Year 8
Term 3

Name _____

Form _____

St Cuthbert's Catholic High School

MORE THAN A SCHOOL

St Cuthbert's
Catholic High School
Live life in all its fullness

"To know what you know and what you do not know, that is true knowledge."

Confucius

(research 10 facts about Confucius)

Year 8 Knowledge Organiser: Term 3

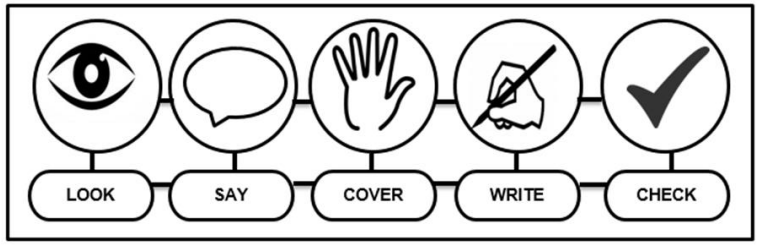
Instructions for using your Knowledge Organiser

The timetable on the next page tells you which subjects you should be studying on which days (it doesn't matter if you have that subject on that day or not, you should follow the timetable).

You are to use your exercise book to show the work you have done. Each evening you should start a new page and put the date clearly at the top.

You need to bring your KO and exercise book with you EVERY DAY to school. Your KO and exercise book will be checked regularly in form time.

You will also be tested in your lessons on knowledge from the organisers.



You must use the revision strategy Look – Say – Cover – Write - Check to learn the knowledge. You can also use your KOs and book in a number of different ways but you **should not just copy** from the Knowledge Organiser into your book.

Presentation

You should take pride in how you present your work:

- Each page should be clearly dated at the top right hand side with the **Subject** written in the middle.
- Half way down the page a line should divide it in two with **Next Subject** written above the dividing line.
- Each half of the page should be neatly filled with evidence of self-testing. There should be an appropriate amount of work.
- Failure to show pride in your presentation or wasting space on your page with large writing or starting a number of lines down will result in a **negative AtL.**

Year 8 Knowledge Organiser Homework Timetable

You are expected to study the subjects shown on your timetable each day. You need to spend 20 minutes on each subject and you will need to evidence your work in your exercise book.

WEEK A	Subject 1	Subject 2	Subject 3
MONDAY	English	MFL	Geography
TUESDAY	Science	Maths	PD
WEDNESDAY	History	Music	Science
THURSDAY	RE	Maths	Food
FRIDAY	Computing	Technology	English

WEEK B	Subject 1	Subject 2	Subject 3
MONDAY	English	Drama	Geography
TUESDAY	Science	Maths	RE
WEDNESDAY	History	PE	Science
THURSDAY	RE	Maths	MFL
FRIDAY	Computing	Art	English

Reading Log

"The more that you read, the more things you will know. The more that you learn, the more places you'll go"

Dr Seuss

Use this reading log to record the books you read and how long you have spent reading.

Week	MON	TUE	WED	THURS	FRI	SAT	SUN	Book(s) read (title and author)	Time spent reading	Parent comment/signature
Week 1										
Week 2										
Week 3										
Week 4										
Week 5										
Week 6										
Half Term										
Week 7										
Week 8										
Week 9										
Week 10										
Week 11										
Week 12										

Year 8 English - Term 3: Shakespeare – The Tempest

The Tempest is a play by William Shakespeare, probably written in 1610-1611 and thought to be one of the last plays he wrote. The play is about magic, betrayal, love and forgiveness. It is set on an island somewhere near Italy. The word '*tempest*' means storm.

Social and Historical Context:

- The play uses inspiration from real events at the time it was written. For example, just before writing the play, Shakespeare had read accounts of a tempest almost destroying a fleet of ships near the island of Bermuda. Several of the crew survived but were shipwrecked – this fascinated Shakespeare and many other people at the time.
- Sea exploration was growing in the Shakespearean era, and explorers were beginning to discover new parts of the world.
- Shakespeare incorporates magic and fairies into the play. This would have interested his audiences as people at that time took the belief in the supernatural for granted.

The Plot:

Act 1: Alonso, King of Naples, is on a ship with his son Ferdinand and his companions Sebastian, Antonio, Stephano and Trinculo. They are hit by a violent storm, causing them to abandon ship and swim to a nearby island. During this time, their group becomes separated and they are washed up in different places on the shore. Meanwhile, from the island, Prospero (a powerful sorcerer) and his daughter Miranda watch the storm and the shipwreck. Miranda is worried for the safety of the crew but Prospero assures her that they will be fine. He then tells Miranda about their past before coming to live on the island. Prospero used to be the Duke of Milan twelve years ago, but his brother, Antonio, usurped (stole) his power and his title from him. One night, Antonio ordered a nobleman called Gonzalo to take Prospero and the baby Miranda and cast them out to sea in a boat to die. However, Gonzalo took pity on them and allowed Prospero to take his books and some essentials and the boat washed up on the island where they have lived ever since. Prospero used his magic to conjure the storm to force Antonio's boat to wash up on the island. We then meet Caliban, who lives on the island and is a servant to Prospero and a spirit called Ariel who helps Prospero perform his magic. The king's son, Ferdinand, meets Miranda and the two fall instantly in love. Prospero however wants Ferdinand to earn Miranda's love and so sets him many tasks to complete before he can marry her.

Act 2: King Alonso, his younger brother Sebastian and Antonio wander around the island. King Alonso weeps as he thinks that his son, Ferdinand, is dead. Sebastian and Antonio plot to kill Alonso so that Sebastian can be king. Their plot to kill is stopped by Ariel's quick thinking magic. Meanwhile, elsewhere on the island, Stephano and Trinculo find Caliban and give him alcohol to drink. Caliban wants Stephano to be his new master, explaining to him how Prospero mistreats him. Caliban promises to make Stephano ruler of the island if he will kill Prospero. Stephano and Trinculo agree to help Caliban and set off to find Prospero.

Year 8 English - Term 3: Shakespeare – The Tempest

The Plot:

Act 3: Ariel, who has used his magic to become invisible, watches Stephano, Caliban and Trinculo as they plot to kill Prospero. Ariel sets off to inform his master of their wicked plot. Having failed the first time, Sebastian and Antonio are still determined to kill Alonso. Prospero conjures up a magical feast to entice the men. When they try to eat it, Ariel appears in the form of a harpy (a mythical creature) and reminds them of their selfish and evil behaviour.

Act 4: Ferdinand has finally proven himself to Prospero, who gives his blessing for the marriage to Miranda to go ahead. They have a masque (party) to celebrate but Prospero suddenly remembers Caliban's murderous plot and he, along with Ariel, leave the party to deal with the three men. Prospero magically summons up a set of colourful clothes to trap Stephano, Caliban and Trinculo. As soon as they touch the garments, Prospero and Ariel send spirit dogs to chase them.

Act 5: Ariel brings all of the characters together where Prospero finally reveals who is really is. He forgives Alonso, Antonio and Sebastian for the wrongs they have done and shows the king that his son is still alive and will be married to Miranda. Prospero agrees to become the Duke of Milan again and all of the characters prepare to return home. Before he leaves, Prospero sets Ariel free.

Key Vocabulary	
Colonialism	Usurp
Tempest	Treason
Callous	Nurture
Pathos	Tragicomedy
Soliloquy	Supernatural
Context	Theme

Key Quotes
We are such stuff as dreams are made on: and our little life Is rounded with a sleep.
O brave new world, that has such people in't.
When I waked, I cried to dream again.
O, I have suffered with those that I saw suffer.
Be not afeard; the isle is full of noises, Sounds and sweet airs, that give delight, and hurt not.

Characters	
Prospero – A powerful sorcerer and rightful Duke of Milan.	Antonio – Prospero's brother – stole the title as Duke of Milan.
Miranda – Prospero's daughter.	Ariel – a magical spirit, servant to Prospero.
Alonso – King of Naples.	Stephano – A drunken butler.
Sebastian – Alonso's brother.	Caliban – servant to Prospero.
Ferdinand – Alonso's son.	Gonzalo – A nobleman who helps Prospero and Miranda escape.
Trinculo – The king's jester.	

Year 8 Maths – Term 3

Problem Solving at St Cuthbert's

K Key Information - Highlight or pick out the important things that you will need

L List the Maths - What Maths topics will you need? Can you write down any rules?

A Attach Numbers -
- Assign numbers to help
- Relate the problem to one you can already do eg.. 3 x 4 = 12

P Picture -
- Annotate the diagram given with any information
- Draw a picture to help you visualise

S Sensible - Does your answer make sense?

Don't forget

Always show your working out

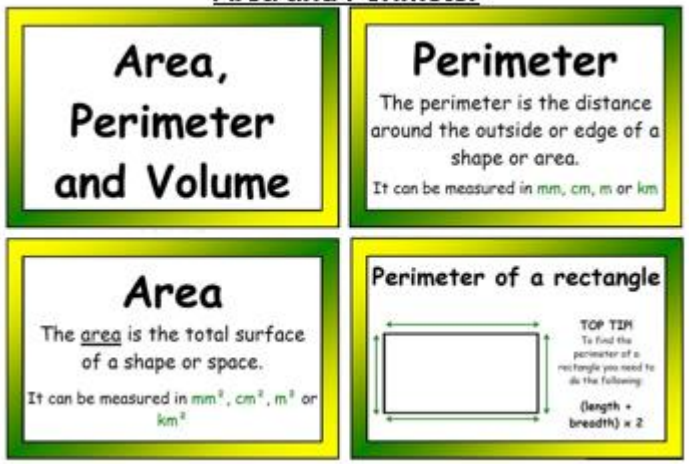
Never round half way through a question

Key Words

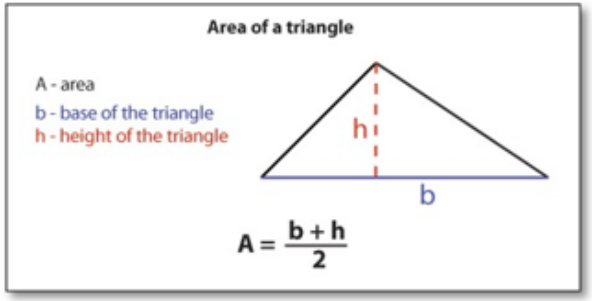
Take care with your spellings of these key words

Area	Perimeter
Triangle	Parallelogram
Trapezium	Circle
Circumference	Composite

Area and Perimeter



Triangles

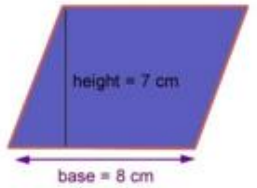


It is important to note, that you cannot just use any of the measurements that you are given for the formula. The base and the height measurement must be at right angles to each other.

Parallelograms

The area of a Parallelogram equals the base times the height.

$A = b \times h$



$A = b \times h$

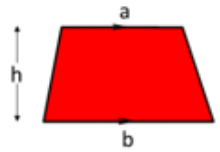
$A = 8 \times 7$

$A = 56\ cm^2$

The formula for the Area of a Parallelogram again uses the measurements named base and height, similar to the formula for the area of a Triangle. Again, the base and the height must be Perpendicular.

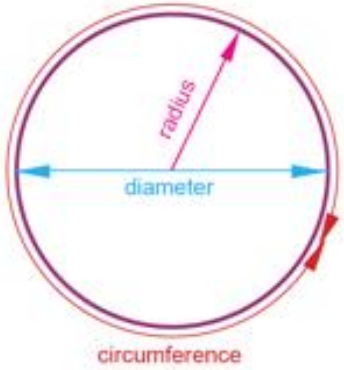
Trapeziums

The formula to find the Area of a Trapezium is more complex, and might need to be remembered:



$\text{Area} = \frac{1}{2}(a + b) \times h$

Circles



When we start to look at Circles, we need to include some new terminology for the measurements we are given.

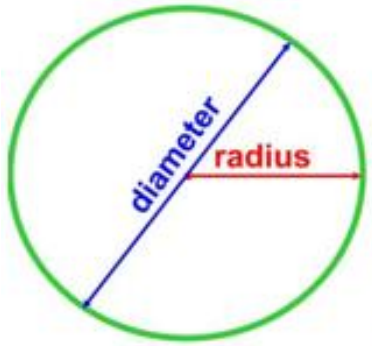
Radius – this describes the length from the centre of the Circle to the outside edge

Diameter – this describes the length from one side of the Circle to the other, and it must pass through the centre.

Circumference – this describes the measurement all the way around the outside of the Circle. We can think of this as the Perimeter of the Circle really.

The Diameter and Radius measurements are related, in that the Diameter is double the length of the Radius, and then the other way around, the Radius is half the length of the Diameter. So that we can always find a missing length if we are only told one of them

Area and Circumference Formula

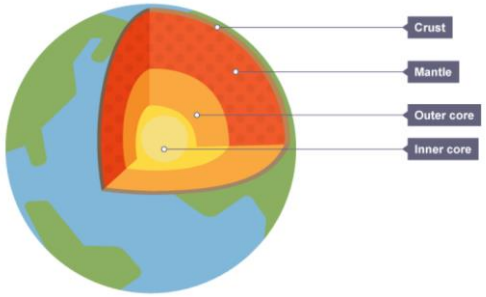


Area of a circle
$= \pi \times \text{radius}^2$

Circumference of a circle $= \pi \times \text{diameter}$

remember that the
diameter = 2 x radius

Year 8 Science – Term 3: Earth, Spaces, Cycles



The Earth is made up of layers; it has a solid metal **core** surrounded by liquid lava called the **mantle**, on top of this there is a thin **crust** made of rock. This is the surface of the Earth. The Earth is surrounded by the **atmosphere**. It is made up of gases including nitrogen, oxygen and carbon dioxide. It contains the air we breath, protects us from the Sun and keeps Earth the right temperature.

When **fossil fuels** such as coal or oil are burned, unwanted gases enter the atmosphere, these are called **greenhouse gases**. As these gases increase they trap heat in the atmosphere and cause the temperature of Earth to increase, this is called global warming.

Human activities such as burning fuels in factories and vehicles are some of the main contributing factors to global warming.

Cycles:

The Water Cycle is the journey water takes as it moves from the land to the sky and back again.

The Carbon Cycle shows how atoms of carbon can exist within different compounds at different times and be recycled between living organisms and the environment.

The Limestone Cycle shows how limestone can react to form different compounds which have different uses in everyday life.

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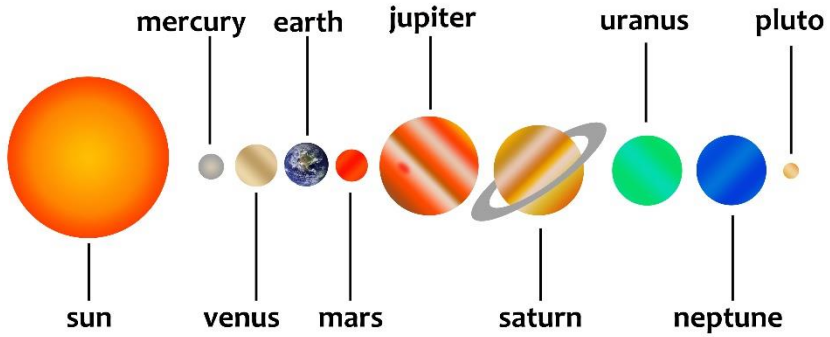
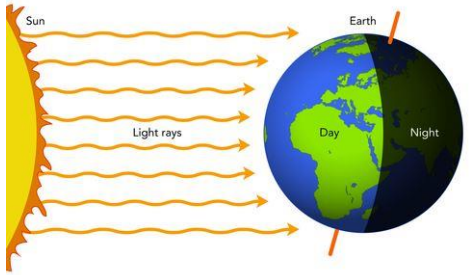
Key Words

Crust	The outer layer of the Earth that we live on. It is made of rock.
Mantle	The thickest layer of the Earth, it is made up of magma which is constantly moving.
Tectonic Plate	The pieces of the Earth's crusts that are constantly moving.
Atmosphere	The layer of gases that surrounds Earth, it is essential for life on Earth.
Fossil fuel	Coal, oil and gas; formed from the remains of living organisms millions of years ago. They release energy when burned.
Resource	A natural **resource** is something that is found in nature and can be used by people.
Finite	A resource which is non-renewable and will one day run out e.g. fossil fuels.
Greenhouse gas	A gas in the Earth's atmosphere which absorbs heat energy and contributes to global warming.
Sedimentary rock	Rocks from the broken remains of other rocks that become joined together under their own weight over time.
Metamorphic rock	Rocks formed from other rocks that are changed because of heat or pressure over time.
Igneous rock	Rocks formed from molten (liquid) rock that has cooled and solidified over time
Limestone	A type of sedimentary rock that is made up of calcium carbonate.
Decomposer	Bacteria and fungi which break down dead organisms.
Precipitation	The release of water from the sky, in the form of rain, hail, sleet or snow.

Year 8 Science – Term 3: Earth, Space, Cycles

Order of the **planets** from the Sun (not to scale). Pluto is a dwarf planet.
All of these planets **orbit** the Sun. The further away the planet is from the Sun the larger its orbit. Some planets have **moons** which orbit them.





The Earth rotates (spins) once on its **axis** every 24 hours. This is one **day**. It will be daytime on the side that is facing the Sun and night time on the side that is facing away.
The Earth is tilted 23° on its axis, this is why we have **seasons**. It will be hottest (summer) in the part of Earth that is tilted towards the Sun, this changes as the Earth orbits the Sun.

Gravity it the force exerted on objects. **Mass** is how much matter is in an object. **Weight** is a measure of the force of gravity acting on an object.

Weight (N) = Mass (kg) x Gravitational Field Strength (N/kg)
100N = 10 kg x 10 N/kg (Earth)

The gravitational field strength is different on different objects in space e.g. the moon. Therefore the weight of an object will be different in space but mass will always remain the same.

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Key Words

Planet	A large ball of matter that orbits (moves around) a star.
Moon	A ball of rock in space which orbits a planet.
Star	A huge ball of gas and dust, held together by gravity. It releases light and heat.
Orbit	The circular path of an object around another object in space.
Light year	A unit of distance in space, it is the distance travelled by light in one year.
Axis	An imaginary line through the centre of Earth around which the Earth rotates.
Day	The time it takes for a planet to turn once on its axis.
Season	A period of the year linked to temperature and daylight; spring, summer, autumn and winter.
Year	The time it takes for a planet to complete one orbit of the Sun.
Hemisphere	A half of the Earth. The Northern hemisphere is above the equator and the Southern hemisphere is below the equator.
Gravity	A force which pulls all things with mass towards one another.
Mass	A measure of how much matter there is in an object. It is measured in kilograms.
Weight	A measure of the size of the pull of gravity on an object. It is measured in Newtons.

Year 8 Religious Education – Term 3: What happened after Jesus' death?

Big Questions:

- **Who is responsible for Jesus' death?**
- **What is the resurrection and why does it matter?**
- **What happened next?**
- **How can we be disciples today?**
- **What if….there was no resurrection?**
  - **….the disciples hadn't believed?**
  - **….the disciples had not accepted 'the great commission'?**

Key words	Definition
resurrection	Coming back to life from the dead;' resurrection is proof for Christians that death can be overcome
sabbath	Jewish day of rest, when no work can be carried out
disciples	Jesus' followers; from the Latin for 'learner'
apostles	'one who is sent out' – from the Greek for messenger. Jesus' followers became apostles after his death when they went out to spread his message
ascension	The ascension is the event where Jesus was taken up to heaven 40 days after his resurrection
Great Commission	Jesus left his followers with an instruction – to go out and baptise, and preach Jesus' message – this is the Great Commission
Pentecost	Pentecost is when the Holy Spirit descended upon the disciples, appearing as wind and fire; they were filled with courage and could speak in tongues

Complete the learning homework for each week; work in your yellow book		**6 May 2024**	Section 2 and SOWAA 3 & 4
22 April 2024	Key words and definitions	**13 May 2024**	Section 3 and SOWAA 5
29 April 2024	Section 1 and SOWAA 1 & 2	**20 May 2024**	Recap all information

Section 1;
The gospels tell us that Jesus' body was quickly placed in the tomb before Sabbath began, When the women returned to the tomb after the sabbath they found the stone rolled away and the tomb empty. Jesus had risen from the dead! He then appeared numerous times to his disciples.

Section 2; Forty days after his resurrection Jesus ascended into heaven. He left his disciples with a big task to do – spread the word. This is called the 'Great Commission'. The disciples were (understandably) confused and frightened, but Jesus assured them he would not leave them on their own. Ten days later, at Pentecost, the Holy Spirit descended on the disciples filling them with the courage to go out and preach Jesus' message.

Section 3; Christians believe the Holy Spirit is active in our lives today, guiding us and giving us courage to live in the way Jesus taught. He wants us to be disciples – to spread his message by living out his teachings. We will explore how we can be disciples today.

Year 8 Religious Education – Term 3: What happened after Jesus' death?

Sources of Wisdom and Authority (SOWAA)

(1) 'he is not here, he is risen, just as he said'
Matthew 28:6

(2) 'the other disciples told him, "We have seen the Lord!" But he said to them, "Unless I see the nail marks in his hands and put my finger where the nails were, and put my hand into his side, I will not believe."
26 A week later his disciples were in the house again, and Thomas was with them. Though the doors were locked, Jesus came and stood among them and said, "Peace be with you!" …..
28 Thomas said to him, "My Lord and my God!"

(3) **19** Therefore go and make disciples of all nations, baptizing them in the name of the Father and of the Son and of the Holy Spirit, **20** and teaching them to obey everything I have commanded you.
Matthew 28: 19-20

(4) 'They saw what seemed to be tongues of fire that separated and came to rest on each of them. **4**
All of them were filled with the Holy Spirit and began to speak in other tongues as the Spirit enabled them." Acts 2

(5) "Discipleship must begin with a living experience of God and his love. It is not something static, but a continuous movement towards Christ;……
have that evangelical courage which springs from knowing that there are many who are hungry, who hunger for God, who hunger for dignity, because they have been deprived."
Pope Francis

Year 8 Geography – Term 3: Coasts

Key Vocabulary...

Coast	The part of land that joins or meets the sea.
Erosion	Erosion is the process that breaks things down.
Transportation	The process of carrying or moving sediment downstream.
Deposition	Dropping or settling of sediment
Cliff Collapse	Flooding occurs when the river bursts its banks overflowing onto the area surrounding the channel.
Flood Defenses	Management strategies used to protect people and land from flooding

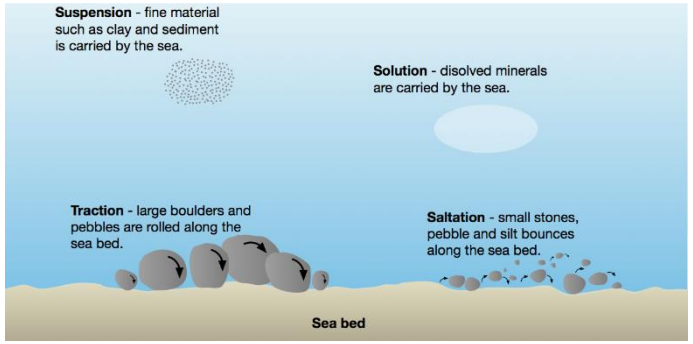
4 Processes of Erosion

Hydraulic action	This is when the force of water erodes softer rock.
Abrasion	This is when large pieces of bedload material wear away the river banks and bed.
Attrition	This is when the bed load itself is eroded when sediment particles knock against the bed or each other and break, becoming more rounded and smaller.
Solution	This is when finer sediment is dissolved and eroded by the minerals in the water.

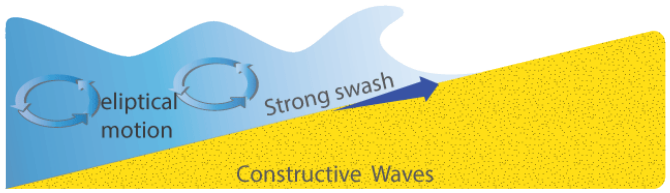
Landforms

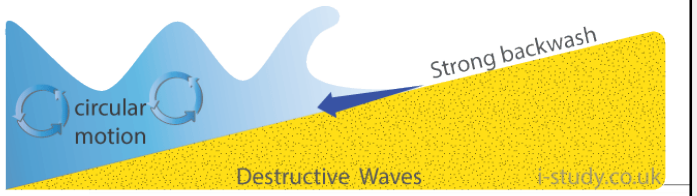
Headlands and Bays	
Cave, Arch, Stack, Stump	
Spit	

4 Processes of Transportation



Characteristics of Waves





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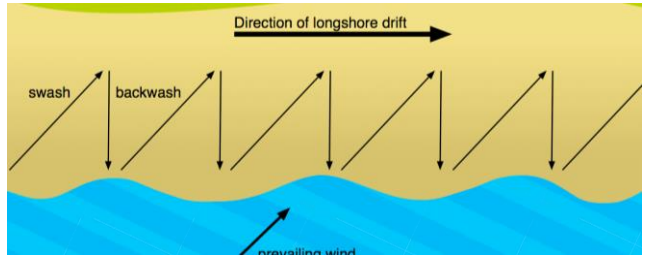
The Size of a wave is controlled by the **fetch, strength of the wind and the time the wind has been blowing for.**

Sea Defences...

Hard engineering	Using man-made structures to protect the coastline. **For example: sea wall, rock armour, gabions, groynes**
Soft engineering	Allowing the natural processes of the coastline to protect itself from erosion. For example: **Beach Nourishment, Dune stabilization,**

Long Shore Drift



Homework Activity: Draw or make a model coastline with examples of both erosional and depositional landforms. Write a description of how each landform was created.
Challenge: Which areas of your coastline are at risk of cliff collapse? What can we do to protect these locations?

Year 8 History– Term 3: Liverpool and the Slave Trade

Africa before enslavement

1

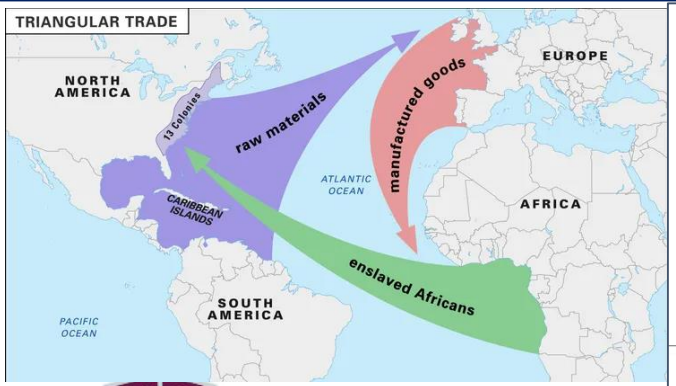
Starting in the medieval period, a series of powerful kingdoms developed in West Africa.
These West African kingdoms and empires developed their own diverse and rich cultures, art, histories and religions. Art, learning and technology flourished and Africans were especially skilled in subjects like medicine, mathematics and astronomy. As well as domestic goods, they made fine luxury items in bronze, ivory, gold and terracotta for both local use and trade.

2

The transatlantic slave trade was the largest forced migration in history.
Between 1500 and 1800, around 12-15 million people - some historians suggest the figure may have been higher - were taken by force from Africa to be used as enslaved labour in the Caribbean, North, Central and South America.
It is estimated that over 2 million Africans died on the journey to the Americas, in a journey known as the Middle Passage.
Although it's difficult to determine how many Africans died on board slave ships, it is now believed that between ten and twenty percent of those transported lost their lives.

3

In the 1790s Liverpool controlled 80% of the British slave trade and over 40% of the European slave trade.
One in five African captives crossing the ocean was carried in a Liverpool slave ship.
Liverpool's economy and the economies of neighbouring Lancashire and Yorkshire benefited. Ships bound for Africa would be laden with goods to appeal to African traders to make the outbound journey profitable.
Textiles from Lancashire and Yorkshire mills were the most attractive commodity and made up perhaps 50 per cent of the outbound cargo, alongside guns and knives, brass cooking pots, copperware, clay pipes, beer and liquor.



The Industrial Revolution

4

Slavery provided the raw material for industrial change and growth. The Industrial Revolution, which took place between 1750 - 1900, was a period of great change in Britain.
In 1778, James Watt and Matthew Boulton invented a steam engine that could efficiently power factory machinery.
Coal was burned to heat water to make steam. This led to a huge increase in the demand for coal. Factories were opened near to supplies of water and coal so they could power their machinery. Coal mines were opened in the north of England, the Midlands and south Wales. Steam-powered mills could produce more textiles quicker, so factory owners could look to sell their products to a wider market, both in Britain and abroad. This prompted improvements in transport. Roads, Railways and Canals all developed, linking together industrial towns and cities.

Key word	Definition
Exploration	A period of time when the European nations began exploring the world.
Expansion	Countries obtaining greater territory through military empire-building.
Culture	Culture is a pattern of behavior shared by a society, or group of people.
Colony	A colony is a country or area under the full or partial control of another country, typically a distant one, and occupied by settlers from that country.
Empire	A group of nations or peoples under one ruler or government.
Enslavement	The practice of people owning other people is called slavery. Enslaved people have to work for the owners, doing whatever the owners ask them to do.
Tyranny	An act or the pattern of harsh, cruel, and unfair control over other people.
Resistance	A movement fighting (for freedom, etc), often secretly or illegally, against an invader in an occupied country or against the country's government.
Protest	A public expression of objection, disapproval or dissent towards an idea or action, typically a political one.

6

In 1787, campaigners against slavery such as Thomas Clarkson and Granville Sharp founded the Society for the Abolition of the Slave Trade. In Parliament, the campaign was led by William Wilberforce. It was only after many failed attempts that, in 1807, the slave trade in the British Empire was abolished. However, slaves in the colonies (excluding areas ruled by the East India Company) were not freed until 1838 – and only after slave-owners, rather than the slaves themselves, received compensation.

5

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Year 8 Personal Development – Term 3: Growth Mindset

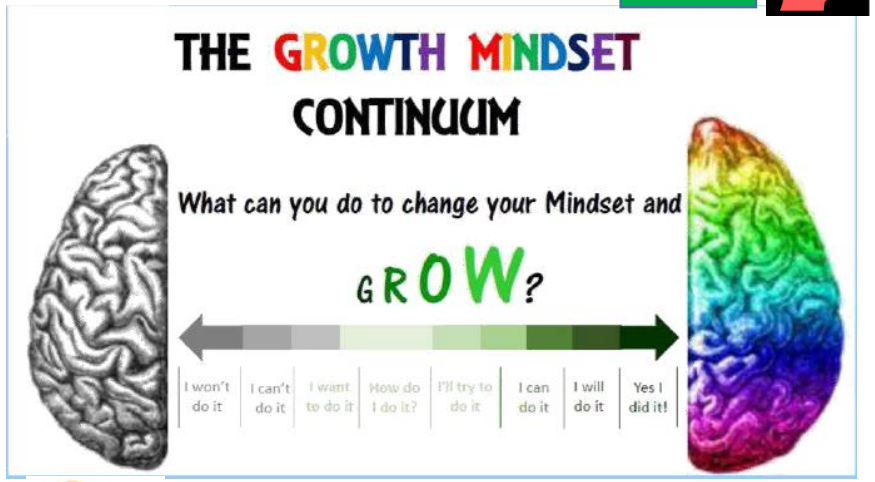
Your brain is like a muscle; the more you use it, the more it grows!

The only way is up!

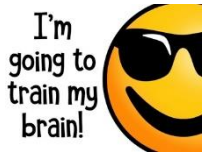
GRIT
Give it your all
Redo if necessary
Ignore giving up
Take time to do it right

Check this out for mental health awareness

WATCH NOW



From this website: https://belmontteach.wordpress.com/learning-hubs/challenge/



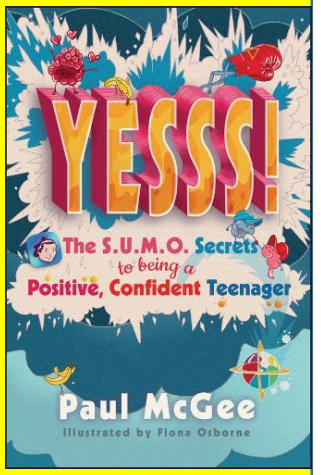
SUMO 4SCHOOLS FOUNDATION

Red Cap and Blue Cap Brain

Imagine your brain is split into two and that you have a red cap and a blue cap.

Red Cap (Primitive/emotional)	Blue Cap (Thinking)
• The part of the brain that keeps us alive. • It makes decisions quickly, without all the facts. • Impulsive. • Doesn't consider the consequences.	• Takes more time and effort to use. • Weighs up options. • Thinks about the consequences and other people's perspectives. • Aims to stop us from doing stupid things.

Think of a time when you have reacted quickly to something and you should have taken more time to think something through.



Some things to try:

- Think of a time when you gave up on something. What could you do differently if a similar thing happens in the future and write down a plan.
- When you learnt to walk or ride a bike, did you give up because you couldn't do it first time? Or did you carry on until you mastered it? Think of an example of how you could apply this to your school work and write it down.

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Year 8 Art – Term 3

These ancient pyramids can be seen in different parts of the world and were created by different cultures in different ages.

Tomb of Emperor Qin Shi Huang 218BC

Jebal Barkal in Sudan 1450BC

Pyramid-of-the –Sun-Teotihuacan – Aztec 100CE

Pyramid of Cestius – Rome 12-18BC

Your turn:

1. **Research Greek and Norse Mythology**. Find about the gods and fantastic animals and draw some of them.
2. Research patterns from different cultures, draw examples of these (Islamic, Native American Indian, Hindu, African, Celtic, Chinese, Japanese).
3. Find out about SACRED GEOMETRY. What is it? Where di it come from? Watch examples of how to draw it on YouTube and have a go at doing some.

Cultural Patterns

Here can be seen the similarities to be found within patterns from different cultures.

(1) African,
(2) Aztec,
(3) Celtic,
(4) Islamic.

1

2

3

4

Ekatherina Savtechenko's work draws from a multitude of different cultures, epochs, religions and subjects. Her work draws comparisons between the MACRO (big) and the MICRO (small).

She compares the similarities to be found in ancient architecture (see pyramids), Mythology, sacred geometry, and cultural patterns.
Her work is about what UNIFIES (brings together) rather than that which separates us.

Key words:
Ancient: Belonging to the past, no longer existing.
Mythology: stories belonging to a past culture.
Geometry: from ancient Greek means 'earth measurement'.

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Similarities in Circular Design across Times & Cultures.

Native American Indian Dream Catcher

Hindu sand mandala pattern

Ancient Greek mosaic tile design

Islamic Mosaic tile design

Similarities in Mythological Creatures Across Cultures.

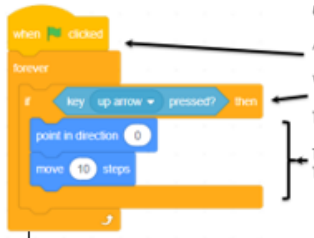
The winged cat (Sphinx) is found in ancient **Greek** and ancient **Egyptian** designs.

The **winged horse** can be seen in **Greek mythology (Pagasus)** and **Norse mythology**; the winged horses ridden by the **Valkyrie**.

Year 8 Computing – Term 3:

Programming Movement & Simulating Gravity

Key Controlled Movement - Below is an example of a script which will enable a sprite to move up the screen, when the up-arrow key is pressed:



Understanding the Scripts Block

After we click the green flag

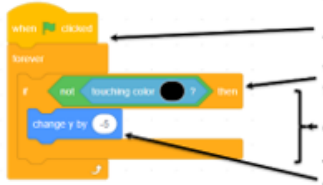
Whenever the up arrow is pressed

Two things happen repeatedly:

The character looks up
The character moves

Programming Gravity

To simulate gravity, we need to ensure that we have either part of a background, or sprites, which can act as the 'ground'. The ground will need to be a solid colour and we will need to apply logic so that the main character's y position reduces by a value, all the while it is not in contact with the colour of the background elements.



Understanding the Scripts Block

After we click the green flag

Whenever the sprite IS NOT touching black

One thing happen repeatedly:

The character's 'y' position reduces by 5

Programming a Shooter

Decomposing the Problem – *What needs to happen to create a shooter?*

1) We need a main character sprite & a bullet sprite, to shoot
2) We need our object to follow (attach to) the main character
3) When the cat is facing right, we want the bullet to shoot to the right when we press space
4) When the cat is facing left, we want the bullet to shoot to the left when we press space.

So, once we have drawn our main character and bullet sprites (point 1), we need to code a way to record whether the main character is facing left or right, so that the bullet can be fired in the correct direction. This is easily achieved by creating a variable and setting its value to 0 when the main character faces left, and 1 when facing right.

After we press the green flag

We check if the space is pressed

If it is and the direction is left (0), the bullet points to the left (-90), it is shown and it moves 10 steps.

This is repeated until the bullet hits the edge of the stage.

If the space is pressed and the direction is right (1), the bullet points to the right (90), it is shown and it moves 10 steps.

This is repeated until the bullet hits the edge of the stage.

If however, the space is not pressed, the bullet hides and stays permanently with the main character.

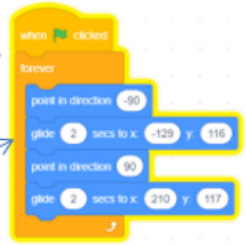
Then finally it is time to code the bullet sprite so that it is hidden behind the main character, until the space bar is pressed, at which point it will move in the same direction as the main character, until it touches the screen's edge.

Key Vocabulary

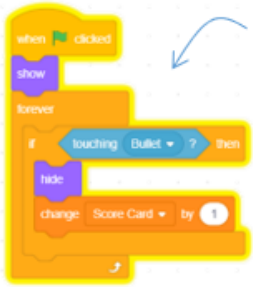
Key Word	*Definition*
Variable	'Storage box' used in programming to store data
Sprite	Programmable objects in Scratch
Scripts	Blocks of programming code in Scratch
Touching	When two sprites (objects) collide or come into contact
Broadcast Script	A script which can initiate (run) another block of code at various points of the program
Annotation	Labelling the features of your game / level (labelling your design – explaining each element in detail)
Success Criteria	What your game needs to have for it to be a success
Objectives	The aim / purpose of the game (or level)
Game elements	Each part or feature of your game
Graphics	The way things look in your game, sprites and backgrounds
Gameplay	How fun and / or challenging your game is to play
Coding	The way you have programmed your game using script blocks
Critical Feedback	Advice to improve your game (which may be hard to hear)
Peer Evaluation	Having your class mates look at your game and give you feedback on how you can improve your game
Evaluation	A systematic determination of the merit, worth and significance of something, using agreed criteria.

Baddies & Scoring

Once we have created some baddie sprites, we can code them to move automatically, using a forever loop and some glide blocks, along with appropriate start and finish coordinates.



Next, we might wish our baddies to hide when hit by a bullet, and for a score to increase.



This can be achieved by coding each baddy with the script on the left.
The way the script works is by making the baddy appear when the game begins, then a loop will constantly check to see if the baddy is hit by the bullet.
When it does touch the bullet, the baddy sprite will hide and the score will increase by one.
Obviously, for this to occur, you will need to have already made a 'Score Card' variable.

Progression, Levels and the Broadcast Block

One way to progress to a new level in a game is to switch to a different background, when an end of level item, such as a key, is collected.
To do this, at least two backdrops would need to be created, along with an end of level item sprite.
The logic that we need for this end of level sprite is for it to:
1. hide when the game begins
2. show when the we wish to progress to the next level, perhaps when a score (if a scoring system is programmed that is) reaches a particular number
3. hide and broadcast a message when touched by the main character sprite (so that the stage knows when to switch backgrounds)

Logic - Points 1 & 2

When the green flag is clicked (to start the game) the sprite is immediately set to 'hide'.

Then we create the logic for the sprite to constantly 'listen' out for when the score is equal to 10.

The moment the score does equal 10...

...the sprite will 'show'

Logic - Point 3

Now it's time to program how it interacts with the main player sprite.

This script, will constantly check to see if it has collided with (touched) the main player sprite.

The moment it does collide with (touch) the main player sprite, this script example will cause...

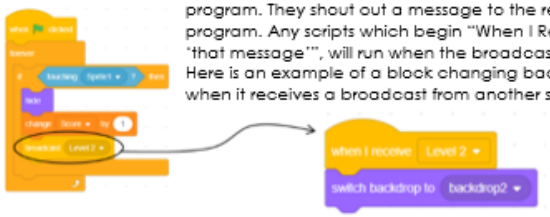
...the end of level sprite to hide...

...the score to increase by 1*...

...and the script to broadcast the message 'Level 2'.

Logic – Broadcasting to the Stage

This broadcast can be thought of as a person inside the program. They shout out a message to the rest of the program. Any scripts which begin "When I Receive 'that message'", will run when the broadcast is made. Here is an example of a block changing background when it receives a broadcast from another script.



Year 8 Design and Technology – Term 3: Electronics

Soldering Health and Safety

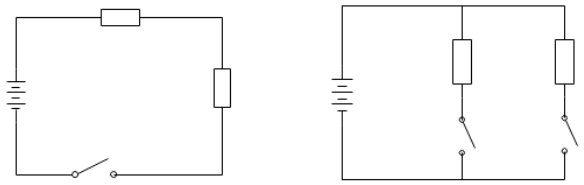
- The tip of the solder is hot
- ALWAYS follow instructions and rules.
- Do not take shortcuts.
- When you are not using the iron, return it the cradle.
- Tie back long hair.
- Do not flicker solder off the iron.
- Cut wires evenly.
- Wash your hands thoroughly after soldering.
- Always wear PPE, Safety googles for your eyes.
- Make sure the solder is done on the soldering mat.

Scan the QR code to watch a video about soldering.

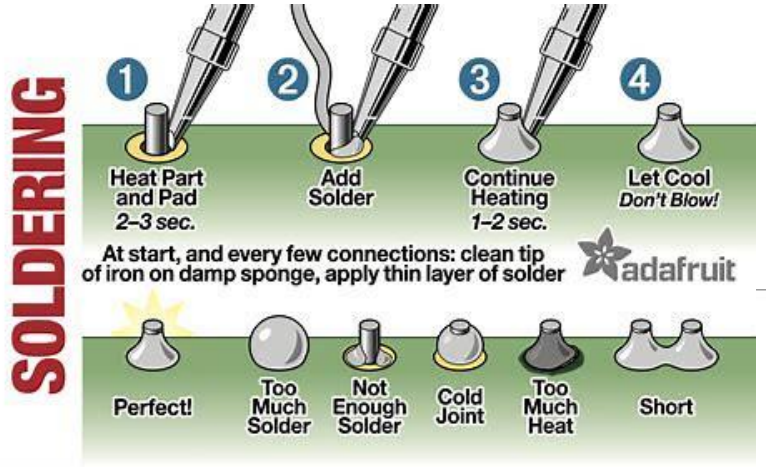
Key vocabulary	Definition
Parallel	Components are on different branches, if one breaks. The circuit keeps working.
Series	Components are on the same wire. If a component breaks, the circuit stops working.
Soldering	Soldering is a process of joining two or more metal pieces by melting and then filling the joint by a solder.
Voltage	Measurement of the electric potential or "pressure" at which electricity flows through a system.
Resistor	Restricts the flow of electrical current in a circuit.
Ohms	An electrical resistance between two points of a conductor when a constant potential difference of one volt.
Input/output	Input/output devices, as the name implies, are capable of delivering data (output) to and receiving data from a computer (input).
Components	The parts on a circuit, LED, batteries etc, are components.
LED	Light emitting diodes.
PCB	Printed Circuit Board, contained in all electronics

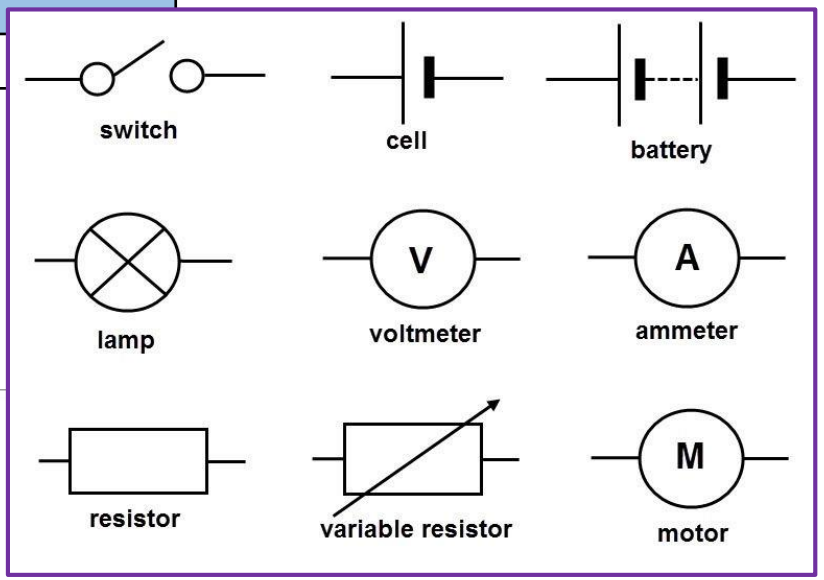
Electronics

Scan the QR code to watch a video about Electronics.



The types of Circuits





Year 8 Drama – Term 3: Live Theatre Responses

Key terminology	Definition
Describe	means to give a detailed account of something.
Analyse	means to examine something in detail to explain and interpret it.
Interpretation	means the actor's version of a performance, how they have understood and conveyed the role.
Vocal skills	What an actor does with their voice, the different ways they deliver lines.
Physical skills	How an actor holds themselves and uses their body on the stage.
Use of space	How an actor uses the stage space, moves and interacts with other actors or the set.
Upstage	The top of the stage, furthest from the audience.
Downstage	The front of the stage, closest to the audience.
Centre Stage	In the middle of the stage.
Contemporary	means something which is of the current time, or present day.
Evaluation	Using the evidence to make a judgement on how effective something was.
Energy	is one way of describing what an actor brings to their role.
Foreshadowing	is a dramatic technique when the action on stage gives a warning or prediction about what is to come.
Theatre review	to inform the reader of the quality of a production, giving some production details and facts and also the personal opinion of the reviewer.

Year 8 Food – Term 3: Tasty savoury and sweet bakes

Sensory evaluation

When you eat food you are judging the following characteristics:

- appearance
- taste
- smell - aroma
- texture - mouthfeel (how a food product feels in the mouth).

Sensory descriptors are used to describe foods.

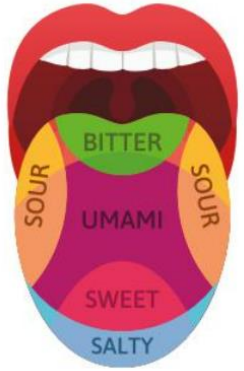
Appearance = colourful, golden, lumpy, shiny, slimy, risen, soggy.
Texture = chewy, crispy, crumbly, dry, gooey, greasy, sticky, tender.
Taste/smell = acidic, bitter, bland, creamy, fruity, meaty, salty, sour, tangy, undercooked.

Scan the QR codes to watch a video about sensory evaluation and complete your homework quiz.

SCAN TO WATCH

SCAN FOR QUIZ

Key vocabulary	Definition
Appearance	How a food looks, including its colour. A burnt food does not look appetising.
Aroma	The smell of a food, it is easier to smell hot food than cold food.
Comparison	Part of sensory testing where foods are compared for their flavour.
Digestion	The parts of the body where food is broken down to provide nutrients.
Enzymes	Made from proteins they help us to digest our food.
Insulation	Fat is a macronutrient that helps keep us warm, this is known as insulation.
Rolling pin	Equipment used to flatten pastry and dough.
Sensory analysis	Testing food samples by tasting, touching and visual methods.
Sodium	A mineral that controls the amount of water in the body.
Taste	One of the senses, there are five different tastes (see diagram).



Reducing salt/fat/sugar

Too much salt can lead to high blood pressure, this can lead to a strain on the heart and kidneys, which will affect how efficiently they work.
Too much fat can lead to weight gain, which can eventually lead to obesity. It can also lead to coronary heart disease and stroke.
Too much sugar can lead to weight gain and dental caries (tooth decay).

Scan the QR codes to watch a video about the Eatwell guide and foods high in fat, salt and sugar and complete your homework quiz.

SCAN TO WATCH

SCAN FOR QUIZ

Dough

A **dough** is a mixture of dry ingredients (such as flour) and liquid (such as water) that is mixed, kneaded, shaped and then baked.
Pastry is a mixture of flour, fat, and liquid, which is made into a dough. The fat and flour is rubbed together and liquid added. **Shortcrust** pastry does not rise, so it is used as a case to hold other ingredients. For example, jam tarts and quiche are made using shortcrust pastry.

Macronutrients

Macronutrients are needed in large amounts by the body.

Protein

Is needed for growth, repair, energy, maintenance (enzymes, hormones, antibodies).
Some people need more protein than others - children, pregnant women.
Made from amino acids.
Some amino acids have to come from food as your body cannot make them.

Carbohydrate

Is needed for energy (should supply 50% of the energy for the day).
Three groups of carbohydrates are
- Starch
- Sugar
- Dietary fibre.

Fibre is essential for a healthy digestive system.

Fat

Is needed for warmth, energy, protection, and providing fat soluble vitamins.
Fats may be:
- animal fats - butter, lard, suet, cream, hard cheese.
- vegetable fats - sunflower oil, olive oil, rapeseed oil, nuts.

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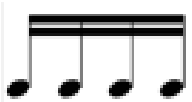
Year 8 Music – Term 3: Samba

Rhythmic Notation.

Note Symbol	Note Name	Note Value
	Minim	2 beats
	Semibreve	4 beats
	Crotchet	1 beat
	4 semiquavers	4 quarter beats (1 whole beat)
	Pair of quavers	2 half beats (one whole beat)
	Quaver	Half a beat

Keywords

Bateria	A Portuguese and Spanish word meaning drum kit. It is the term used to refer to the set of drums used in Samba music.
Apito	A whistle. It is used by the leader to signal transitions. These transitions could include changes in timbre or rhythmic pattern.
Call and response	One person plays (or sings) a musical phrase which is then responded to by a group. They may copy the call or perform a different phrase, like a musical conversation.
Polyrhythm	The use of several rhythms performed simultaneously, often overlapping to create a thick, polyrhythmic texture.
Syncopation	A way of changing a rhythm by making some notes sound a bit early, often so that they cross over the main beat of the music, emphasising the weak or off beats.
Cyclic rhythm	A rhythm which is repeated over and over again.
Ostinato	A rhythm that is played over and over again. A repeated pattern.
Groove	The main ostinato that is heard most of the way through a piece of samba music.
Rest	A silent beat
Pulse	A regular beat that is felt throughout much music
Rhythm	A series of notes of different lengths that create a pattern. Usually fits with a regular beat or pulse

History

Samba originated in Brazil in the 1800s

It is important to know that a big part of Brazil's history was the Slave Trade and that Samba originated from the culture and traditions of the African slaves living and working in the Brazilian sugar plantations at the time

The Samba style includes many layered, often syncopated, rhythms played on many percussion instruments .

The music follows a series of signals from a lead player. The signals are often played on a whistle called the **apito**.

The other players then respond.

As well as call and response, music may be played in **unison** and when all players are playing their individual **ostinatos**, this is called the groove.

Year 8 Physical Education – Term 3

Benefits of Exercise and Physical Activity

Physical Health	Emotional Health	Social Health
Cardiovascular Fitness: your ability to exercise your whole body for long periods of time, sometimes called stamina or aerobic endurance **Body Composition:** the percentage of body weight that is muscle, bone or fat **Muscular Strength:** the amount of force a muscle can exert against a resistance **Muscular Endurance:** the ability to use voluntary muscles many times without getting tired **Flexibility:** the total range of motion possible at a joint.	**Feeling Good:** doing exercise produces serotonin, a 'feel good' chemical in the body **Relieving Stress & Tension:** provide a distraction from the problems of daily life **Increasing Self Esteem & Confidence:** overcoming a challenge in sport gives a sense of achievement **Enjoyment:** most people who exercise and play sport do so because they enjoy it **Emotional/Psychological Challenge:** challenging yourself can boost your confidence **Aesthetic Appreciation:** enjoying something because it is pleasing to look at	**Cooperation:** working in groups helps to improve teamwork and communication **Developing Friendships & Social Mixing:** you get to know more people, make new friends and develop lasting friendships **Gaining a Good Attitude to Competing:** to compete well in sport you need to have a strong sense of self; and learn to respect your opponent

Health, Fitness and Wellbeing

Fitness: the ability to meet the demands of the environment

Wellbeing: being comfortable, healthy & happy so impacting on emotional/psychological health and happiness

Health: a complete state of physical, mental and social wellbeing, not merely the absence of disease or infirmity.

Year 8 Spanish – Term 3

De vacaciones

De vacaciones (On holiday)	
¿Adónde fuiste de vacaciones?	Where did you go on holiday?
el año pasado	last year
el verano pasado	last summer
Fui a…	I went to…
Escocia	Scotland
España	Spain
Francia	France
Gales	Wales
Grecia	Greece
Inglaterra	England
Irlanda	Ireland
Italia	Italy
¿Con quién fuiste?	Who did you go with?
Fui con…	I went with…
mis amigos/as	my friends
mi clase	my class
mi familia	my family
mis padres	my parents
¿Cómo fuiste?	How did you get there?
Fui/Fuimos en…	I/We went by…
autocar	coach
avión	plane
barco	boat/ferry
coche	car
tren	train
No fui de vacaciones	I didn't go on holiday

¿Cómo te fue? (How was it?)	
Fue divertido	It was fun/funny
Fue estupendo	It was brilliant
Fue fenomenal	It was fantastic
Fue flipante	It was awesome
Fue genial	It was great
Fue guay	It was cool
Fue regular	It was OK
Fue un desastre	It was a disaster
Fue horrible	It was horrible
Fue horroroso	It was terrible
Fue raro	It was weird
Me gustó	I liked (it)
Me encantó	I loved (it)
¿Por qué?	Why?
porque	because
Hizo buen tiempo	The weather was good
Comí algo malo y vomité	I ate something bad and vomited
Llovió	It rained
Perdí mi pasaporte/ mi móvil	I lost my passport/ my mobile

Exclamaciones (Exclamations)	
¡Qué bien!	How great!
¡Qué bonito!	How nice!
¡Qué divertido!	What fun!/ How funny!
¡Qué guay!	How cool!
¡Qué rico!	How delicious/ How tasty!
¡Qué suerte!	What luck/ How lucky!
¡Qué rollo!	How annoying!
¡Qué horror!	How dreadful!
¡Qué lástima!	What a shame!
¡Qué mal!	How bad!
¡Qué aburrido!	How boring!

¿Cuándo? (When?)	
luego	then
más tarde	later
después	afterwards
el primer día	(on) the first day
el último día	(on) the last day
otro día	another day
por la mañana	in the morning
por la tarde	in the afternoon

¿Qué hiciste? (What did you do?)	
¿Qué hiciste en tus vacaciones de verano?	What did you do on your summer holiday?
Bailé	I danced
Compré una camiseta	I bought a T-shirt
Descansé en la playa	I relaxed on the beach
Mandé SMS	I sent texts
Monté en bicicleta	I rode my bike
Nadé en el mar	I swam in the sea
Saqué fotos	I took photos
Tomé el sol	I sunbathed
Visité monumentos	I visited monuments
No nadé en el mar	I didn't swim in the sea
El ultimo día de tus vacaciones, ¿qué hiciste?	What did you go on the last day of your holiday?
Bebí una limonada	I drank a lemonade
Comí paella	I ate paella
Conocí a un chico guapo	I met a good-looking boy
Conocí a una chica guapa	I met a good-looking girl
Escribí SMS	I wrote texts
Salí con mi hermano/a	I went out with my brother/sister
Vi un castillo interesante	I saw an interesting castle

Notes

Notes

Notes

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