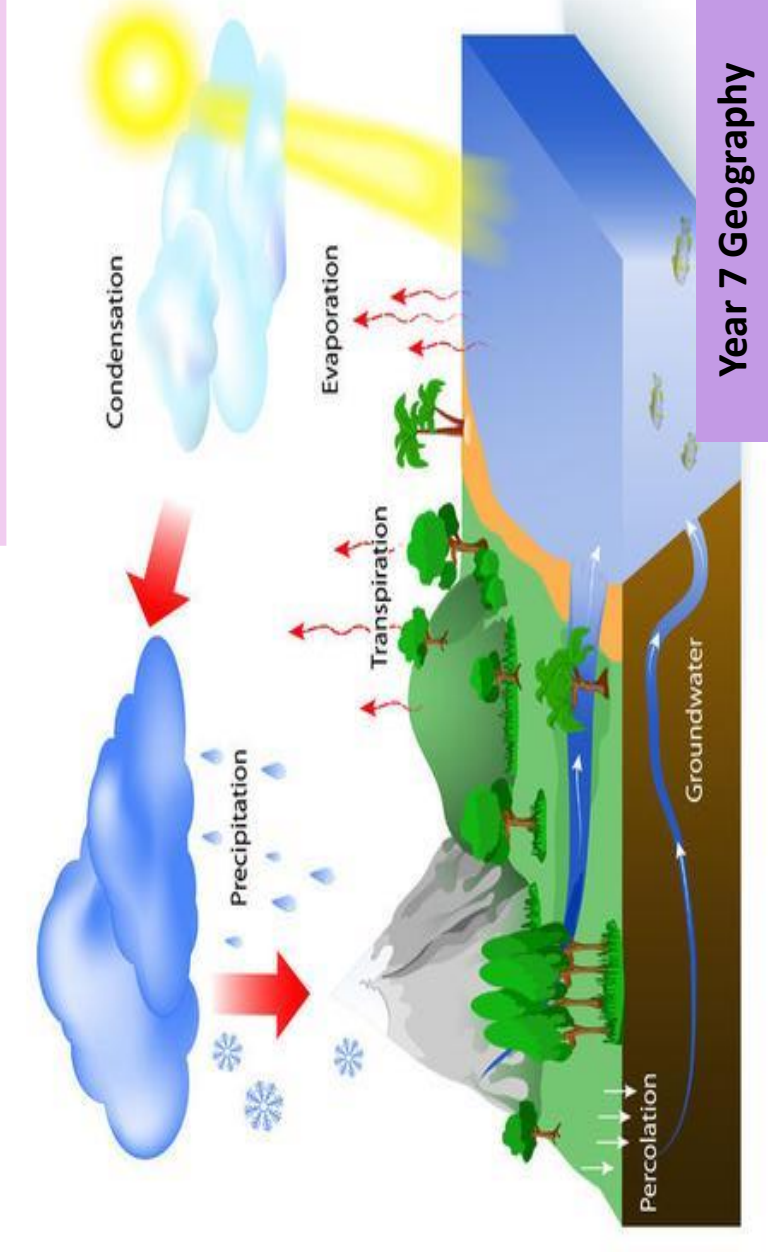
Condensation- The change of water from a gas to a liquid.

Precipitation- Water falling from the sky (e.g. rain, sleet, hail, snow).

Transpiration- The release of water vapour from the leaves of trees of plants.

Throughflow- Flow of water through the soil.

Infiltration- When water soaks down through the ground.



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.

WHY WAS JESUS CRUCIFIED?

“Love your neighbour”
 “I have not come to call the good, but sinners”
 “You have turned the House of God into a den of thieves”

“Before the cock crows 3 times, you will deny knowing me”
 “Let him without sin cast the first stone”

USEFUL QUOTES FROM JESUS

Are our ideas about Jesus facts or beliefs?

What was Jesus' main purpose in everything he did?

Why did some people hate Jesus?

As we study think about...

Why did people follow Jesus?

How did Jesus challenge people?

Why is the crucifixion and resurrection important for Christians?



reflection questions

KEY WORDS:

MIRACLE	A surprising event that defies natural laws	PARABLE	A story with a meaning, used by Jesus to communicate ideas about God
SABBATH	The Jewish holy day of rest and worship	BLASPHEMY	Saying something that is against God or making yourself equal to God
CRUCIFIXION	Being put to death by hanging on a cross. It was the worst punishment the Romans would give	TREASON	Saying something that is against the ruler/king or making yourself equal to the ruler/king
RESURRECTION	Coming back to life after you have died	PHARISEE	A Jewish holy man, responsible for teaching people about God
PROPHECY	Using the power of God to predict something that will happen in the future	FORGIVENESS	Having your sins taken away and no longer being responsible for something bad you have done
SIN	A bad action that goes against God's law	SAMARITAN	A person coming from Samaria (disliked by the Jews)

SOME TASKS FOR YOU TO COMPLETE

1 Create a timeline of Jesus's last week

2 Create a mind map of the things Jesus did. Add the criticisms in a different colour

3 Draw a symbol for each key word

4 Write your answers to 3 reflection questions

5 Create a symbol for each of Jesus' teachings

6 Create key word flash cards or a quiz

7 Retell the Good Samaritan story in 4 images or less

WHAT JESUS SAID:

- You can only judge people if you are perfect
- You should put God above everything in your life
- He came to help people who want to change
- We should love and help people in need

BUT...

- Sometimes we compare ourselves to others to improve our self-esteem
- Family and friends are important too
- Sometimes we don't want to change
- It's hard to be kind to people who we don't like or who treat us badly

THE PARABLE OF THE GOOD SAMARITAN

A Jewish man was left for dead on the road by robbers. A Jewish priest and a Levite walked past but did not help him. The man that finally helped him was a Samaritan (his enemy). He took him to safety and paid for him to be looked after.



Teaches that we should love others and help them, **WHOEVER THEY ARE**

WHAT JESUS DID:

- Jesus told a man his sins were forgiven
- He healed a man's hand on the Sabbath
- He rode into Jerusalem and was treated like a king
- He smashed up the stalls in the temple because they were disrespectful to 'God's house'

BUT...

- Only God can forgive sins
- Jews are forbidden to do anything on the Sabbath except worship God
- He is challenging the Romans because Caesar was king
- It is making the Pharisees angry because he is criticising them

THE MIRACLE OF HEALING THE PARALYSED MAN

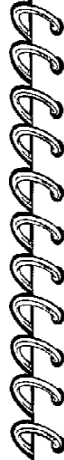
Some men lowered a paralysed man through a roof to Jesus. He wanted to heal him so said, "Your sins are forgiven" but the Pharisees were not happy because it was blasphemy as only God can forgive sins. Jesus responded by instead telling the man to get up and walk and the man was healed.

Shows that Jesus has God's power to heal and forgive sins

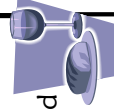


SUNDAY: Jesus arrived in Jerusalem. People praised him as a **king and a saviour** but this **challenged the Romans** and the **Jewish leaders** who didn't believe he was a saviour. He smashed up the temple which angered the Jewish leaders who ran it.

People were confused by Jesus' claims that he could **rebuild the temple in 3 days**. This seemed to be a challenge to them that he would destroy their building but many now see it as a **prophecy** by Jesus about what he would accomplish by dying and then resurrecting.



THURSDAY: At the last supper Jesus **predicted his own death**, saying that the bread was his body and the wine was his blood. He also said that Judas would betray him and told Peter that he would **deny knowing him**.



He was arrested in Gethsemane and taken to the Chief Priest's house where he was accused of **blasphemy**. They found him guilty but couldn't punish him so they took him to the Roman leader, Pilate and charged him with **treason**. Pilate could not find him guilty but sentenced him to be whipped and crucified.



FRIDAY: Jesus was **crucified**. He was humiliated as he carried his cross through the streets then on the cross he shouted **"My God, why have you given up on me?"**

He asked John to look after his mother then said **"It is finished"** and he died. The sky turned black and the disciples hid away because they were frightened and in despair.



Jesus' Last Week



SUNDAY: Mary and some other women went to the tomb and found it empty. The stone had been rolled away and the burial cloth was neatly folded. When Peter, James and John went and an angel told them Jesus had risen: **"Why do you look for the living among the dead?"**

Jesus appeared to many people. He **ate** with them, he **showed them his scars** and he **talked** to them about his life and death





ART KNOWLEDGE ORGANISER

YEAR 7
Term 2a

Topic: Pop Art (producing outcomes)

History/Context:

During this term, you'll be looking at the work of Pop Artists and developing your own art, applying the key trends of this art movement.

Pop Art is one of the most instantly recognizable forms of Art. It was characterized by a bold, bright predominantly primary colour palette (red, yellow, blue), with the use of black outlines and white space. This art movement was governed by, popular commercial culture, everyday recognizable imagery/objects, branded products and celebrities.

Artists of this movement created work in various ways:

Printmaking: an art technique, which allows you to transfer an image from one surface to another.

- Andy Warhol used **silkscreen printing**, a process where inks transferred onto paper through a mesh screen with a stencil.
- Roy Lichtenstein used **lithography**, or printing from a metal plate, to achieve his signature visual style

Mixed media and collage: Pop artists often use more than one material in their artwork. They also collected found images and applied collage with scissors and glue.

- Peter Blake and Robert Rauschenberg, both used mixed media and collage techniques in their work.

Home Learning tasks:

Week 1: AP1 revision
Watch the Video of 'Onomatopoeia'. See QR code below. Look at how they construct a composition and use the word to describe an action. Now create your own pop art drawing/collage using your own 'sound' word. Apply bold colour and black outline to complete.

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

Week 3: Practice key phrases 6 -10 - look, cover, write, check, correct x3. Read the sentences again and check for understanding.

Week 4: Watch the Video of Roy Lichtenstein's 'work in Life'. See QR code below. Produce a mind map of key elements from this.

Week 5: Create a piece of artwork using the everyday object 'a Coca-Cola can'. Consider the key elements of the Pop Art movement:

- Bold opaque colour, primary and secondary
- A black outline
- The cola can
- Pop art patterns
- Layers
- Onomatopoeia: which links with the sound of a fizzy drink.
- Moving fonts/text.

Key Literacy Vocabulary:

- 1. Composition:** the arrangement or placement of visual elements in an individual piece of artwork. 'Putting a piece of art together', where you place things.
 - 2. Construct:** To build, create or make something.
 - 3. Pattern:** a regularly repeated arrangement. A design made from repeated lines, shapes, or colours.
 - 4. Opaque:** you cannot see through the colour. No light passes through.
 - 5. Primary colour:** The basic colours that can be mixed together to make secondary colours. These are Red Yellow and blue.
 - 6. Secondary colour:** A colour which results in mixing the two primary colours:
 - Red + Yellow = Orange
 - Red + Blue = Purple
 - Blue + Yellow = Green
- The secondary colours: orange, purple and green.
- 7. Outline:** The line created on the outside of a shape image or lettering. It helps define something from the background.
 - 8. Mixed-media:** the use of two or more art materials in one piece of artwork, for example: paint, colour pencil and collage.
 - 9. Collage:**
 - 10. Onomatopoeia:** a word that names a sound, for example: bang, zoom, whizz.

Week 1: scan this QR code to watch 'Onomatopoeia' video.
Create an 'onomatopoeia' of your own.



Week 4: scan this QR code to watch the video discussing Roy Lichtenstein.



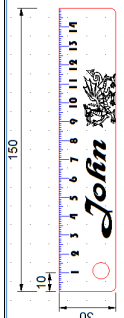
Week 5: Create a piece of Artwork that with a coca-cola can. Think of a sound the drink makes when you open the can. Add an 'Onomatopoeia' word: like this example 'Pop' for a champagne bottle.
What word will you use?





DESIGN TECHNOLOGY KNOWLEDGE ORGANISER

Topic: CAD/CAM Ruler Project



YEAR 7 DT

Computer aided design - CAD
 Design software such as 2D design or Sketchup, allow the designer to draw a product in detail. Products can be designed and modified quickly. CAD allows for the testing of prototypes during the design process, without the need to make it.

Computer aided manufacture - CAM
 Once a prototype design has been produced, it can be manufactured on a CNC machine or Laser Cutter. Computer Aided Manufacture (CAM) has meant that products and components can be made repeatedly to the same high standard.

	<h3>CAD</h3> <p>Computer Aided Design. This allows users to draw, design and model products using specialist software. Designers can create 2D and 3D models and manipulate their designs to test different ideas before manufacture.</p>
	<h3>CAM</h3> <p>Computer Aided Manufacture. This uses Computer Numerical Control (CNC) to create CAD designs. The CAM machines, such as laser cutters and 3D printers interpret the coordinates to create the design.</p>
	<h3>ADVANTAGES</h3> <ul style="list-style-type: none"> Increased efficiency and productivity. Fewer errors, improved accuracy. Reduced labour costs as fewer people. Can perform work that is dangerous for humans. Can be cheaper over time than using people.
	<h3>DISADVANTAGES</h3> <ul style="list-style-type: none"> Expensive to set up and maintain. Replaces humans meaning job losses. No human judgement if something goes wrong. Required highly skilled people to operate them.

Focused Topics

THERMOSETTING PLASTICS
 THESE ARE PLASTICS THAT ONCE HEATED AND MOULDED, CANNOT BE REHEATED AND REMOULDED. THE MOLECULES OF THESE PLASTICS ARE CROSS LINKED IN THREE DIMENSIONS AND THIS IS WHY THEY CANNOT BE RESHAPED OR RECYCLED. THE BOND BETWEEN THE MOLECULES IS VERY STRONG.

- | | | |
|-------------------|------------------------|-----------------------|
| UREA FORMALDEHYDE | SOME ADHESIVES (GLUES) | POLYESTER RESINS |
| POLYURETHANE | SILICONE | MELAMINE FORMALDEHYDE |
| BAKELITE | MELAMINE RESIN | DUROPLAST |



THERMOPLASTICS
 THESE PLASTICS CAN BE RE-HEATED AND RE-SHAPED IN VARIOUS WAYS. THEY BECOME MOULDABLE AFTER REHEATING AS THEY DO NOT UNDERGO SIGNIFICANT CHEMICAL CHANGE. REHEATING AND SHAPING CAN BE REPEATED. THE BOND BETWEEN THE MOLECULES IS WEAK AND BECOMES WEAKER WHEN REHEATED, ALLOWING RESHAPING. THESE TYPES OF PLASTICS CAN BE RECYCLED.

- | | | |
|---------------------------------|--------------------------------|--------|
| ACRYLIC (KNOWN ALSO AS PERSPEX) | POLYPROPYLENE (PP) | NYLON |
| POLYVINYL CHLORIDE (PVC) | LOW DENSITY POLYTHENE (LDPE) | |
| POLYSTYRENE | HIGH IMPACT POLYSTYRENE (HIPS) | TEFLON |



Key Terms

Automation- Using automatic equipment in production – e.g. robots
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.

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

Thermoplastic- types of plastic which become soft when they are heated

Tasks

- Task 1:** Create a mind map about CAD/CAM..
- Task 2:** Learn the key words and the definition.
- Task 3:** Create 6 questions that can be answered from the information on the knowledge organiser.
- Task 4:** Create a quiz based on task 1, 2 or 3. Get someone to test you.
- Task 5:** Create a mind map for the information you remember and red pen anything you've forgotten.
- Task 6:** Teach it. Create a task that can be used to teach some of the information from here.

To go further:

Introduction to 3D modelling: SketchUp



Precious Plastic - The basics of plastic



Week One

Using your Home Learning book, make a quiz containing at least 10 questions from the topic **atoms, elements and compounds**.

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 Two

Read your knowledge organiser focusing on **reactions** 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

Answer the following questions in full sentences in your home learning workbooks.

1. Give 3 examples of a physical change.
2. Give 3 examples of a chemical change.
3. Describe what happens during a chemical reaction.
4. Give 3 observations that a chemical reaction has occurred.
5. Define the term 'observation'.

Week Four

Pick 4 key words from the knowledge organiser page title **reactions**. 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

Answer the following questions in full sentences in your home learning workbooks.

1. Define the term 'exothermic reaction'
2. Define the term 'endothermic reaction'
3. How could you tell, in an investigation, if a reaction is exothermic?
4. How could you tell, in an investigation, if a reaction is endothermic?
5. Give 3 examples of exothermic reactions or processes
6. Give 3 examples of endothermic reactions or processes

WE ARE USING



TASSOMAI

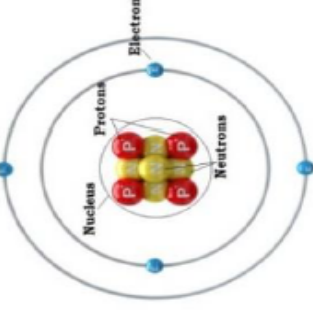
**Have you completed your 4 daily goals?
Complete 4 daily goals each week to
ensure success in Science! 😊**

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!

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.

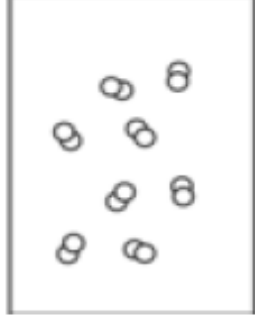
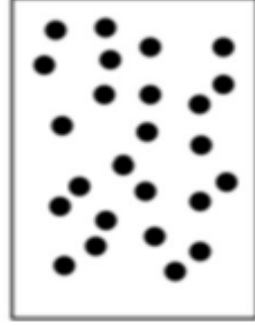


Key Terms	Definitions
Atom	What all matter is made up off
Atomic number	The number of protons in an atom
Mass Number	The total number of protons + neutrons in the nucleus

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

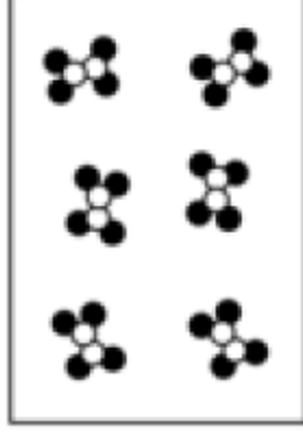
- Compounds are substances made up of **different elements** which are chemically bonded.
- Compounds can be formed by chemically reacting elements together e.g.:



- 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_2)
- Water (H_2O)
- 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_2 This means that there are **2 chlorine atoms** chemically bonded together.

For example: H_2O This means there are **2 hydrogen atoms and 1 oxygen atom**, chemically bonded together.

For example: Fe_2O_3 This means that there are **2 Iron and 3 oxygen atoms**, chemically bonded together.

Keywords

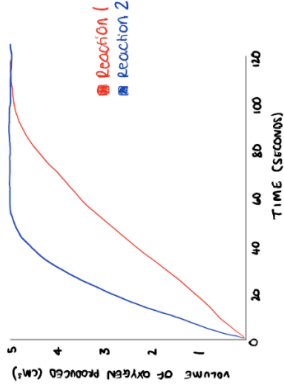
1. Atom	The smallest possible piece of an element. Has a radius of 0.1nm (or $1 \times 10^{-10}\text{m}$)
2. Element	A substance in which all the atoms have the same atomic number
3. Isotope	Atoms with the same number of protons but different numbers of neutrons
4. Molecule	Two or more atoms bonded together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

What do I need to be able to do?

- Describe the difference between chemical and physical changes.
- Understand chemical reactions as the rearrangement of atoms
- Understand the conservation of mass in changes of state and chemical reactions.
- Define exothermic and endothermic chemical reactions (qualitative) and classify reactions as such
- Describe and give examples of combustion, thermal decomposition, oxidation and displacement reactions
- Identify the reactants in, and products of, photosynthesis
- Describe the role of catalysts
- Construct a word summary for the reactions involved in photosynthesis, aerobic respiration, combustion, and thermal decomposition reactions
- Apply laws of conservation of mass

4. Catalysts

Catalysts are substances added to increase the rate of reaction – they speed up reactions.



Reaction 2 shows a catalysed reaction compared to reaction 1. **The same overall volume of product is made, but in less time.**

Catalysts are beneficial in industry because:

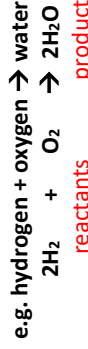
- More product is made in a certain time frame (but not in each reaction)
- Are not used up in a reaction
- Work by reducing the energy required to start a reaction

7.5 – Reactions

1. Physical & Chemical Changes

Physical Changes are those in which **no new** products are made. This means they are usually easily reversible *e.g. changes of state*

During a **chemical reaction**, bonds are broken in the reactants and atoms are rearranged. Then new bonds form between the atoms forming the **new products**. They are hard to reverse.



Signs that a chemical reaction has occurred:

- colour changes
- change in temperature
- fizzing or bubbling (due to a gas being released)

5. Photosynthesis & Respiration

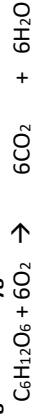
Photosynthesis is the chemical reaction in which plants **absorb** and use light energy from the sun to make glucose – a store of energy

It happens in the leaf cells



Respiration is the chemical reaction in which energy is **released** from glucose.

It happens in the cells of all living organisms

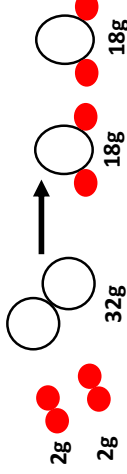


2. Conservation of Mass

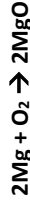
During chemical reactions, mass is conserved – not lost or gained

Total mass of reactants = total mass of products

The same atoms are present in the reactants and products but just in different arrangements



Therefore we must always balance symbol equations – to show that the reaction obeys the laws of the conservation of mass



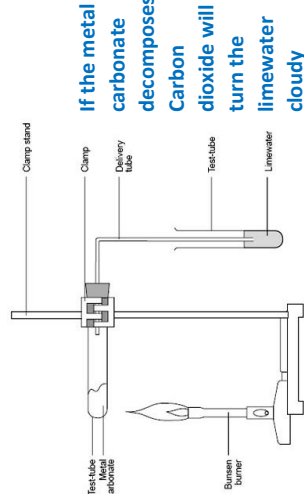
2 atoms of Mg 2 atoms of Mg
2 atoms of O 2 atoms of O

6. Thermal Decomposition

When some substances are heated, they do not react with the oxygen in the air, instead they **decompose**

Thermal decomposition is breaking down substances using into simpler compounds and elements using heat

e.g. Copper carbonate → copper oxide + carbon dioxide



If the metal carbonate decomposes.

Carbon dioxide will turn the limewater cloudy

3. Exothermic & Endothermic

Exothermic - Energy is transferred **from** the reacting molecules **to** the surroundings. Energy is released.

Temperature of surroundings increases
e.g. hand warmers, burning fuels



Endothermic - Energy is transferred **from** the surroundings **to** the reacting molecules. Energy is absorbed.

Temperature of surroundings decreases
e.g. changes of state, cooking



7. Combustion

Fuels are chemical energy stores that can be released from reaction with **oxygen**. Energy is released when new bonds are formed in the products of the reaction.



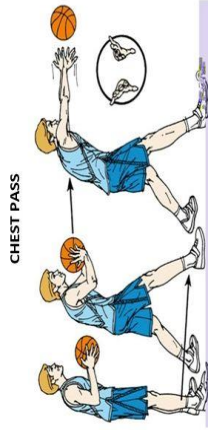
When a fuel is **combusted** (burned) with a plentiful supply of oxygen to **release energy**, carbon dioxide and water are also produced.

Fuel + oxygen → **carbon dioxide + water**
e.g. methane + oxygen → carbon dioxide + water

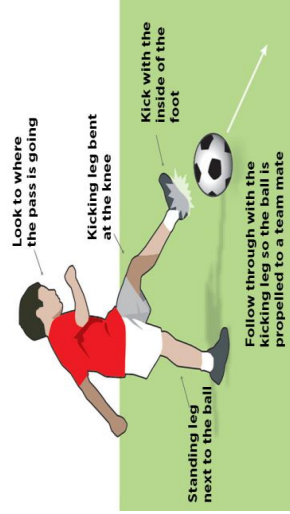
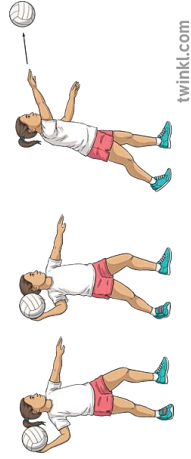
The carbon dioxide released contributes to global warming.

Passing

- Hold ball in both hands, chest high.
- Step forward, extend your arms and snap your wrists to throw the ball in a straight line to your teammate's chest.
- Finish with your arms in front, chest high.



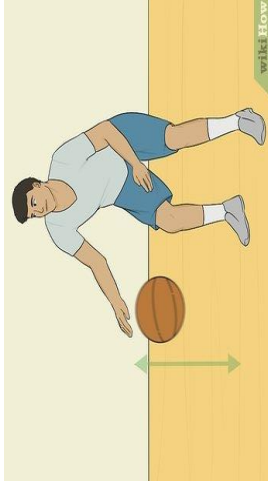
A netball shoulder pass is a one-handed netball pass for longer distances. It follows a straight line between your shoulder and the receiver's hands.



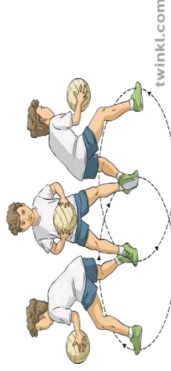
Coaching points

Dribbling

Use your fingertips not your palms. Keep your knees bent for a lower centre of gravity. Finally keep the ball under hip height.



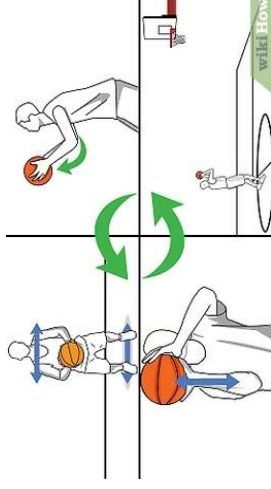
There is no dribbling in netball, but you can pivot (also allowed in basketball) Pivot by rotating yourself on the ball of your landing foot. Keep your upper body straight and head up.



Touching the ball with foot between little toe, and the outside of the laces on your boot Touches should be light, close enough so away from defender, but far enough away from body to run freely



Shooting



Remember !BEEF! For basketball & netball
Balance by keeping your feet hip/shoulder width apart
Elbow Position your elbow so it's in line with your shoulder
Eyes should be focused on the target
Flick your wrist as you release the ball

1) Are you allowed to dribble in netball?
 2)Should a netball shoulder pass be low and short or high and long?



Laces shot

- Line up your body for the shot.
- Point your standing foot toward your target.
- Lock your ankle in position.
- Kick the ball with the top of your shoe.
- Follow through with your kicking leg.

1)Why do we dribble below the waist in basketball?
 2)What other types of passing could be performed in basketball?
 3)Memory test, try and remember BEEF and their descriptions.

1) When would you use outside of the foot dribbling in football?
 2)Name as many pass types in football
 3)What other types of shot are performed in football?

PERFECT
PRACTICE
MAKES
PERFECT



Learning to Learn



The 'Listen' Project #1