Hartford
Church of England
High School

CARITAS ET VERITAS

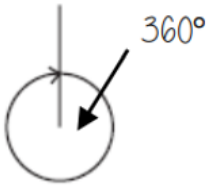
Year 7

Knowledge Organiser

Contents

Maths

Sum of angles at a point

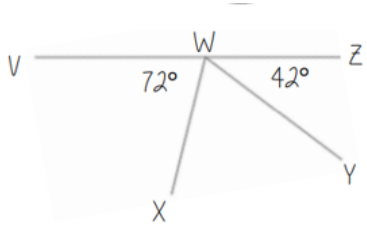


The sum of angles around a point is 360°

Sum of angles on a straight line

Adjacent angles that share a common point on a line add up to 180°

Sum of angles in triangles



Sum of interior angles in a triangle = 180°

Vertically opposite angles

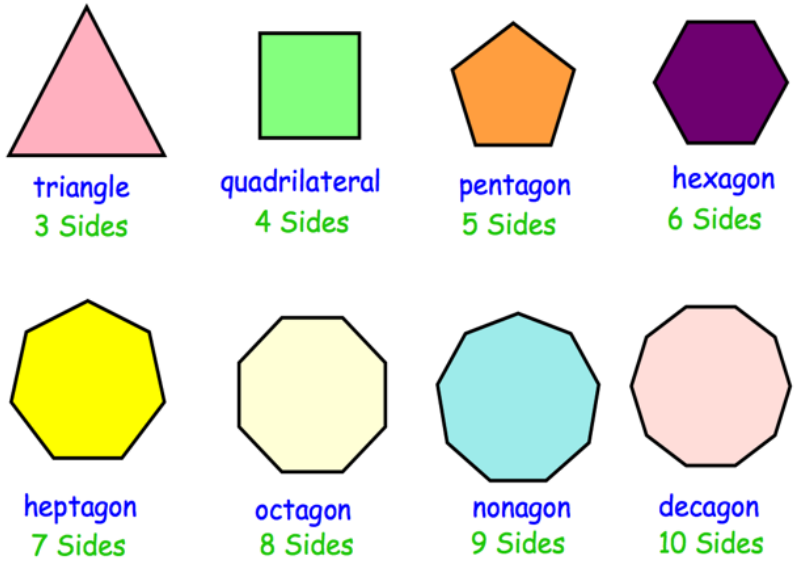
Vertically opposite angles are the same

Sum of angles in quadrilaterals

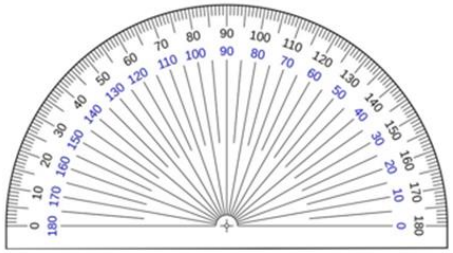
Sum of interior angles in a quadrilateral = 360°

Names of 2D Shapes

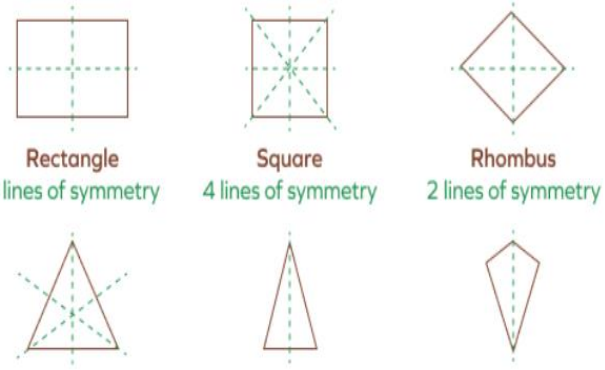
Corbett maths



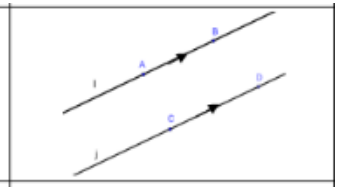
Using a protractor – always measure from zero.



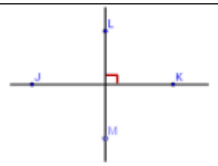
Lines of Symmetry



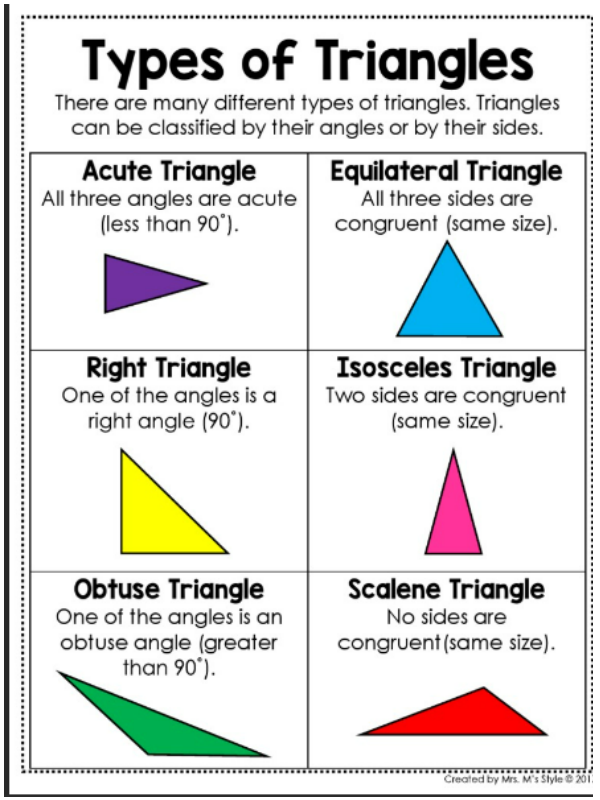
Parallel lines never cross and stay the same distance apart. They are coplanar. They have 0 points in common.



Perpendicular lines intersect at right angles. They have one point in common.



The order of rotational symmetry is that an object has the number of times that it fits on to itself during a full rotation of 360 degrees.




English

English - A Midsummer Night's Dream

Characters

Theseus
The duke of Athens. He is a strong and strict ruler of the city.

Hippolyta
Theseus's bride. She was a fearless warrior.

Egeus
Hermia's stubborn father who wants her to marry Demetrius or be put to death.

Hermia
Egeus's daughter who is in love with Lysander.

Lysander
He is in love with Hermia and runs away to the forest with her.

Demetrius
He wants to marry Hermia and is disgusted by Helena's love for him.

Helena
Hermia's friend who is desperately in love with Demetrius.

Oberon
The king of the fairies who controls the love potion.

Titania
The fierce queen of the fairies who falls in love with Bottom when the love potion is put on her.

Bottom
A weaver and actor who has his head turned into a donkey. Titania falls in love with him when she is under the love potion's influence.

Puck
Oberon's mischievous servant who puts the potion on people's eyes

The Love Potion

The love potion is made from a flower in the forest. The flower is magical because Cupid hit it with his arrow when he was aiming at a young girl. When the potion is put on characters' eyes, they fall in love with the first person they see. It is very powerful.

Plot Summary

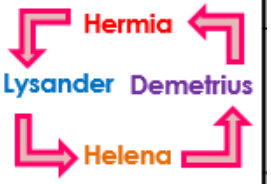
Act 1: **Hermia** and **Lysander** love each other but are not allowed to marry so decide to run away to the forest to get married in secret. **Demetrius** wants to marry **Hermia**. **Helena** loves **Demetrius**. They follow **Hermia** and **Lysander** into the forest.

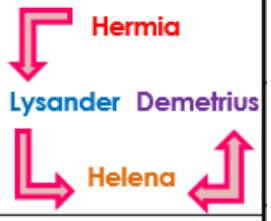
Act 2: In the forest, Oberon and Titania are arguing. Oberon sees **Demetrius** and **Helena** arguing and commands Puck to use the potion on the Athenian man to make him fall in love with **Helena**. However, the first Athenian man Puck sees is **Lysander**, so he puts the love potion on him. **Lysander** falls madly in love with **Helena**.

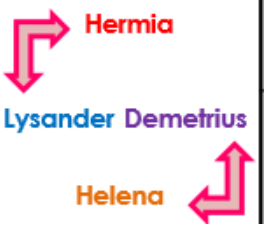
Act 3: Puck sees Bottom in the forest and transformed his head into a donkey's head. He puts the love potion on Titania, who falls in love with Bottom. Puck puts the love potion on **Demetrius** so that he falls in love with **Helena**. As a result, both men love **Helena** so there is chaos. Puck eventually drops a herb in **Lysander's** eyes to put him back to normal.

Acts 4 and 5: Oberon finds Titania and Bottom and decides that he has had enough fun. Puck drops a herb in her eyes, she wakes and leaves with Oberon. The lovers return to Athens where Bottom and the other actors perform their play at the wedding of the three happy couples: Egeus and Hippolyta, **Lysander** and **Hermia** and **Demetrius** and **Helena**.

Who loves Whom







Background Information

Shakespeare went to a grammar school where he was taught Ancient Greek.

The play is set in Ancient Greece and follows the rules of a comedy from Ancient Greece.

When the play was written, Elizabeth 1st was Queen. She decided not to get married which many people disagreed with.

By William Shakespeare

Many Elizabethans believed in and feared magic.

Cupid is the ancient god of love. He is usually presented as a baby whose arrows make people fall in love.

Key words

soliloquy - a speech in a play that the character speaks to himself or herself or to the audience, rather than to the other characters

severe – very strict or harsh

conflict – a serious disagreement, battle or struggle between two sides or ideas.

unrequited love – If a person loves someone who doesn't love them back, the person's love is unrequited

to mock – To mock someone is to make fun of them

chaos – a situation where there is no order and everyone is confused

to resolve – to solve a problem or difficulty

Science

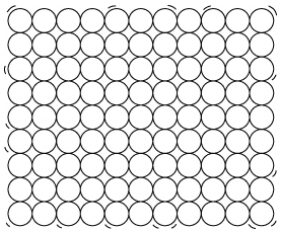
Science: 7G

The particle theory

A **scientific method** describes how scientists try to explain the world around them. It usually starts with some observations, which generate a question. Scientists may then follow a series of unbiased steps to answer the questions. These steps could include the following:

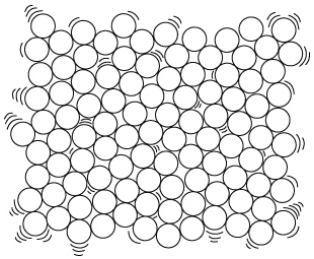
- thinking up an idea or using existing ideas that would explain the observations. These ideas are called **hypotheses**.
- using the hypothesis to make a **prediction** about the hypothesis.
- testing the prediction by experiment, and collecting data.
- checking the **data** to see if it matches the prediction.
- using the data as **evidence** to support the hypothesis (or prove it is wrong).
- forming a **theory** if the hypotheses have been tested many times and shown, by the evidence, to be correct. The **particle theory** is an example.

The different **properties** of solids, liquids and gases can be explained by the **particle theory** (or **particle model**). Solids, liquids and gases (the three **states of matter**) need to be handled and stored differently because of these different properties.



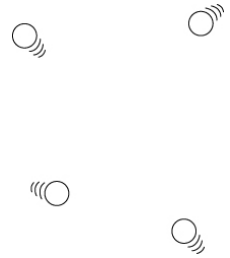
Solids

- Solids are made up of particles that are very close together. (Strong forces of attraction hold the particles together.)
- The particles in solids vibrate in fixed positions.
- The shape and volume of solids do not change.
- Solids cannot be squashed and do not flow.



Liquids

- Liquids are made up of particles that are fairly close together. (Quite strong forces of attraction hold the particles together.)
- The particles in liquids are able to move past each other.
- Liquids have a fixed volumes but their shape can change to fit the container as they flow easily.
- Liquids cannot be easily compressed (squashed).



Gases

- Gases are made up of particles that are well spread out. (There are only weak forces of attraction between the particles.)
- The particles in gases move about freely in all directions.
- The shape and the volume of gases can change as they flow very easily and spread out.
- Gases can be compressed (squashed) quite easily.

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Science: 7G

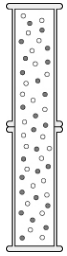
Brownian motion

When pollen grains in water are observed through a microscope they are seen to move jerkily in different directions. This is called **Brownian motion**. It is caused by water particles, which are moving all the time, hitting the pollen grains. The pollen grains are small enough so that when many water particles hit one side of the grain, the grain is moved in that direction.

Brownian motion provides evidence to support particle theory.

Diffusion

Diffusion is said to have occurred when chemicals mix together without anything moving them. Diffusion occurs because particles in a substance are always moving around. Diffusion is fastest in gases, and slower in liquids.



Dilution

When you add water to orange squash you dilute it. The colour becomes paler because the orange coloured squash particles are spread out more among the water particles.

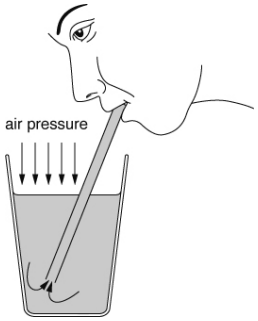
Pressure in gases

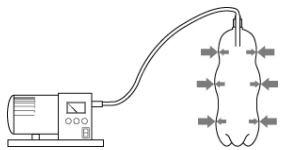
Pressure is caused by particles hitting the walls of the container they are in. The pressure may increase because:

- the container has been squashed, making the volume smaller so that the particles will be hitting the walls more often.
- the number of particles has been increased, so that there are more particles moving around to hit the walls.

If the particles are in a flexible container, like a balloon, an increase in pressure inside the container can make the volume increase. If the pressure becomes too great, the balloon will burst.

Air pressure is the pressure caused by air particles around us. Air pressure lets us suck things up using a straw and also causes a container to collapse if the air is sucked out. If all the air is sucked out of a container, you get a **vacuum** – nothingness.





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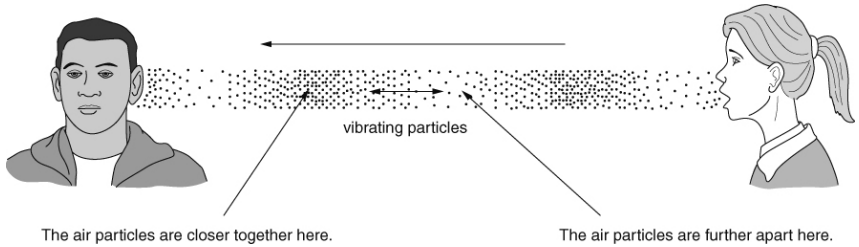
Science: 7L

Sound vibrations and waves

Sound is a way of transferring **energy**. Sounds are made when things **vibrate**. The vibrations are passed on by **particles**. Sound therefore needs a **medium** (substance) to pass on the vibrations, so it can travel through solids, liquids and gases but not through empty space.



The speed of sound is usually faster through materials in which particles are closer together. Closer particles hit each other more easily and so the energy is more likely to be passed from one particle to the next. Sound travels faster in solids than in liquids, and it travels slowest in gases.

Frequency and amplitude

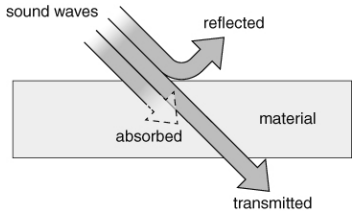
The **frequency** of a sound wave is the number of complete waves passing a point each second. The unit of frequency is the **hertz** (**Hz**). **Pitch** is how high or low a sound is. High frequency sounds have a high pitch.

The **amplitude** of a wave is how far the particles move as the vibrations pass. The larger the amplitude, the louder the sound. The loudness of a sound is also described as the **volume** or the **intensity** of the sound.

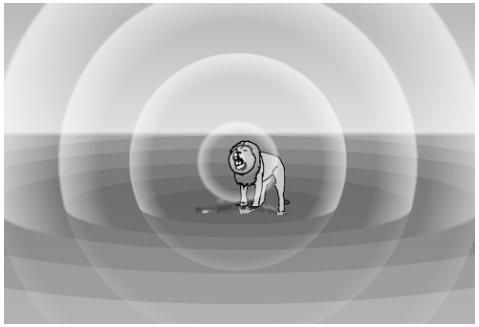
The loudness of a sound is measured using a **sound intensity meter**. The units are **decibels** (**dB**).

Absorbing, reflecting and transmitting

Sound waves can be **reflected** by a material. This usually happens if the material is hard. Soft materials **absorb** some of the sound that reaches them, and **transmit** only a little.



When a sound wave moves energy from one place to another, we say that the energy has been **transferred**. The energy spreads out in all directions because the particles move in all directions unless something stops them. This means that the intensity of a sound gets less as you get further from its source.



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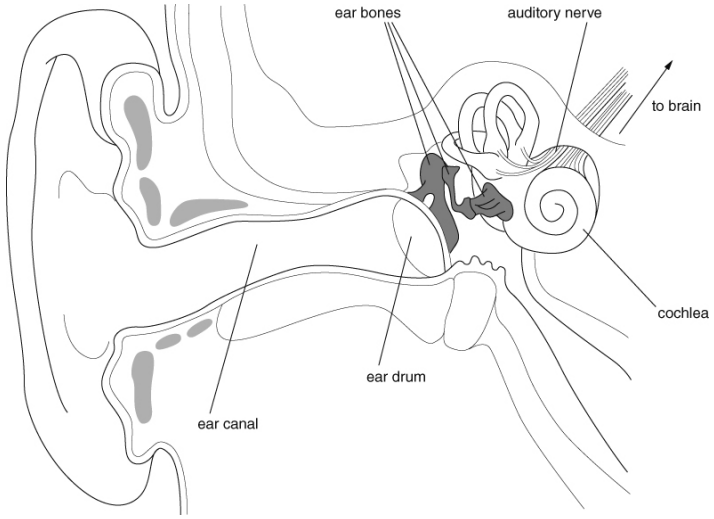
Science: 7L

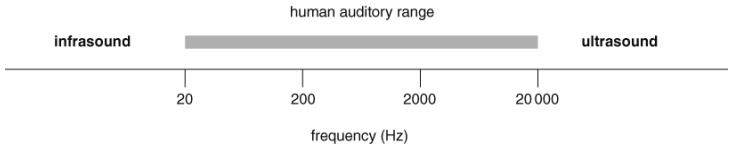
Ears and hearing

Sound is detected by ears and microphones. In a **microphone**, sound waves make a **diaphragm** vibrate, and electronics are used to convert the vibrations into changes in an electrical current.

Ears work in a similar way. Sound waves make the **eardrum** vibrate. The vibrations are passed on by three small **ear bones**, which also **amplify** the vibrations (make them bigger). The vibrations pass on to the liquid inside the **cochlea**, where tiny hairs detect them and send **impulses** along the **auditory nerve** to the brain.



The **auditory range** of an animal is the range of frequencies of sound it can hear. Animals such as bats and dolphins can hear ultrasounds (sounds with frequencies greater than 20 000 Hz). Some animals can hear infrasounds (frequencies less than 20 Hz).



Uses of sound

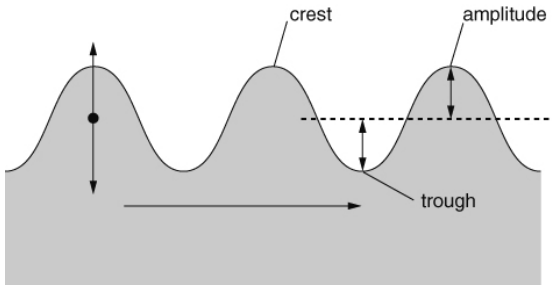
- Humans and other animals use sound for communication.
- Some animals, such as bats and dolphins, use ultrasound to locate prey and avoid obstacles.
- Humans use ultrasound in sonar, to find the depth of the sea or locate fish or submarines.
- Humans use the energy transferred by ultrasound to clean delicate objects (such as jewellery) or in physiotherapy (to relieve pain or aid healing).

Science: 7L

Comparing waves

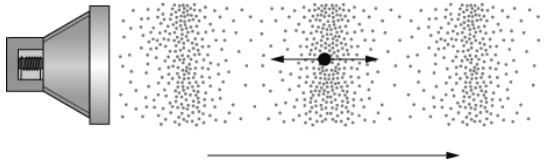
Transverse waves

- waves on the surface of water
- particles vibrate at right angles to direction wave is travelling



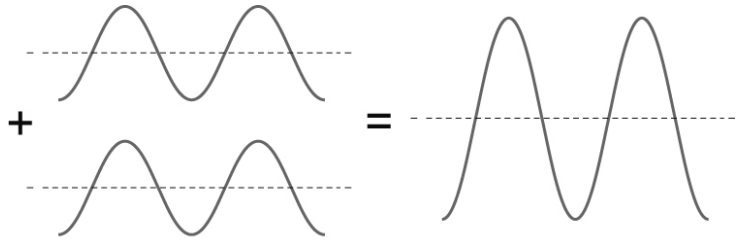
Longitudinal waves

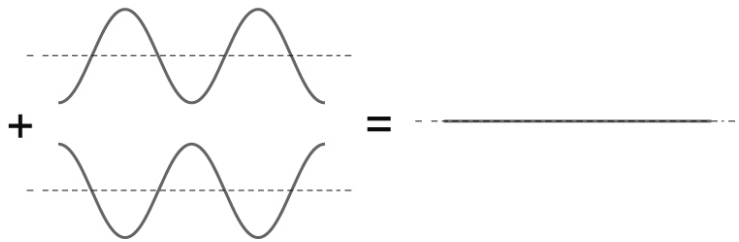
- sound waves
- particles vibrate in same direction as wave travels



All waves

- transfer energy without transferring matter
- can be reflected, transmitted and absorbed
- can affect other waves by **superposition**, when their effects can add up or cancel out.



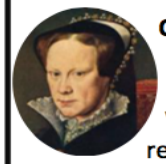


History

History - Elizabethan England

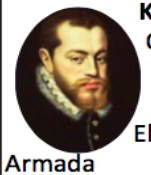
Elizabeth I

Henry VIII- Father of Elizabeth. Began the Tudor period of religious turmoil by breaking from Rome.



Queen Mary I – Following the protestant reigns of Henry VIII and Edward VI, Mary sought to return England to Catholicism. Over 200 religious dissenters were burnt at the stake, leading to her being nick-named '**Bloody Mary**' by protestants

Queen Mary of Scots- Catholic Queen of Scotland considered by many English Catholics as the rightful heir to the English throne. Several plots to replace Elizabeth with her failed. Eventually executed by Elizabeth I.



King Philip of Spain- Catholic. A one-time suitor of Elizabeth, he went to war with Elizabeth with the Spanish Armada

Sir Francis Drake- Best known for his role in the defeat of the Spanish Armada. Also a 'privateer' (pirate) Explorer and slave trader.

Tudor Religious Turmoil

King Henry VIII- broke from Rome & the Catholic Church

Edward VI- Protestant. Persecution of Catholics.

Queen Mary- Catholic. Persecution of Protestants

Elizabeth I- Protestant

Catholicism

- Pope the head of Church.
- Bible & church services held in Latin.
- Mass an important ritual. Catholics believed in transubstantiation- that the bread and wine became Jesus' body
- Churches often elaborately decorated & priests wore vestments (ceremonial clothing)

Protestantism

- Luther, a German Monk, brought widespread change to Europe, leading to a new form of Christianity.
- Henry VIII broke from Rome, positioning himself as head of the English church. (largely because he needed to divorce Catherine of Aragon to have a male heir)
- Protestant churches believed the bible should be taught in the vernacular (local language) not latin.
- Did not believe in transubstantiation

Religious Settlement

Elizabeth needed to unite Protestants and Catholics. She aimed to avoid the religious extremism of previous monarchs and create a '**middle way**' between the two.

Act of Supremacy: made Elizabeth 'Supreme Governor' of the Church Of England. Denying her position was considered treason.

Act of uniformity: Protestantism made the official religion, fines introduced for recusants (those refusing to attend church) but aspects of Catholic worship preserved in churches (e.g. Holy Communion & priests wearing of vestments) and aspects of Catholicism preserved in **the book of common prayer**

What were the causes of the Spanish Armada?

- Execution of Catholic Queen Mary of Scots in 1587 +
- Francis Drake's raid on Cadiz
- Philip's desire to restore Catholicism to England. Pressure on Philip from Pope to act. +
- English raids by privateers (Sir Francis Drake) on Spanish shipping in the New World (South America)
- Elizabeth's military support of Protestants in Netherlands and France (Huguenots) a threat to Catholic Spain and France. +

Key dates

1533- Born

1558- Becomes Queen

1559- Act of Supremacy and Uniformity passed

1587- Execution of Mary Queen of the Scots

1588- Spanish Armada defeated

1601- The Golden Speech

1603- Death

History - Elizabethan England

Elizabeth I- A golden Age?

Trade and Exploration

Sir Francis Drake Circumnavigated the world 1577-1580. Many new lands 'discovered'. And gold, and other precious commodities traded

Sir Francis Drake completed some of the earliest slaving trips, selling slaves to the Spanish in the New World. First attempts at establishing colonies in America failed. Privateers were motivated by wealth and Queen had little control over them

Poverty

Introduction of **Elizabethan Poor Laws in 1601**: the Rich were taxed in order to provide for the 'deserving poor'. These laws were largely unchanged until the 1834 Poor Laws.

Widescale shift from arable to sheep farming saw increase in unemployed. The Monasteries, which had traditionally helped the poor, were closed during the 1530s. Many harsh punishments for 'vagabonds'. Life did not improve for most people.

Education & The Arts

Shakespeare was writing during Elizabeth's reign. A boom in theatre: The Globe opened in 1599

The **peace and stability** brought to England following years of upheaval allowed the arts to flourish, and Elizabeth was a significant **patron of the arts**.

Foreign Relations

Seminal victory of 1588 against Spanish Armada, beginning of the English Navy's ascendancy; establishment of the East India Company, and networks that formed the basis of an English Empire; First colony of Roanoke in Virginia (named after the Queen) English power maintained by Elizabeth's refusal to marry a foreign prince.

The Spanish Armada

1560- English Privateers capture Spanish ships

1567- Spain invades the Netherlands. England allies with the Dutch.

1585- King Philip commissions ships for the Spanish Armada.

1587 February- Catholic Queen Mary of Scots executed by Elizabeth I.

1587 April- Sir Francis Drake raids Cadiz (Spain) destroying or capturing over 100 ships.

1588- Spanish Armada sets sail for England, despite being weakened by 1587 attack on Cadiz.

July 20-27 Spanish sail up Channel. Sporadic attacks by English, but crescent formation of Spanish makes them unsuccessful

July 27th English attack Spanish fleet anchored at Calais using fireships. Spanish cut anchors to flee.

July 28th Battle of Gravelines. English prevent Spanish from landing.

Spanish fleet forced to sail North, around Scotland and Ireland. Many Spanish ships destroyed by storms. Cemented Elizabeth's reputation as a powerful leader.

Despite the defeat, Spanish Empire continued to grow in influence for the next 100 years.


Geography

Geography - Coastal Management

Key words:
Hard engineering
Soft engineering
Groynes
Sea wall
Rip rap
Revetments
Sand dunes
Beach nourishment
Gabions
Managed retreat

Hard engineering involves building a man made structure to try and prevent erosion at the coast.

Soft engineering involves working with nature to protect the coast.

Groynes can be wood or concrete. They stop longshore drift and create a wide beach. This slows down waves and reduces erosion

Beach nourishment involves adding more sand to the beach to make it wider and reduce erosion

Sea walls are usually built of concrete and have a curved top. They send destructive waves back out to sea and help to reduce erosion

Sand dune regeneration involves planting marram grass so the long roots trap the sand and fencing off areas to protect them from the public,. They act as a natural sea wall

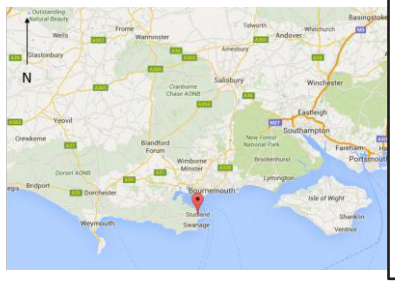
Rip rap or **rock armour** involves placing large boulders at the back of the beach to break the waves and reduce erosion

Gabions are cages with stones in. They act to break the energy of the waves and reduce erosion

	Groynes	Sea wall	Rip rap	Gabions
Positive	Cheap. Widens the beach good to reduce erosion and increase tourism	Can provide a promenade (walk way). Lasts quite a long time	Cheap. Acts as a good barrier to reduce erosion	Cheap version of a sea wall so reduces erosion
Negative	Causes problems further down the coast	Expensive. Can reduce access to the beach.	Unsightly Could be hazardous	Unsightly. Cage can rust.

	Beach nourishment	Sand dune regeneration
Positive	Makes a wide beach which reduces the risk of erosion and makes a wide beach for tourists	Cheap, works with nature and creates a natural sea wall. Creates new habitats at the coast
Negative	Can be expensive. Can damage the sea floor ecosystem. Sand is still removed by longshore drift so it has to be repeated	Storm waves can remove the sand. Tourists trampling on the dunes damages them. While its happening parts of the beach have no access

Geography - Map Skills and Conflict at the Coast

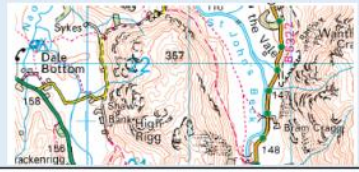


Studland Bay is on the South coast in the county of **Dorset**. It is a very popular tourist destination

CONTOURS

These are lines drawn on a map that join places of the same height

- On OS maps they are orange/brown
- Some will have their heights written on them—some you will have to work out
- They are always an EQUAL distance apart
- If the lines are CLOSE together the land is steep
- If the lines are FAR apart the land is flat or very gently



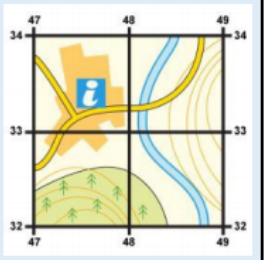
FOUR AND SIX FIGURE GRID REFERENCES

Maps have grid lines on them—we use them to pinpoint locations by using grid reference. A four-figure grid reference is a handy way of identifying any square on a map, six-figure grid references are best for giving exact locations. Grid references are easy, as long as you remember that you always go along the corridor before you go up the stairs.

Step 1: Go along the bottom of the map until you reach the easting which forms

Step 2: Then, go up the side of the map until you reach the northing that forms the bottom side of the square your trying to locate e.g. 33

Step 3: Now put your two answers together e.g. 47 33. There is no need to add brackets, commas, dashes etc.



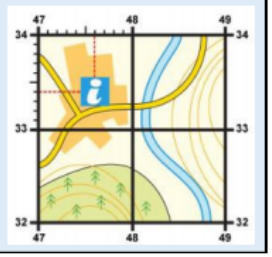
SIX FIGURE GRID REFERENCES...

To pinpoint an exact place on a map, such as a church or farm building, then you will need to use a six-figure grid reference.

Step 1: Find the four-figure reference.

Step 2: Imagine this square is divided up into 100 tiny squares, 10 along the bottom and 10 up the side.

Step 3: Still remembering to go along the corridor and then up the stairs, estimate how far across and then up the square the feature is. 476 334



The Dartford Warbler

The Spiny Seahorse

There is conflict at the coast here at Studland Bay. **People who want to walk their dogs** may be in conflict with the **bird watchers** where the dogs may disturb birds like the Dartford Warbler. The **boat owners** may be in conflict with the **conservationists** where the anchors may damage the habitat of the Spiny Seahorse. The **tourists** may be in conflict with the **students** who may leave litter behind on the beach. The management of the coast also involves making sure that all the user's are considerate of each other.


Religious
Studies

Hartford Church of England High School

Religious Studies

CHRISTIANITY KNOWLEDGE ORGANISER

Overview

Christianity is one of the world's major religions. It is the **world's largest religion**, with about 2.4 billion followers.

Christians (like Jews and Muslims) believe in one **God,** who created the world and all that is in it.

Christians believe in the teachings of **Jesus Christ**, who was a middle-eastern preacher and healer who lived around 2,000 years ago.

Christians believe that Jesus Christ was sent down to earth to save people, by taking their punishment and dying on the cross.

The holy book in Christianity is called **the Bible. A church** is a building designed for Christian worship.

An artist's image of Jesus Christ giving the 'sermon on the mount.'

Christian Beliefs

God's Creation

-Christians believe that God created the Earth and everything in it in 6 days, resting on the 7th.

-The story of creation tells Christians that at first everything was dark, until God intervened and created matter.

-Details about this are found in the Bible in Genesis 1 and 2.

The Holy Trinity

-Christians believe that God can be seen in three ways, known as the Holy Trinity:

-The Father – Creator of the world;
-The Son – Who came to Earth as Jesus;
-The Holy Spirit – God's power within Christians.

The Ten Commandments

-In the Bible, ten 'commandments' are shared, which Christians should aim to live their lives by:

1.You shall have no other Gods but me. 2. You shall not make for yourself any idol. 3. You shall not misuse the name of the Lord your God. 4. You shall remember and keep the Sabbath day holy. 5. Respect your father and mother. 6. You must not commit murder. 7. You must not commit adultery. 8. You must not steal. 9.You must not give false evidence against your neighbour. 10. You must not be envious of your neighbour's goods.

The Life of Jesus Christ

- Christians believe that Jesus was the son of God. He was born to ordinary parents, Mary and Joseph, in Bethlehem. Christians celebrate the birth of Jesus on 25th December – Christmas Day.

-Jesus travelled around, teaching people about God and helping the sick. He chose 12 men to travel with him. They were his special companions and are known as the disciples.

-Jesus was sentenced to death for calling himself the son of God. He had a final meal with his disciples (known as 'The Last Supper') before being crucified. He is said to have died for the sins of man.

Answers to Important Questions and Key Vocabulary

Where do Christians worship God?		-Christians can pray in any place, but the most common location is in a purpose-built building called a church. Churches can be very different – old, new, plain or highly decorated. Often, the floor plans of churches are shaped in a cross. -Church services often include hymns, prayers, and readings from the Bible. -Common church features include altar tables, lecturns, pulpits, fonts and stained glass windows.	**Key Vocabulary** God Jesus Bible Cross/ Crucifix Commandments Holy Trinity Catholic Protestant Orthodox Disciples Saint Church
What is the Bible?		The Bible is the holy book of Christians. It contains the Old and New Testaments. The Old Testament is similar to the Jewish Bible and was written before Jesus' birth. The New Testament contains stories about Jesus, written by those who knew him.	
How do Christians believe that people should live their lives?		-Christians believe that people should be compassionate to one another, and show respect to God, themselves and one another. -Christians believe that praying to God helps them to say sorry for the things that they have done wrong, and thank them for the blessings given to them. -Christians believe that God wants them to carry on the good work that Jesus did in the world.	
How many different types of Christians are there?		-There are many different denominations (types) of Christians. All Christians were once Catholics, but other groups branched off many years ago. -The biggest Christian denomination is still Catholicism. To Catholics, the Pope is Christ's representative on earth. Other major groups include Protestants (including Anglican/ Church of England faiths) and Orthodox.	

Top 10 Facts!

1. Christians believe that God is everywhere and sees and knows everything.
2. About 1/3 of the world's population are Christian.
3. The word Christ comes from the Greek word meaning Messiah – God's chosen one.
4. Although Christmas is celebrated on December 25th, no one knows exactly what date Jesus was born on.
5. Sunday is the holiest day in Christianity – many people meet to worship on Sunday.
6. There is very little written about Jesus before the age of about 30, when he began preaching
7. Jesus knew that he was going to be betrayed, and that he would die. He tried to warn his disciples of this at the Last Supper.
8. Jesus was buried in a tomb, but the tomb was found later. He then appeared to the disciples.
9. Jesus eventually went back up to heaven to be with God – this is called the ascension.
10. The cross is the symbol of Christianity – a reminder that Jesus was crucified.

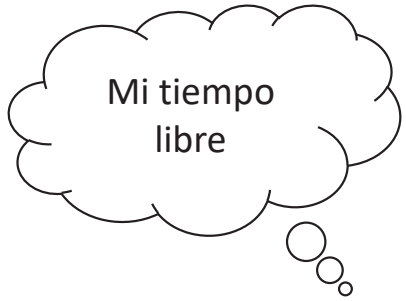
Christianity Timeline

Beginning of time: God creates the world and everything in it.	Around 0 AD: Jesus is born in Bethlehem.	c.28AD: Jesus begins healing and preaching. He chooses 12 disciples.	c.30AD: Jesus feeds 5,000 with 5 loaves of bread and 2 fish!	c.33AD: Jesus holds the Last Supper. He is double-crossed by Judas.	c.33AD: Jesus is executed on the cross and then resurrects days later.	c.40AD: Church of Jerusalem – first Christian church – is founded.	c.1057AD: Orthodox Church breaks from Catholicism.	c.1534AD: Henry VIII forms the Church of England.


Spanish

Hartford Church of England High School

Spanish



Actividades (activities)	
Navegar por internet	Surf the internet
Chatear por teléfono	Chat on the phone
Escuchar música	Listen to music
Jugar a los videojuegos	Play videogames
Mandar mensajes (SMS)	Send messages (texts)
Ver la televisión	Watch TV
Escribir correos	Write emails
Salir con mis amigos	Go out with friends
Cantar karaoke	Sing karaoke
Tocar la guitarra	Play guitar
Bailar en la feria	Dance at the fair
Ir al cine	Go to the cinema
Hacer los deportes	Do sports
Montar en bici	Ride my bike
Nadar en la piscina	Swim in the pool

Deportes (sports)	
Juego al ...	I play ...
Baloncesto	Basketball
Fútbol	Football
Tenis	Tennis
Voleibol	Volleyball
Rugby	Rugby
Golf	Golf
Ajedrez	Chess
Hockey	Hockey
Béisbol	Baseball
Críquet	Cricket
Bádminton	Badminton
Hago ...	I do ...
Atletismo	Athletics
Artes marciales	Martial Arts
Gimnasia	Gymnastics
Ciclismo	Cycling
Equitación	Horse Riding
Natación	Swimming
Escalada	Rock climbing
Boxeo	Boxing
Esquí	Skiing

El tiempo (weather types)	
Cuando ...	When ...
Hace sol	It is sunny
Hace frío	It is cold
Hace fresco	It is chilly
Hace calor	It is hot
Hace viento	It is windy
Hace buen timepo	It is good weather
Hace mal tiempo	It is bad weather
Está nublado	It is cloudy
Hay niebla	It is foggy
Hay tormenta	It is stormy
Hay hielo	It is icy
Nieva	It snows
Llueve	It rains

Las estaciones (seasons)	
Todo el año	All year round
Invierno	Winter
Primavera	Spring
Verano	Summer
Otoño	Autumn

Los verbos (verbs)	
Como	I eat
Bebo	I drink
Juego	I play
Hago	I do
Leo	I read
Mando / Escribo	I send
Chateo	I chat
Veo	I watch
Bailo	I dance
Canto	I sing
Monto	I ride
Voy	I go

Preguntas (questions)	
¿Qué haces en normalmente tu tiempo libre?	What do you normally do in your free time?
¿Qué te gusta hacer?	What do you like to do?
¿Qué haces cuando hace buen tiempo?	What do you do when it is good weather?
¿Qué haces cuando hace mal timepo?	What do you do when it is bad weather?
¿Eres deportista?	Are you sporty?


IT

IT - Python Key Skills

KEYWORDS	
Word	**Meaning/Description**
Python	**Python** is a text based programming language that allows you to create programs and applications.
Variable	**Variables** are containers for storing data.
Comments	Programmers used **comments** to help explain the code. The symbol for comments is #
For loop	A **for loop** is used to repeatedly execute a set of statements until the end of sequence is reached.
If statement	**If statements** are used for decision making programs. An if statement will run the code only when the IF condition is true.
Logic errors	**Logic Errors** occur when the program runs without crashing, but produces an incorrect result. The error is caused by a mistake in the program's logic.
Run time error	It is an error that occurs when the wrong data type is used in a program.

www.python.org

For top tips visit the Python Website.

Write your first program

- At the prompt, type in the following:

```
>>> print("Hello")
```

- When you hit the Enter key what happens?
- What does the word "print" do?

```
>>> print("Hello")
Hello
>>>
```

Make sure you use a lower case "p" for print or it will not work.

Python Operators

OPERATORS	DESCRIPTION
<	Less than
>	Greater than
<=	Less than or equal to
>=	Greater than or equal to
==	Equal to
!=	Not equal to

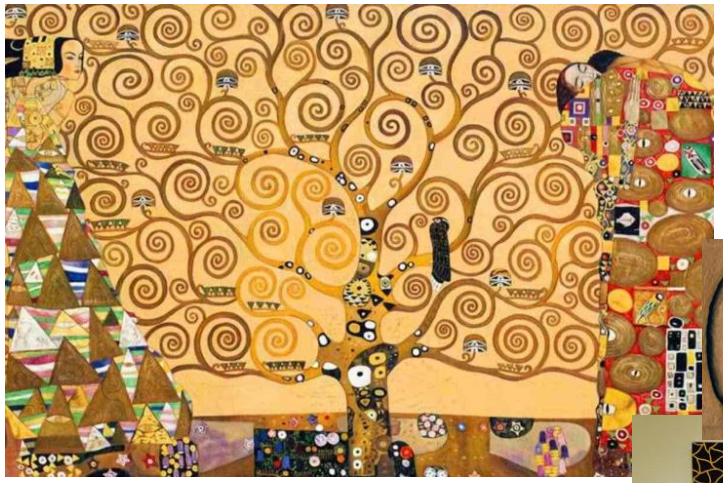
RULES FOR VARIABLE NAMES

DO'S	DON'TS
Do give your variable a sensible name so it is easy to remember	Don't use words that Python already uses e.g. "print"
Do keep your variable names short	Don't use spaces in variable names
Do use two words together with no spaces e.g. FirstName	Don't use mathematical symbols in variable names
Do begin variable names with a letter or underscore "_"	Don't use uppercases for every letter in a variable

Art

ART - Egyptian Art / Pattern

A pattern is a design in which lines, shapes, forms or colours are repeated. The part that is repeated is called a motif. Patterns can be regular or irregular.



The painting above is by **Gustav Klimt**. The patterns used are more organic and based on nature.

Deliberate Practice

- Create your own organic pattern design based on the work of Gustav Klimt.

Deliberate Practice

- Find out the definitions for the keywords

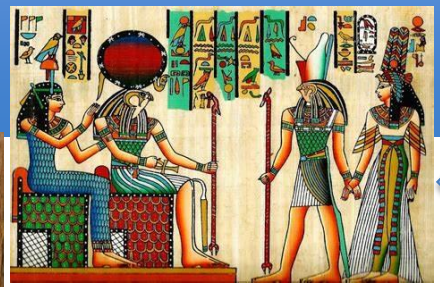
The Ancient Egyptians:

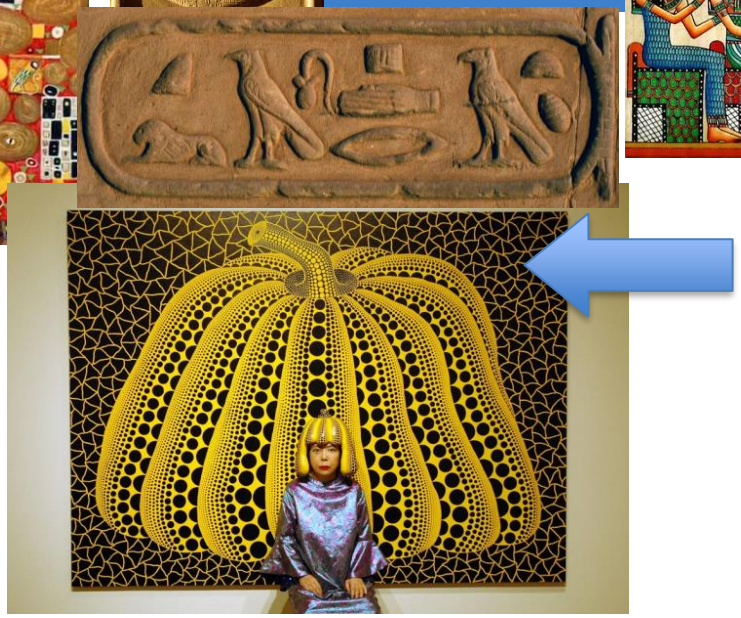
"Horrible histories" Watch the video about The Egyptians from the link below.

https://youtu.be/T7WhIybg_Qo

Deliberate Practice tasks on Google classroom:

- Egyptian Colour theory
- Canopic Jar
- Scarab beetle





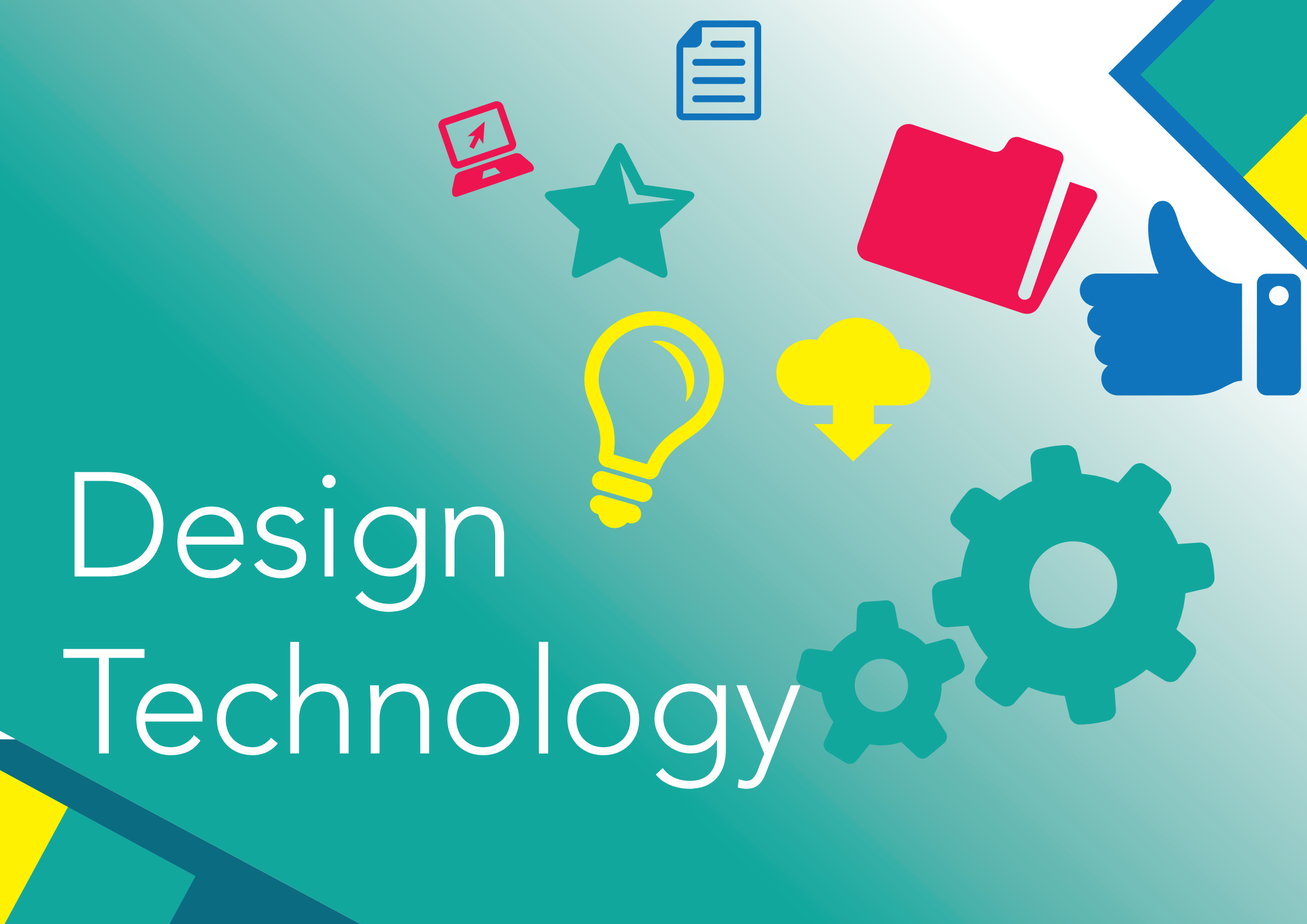
Yayoi Kusama is a Japanese contemporary artist who works primarily in sculpture and installation, but is also active in painting, performance, film, fashion, poetry, fiction, and other arts.

Deliberate Practice

- Have a look at the work of Kusama. Draw an everyday object and add Kusama style pattern work to it.

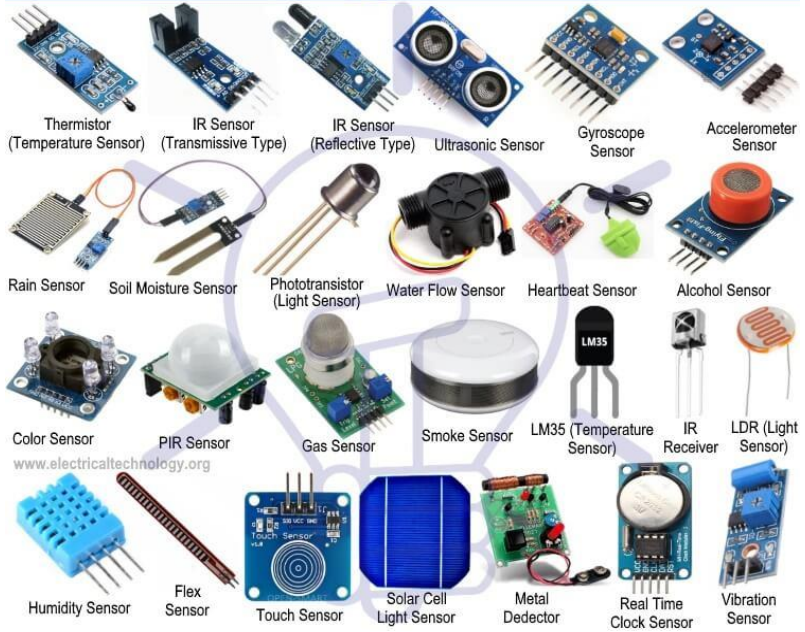
Keywords

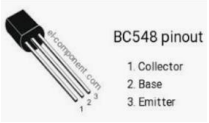
Repeat Symmetry Rotate Regular Irregular Organic Geometric Man-made Positive Negative Tessellation


Design
Technology

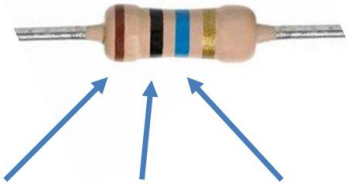
Design & Technology - Control

Different Types of Sensors





Resistor colour codes



Color	Value
Black	0
Brown	1
Red	2
Orange	3
Yellow	4
Green	5
Blue	6
Violet	7
Grey	8
White	9

Input>process>output

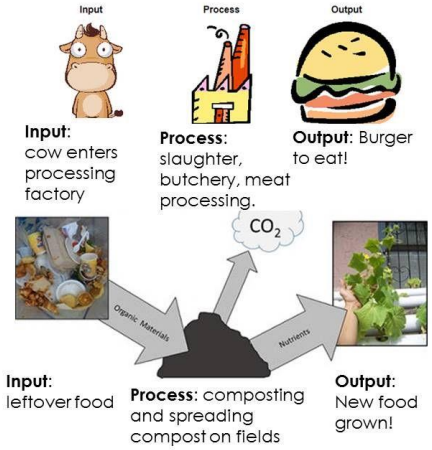
Every system has:

Input (ingredients that are put into the system)

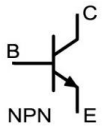
Process (what happens to make the system work)

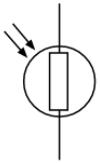
Output (what the system creates)

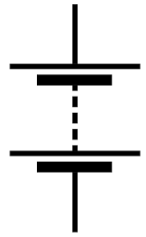
For example…



COMPONENTS & SYMBOLS







Resistor | Transistor | Buzzer | LDR | Battery

Design & Technology - Resistant Materials

1. Woods

Man-Made Woods

Medium density fibreboard (MDF)	Has a smooth even surface & easily machined and painted. Available in water and fire resistant form. Can veneer or paint to improve appearance. Used for cheap furniture
Chipboard	A very strong board constructed using layers of veneer glued together with the grains at 90 degrees to each other. Interior and exterior grades available. Uses, furniture, boats
Plywood	Made from chips of wood glued together with urea formaldehyde. Usually veneered with an attractive hardwood or plastic laminate Used for kitchen & bedroom furniture
Hardboard	A very cheap particle board Can have a laminated plastic surface Used for kitchen units and furniture back panels

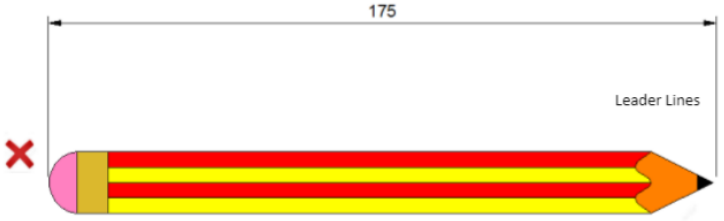
Hard Woods

Oak	A very strong light brown wood Open grained Very hard but quite easy to work with Used for quality furniture, beams and veneer
Mahogany	Reddish brown in colour Easy to work with Used for indoor furniture, bars and veneers
Beech	Has a straight grain & light in colour Very hard but easy to work with Can be steam bent. Used for toys, door handles etc
Ash	Open grain & easy to work with Pale in colour and often stained black Can be laminated, by splitting into veneers and gluing together

Soft Wood

Pine	Pale yellow colour with dark grain lines Medium weight, stiff and stable Inexpensive Used for DIY & constructional joinery. Also for furniture

Adding Dimensions



RULES for adding dimensions

Arrow must have arrowheads
Arrows must touch the leader lines
Leader lines must be level with the end of the object
There must be a gap between the leader line and the object
The size must be in mm or state the UNIT
The size must be on the opposite side of the arrow to the object
The size must be written horizontally

This is the symbol for the British Standards

Heartwood is the central, supporting pillar of the **tree**. Although dead, it will not decay or lose strength while the outer layers are intact

Natural Timbers		Manufactured Boards
Hardwood	**Softwood**	
		
Hardwoods are usually obtained from **deciduous** trees, which lose their leaves in autumn. ❑ usually grow in warmer more humid climates, mainly in South America and Asia ❑ grow slowly (80+ years) ❑ are more difficult to sustain than softwoods ❑ are more expensive than softwoods ❑ are strong and hardwearing.	Softwoods are usually obtained from **coniferous** trees, which keep their leaves in winter and are also known as evergreens. These grow quickly which makes them sustainable as they are renewable. This also makes them cheaper when compared to hardwoods. ❑ Usually grow in colder climates and are mainly grown in Scandinavia and Northern Europe ❑ Grow thin, needle-like leaves ❑ Grow relatively quickly (30 years) ❑ Are easier to sustain than hardwood trees ❑ Are easy to cut and shape ❑ Are usually cheaper than hardwoods	Manufactured boards are made from the waste sections of felled trees – the parts which are of little use as planks. The wood is reduced to pulp, particles or thin strips and bonded together using special adhesives or resins. Manufactured boards are made as alternative to natural timber. ❑ Come in sheet form (usually 1.2 x 2.4m) ❑ Are extremely stable and of uniform thickness ❑ Are less expensive than laminating planks of timber ❑ Can be covered with veneers ❑ Ae available in a variety of thicknesses (3, 6, 9, 12, 15, 18, 22mm)


Food
Technology

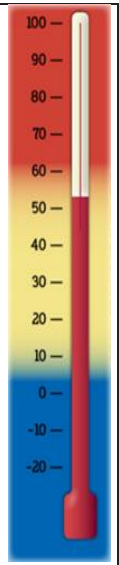
Food and Nutrition

KS3 Y7 Food Tech Knowledge Organiser

KEYWORDS
Nutrition
Hygiene
Infestation
Dormant
Hazard
Microorganism
Contamination
Saturated
Dense
Restrictions

Hazards in the food room

1. Physical hazard	2. Hygiene hazard	3. Infestation hazard
Physical hazard: can cause harm with **contact**. A door left open, spill on floor	**Hygiene Hazard:** microorganisms' (tiny living things) e.g. bacteria/ germs	**Infestation Hazard:** Food left out could encourage pests e.g. mice or ants
		



The 4 key Temperatures for Bacteria activity

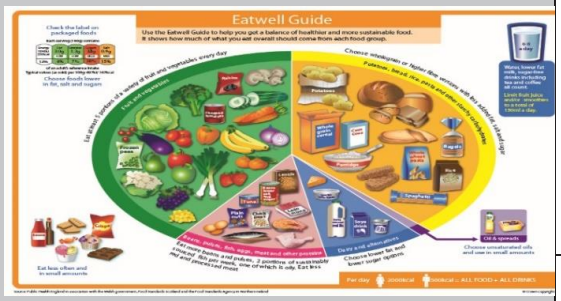
75°


5°-63° Danger Zone

0°-5° Sluggish

-18° Dormant


CLEAN	SEPARATE	COOK	CHILL
4Cs: Always wash and dry your hands properly. **Keep everything clean**	**4Cs:** Keep raw meat and cooked foods apart to avoid **cross contami-nation**	**4Cs: Cook food properly!** You must make sure foods like 'meat' are cooked in the middle.	**4Cs:** Store food at the correct temp. **Keep it chilly silly.**



The **Eatwell Guide** is based on the 5 food groups and shows how much of what you eat should come from each group.

The 5 different groups are:
Fruit & Veg (F&V) – Starchy Carbs SC) – Protein (P) – Dairy & Alternatives (D&A) – Oils & Spreads (O&S)

F&V	SC	P	D&A	F&O
Vits. & Minerals	Energy	Build & Repair muscles	Calc-ium	Fat soluble vitamins. Insulation

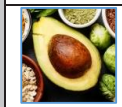
YouTube
foodtech 101
See FoodTech 101 for all KS3 practicals

5 Things bacteria need to thrive:
1. Plenty of moisture
2. Plenty of food
3. Warm temperature
4. Correct PH (not too acidic or too alkali)
5. Enough time

Allergies and Intolerances:
- Dairy
- Eggs
- Peanuts
- Shellfish
- Gluten
- Yeast

SDN=Special Dietary Needs & Restrictions: Vegetarian, Vegan, Pescatarian, Lacto Vegetarian, Lactose Intolerance, Kosha, Halal

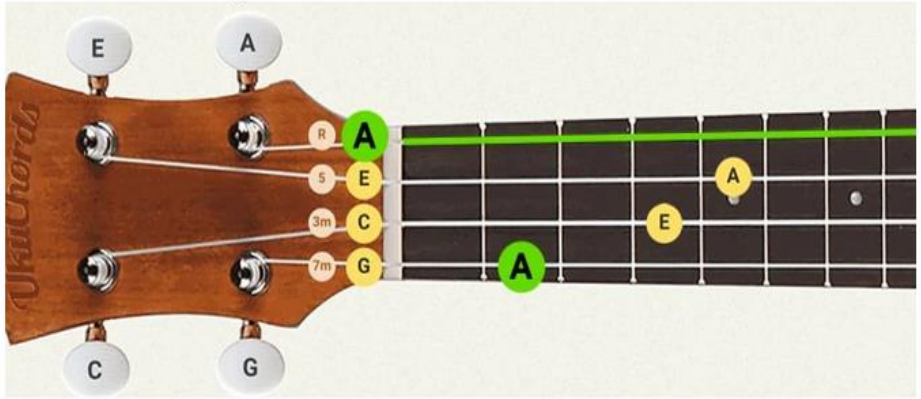
8 Tips for healthy eating
1. Base your meals on starchy foods.
2. Eat lots of fruit and veg.
3. Eat more fish.
4. Cut down on saturated fat and sugar.
5. Try to eat less salt – not more than 6g a day.
6. Get active and try to be a healthy weight.
7. Drink plenty of water.
8. Don't skip breakfast.

Nutrient Dense Foods=		Energy Dense Foods=	
			
			

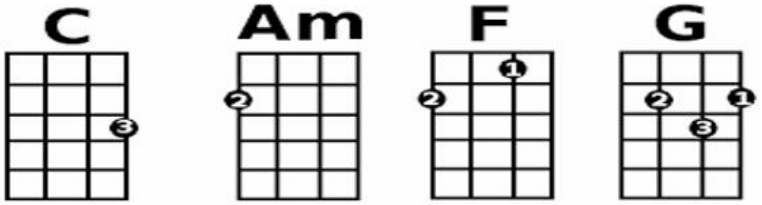
Music

Music

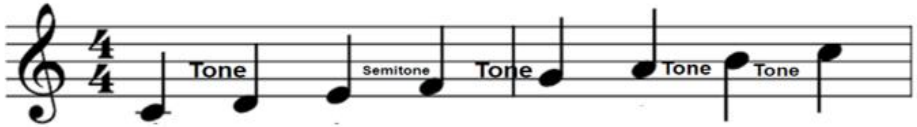
Ukulele finger board



Ukulele chords

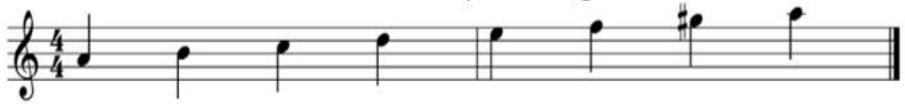


C major scale



C E G A

A minor scale – starts with open string A



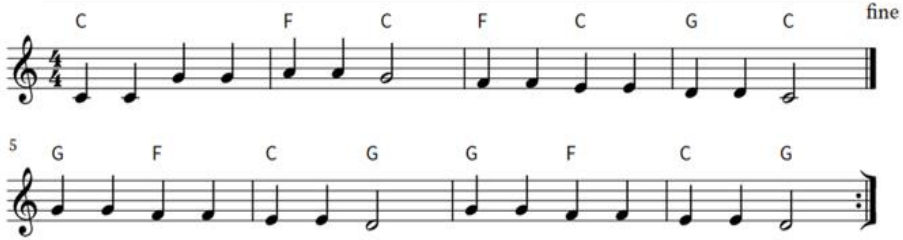
T S T T S T T

Learning a song

WHAT ABOUT US

Am F C C
We are searchlights, we can see in the dark
Am F C C
We are rockets, pointed up at the stars
Am F C C
We are billions of beautiful hearts
Am F C C
And you sold us down the river too far

Twinkle Twinkle Little Star



Three Little Birds

C C C C
Don't worry, about a thing
F F
'Cause every little thing
F F
is gonna be alright

C G
Happy birthday to you,
G C
Happy birthday to you
C F
Happy birthday to the F chord
C G C -
Happy birthday to you

Drama

Drama

Y7 Drama – Frankenstein HT5 & 6 – Knowledge Organiser

Key Vocabulary:
Monologue A long, uninterrupted speech by one character in a play.
Duologue A conversation/ interaction between two characters in a play.
Hot Seating A technique in which you interview an actor who answers in role in order to discover more about that character and/or their situation.
Tone This suggests the mood and intention towards the listener – e.g. happy or aggressive are ways to describe the mood of someone's voice.
Entrances Stage direction indicating the act of entering the play area during a performance.
Exits Stage direction; to leave the stage.
Genre 'Genre' refers to a specific style that involves a particular set of characteristics.
Climax The point of greatest intensity in a series or progression of events in a play, often forming the turning point of the plot and leading to some kind of resolution.
Resolution How the problem or conflict in a drama is solved or concluded.

Frankenstein – Historical Context

- Frankenstein is a novel written by Mary Shelley in 1818.
- It is about a scientist called Victor Frankenstein, who tries to create a new life using the body parts of corpses.
- **Frankenstein is part of the Gothic Genre**
- **The elements of Gothic Genre include:**
    - Horror settings (haunted castles)
    - Supernatural forces (ghosts)
    - Rebellious anti-heroes
    - Family curses
    - Fear
    - Gloomy and mysterious atmosphere
    - Struggle between good and evil
    - A contrast between reason and faith
- Gothic literature emerged in late 18th century Europe during a time when science and medicine was advancing, and some people began to question their religious beliefs.
- Parts of Europe were far more religious than the present day. Events that could not be explained were viewed as an act of God or from a supernatural force. However, science was beginning to break down these barriers. Consequently, some people thought that this, and science, was dangerous. Scientists, such as Luigi Galvani, were pushing boundaries. Galvani found that frogs' legs twitched as if alive when struck by electricity.

Frankenstein – Stage Adaptation by Philip Pullman - PLOT:

Act 1 Victor Frankenstein is busy working in his laboratory in Ingolstadt. He is joined by his friend Clerval. Frankenstein explains his work around animals and electricity to Clerval. Clerval is astonished by Frankenstein's findings and how electricity and can affect body parts. Elizabeth arrives. She is concerned that Frankenstein has not been in contact with the family for months. His father is very ill. It is clear that Frankenstein has become obsessed with his work and attempts to create life. Frankenstein wishes to be left alone. However, Clerval comes back into the room – he is shocked by the Monster as he now comes to life. The Monster runs away.

Act 2 Agathe and Felix live a simple life in a cottage in the forest. Felix has to leave Agathe – he is concerned for her safety. Agathe is blind and they have heard of recent trouble in the nearby town. Felix leaves. The Monster has been collecting wood for the family. Agathe is unaware of the Monster's presence. However, the Monster picks up a mirror and is shocked to see his own appearance for the first time. Agathe, blind, talks to the Monster. She touches his face and believes that he has been disfigured. They share a conversation. Suddenly, Felix enters. He believes the Monster is attacking Agathe – he seizes his musket. Agathe defends the Monster, but Felix believes him to be evil. Consequently, the Monster leaves, exclaiming his need for revenge.

Act 3 Frankenstein is in his study in Geneva. Elizabeth enters. William is missing. A priest arrives, carrying William's body. The Monster arrives. He has strangled William in an act of revenge. The Monster explains that he feels betrayed and is lonely. The Monster informs Frankenstein that he has two years to create him a wife.

Act 4 Elizabeth and Clerval are concerned about Frankenstein's latest activities. They enter his laboratory, and here they discover that Frankenstein has created another life. Clerval explains to Elizabeth how Frankenstein created the Monster. Clerval vows to destroy the new creation, with Elizabeth exiting. The Monster arrives. Clerval tries to prevent the Monster's Bride from awaking, but the Monster kills him before he is able to. Elizabeth re-enters with servants. They try to shoot the Monster. Desperately, the Monster tries to awaken his bride, but Frankenstein prevents this from happening. In response, the Monster strangles Elizabeth. Frankenstein vows to destroy the Monster, following him to the ends of the earth.