



THE
BRIAN CLARKE
CHURCH OF ENGLAND ACADEMY

Year 7

Knowledge Organisers

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LUX VESTRA



Contents

Subject

Art
Design Technology
Drama
English
Geography
German
History
Mathematics
Music
PE
Religious Studies
Science



How to use the Knowledge Organisers

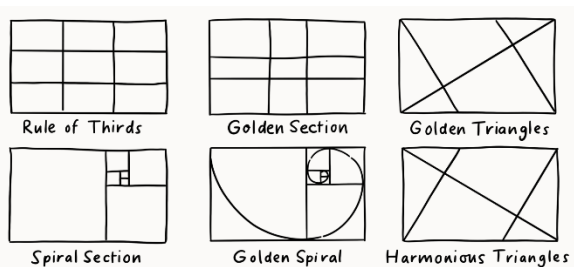
1. You can create quizzes to test yourself and your peers.
2. You can create flash cards to help you remember important information and essential vocabulary. By repeating the number of times, you read this essential vocabulary, you will be more likely to use it and remember it.
3. Creating mind maps helps us organise the knowledge that is important to us. This allows us to make connections to our prior knowledge and to help us make links to future learning.

Art - The Formal Elements

The Formal Elements are the visual parts used to make a piece of artwork. The art elements are line, shape, space, form, tone, texture, pattern, colour and composition. They are often used together, and how they are organised in a piece of art determines what the finished piece will look like. Artists consider each of the formal elements carefully when making their artwork

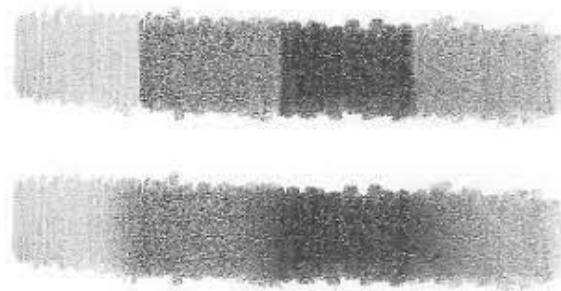
Composition

Composition refers to how an artwork's layout. Referring to the key subjects of the artwork and how they are arranged in relation to each other.



Tone

This refers to the lightness or darkness of something. This could be a shade or how dark or light a colour appears.



Shape

A shape is created when a line is enclosed. It could just be an outline or a flat area of shade or colour.



Form

Form refers to three dimensional objects (3D). While shapes have two dimensions (height and width), forms have three dimensions (height, width and depth)



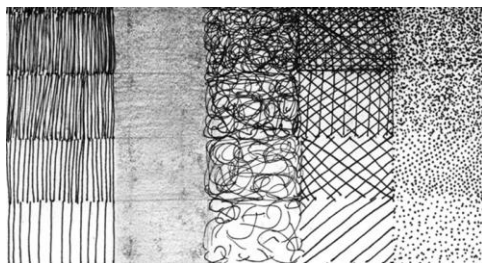
Line

Line is the path left by a moving point. For example, a pencil or a brush dipped in paint.



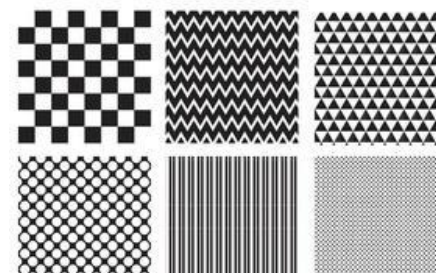
Texture

This is to do with the **surface quality** of something, the way something feels or looks like it feels. There are two types of texture: actual texture and visual texture.



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



Colour

Red, yellow and blue are **primary colours**, which means they can't be mixed using any other colours. In theory, all other colours can be mixed from these three colours.



Art – Write Like An Artist – Content, Form, Process & Mood

What is Content, Form, Process & Mood?

Content, Form, Process & Mood, is the structure we use to analysis artwork, we can any break down any piece of art into the four areas below:

Content - What is it?

Form - How have the formal Elements been used?

Process - How has the work been made?

Mood - Looking at the communication of moods and feeling?

Content - What is it?

- What is in the work?
- What exactly can you see?
- What is happening?
- What is it about?
- What is the theme of the work?

Example Sentence: In this painting there is a portrait of a man sat looking towards the artist.

Content – Keywords

Landscape	Moment	Journey	Memory	Event
Surreal	Fantasy	Abstract	Realistic	Portrait

Process - How has the work been made?

- What materials and tools have been used?
- What is the evidence from the painting?
- Might the artist have made supporting studies sketches, photographs, maquettes, collages and stencils, for example?
- Was the work executed rapidly or did it evolve slowly over a long period?

Example Sentence: The artist uses an impasto technique, where they have applied thick layers of oil paint onto the canvas.

Process – Keywords

Painted	Drawn	Woven	Sewn	Constructed
Collage	Layered	Cast	Sketched	Stitched

Form - How have the Formal Elements been used?

- Texture - What is the surface like? What textures can you see?
- Pattern - What patterns can you see?
- Colour - What colours have the artist used? How and why?
- Shape - What kind of shapes are there?
- Line - What kind of lines and marks?
- Tone – What is the light like in the work?

Example Sentence: The artist has painted themselves wearing cool and cold blues and greens, to create a sense of sorrow and sadness.

Form – Keywords

Dark	Scale	Light	Blended	Smooth
Bold	Geometric	Dull	Dark	Soft

Mood - Looking at the communication of moods and feeling?

- How does the work make you feel? Why do you feel like this?
- Does the colour texture, form or theme affect your mood?
- Can you imagine what the artist's feelings were while producing the work?
- What do you think the artist is saying? Why?
- What message is the work/artist trying to communicate? Why

Example Sentence: The painting gives a sense of dread and sadness, making us question why the artist has painted this self portrait in this depressed state of mind.

Mood – Keywords

Quiet	Relaxed	Thoughtful	Hopeful	Peaceful
Sorrowful	Reflective	Pensive	Disturbed	Soothing

Art - Year 7: Self Image – Artists 1 & 2

Use the Knowledge organiser below and the 'Write Like An Artist' structure to support your critical artist analysis.

Picasso: 1881 - 1973

Pablo Picasso is probably the most important figure of the 20th century, in terms of art, and art movements that occurred over this period. This self-portrait was part of his blue period.

While he was only 20 years old when he painted the piece, he depicts himself as gaunt, sallow, and fragile—a man who looks 50, rather than an energetic young fellow at the outset of his career. A spectrum of dusty, dark blues saturate the subject and the backdrop he stands against, while his face is an icy bluish-white, his coat a deep cobalt, and his eyes wells of navy. The overall impression is one of dejection: a tormented artist cast out of society. Picasso's use of blue to communicate pain and desolation has been traced to numerous sources. He was informed by Symbolist painters like Paul Gauguin, who filled canvases exploring themes like human destiny with blues.

Outcasts became Picasso's favoured subjects during his blue period. In addition to artists, these included other down-and-out people, those simply struggling with the pressures of everyday life



Self Portrait, 1901

Leonardo Da Vinci: 1452 - 1519

One of the great Renaissance painters, Leonardo da Vinci continually tested artistic traditions and techniques. He created innovative compositions, investigated anatomy to accurately represent the human body, considered the human psyche to illustrate character, and experimented with methods of representing space and three-dimensional objects on a two-dimensional surface.

Long regarded as a self-portrait, the red chalk drawing of an old man with long wavy hair and a beard has been reproduced to such an extent that it defines how most people think of Leonardo's appearance. Yet some scholars argue that the figure, with its craggy features, furrowed brow, and downcast eyes, appears much older than the age Leonardo ever reached; Leonardo died at age 67. They propose that the drawing may be one of his grotesque drawings, sketches he habitually made in his notebooks of people with eccentric features. Whomever the portrait represents, it is a departure from Leonardo's often captivating subjects, yet he managed to imbue the figure with the nobility and wisdom of a mature age.



Portrait of a man in red chalk, 1510

Further Context: Picasso's Blue Period 1901 - 1904

The Blue Picasso paintings are profoundly lyrical depictions of poverty, vulnerability, extreme despair, and helplessness, although at times appearing melancholy and romantic. The destitute and damaged misfits of society make up a large portion of the themes.

What prompted Pablo Picasso's famous Blue Period? Uncertainty exists over the exact moment and location when the Blue Period started. What is certain, though, is that it started about the same moment that Picasso went through a personal catastrophe that led to severe and protracted despair. In either Paris late that year or in Spain in the springtime of 1901, the Blue Period began.

Further Context: Renaissance 1495 - 1530

The High Renaissance was a short period of the most exceptional artistic production in the Italian states, particularly Rome, during the Italian Renaissance. Iconic works of art being made in Italy during what was considered a thriving societal prime. A rejuvenation of classical art married with a deep investigation into the humanities spurred artists of unparalleled mastery whose creations were informed by a keen knowledge of science, anatomy, and architecture, and remain today, some of the most awe-inspiring works of excellence in the historical art canon.

Art - Year 7: Self Image – Artists 3 & 4

Use the Knowledge organiser below and the 'Write Like An Artist' structure to support your critical artist analysis.

Vincent Van Gogh: 1853 - 1890

Van Gogh is today one of the most popular of the Post-Impressionist painters, although he was not widely appreciated during his lifetime. He is now famed for the great vitality of his works which are characterised by expressive and emotive use of brilliant colour and energetic application of impastoed paint.

This famous painting, *Self-Portrait with Bandaged Ear* by Vincent van Gogh, expresses his artistic power and personal struggles. Van Gogh painted it in January 1889, a week after leaving hospital. He had received treatment there after cutting off most of his left ear (shown here as the bandaged right ear because he painted himself in a mirror).

Before making a painting, Van Gogh made preliminary sketches 'en plain air' (French term meaning working outdoors or 'in the fresh air'). Van Gogh used charcoal to sketch an outline onto canvas, he then painted using a technique known as impasto (thick oil paint applied to the canvas creating a textured surface).



Vincent Van Gogh, 'Self-Portrait with Bandaged Ear', 1889

Further Context: Post-Impressionism 1886 - 1905

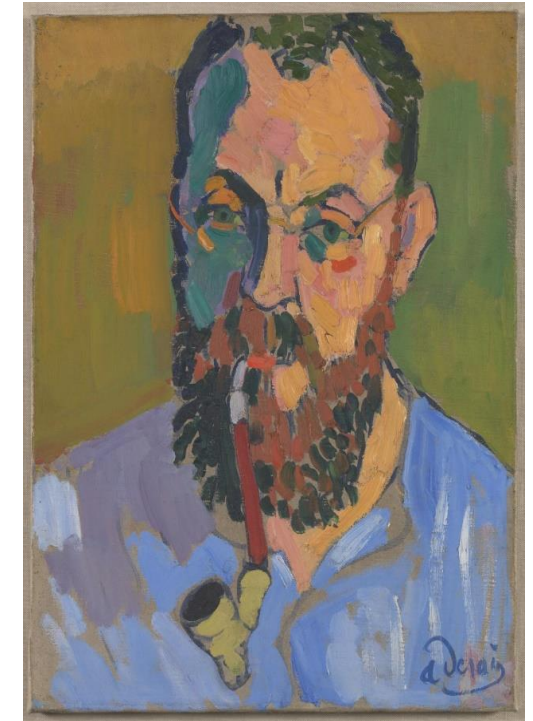
Post impressionists rejected the limitations of Impressionism, which recorded nature in terms of light and colour, instead sought to be more expressive. They wanted to express their meaning beyond the surface appearance; they painted with emotion, intellect, and the eye. The post-impressionism painters stressed their personal view of the visual world and had a freely expressive use of color and form to describe emotions and movement.

Henri Matisse: 1869 - 1954

Henri Matisse was a French visual artist, known for both his use of colour and his fluid and original draughtsmanship. He was a draughtsman, printmaker, and sculptor, but is known primarily as a painter.

Matisse in this painting seems to be not written, he seemed to mould into colour, like Derain sculpted his face and the background colours. Dense, thick warm orange, blue-green and pink spots forming the face of the artist. The contrast of the bright sides of the face and shaded blue-green lends a monumentality.

Black and brown densely strokes to create the hair and beard, shirt written a cool blue and blue flowers. Tube strip bright Carmine, background – wide green and yellow brushstrokes. The portrait has almost no lines – except that the ear and the shoulder to the right slightly rounded contour so created exclusively colour. In the eyes of Matisse glasses, slim temple tips visible on the temples. His eyes are calm, in-depth. Snorkel and goggles – peculiar characters of the specific provisions of Matisse, his status as a master among younger colleagues on the Fauvism.



Henri Matisse, Portrait of 'André Derain', 1905

Further Context: Fauvism 1905 - 1910

Fauvism is characterised by strong colours and fierce brushwork. The fauvists were interested in the scientific colour theories developed in the nineteenth century – particularly those relating to complementary colours. Complementary colours are pairs of colours appear opposite each other on scientific models such as the colour wheel, and when used side-by-side in a painting make each other look brighter.

Art - Year 7: Day of the Dead– Artists 1 & 2

Use the Knowledge organiser below and the 'Write Like An Artist' structure to support your critical artist analysis.

Frida Kahlo: 1907 - 1954

Self-Portrait with Thorn Necklace and Hummingbird, was painted by Frida Kahlo in 1940. In this portrait, Frida Kahlo faces the viewer with a background of large green leaves and a yellow leaf right behind her. The thorns are around her neck like a necklace which is held by a black monkey. Her neck is bleeding from the piercing thorns. On the right side behind her shoulder is a black cat. A hummingbird is hanging on the thorn which knots around her throat. Her expression is calm and solemn. It also seems she is patiently enduring the pain.

Frida Kahlo put so many symbolic creatures in this painting. She was not painting a realistic scene but using these symbolic elements to express her feelings. A bird often symbolizes freedom and life. Especially a hummingbird which is colourful and always hovering above flowers. But in this painting, the hummingbird is black and lifeless. This might be a symbol of Frida herself. Frida spent most of her life in physical pain after the bus accident happened when she was eighteen. This is a painting about her suffering.



Self Portrait with Thorn Neckless and hummingbird, 1940

Papel Picado

Papel picado in English is cut paper...sounds simple enough, but the term defines a traditional Mexican craft that is anything but simple.

Papel picado is party bunting that comes with individual flags made in many different shapes and sizes, in white or a huge variety of vibrant colours, either in tissue paper, plastic or material.

Papel picado is a staple when it comes to Mexican party decorations. The expertly made cuts, beautifully illustrate intricate designs, images and patterns that evoke a sense of awe and enchantment. The themes represented on these Mexican banners vary widely depending on the cause for celebration.

Mexican banners can be used for just about any occasion! In Mexico, *papel picado* is commonly used for *Día de Muertos*.



Example of Papel Picados

Further Context: Frida Kahlo’s Life

Severely injured in a bus crash in her youth, Kahlo took up painting when confined to her bed. Kahlo’s life was changed forever by the accident and the portrayal of her body, wracked with pain, is a recurring theme in her paintings. Kahlo said that there were two accidents in her life – the second was her tempestuous relationship with the renowned Mexican muralist Diego Rivera. It is in her iconic self-portraits, unrivalled in their poignant beauty, that Kahlo depicts both her isolation and also her indomitable spirit and sense of self. The exhibition also reveals the less well-known aspects of her work; her powerful political insights about national identity, the plight of the poor, the march of technology and Mexico’s relationship with its neighbour the USA.

Further Context: History of Papel Picado

The history of Mexican bunting can be traced back to pre-Hispanic Mexico. The Aztecs would utilise a paper made of the bark of mulberry and fig trees called *amatl* to make flags and banners, used to adorn homes, streets and temples, just as *papel picado* is used in Mexico today. This practice evolved when the Spanish came to Mexico, introducing many new foreign products and goods to the region - tissue paper among them (Tissue paper is referred to as *papel de china* in Mexico, which translates to “paper from China”). That was when artisans began to apply this ancient art form to a new material, and thus, *papel picado* came to be the quintessential fiesta decoration we know it as today.

Art - Year 7: Day of the Dead– Artists 3 & 4

Use the Knowledge organiser below and the 'Write Like An Artist' structure to support your critical artist analysis.

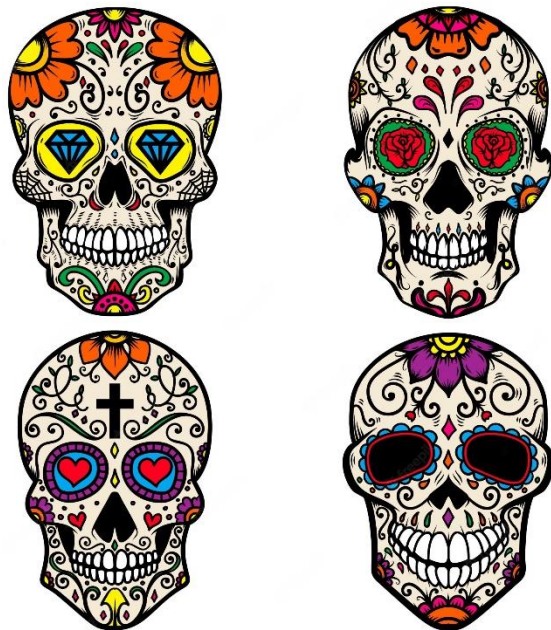
Calaveras

The day of the dead skull is made with a paste called alfeñique—created from sugar, water, and lemon and several mystery ingredients—that creates a caramel-like mass. Other territories prefer to make them more delectable with chocolate, almonds, honey, peanuts, amaranth, and gummies. Every calavera comes in a different shape and size to represent children and adults.

Each calavera is decorated with brightly coloured stripes, dots, and swirls of icing. In addition, feathers, beads or coloured foils are glued onto the skull for that added *flair*.

Different colours have different meanings. See below to understand the different means of the sugar skulls:

- Red- Blood
- Orange- Sun
- Yellow- Marigold
- Purple- Pain
- Black- Land of the Dead
- Pink- Hope, purity, and celebration



Example of Sugar Skulls (Calaveras)

Further Context: History of Calavera

The reason goes all the way back to prehistoric times, when the skull was a predominant figure in Mesoamerican societies and cultures in various aspects and depictions. One of these depictions was the tzompantli, a wooden rack in which the skulls of war prisoners or human sacrifices were displayed. These civilizations believed in a spiritual life after death, and so these skulls were an offering to the god of the underworld, Mictlantecuhtli, who would assure a safe passage into the land he ruled. The tzompantli could also be an altar illustrating this journey from the terrestrial life into the spiritual one, and it's not uncommon to find sugar skulls that are decorated and coloured with Mictlantecuhtli's face!

Jose Guadalupe Posada: 1852 - 1913

Posada was Mexico's most illustrious illustrator. He is best known for the work he published in broadsides. These were large one-sided publications that were printed on very cheap newsprint and distributed all throughout the country. They were immensely popular, and they brought Posada's work to a large audience. In the decades before the Socialist revolution of 1910, millions of everyday people were enlightened, educated and entertained by Posada. Often his illustrations were accompanied by sensationalist stories, but even those who couldn't read would buy the broadsides just to see Posada's work.

Today, Posada is best remembered for his amusing and often satirical calaveras. During Día de Muertos celebrations, Posada would work hard to produce work featuring these skeletal figures. In pre-Columbian times, images of skulls and skeletons often represented rebirth into the next stage of life. In Posada's hands, these traditional symbols took on a new life and became a way to make social and political critiques.



La Calavera Catrina, 1910

Further Context: Mexican Folk Art

Folk art is handmade by the people and their community, irrespective of class, religion, and gender. Artists need no formal training, and pieces can be practical, decorative, used for religious ceremonies, or simply offered for sale. Some people create their art in their spare time, for artistic pleasure or to create extra income. Traditions and cultural practices are often enshrined within folk art pieces while also being open to change. These conditions all apply to Mexican folk art, also known as *artesanía*. Mexico has a wide range of artesanía thanks to the country's diverse peoples, geography, and climate. Fans of wood, weaving, ceramics, and many more mediums will find captivating pieces in Mexican folk art.

Design & Technology - Year 7: Unit 1 - Key-Fob & Stand

1. Material & Marking Out

Key-Fob: Acrylic

Acrylic is a thermoplastic which can be recycled. It is flexible, impact-resistant and lightweight, and available in a variety of colours, shapes and sizes, making it suitable for a variety of applications.

Stand: Aluminium & Brass

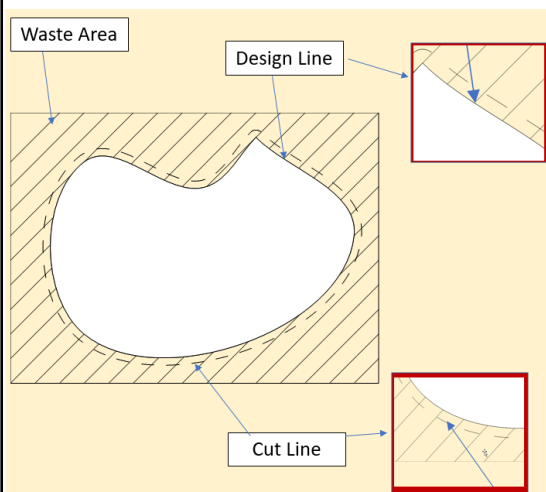
Aluminium is a non-magnetic, malleable and ductile metal. It has a high strength ratio, making it a popular, yet expensive choice for products. Brass is an alloy of copper (Cu) and zinc (Zn). Brass has both an attractive and low friction surface so can be used for decorative purposes.

Process: Fabrication - Tools & Equipment

- Semi Permanent
- Screw Threading

Marking Out

Mark out the design in the most suitable area on the material. Both cutting and removing the component needs to be considered along with placement to reduce waste material.



Accurate: Correct in all details; exact.

Adapt: To adjust or change to suit conditions.

2. Marking Out & Wasting

Key-Fob: Marking Out

- Card
- Permanent marker

Key-Fob: Wasting

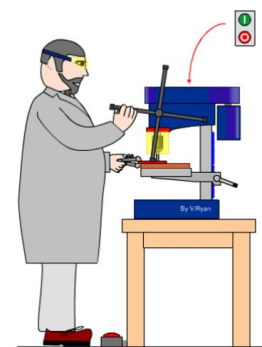
- Coping Saw
- Bench Vice
- Press/Machine Vice
- Pillar Drill
- Twist Drill
- G-Clamp
- Flat file
- Half round file
- Round file
- Needle files
- Wet & Dry Paper
- Acrylic Polish

Stand: Marking Out

- Engineers blue
- Scriber
- Odd leg callipers
- Centre punch
- Ball pein hammer

Stand: Wasting

- Pillar Drill
- Twist Drill Bit
- Tap & Tap Wrench
- Die & Die Stock
- Flat File
- Half Round File
- Bench Vice
- Wet & Dry
- Cutting fluid
- Wire Wool

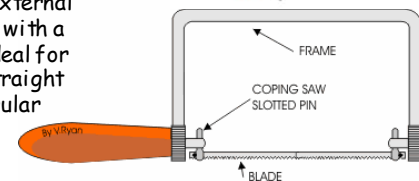


Drilling

Make any required holes with a pillar drill. This is for component features or slotting a coping saw blade in for internal cuts.

Sawing

Internal and external cuts are made with a coping saw. Ideal for cutting sort straight lines and irregular shapes.

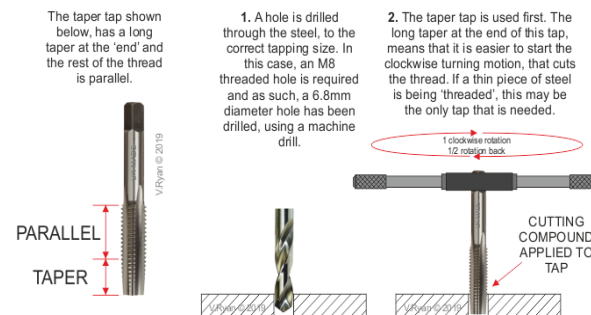


Quality Assurance: Preventing failure by planning and checking prior or during a task.

3. Threading

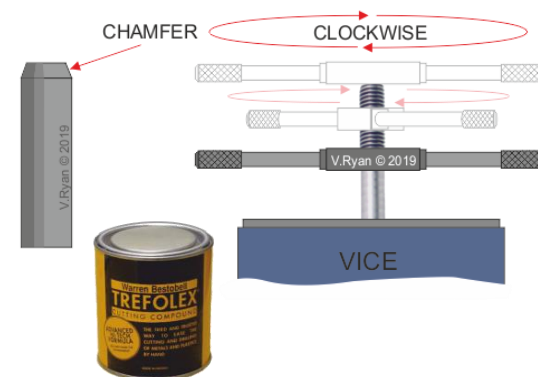
Internal Threading: Tapping

A cutting tool called a tap is placed in to a tap wrench and turned into a hole to cut a thread in to it. This will allow a bolt/screw to be fixed in to it.



External Threading: Die Cutting

A cutting tool called a die is placed in to a die holder and turned on to a round bar to cut a thread in to it. This will allow it to be fixed in to a threaded hole.



Cutting Compound

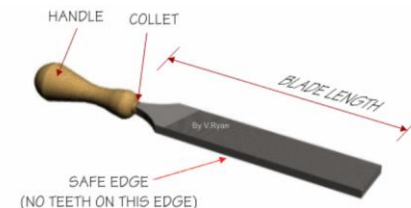
Both tapping and die cutting will be completed easier and have a high quality outcome/finish if an oil or grease is applied.

Quality Control: Visual or physical checks during or at the end of a process/stage..

3. Wasting Techniques: Finishing

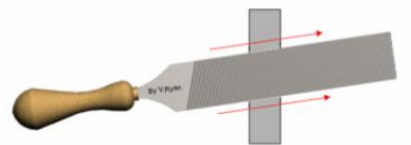
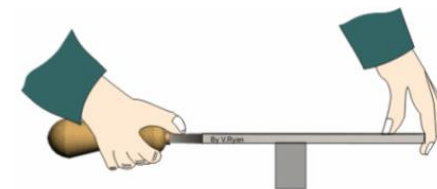
Hand File

These come in a variety of shapes and sizes, but with the same key features. The file below is a flat file as it is flat on all faces.



Cross Filing

The filing method sends the blade of the file across the material edge at an angle.



Draw Filing:

The filing method sends the blade of the file backwards and forward along the material edge.



Development: creating something new or more advanced.

Target User: Who company wants to sell its product to.

Design & Technology - Year 7: Unit 1 - Branding & Advertising

Essential Vocabulary

1. Analysis

To form opinion-based comments about a products features.

1. Observation →

The colours in this design are red and orange. I think these images are boring because it's too old fashioned for a younger target market.

2. Opinion ↑

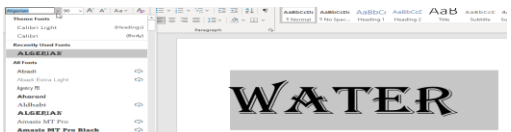
3. Reason ←

Graphic product can be broken down into the following key features: Layout, Font, Images, Colour, Sizes, Target Market.


Link: Apply your knowledge:
This should be applied to any product/project and is advised it is completed before starting your own design work.

2. Name/Font Design

A typeface is the size and style of a letter.



Graphic identity is when objects/images are used to create/replace letters.

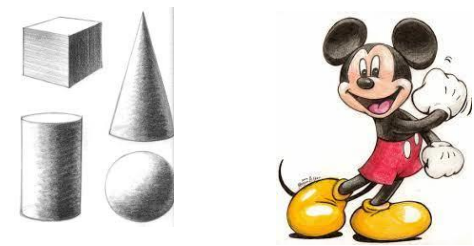


All aspects of your design needs to appeal to your chosen target market(s)

Link: Apply your knowledge:
Consider a theme related design when producing lettering and names as this is the first point of visual contact your buyer has.

3. Image Design

A visual representation that create links between your product, theme and target user.




Gradient shading is required to help your image appear 3D.

Link: Apply your knowledge:
Try shading basic 3D geometrical shapes to keep your skills topped up before attempting complex design images or items.

4. Logos and Monograms

Logos and monograms are simple designs to identify a brand.



Abstract mark Mascot logo Combination mark Emblem logo

Lettermark Pictorial mark Wordmark

An effective logo design will have simple silhouettes and limited colour selection.
Accurate monogram designs will use a unique lettering style, combining two or more initials.

Link: Apply your knowledge:
Branding can be done in two different ways. A company can have its own branding or a line of products within that company can have their own branding.

5. Development - Layout

A combination of the way images or text are positioned or set out is required to produce alternative design solutions

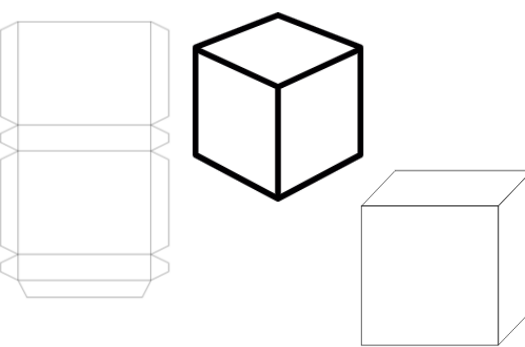


Nets and layouts are called surface developments.

Link: Apply your knowledge:
Not all of your initial designs can or need to be used on your final layout. This is still part of the decision making process.

Final Outcome

A final idea can be displayed in a variety of ways, such as NET, 3D drawing or exploded view.



Link: Apply your knowledge:
This is a presentation drawing that should combine and show off all of your decisions that create a successful product.

Accurate: Correct in all details; exact.

Adapt: To adjust or change to suit conditions.

Analyse: Examine something in detail to identify its key features.

Design Brief: A document that sets out project requirements. This includes a design problem that needs to be solved.

Development: the process of creating something new or more advanced.

Gradient: A gradual change in light to dark or hue.

Ghost Lines: Pale lines used to plan a design space. These lines will disappear unaided as details are added.

Initial Ideas: The first attempt when creating ideas.

Layout: the way images or text are positioned or set out on in a space/page/net.

Rendering: To apply texture, colour or tone to a design, shape or space.

Scalability: The capacity to be changes in size or scale and remain recognisable.

Target User: The type of person that a company wants to sell its product to.

Quality Assurance: Preventing failure through planning and checking prior or during a task.

Quality Control: Visual or physical checks during or at the end of a process/stage..

Link: Show your understanding of key vocabulary

To show a full understanding you need to be able to demonstrate the above vocabulary when designing and correctly use it when speaking and writing.

Design & Technology - Year 7: Unit 3 - Desk-Tidy

1. Material, Design & Development

Acrylic

Acrylic is a thermoplastic which can be recycled. It is flexible, impact-resistant and lightweight, and available in a variety of colours, shapes and sizes, making it suitable for a variety of applications.

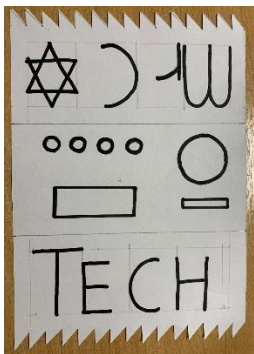
CAD

CAD stands for computer aided design. It is used because it makes designing quicker and much more accurate compared to working by hand. These factors mean that we can generate lots of designs and more professional products.

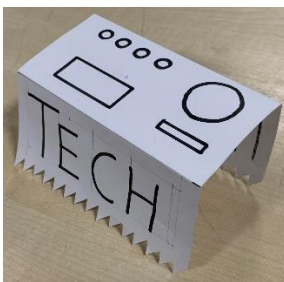
CAM

CAM stands for computer aided manufacture. The machine we use in this room is called laser cutter, this is used to cut designs into materials. CAM is used as it can produce high quality products compared to working by hand. CAM can be used to make prototypes as well as final products.

Prototyping is draft version of a product or idea. This allows you to explore its features effectiveness.



Producing models to a scale 1:1 is a practical way to evaluate the products suitability. This along with initial design ideas is best completed before any CAD work is started.



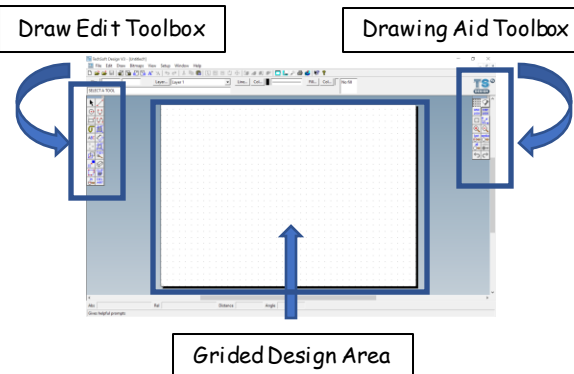
Prototyping can and should be completed at any stage within the design process. It can also be referred to as sketching in 3D.

Development: a process that creates, positive change or the addition of physical, components.

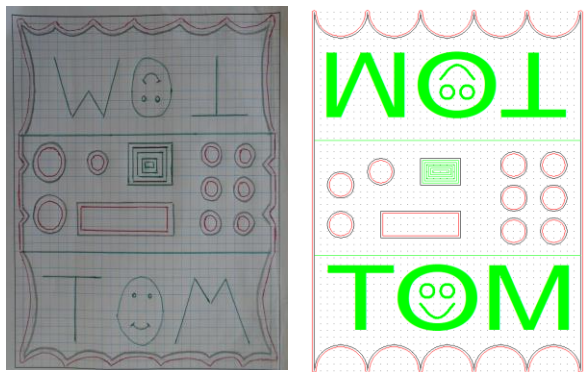
Template: a shaped piece of material used as a pattern.

2. CAD - Vector Design: TS2D

To produce files for a laser cutter, a 2D vector design software is required. The one used in here is called TechSoft2D. Below is the software with some of its key features.



When producing CAD (computer aided design) files for CNC (computer numerically controlled) outputs, it is required to give clear instructions to the device. In most cases cutting power and speed. This is done by assigning colours. Each colour can be given a specific output task. In the example below green has been assigned to engrave and red has been assigned to cut.

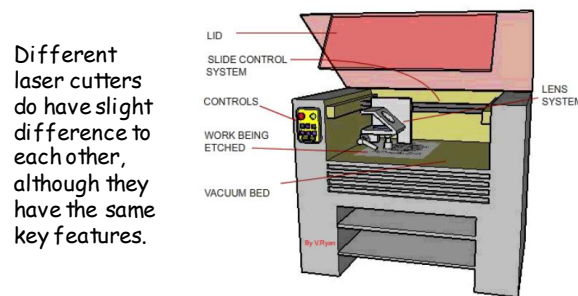


Prototyping: an experimental process where design teams implement ideas into tangible

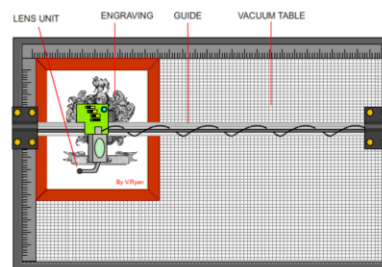
CAD: Computer aided design

3. CAM - Laser Cutting

Laser cutting machines are a tool used in a wide range of industries for precision cutting and designing projects. The laser cutting machine emits a high powered laser beam to either cleanly cut or etch a specific design on materials such as steel, plastic or wood.



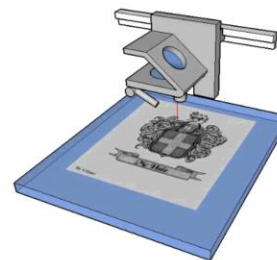
Different laser cutters do have slight difference to each other, although they have the same key features.



The material is placed flat on the bed whilst the laser beam cuts and engraves the intended job.

Once completed and the fumes have been extracted, usually through a charcoal filter, it is safe to open the lid and remove the job.

There will be very little to no edge treatment or finishing required as the laser slices perfectly through the plastic leaving no marks.

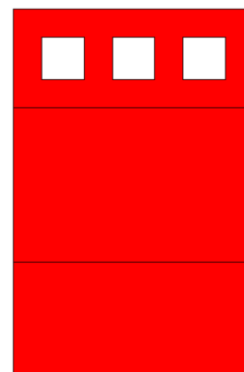
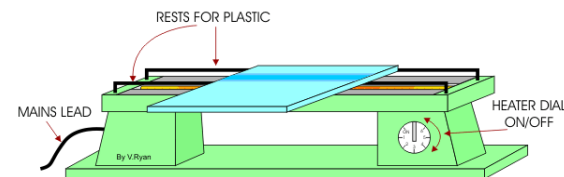


CAM: Computer aided manufacture

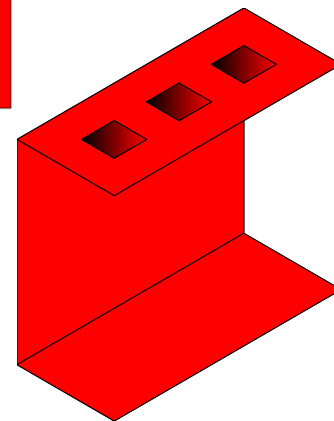
CNC: Computer numerically controlled

4. Shaping - Strip Heater

Plastics such as acrylic can be formed (shaped) in different ways. One of the most popular methods of shaping plastic materials like acrylic is to fold (bend) it on a 'strip heater', at different angles. An example of a strip heater is shown below. A heating element extends along the length of the strip heater and gives off intense heat when it is turned on.



Using the strip heater above, a final product is often finished and shaped by hand. Often a jip or former is needed to get the required and exact angle.



Once completed, the CAD file can be reused multiple times to produce identical outcomes which would require little quality control, just the checking of the folded angles.

Heat Treatment: a process of heating to achieve a desired result/change.

Year 7 Topic 1 - Introduction to Drama

What are the key Drama techniques I will be learning this term?

- **Tableaux:** A frozen image showing a story or key moment
- **Role Play:** A short, improvised scene in role as a character
- **Body as Prop:** Performers use their bodies to create objects/ locations
- **Choral Speaking:** Performers speak a piece of text
- **Simultaneous Action:** A movement done by all the performers in exactly the same way at exactly the same time
- **Morphing:** Changing scenes or characters in an interesting way
- **Sound Collage:** Performers use different sounds to create atmosphere
- **Narration:** Commenting on the action, often speaking directly to the audience



What are the 5 C's in Drama?

- Confidence
- Creativity
- Co-operation
- Communication
- Concentration



Elements of Theatre (How theatre is made)

- Lighting
- Set
- Sound
- Costume (including hair and make-up)
- Masks
- Puppets



Styles of Theatre

Naturalism-

Aims to create 'a slice of real life' on stage. The plot, characters and performances should be realistic and believable.

Physical Theatre-

The performers use their bodies to tell the story in an interesting way. They might create objects, images and movement on stage to do so.

Key Performance Skills:

Pause, Projection, Pitch, Pace

Emphasis

Accent

Tone

Pace

Interaction with other actors

Gesture

Expression (facial)

Space



Essential Vocabulary

Stimulus: The starting point/ inspiration for a piece of Drama e.g. a poem, picture, short story

Characterisation: Developing your performance of a character using PEAT PIGES skills

Evaluation: Using Drama specific vocabulary to explain why a piece of Drama was effective or why it needed improvement

Tension: Building up to an important moment. This can be comic or dramatic.

Atmosphere: The mood/ emotion created on stage

Blocking: Using rehearsal time to stage a scene

Ensemble: Performers working together on stage in a creative way.

Theatre History Timeline -

1,000 BC- AD 476
Greek and Roman
Theatre



1500's
Italy-
Commedia
dell'Arte



1558- 1603
Shakespearean/
Elizabethan
Theatre



19th Century
Victorian
Melodrama



21st Century,
Modern Day
Theatre



Year 7 Topic 2 - 'A Midsummer Night's Dream by William Shakespeare

Essential Vocabulary

Status:

How to demonstrate a character's importance to the audience.

Proxemics:

How to use space to communicate characters relationships onstage.

Physicality:

How to adapt your use of body language, gestures, facial expressions and posture to play a character who is different from yourself.

Exaggerated Gestures:

Over the top, often stylised movements that can create comedy on stage.

The play focuses on four groups of characters whose stories are all intertwined:



The Athenians

The play is set in Ancient Greece. Athens is ruled by Duke Theseus. The play opens at the Athenian court where a man named Egeus is angry because his daughter (Hermia) refuses to marry the man of his choice.

The Lovers

Hermia's father wants her to marry Demetrius, but she loves Lysander. Knowing that her father won't allow them to marry, she and Lysander plan to run away together into the woods. They are followed by an angry Demetrius who is being chased by Helena (Hermia's best friend) who loves Demetrius.

The Mechanicals

A group of working men who are also amateur actors. They are rehearsing a play in the woods, but get caught up in some fairy mischief when Oberon plays a trick on Titania. A man named Nick Bottom ends up being transformed into a half human, half donkey and they nearly miss their performance!



The Fairies

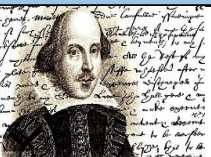
The fairies live in the woods outside Athens and are ruled over by Titania and Oberon who are arguing. When the Lovers stumble into the woods, Oberon and his sidekick Puck try to help The Lovers by using a love potion... but they only make things worse!



What are the key Drama techniques I will be learning this term?

- **Mime:** A scene is played out without any use of words. Movements are often exaggerated/stylised so that the meaning is still clear.
- **Thought Tracking:** A character speaks their hidden thoughts out loud, often revealing a secret. The other characters cannot hear what is being said (the performers must either freeze or continue the action by miming to make this clear).
- **Direct Address/Aside:** A character speaks directly to the audience, breaking the imaginary fourth wall.
- **Comedy Toolkit:** How to use skills such as timing, pace, interaction with the audience, emphasis to create comedy for the audience.

Shakespeare's Theatre -



William Shakespeare was born in Stratford Upon Avon on April 23rd 1564



It is not known exactly when, but at some point before 1592 Shakespeare moved to London and began his career as a playwright



In 1595/6, Shakespeare wrote 'A Midsummer Night's Dream'. It was his twelfth play



Shakespeare's plays remain popular throughout the world. The Royal Shakespeare Company are based in Stratford upon Avon and they bring Shakespeare's theatre to life for a modern day audience

Essential Vocabulary

Lazzi-

A short, improvised comic scene based upon stock plots

Stock Plots-

Simple storylines involving the stock characters. These were predictable and easy to follow

Stock Characters-

Recognisable stereotypes (e.g. heroes and villains) who are either lovers, masters, or servants.

Street Theatre-

A form of popular entertainment performed to large crowds. Minimal costume, set etc. were required.

Gromalot-

Emotional babble speak. As the performers would often act in front of people who did not speak the same language as them, they relied on their expression to communicate their characters emotions and would use made up sounds rather than recognisable words.

Year 7 Topic 3- Commedia Dell'Arte

The Masters

The masters allowed the audience to make fun of the upper classes, especially as the servants often played tricks on them! The Masters could sometimes be doxy and outwitted by the servants. Or, they could be mean and miserly so the audience wanted to see them fail somehow. Examples of the masters are Il Dottore and Il Capitan.



Arlequin

Colombine

Scaramuccia

Isabella

il Capitan

Who are the stock characters in Commedia Dell'Arte?

The Servants

The two main servants in Commedia were Zanni and Arlecchino. The purpose of the servants was to show different classes and statuses onstage. There was plenty of potential for comedy to be created if the plot set the masters and servants against one another!

The Lovers

The lovers were often not as comedic as the other two sets of stock characters, however they were central to the plot as this would often revolve around the lovers facing obstacles before they could be together. The main lovers were Isabella and Flavio.



What are the key Drama techniques I will be learning this term?

- Comedy Toolkit:

How to use skills such as timing, pace, interaction with the audience, asides and emphasis to create comedy for the audience.

- Shape and Physicality:

How to alter your physical shape to create easily recognisable stock characters. You will consider how the characters physicality can be created by experimenting with which part of the body they lead with and how this affects their movement onstage.

- Mask Work:

Masks were integral to Commedia performances and you will learn the 'do's and don't' of performing in a mask. Such as, never touch the mask and always face away from the audience when you put the mask on or take it off.

Commedia Dell'Arte: Theatre History Timeline

Ancient Greek and Roman Theatre heavily influenced Commedia Dell'Arte. The stock plots and characters of masters, servants and lovers were based upon these ancient plays.



In the 15th/16th centuries Commedia performances were a popular form of street theatre. The actors toured around Europe performing their improvised comedies.



During the late Tudor era when Shakespeare was living and working as a playwright in London, Commedia actors from Italy would often tour and perform on the streets of London. Shakespeare took inspiration for many of his comedies from the Commedia performances.



Modern comedies, such as the play 'One Man, Two Guvnors' are often based upon Commedia plays and characters and bring this form of theatre to life for a modern audience.

English Year 7: Unit 1 & 2 Ancient Epics & Beowulf

Essential Vocabulary

The Fertile Question

How has the development of English Language and Literature made an impact on the world and those who have accomplished greatness?

Key Knowledge

Understand how the writer uses language to create effective characters. What are similes (like or as), metaphors (was or is), epithets (see essential vocabulary)

Understand how the writer uses language to create effective settings. What is sensory description? (five senses: sight, sound, touch, taste, smell)

How to write ambitiously by using a variety of sentence structures:
3ed Amazed, confused, thrilled, she turned to face her mother.
ing Lifting her head, she knew what she had to do.
ly, Normally, she would feel fine by now.
Emotion, Delighted, he ran downstairs to share the news.
Tell: show 3 He was feeling worried: legs twitching; lip biting; hands wringing.

How to make inferences when reading a text. What is the hidden meaning? Remember when we analysed the word 'Perish' Think back to how many different connotations we found when creating the mind map.

Understand how the writer uses language to create effective settings. What is Atmosphere, Mood and Pathetic Fallacy? (Nature having human characteristics)

How to use contextual knowledge of an important literary period to strengthen my written responses and creativity. How has English language and literature evolved from ancient to medieval times?

Link: Apply your knowledge:

Using a range of sentence structures that you have learnt create an exposition for a story about a hero and their quest.
Research the development of English Language and Literature from ancient to medieval

Key Literary Figures

Homer, Plato, Socrates, Aristotle

Michael Morpurgo, Seamus Heaney



Link: Show your understanding

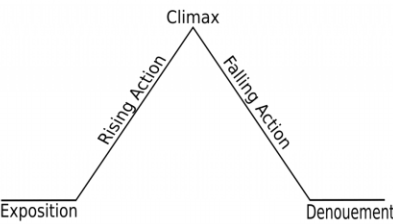
What did the ancient philosophers want to achieve for ancient societies?

Quotations from key Texts

How to select the most relevant evidence from a text. Remembering to use quotation marks "..." Try analysing these two quotes for revision.

(Beowulf) "Then God sent us this, this hero amongst men."
(Grendel) "He had heard that wonderful story of God's creation, and because it was good, it was hateful to his ears."

Freytag's Pyramid



Misconceptions

Not all adverbs end in 'ly' for example: never, often and very.

Achilles's heel was not his actual heel, this is a metaphor for his pride being his weakness.

The beasts, in particular the dragon, that Beowulf slays are not just to demonstrate his heroism. The dragon reflects the greed that was a problem in Scandinavian and Anglo-Saxon societies as they depended on the generosity of Kings. So, Beowulf could be making a stand against that

Link: Show your understanding

Practise plotting well known stories of films using Freytag's Pyramid. What do you notice about the parts of the stories you remember?

Narrative Structure

Understand how the writer uses language to create effective opening. What is Freytag's Pyramid?

Key Knowledge

The Oral Tradition	Epic poems were recited by bards and were a form of entertainment in a world where not many people could read or write. Ancient civilisations such as the Greeks, were among the first to have epic poems read aloud at large public gatherings. In England during medieval times the Anglo-Saxon people would have a special poet within their community that would retell epics. Epic poetry often had religious and moral purpose and was passed down from generation to generation.
Creating noun appositives	Creating noun appositives helps expand your sentences, you use another noun to further describe the noun which is the subject of the sentence. The appositive usually begins with 'a' or 'the'. It demonstrates knowledge that you have about the topic or subject of your sentence. For example: <i>Gilgamesh, a determined king, does not stop until he reaches the end of his quest for eternal life.</i>
Writing an Exposition	How to plan, draft and edit effectively. The Exposition starts with establishing a setting, introducing the character and ends with an inciting moment . Creating character profiles that focus on: age, where they live, likes/dislikes, physical appearance, personality, relationships with others, can help build believable character.

Link: Apply the knowledge, master the skill.

Using any information from your knowledge organiser:
Create a mind map that focuses on a key word from a text we are studying - how many different connotations can you find?
Create a character profile for a protagonist and antagonist.

Idiom: (noun) a common phrase used to express something. (It's raining cats and dogs.)

Homeric hero: (noun) created by Homer and had met criteria such as: attractiveness, high kill count, skilled with sword and spear, favoured by the Gods.

Epithet: (noun)
To use adjectives or phrases expressing a **quality or attribute** regarded as **characteristic** of the person or thing mentioned.

Antagonist: (noun) opposing character to the protagonist. (Grendel is the antagonist in Beowulf)

Exposition: (noun) the opening of or beginning of a narrative in literature.

Protagonist: (noun) The main character within a story.

Analyse: (verb) to look at something (examine) in detail.

Context: (noun) the background information relating to something in order to gain a greater understanding.

Explicit: (adjective) clear and obvious information.

Implicit: (adjective) hidden meaning/subtext.

Eponymous: (adjective) giving their name to something:
"the eponymous hero of the novel"

Hubris: (noun) excessive pride.

Atmosphere: (noun) tone and mood created in a text.

Adverbial: (noun) phrase containing adverb that relates to: time; frequency; place; manner

Link: Show your understanding of key vocabulary

- Put together sentences using a range of your essential vocabulary. *Beowulf, the protagonist from the eponymous novel, can be considered a Homeric hero.*
- This will help you remember how to use the word accurately
- Create flashcards with the essential vocabulary on one side and the definition on the other.

English - Year 7: Unit 4: Shakespeare and The Tempest

Core Knowledge

Essential Vocabulary

The Plot

Written in 1610, *The Tempest* is a play about magic, betrayal, love and forgiveness. It is set on an island somewhere near Italy where Prospero, the one-time Duke of Milan, and his beautiful daughter, Miranda, have been exiled. With a spirit called Ariel and an island native called Caliban. Prospero, who has been betrayed by his brother and escaped Italy, has not only made the island his home but through his magic has made himself lord of the island. When a storm brings Prospero's brother Antonio to the island, years later... Prospero has his opportunity for revenge.

Context

The Renaissance

The Renaissance took place between the 14th to the 17th century. A period of cultural, artistic, political and economic "rebirth". The Renaissance arrived late to England and influenced both the education and work of Shakespeare.

People began to move away from the idea of the "absolute power of God", advocated by the Catholic church. Instead, they focused on humanity, the concept of free will, and the pursuit of knowledge and wisdom. Travel meant that knowledge of new cultures and ideologies were shared.

How did the Renaissance influence Shakespeare's work?

Shakespeare wrote about psychologically complex characters who were capable of making mistakes regardless of their social position. Examples of such characters are Hamlet and Macbeth. In *The Tempest*, all characters at the top of the hierarchy have made mistakes and must work towards reconciliation and redemption.

The Renaissance Magus

Prospero, the protagonist in *The Tempest*, is a magician, reminiscent of The Renaissance Magus: someone who devotes themselves to the pursuit of wisdom.

They try to transcend human limitations to have a complete understanding of the universe and the mind of God. In order to do this, they must live a pure life free from sin.

The Great Chain of Being

There was a common belief in 'The Great Chain of Being' - People are born into a natural order of power, a hierarchy, from the king down to the poor. The divine right of kings asserts that a monarch has a right to rule directly from the will of God.

Link: Apply your knowledge:

- How does the Renaissance link to Beowulf's Christian narrator?
- In *The Odyssey*, Penelope's suitors challenged the power of the King, Odysseus. What consequence did they face? Why?
- How can we link the Magus to the concept of hubris?
- How did the Renaissance affect the oral tradition? What changed? Why?

Key Quotations - Prospero

(To Miranda) No harm. I have done nothing but in care of thee (I.ii.)
(To Caliban) Thou shalt be pinched
As thick as honeycomb, each pinch more stinging Than bees that made 'em (I.ii.)
(To Miranda) O, a cherubim Thou wast that did preserve me. (I.ii.)
(To Ariel) Dost thou forget From what a torment I did free thee? (I.ii.)
(To Antonio) For you, most wicked sir, whom to call brother Would even infect my mouth, I do forgive Thy rankest fault (V.i.)

Link: Show your understanding

What kind of **archetypal** ruler is Prospero?
How does Prospero link to **colonialism**?
Does Prospero use his power for good or evil?

The Theme of Power

Act 1.1 Prospero, reminiscent of a Renaissance Magus, conjures a storm.

Act 1.2 (1-189) Prospero, Miranda, and the Patriarchy.

Act 1.2 (190 - 304) Prospero, Ariel, and colonisation.

Act 1.2 (305 - 375) Caliban - defiance and resistance.

Act 1.2 (376 - 450) Prospero, Antonio, Fraternal Conflict.

Act 2.1 (185 - 293) Usurpation.

Characters



Key Quotations - Caliban

All the charms Of Sycorax—toads, beetles, bats—light on you, For I am all the subjects that you have, Which was first mine own king. (I.ii.)
You taught me language, and my profit on 't Is I know how to curse. (I.ii.)
then I loved thee And show'd thee all the qualities o' the isle, (I.ii.)
Has thou not dropped from Heaven? (I.ii.)
I'll kiss thy foot; I'll swear myself thy subject. (II.ii.)
I'll swear upon that bottle to be thy true subject (II.ii.)

Link: Show your understanding

To what extent is Caliban a monster? Are there any similarities with Grendel?
How does Caliban link to **emancipation**?

Characteristics of a Shakespearean Comedy

- Happy Ending
- Theme of Love
- Scheming, deceit and trickery
- Lovers must overcome obstacles
- Mistaken identity
- Witty language and puns
- Multiple and complex plots lines

Dramatic Irony : the audience know something that the audience are unaware of.

Puns: a play on words. 'Caliban' is thought to be a play on the word 'cannibal.'

Crafting Sentences

Noun appositive

A noun appositive renames the head noun and typically begins with a determiner 'a' 'an' or 'the'. It must be separated by commas. Misconception: a noun appositive does NOT begin with a relative pronoun. See an example of a relative clause below. Example: Prospero, a Renaissance Magus, conjured the tempest to enact revenge.

Relative clause

A relative clause begins with a relative pronoun - who, which, that, whose, whom. Most often, the relative clause adds descriptive information about a noun in the sentence. It includes a verb and must be separated with commas, dashes or brackets. Example: Prospero, who was banished to the island after being usurped by his brother, conjured the tempest to enact revenge.

Embedded quotation

Seamlessly embedding quotations is the most effective way to use evidence from a text to support analysis. Example: Shakespeare introduces the concept of power in Act 1 Scene 1 when Prospero creates the tempest and the 'noise of thunder and lightning' is heard, in order to show Prospero's god-like power and to establish his position at the top of the hierarchy.

Link: Apply the knowledge, master the skill.

Using any quotation from your knowledge organiser:

- Craft a topic sentence with a **noun appositive** and an **embedded quotation** to demonstrate how the power of Prospero is revealed.
- Craft a topic sentence with a **relative clause** and an **embedded quotation** to illustrate how power is abused in the play.
- Craft an expanded sentence using **because/but/so** which describes Ariel as an archetypal trickster.

Renaissance (n): a period in art when people were encouraged to gain knowledge and wisdom.

Genre (n.): a style, kind or category of art, music or literature.

Hierarchy (n.): a rank of status.

Tempest (n.)/Tempestuous (adj.): a violent or windy storm/strong or turbulent emotions.

Archetype (n.): a typical character with well known, recognisable qualities.

Colonialism (n.): occupying a land belonging to another group of people.

Defiance (n.): a refusal to obey something or someone.

Resistance (n.): refusal to accept something.

Fraternal Conflict: a struggle for power between two brothers.

Manipulation (n.): the act of controlling in a clever and usually selfish way.

Usurpation (n.)/Usurp (v): to take somebody else's position of power using force.

Infatuation (n.)/Infatuated (v.): A short, intense feeling of being in love.

Leverage (n): having the power to influence or persuade someone.

Emancipation (n.)/Emancipate (v): to set free, or to lend a hand in freeing someone.

Redemption (n): the act of being saved from sin or evil.

Link: Show your understanding of key vocabulary

- How does patriarchy link to **usurpation**?
- How does hierarchy link to **emancipation**?
- Why is **redemption** a key characteristic of the comedy **genre**?
- Why would someone with **leverage** be able to **manipulate**?
- How does **fraternal conflict** link to **hierarchy** and **usurpation**?
- How would **defiance** and **resistance** be effective against **colonialism**?

English Year 7: Unit 5 & 6 The Romantics

The Fertile Question

How has the development of English Language and Literature made an impact on the world and those who have accomplished greatness?

Key Knowledge

What is Romanticism?

Romanticism was an artistic and intellectual movement which took place in Europe between the late 18th and mid-19th centuries.

It was a period of time where the arts focused on nature and humanity.

Romantic poets wrote about the awe inspiring, majestic beauty of nature.

They juxtaposed the sheer power of the everlasting universe with the power of the human mind.

The Sublime

Sublime describes something of great beauty or excellence. For Romantics, the Sublime is the meeting of emotions and the natural world. In essence, the Sublime is that mixture of breathtaking wonder when in the presence of nature's beauty, combined with the terror as the individual realises their vulnerable place in the world.

The Industrial Revolution

As technology and engineering advanced, factories, mills, houses, and towns consumed nature's space. Where we once saw wondrous views of rolling hills, towering trees, gentle brooks, cotton factories, steam engines, and mills that filled the air with smog stood in its place.

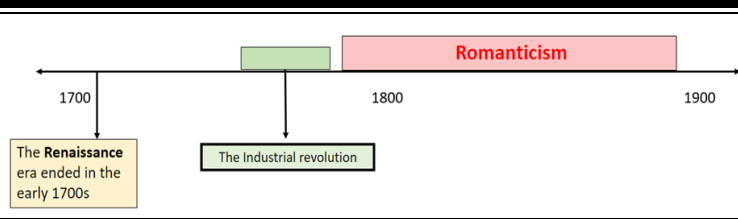
What did the Romantic poets protest about?

The Romantic poets felt that people had forgotten to nurture humanity and nature and they neglected the important things in life, such as childhood and imagination. They now worked long hours and did not appreciate the beauty of the world. The poets wanted to remind us of the power of nature and that whilst nature is everlasting, we are not, so should be grateful for our time on earth.

Link: Apply your knowledge:

When out walking, record how you feel in the presence of the beautiful nature around you. Write a short diary entry describing both what you see and how that makes you feel. Contemplate your place in the world and imagine what you want to aspire to in the

Timeline



Mont Blanc by Shelley

Inspired by the second tallest mountain range in Europe, Shelley wrote Mont Blanc to reveal the sheer power of nature and juxtapose this with the vulnerability of humanity.

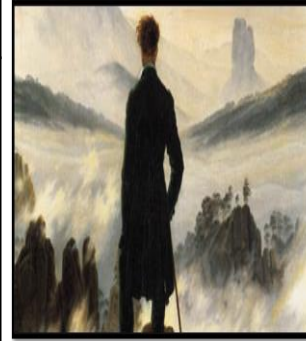
Quotations:

"The everlasting universe of things flows through the mind"
"Remote, serene, inaccessible"
"Now dark-now glittering-now reflecting gloom-now lending splendour"
"the sun in scorn of mortal power"
"The glaciers creep like snakes that watch their prey"

Link: Show your understanding

Using any of the quotes, write a topic sentence including a relative clause, embedded quotation, and a subordinate clause to answer the following questions:

1. How does Shelley present the Sublime in Mont Blanc?
2. How is Blake considered to be anti-establishment?



The Big Six – Romantic Poets

William Blake	1757 1827	George Gordon	1778 1824
Percy Shelley	1792 1822	John Keats	1795 1827
Samuel Taylor Coleridge	1772 1834	William Wordsworth	1770 1850

The Chimney Sweeper by Blake

Blake, an anti-establishment poet, wanted to criticise the government, the church, and society as a whole for the loss of childhood during the Industrial Revolution. He exposed that whilst our children, who are without sin, are promised a better life in heaven, they should be nurtured and free to enjoy their childhood on earth.

Quotations:

"my father sold me while yet my tongue could scarcely cry 'weep! weep! weep!'"
"his head that curled like a lamb's back"
"locked up in coffins of black"
"And by came an Angel who had a bright key"

Link: Show your understanding

Find an example of the following in both poems, explain their effect:

1. A simile
2. Personification
3. Pathetic fallacy
4. The Sublime
5. Light imagery

Misconceptions

1. Romanticism is not about love and romance. Although the etymology of the term states it derives from the Old French word 'Romanz', it comes from the Latin word for 'love languages'.
2. Pathetic Fallacy and personification are often confused. Personification is a human characteristic which is assigned to something non-human. Example: the way humans move, look, speak. Pathetic fallacy is human emotion assigned to something non-human. Example, the joyful sun, desperate wind, saddened clouds.
3. Pathetic fallacy is not just about the weather. It indicates human emotion assigned to anything in nature.

Link: Apply the knowledge, master the skill.

Write a protest poem with an issue from today's society as your central theme.

For example: Climate change, homelessness, hate crime.

In your plan outline the key vocabulary and poetic devices you will include.

How will you persuade your audience to support your cause?

Essential Vocabulary

Romanticism: (n) an art movement that focuses on nature and humanity.

Sublime: (adj) something of great excellence or beauty.

Awe: (n) a feeling of mixed fear, respect, and wonder

Anti-establishment: to be opposed to power or authority in society.

Pathetic fallacy: human emotions/feelings are assigned to something in nature.

Personification: human characteristics are assigned to something non-human.

Simile: comparing one thing to another using 'like' or 'as'.

Stanza: a section or verse in a poem

Sentimental: (adj) to express or be moved by sensitive or tender emotions: nostalgia, love, pity.

Metaphor: when you say something 'is' something else. Eg. The lake is a mirror.

Reverence (n): deep respect for someone or something.

Enjambment: the line of poetry continues onto the next line without punctuation or end of sentence.

Liberalism (n): a political and social philosophy that promotes individual rights, liberty and democracy.

Link: Show your understanding of key vocabulary

- Create flashcards with the essential vocabulary on one side and the definition on the other.
- Write an example of Pathetic fallacy.
- Write an example of personification.
- Write an example of a simile.
- How can you connect reverence to the sublime?
- Where do you see an example of anti-establishment in romantic poetry?

Geography Topic 1: Becoming a Geographer - Key Map Skills



Essential Vocabulary

Human Geography - The study of people e.g. Populations, Migration, Development

Physical Geography - The study of the natural World e.g. weather, volcanoes, rivers

Continent - The Earth's land is divided into 7 major World continents - Asia, North America, South America, Africa, Europe, Oceania and Antarctica

Hemisphere - The Earth is divided into 4 sections by the Equator and Meridian line (Northern, Southern, Eastern and Western Hemispheres)

Map Scale - The scale of a map is the ratio of a distance on the map to the corresponding distance on the ground

Global - Relating to the whole World

National - Relating to one country

Regional - Relating to one area within a country

Local - Relating to a small area or neighbourhood

Compass Direction - The four main points are North, East, South and West. OS maps are always printed with North at the top

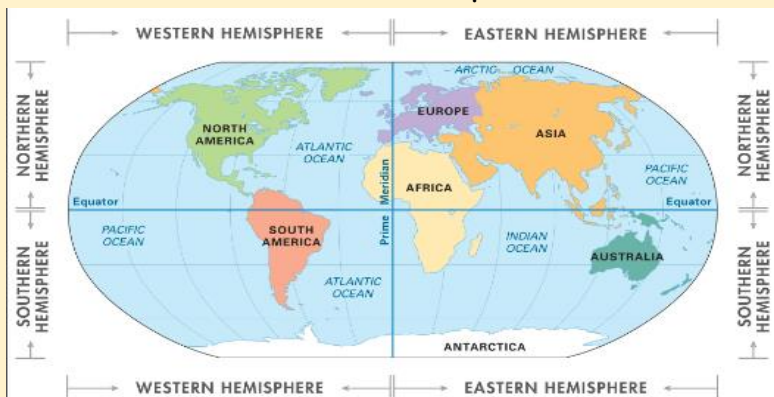
Northings - Vertical grid lines on an OS map (lines going up and down)

Eastings - Horizontal grid lines on an OS map (lines going across)

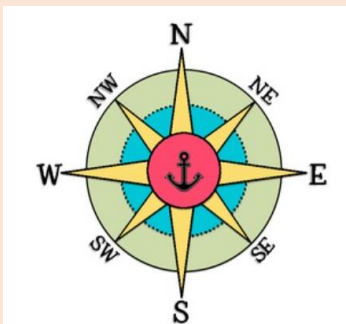
Altitude - Height above sea level (0 metres)

Relief - This describes the shape of land e.g. hilly, flat, V-shaped valley

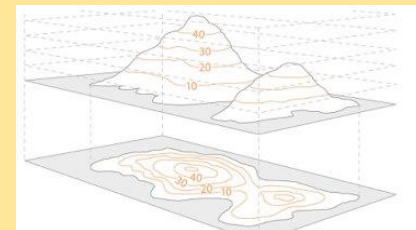
Continents and Hemispheres



Compass Direction



Contour Lines and Spot Heights



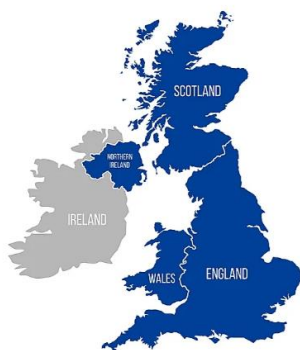
How do we use contour lines to work out altitude and relief?



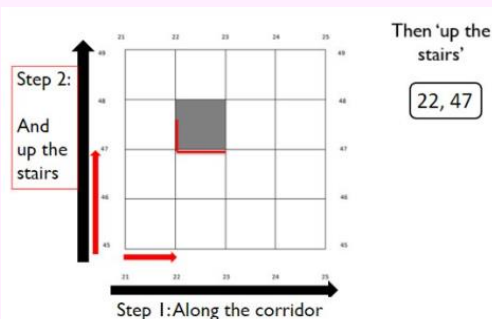
4 Countries of the United Kingdom



UNITED KINGDOM

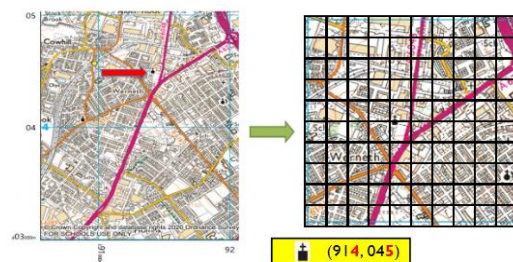


4 Figure Grid References



6 Figure Grid References

With 6-figure grid references you must 'pretend' that the grid square is divided into 10 rows going left-to-right, and 10 rows going top-bottom. 6-figure grid references help us find the exact location of a place.



4 Flags of UK Countries



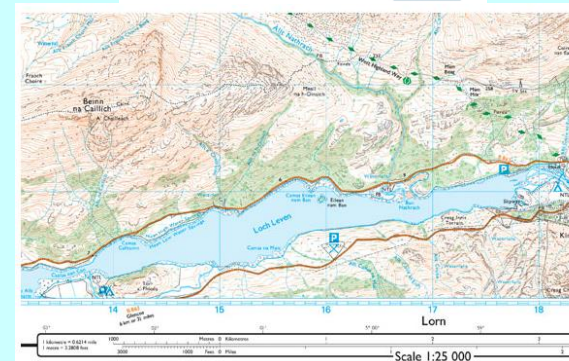
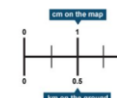
Scale

Information about map scales can be shown and expressed in different ways:

1 : 25,000

1cm on the map Equals 25,000 cm in real life

In other words, 1cm = 250m, 4cm = 1km



Geography Topic 2: Becoming a Geographer - Oldham and Urban Sprawl

Core knowledge



Prior learning

- We have learned about map skills, including using an OS map and the symbols on them
- We have looked at how to read OS maps, including looking at how we can tell the altitude of land, contour lines and how to measure distance

1. Why is Oldham located here?

When deciding on where to place a settlement, it has to have positive natural advantages such as:

- Nearby water
- Slightly higher land than surrounding areas
- Close to rivers
- Dry soil
- Close to forests
- Shelter from Northerly winds
- An area of flat land

Because Oldham has mostly poor, thin soil it is hard to grow food crops here, this meant that Oldham didn't grow as a town until the industrial revolution.

During the industrial revolution, Oldham began to specialise in cotton spinning, with the mild wet climate meaning that the cotton didn't dry out and snap, allowing it to be turned into cloth. This along with its location providing workers from both Manchester and Leeds, led to Oldham becoming the cotton spinning capital of the world with 360 mills working 24 hours a day at its busiest.

2. Reasons for migration

There are lots of reasons for migration.

Push factors: warfare, poor economy, lack of job opportunities, discrimination/prejudice etc.

Pull factors: Job opportunities, weather, educational opportunities, better healthcare etc.

Many groups migrated to Oldham because of the job opportunities due to the Industrial Revolution in the 18th Century. This declined after the mills closed in the early-mid 20th century.

3. What causes Urban Sprawl?

Lots of things cause Urban Sprawl. For example:

- Youthful populations causing a demand for housing suitable for families
- The growth of Manchester into the surrounding areas
- There is now little space in the inner city, so there is greater development on greenfield land
- Population growth
- Overcrowding
- Demand for out-of-town shopping retail parks

4. Greenfield VS Brownfield sites

	Positive	Negative
Brownfield	It makes the area look better; sites are nearer to shops/entertainment	Sites are expensive to clear; the utilities might be old and need improving
Greenfield	Land is often cheaper; more room for gardens; not restricted by current roads	Many people object to building; habitats of animals could be destroyed

5. What is urban regeneration?

- Urban Regeneration is when run down areas are cleared out and replaced by better quality buildings to attract people to the area.

- In Oldham, this is happening in the Cultural Quarter and also at Oldham Mumps. In both places, lots of money has been spent improving the area so that more people will come and work/live in Oldham. This would bring more money into the local economy



Essential Vocabulary

Relief- The shape of the land, including the height (elevation) of the land's surface e.g., steep, mountainous

Migration - The movement of people to a new country or area in order to find work or better living conditions

Infrastructure - The fixed installations that towns and cities need to function e.g., roads, sewer systems, airports, dams and ports

Settlement - A place where people live. It can range in size from an isolated hamlet or village to 20 million people in a city

Push Factors- reasons which push people away from their home to find a new one

Pull Factors - reasons which pull people towards a certain country/city to live

Urban Sprawl - the spread or expansion of an urban area into the surrounding countryside (rural)

Urban- a built up area relating to, or a characteristic of, a town or city

Rural - connected with or like the countryside

Greenfield - used to describe an area of land that has not yet had buildings on it, but for which building development may be planned

Brownfield- used to describe an area of land in a city that was used by industry or for offices in the past and that may now be cleared for new building development

Stakeholder - a person or company that is involved in a particular organization, project, system, etc., especially because they have invested money in it

Geography Topic 3: What impact does Climate Change have on the UK and Europe?

Core knowledge

Prior learning

- Physical Geography = the study of the natural world
- Human Geography = the study of people and places

1. How has Climate Change happened naturally in the past?

Greenhouse Effect- The Greenhouse Effect is the natural trapping of the sun's energy in the atmosphere due to the presence of greenhouse gases. This process makes the Earth much warmer.

Greenhouse effect

- 1) Radiation from the sun passes through the atmosphere
- 2) Radiation is reflected off the surface
- 3) Some of the radiation passes back into space
- 4) Some radiation is reflected off greenhouse gases and becomes trapped and heats the earth

Volcanic Eruptions

Big volcanic eruptions can change the Earth's climate. Small eruptions. The eruption needs to be very large and explosive.

Volcanic eruptions produce:

Ash- this can block out the sun reducing global temperatures
Sulphur Dioxide gas- this converts to sulphuric acid, the droplets reflect radiation from the sun also causing cooling

2. How are humans accelerating Climate Change?

There are lots of ways that humans are also accelerating Climate Change.

- 1) **Fossil Fuels** - burning fossil fuels is the biggest contributor to increased levels of greenhouse gases in the atmosphere. Mineral fuels are a major energy source for industries such as transport and heating our homes. Minerals used are: Petroleum; natural gas and coal.
- 2) **Deforestation** - 30% of the world is covered in rainforests, and in around 100 years the rainforests could disappear completely. Forestry and agriculture are responsible for 24% of gas emissions. When trees are felled, they release carbon.
- 3) **Landfill** - When you put rubbish in the bin it goes to landfill, there the food and garden waste starts to rot, as it does this it gives off methane. Methane is a greenhouse gas that is 28 times stronger than carbon dioxide at trapping heat.
- 4) **Agriculture** - agriculture - livestock and growing plants. Producing food globally uses a lot of fossil fuels in the production of fertilisers and pesticides and in the transportation of food. Keeping animals in large quantities for meat production or dairy produces methane (CH₄)

3. How serious a threat is Climate Change to the UK

Impacts of Change, which have increased since the early 19th century, are:

Negatives

- Increase of fires spreading due to increases in heatwaves (such as the Saddleworth Moor fire in 2019)
- By 2050 1.9 million more homes will be at risk of flooding
- Climate change is likely to drive up food prices, with extreme weather leading to lost crops and price hikes. About 40% of all our food is imported, leaving the UK vulnerable to droughts and floods.

Positives

- A warmer climate will bring benefits to British agriculture by allowing for year-round crop growing and opportunities to grow a more diverse range of crops
- Resorts on the South coast could become more like the Mediterranean could attract more tourists and money to these areas

4. How serious a threat is Climate Change to Europe?

There are two main impacts of Climate Change in Europe:

- 1) **Wildfires**. These mainly affect southern Europe though also have some impact all across Europe. The number of wildfires significantly increased in Europe in 2019, including a wildfire in Greece which was so bad, and caused so many deaths that the Greek Prime Minister declared three days of national mourning
- 2) **Glaciers Melting**- on areas like the Alps, when the impacts of global warming are felt it means that the glaciers retreat. Each year there is around one month less of glaciers on the alps. Also, as meltwater reduces, there is a reduction in hydroelectric production which means that it would be harder to meet electricity needs in the future. Economically, the glaciers melting will also cause problems for ski resorts as there will be a shorter ski season as there won't be enough snow on the slopes during the average ski season.

Essential Vocabulary

Climate Change - changes in the earth's weather, including changes in temperature, wind patterns and rainfall, especially the increase in the temperature of the earth's atmosphere

Impact - the powerful effect that something has on somebody/something

Volcano - a mountain with a large opening at the top through which gases and lava (= hot liquid rock) are forced out into the air, or have been in the past

Glacier - a slow-moving mass or river of ice, formed from snow on mountains or near the North Pole or South Pole

Climate - a slow-moving mass or river of ice, formed from snow on mountains or near the North Pole or South Pole

Vulnerable - weak and easily hurt physically or emotionally

Wildfire - a very big fire that spreads quickly and burns natural areas like woods, forests and grassland

Deforestation - the act of cutting down or burning the trees in an area

Agriculture - the science or practice of farming

Alps - The Alps are the highest and most extensive mountain range that is entirely in Europe

Landfill - an area of land where large amounts of waste material are buried under the earth

Emission - the production or sending out of light, heat, gas, etc.

Mediterranean - relating to the Mediterranean Sea or the countries that surround it; typical of this area

German speaking countries and cognates

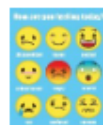
Was ist das?	What is this?
Das ist...	This is..
Deutschland	Germany
die Schweiz	Switzerland
Österreich	Austria
Buch	book
Haus	house
Wassersport	water sports
Supermarkt	supermarket
Bonbons	sweets / bonbons
Glas	glass



[Text Box]

Connectives

und	and
aber	but
denn	because
auch	also



Key Verbs

haben	to have	sein	to be	heißen	to be called
ich habe	I have	ich bin	I am	ich heiße	I am called
du hast	you have	du bist	you are	du heißt	you are called
Hast du?	Do you have?	Bist du?	Are you?	er / sie heißt	he / she is called
er / sie hat	he / she has	er / sie ist	he / she is		

Phonemes

a	ar in bar	ch	h in human
ü	oooooooo	z	ts in tsunami
ei	i in mice	eu	oi in noise
ie	ee in bee	v	f in fair
w	v in very	au	ou in loud
ß	ss in hose	sch	sh in shine

Age

Wie alt bist du?	How old are you?
Ich bin ein Jahr alt	I am one year old.
Ich bin ... Jahre alt.	I am ... years old.
Er ist ... Jahre alt.	He is ... years old.
Sie ist ... Jahre alt.	She is ... years old.
eins	1
zwei	2
drei	3
vier	4
fünf	5
sechs	6
sieben	7
acht	8
neun	9
zehn	10
elf	11
zwölf	12
dreizehn	13
vierzehn	14
fünfzehn	15
sechzehn	16
siebzehn	17
achtzehn	18
neunzehn	19
zwanzig	20
einundzwanzig	21
zweiundzwanzig	22

01234
56789

Favourite things

Was ist dein Lieblingssport?	What is your favourite sport?
Mein Lieblingssport ist...	My favourite sport is...
Fußball	football
Rugby	rugby
Tennis	tennis
Handball	handball
Basketball	basketball
Volleyball	volleyball
Schwimmen	swimming
Was ist deine Lieblingszahl?	What is your favourite number?
Meine Lieblingszahl ist...	My favourite number is...
Was ist deine Lieblingsmusik?	What is your favourite music?
Meine Lieblingsmusik ist...	My favourite music is...
Was ist deine Lieblingsfußballmannschaft?	What is your favourite football team?
Meine Lieblingsfußballmannschaft ist...	My favourite football team is...
Was ist dein Lieblingsland?	What is your favourite country?
Mein Lieblingsland ist...	My favourite country is...
Deutschland	Germany
Amerika	America
Australien	Australia
England	England
Schottland	Scotland
Was ist dein Lieblingsauto?	What is your favourite car?
Mein Lieblingsauto ist...	My favourite car is...
ein Porsche	a Porsche
ein Audi	an Audi
ein BMW	a BMW
ein Mercedes	a Mercedes

CORE KNOWLEDGE – HT2



Colours

Was ist deine Lieblingsfarbe?	What is your favourite colour?
Meine Lieblingsfarbe ist...	My favourite colour is ...
blau	blue
braun	brown
gelb	yellow
grau	grey
grün	green
orange	orange
rosa	pink
rot	red
schwarz	black
weiß	white

Months

Januar	January
Februar	February
März	March
April	April
Mai	May
Juni	June
Juli	July
August	August
September	September
Oktober	October
November	November
Dezember	December

Birthdays

Mein Geburtstag ist am	My birthday is on the
Dein Geburtstag ist am	Your birthday is on the
Sein Geburtstag ist am	His birthday is on the
Ihr Geburtstag ist am	Her birthday is on the

Mein Geburtstag ist am + date + month

Mein Geburtstag ist am fünfundzwanzigsten Juli
My birthday is on 25th July.

Sein Geburtstag ist am ersten März.
His birthday is on first March.

Dates

1 st	eins → ersten
2 nd	zwei → zweiten
3 rd	drei → dritten
4 th	vierten
5 th	fünften
6 th	sechsten
7 th	sieben → siebten
8 th	acht → achten
9 th	neunten
10 th	zehnten
11 th	elften
12 th	zwölften
13 th	dreizehnten
14 th	vierzehnten
15 th	fünfzehnten
16 th	sechzehnten
17 th	siebzehnten
18 th	achtzehnten
19 th	neunzehnten
20 th	zwanzigsten
21 st	einundzwanzigsten
22 nd	zweiundzwanzigsten
23 rd	dreiundzwanzigsten
24 th	vierundzwanzigsten
25 th	fünfundzwanzigsten
26 th	sechszwanzigsten
27 th	siebenundzwanzigsten
28 th	achtundzwanzigsten
29 th	neunundzwanzigsten
30 th	dreißigsten
31 st	einunddreißigsten

Countries and languages

Woher kommst du?	Where do you come from?
Ich komme aus	I come from
Ich komme nicht aus	I don't come from
China	China
Deutschland	Germany
England	England
Frankreich	France
Irland	Ireland
Italien	Italy
Nordirland	Northern Ireland
Österreich	Austria
Pakistan	Pakistan
Schottland	Scotland
der Schweiz	Switzerland
Spanien	Spain
Wales	Wales
Welche Sprachen sprichst du?	What languages do you speak?
Ich spreche	I speak
Ich spreche nicht	I don't speak
ein bisschen	a little
sehr gut	very well
Chinesisch	Chinese
Deutsch	German
Englisch	English
Französisch	French
Italienisch	Italian
Portugiesisch	Portuguese
Spanisch	Spanish
Urdu	Urdu
Walisisch	Welsh

CORE KNOWLEDGE – HT3

Connectives

und	and
aber	but
denn	because
auch	also

Intensifiers

sehr	very
ziemlich	quite
gar nicht	not at all

Family

Es gibt...Personen in meiner Familie	There are...people in my family
Das ist...	That / This is...
mein Vater	my father
mein Pflegevater	my foster father
mein Bruder	my brother
mein Cousin	my (male) cousin
mein Onkel	my uncle
mein Großvater / mein Opa	my grandfather / granddad
meine Familie	my family
meine Pflegemutter	my foster mother
meine Mutter	my mother
meine Schwester	my sister
meine Cousine	my (female) cousin
meine Tante	my aunt
meine Großmutter / meine Oma	my grandmother / grandma
Das sind...	These are...
meine Eltern	my parents
meine Pflegeeltern	my foster parents
meine Großeltern	my grandparents



Where you live

Wo wohnst du?	Where do you live?
Ich wohne in...	I live in...
Berlin in Deutschland	Berlin in Germany
Oldham in England	Oldham in England
Glasgow in Schottland	Glasgow in Scotland
Dublin in Irland	Dublin in Ireland
New York in Amerika	New York in America
Sydney in Australien	Sydney in Australia
Wien in Österreich	Vienna in Austria
Bern in der Schweiz	Bern in Switzerland
Rom in Italien	Rome in Italy
Madrid in Spanien	Madrid in Spain
Brüssel in Belgien	Brussels in Belgium
Amsterdam in Holland	Amsterdam in Holland
Paris in Frankreich	Paris in France

Adjectives

sehr gut	very good	cool	cool
super	super	grün	green
toll	great	grau	grey
gut	good	praktisch	practical
laut	loud		

Personality

Wie bist du?	What are you like?
Ich bin...	I am...
Er / Sie ist...	He / She is...
intelligent	intelligent
fleißig	hard-working
faul	lazy
laut	loud
musikalisch	musical
sportlich	sporty
kreativ	creative
launisch	moody
lustig	funny
freundlich	friendly



Family

 einen (a) keinen (no)	Bruder (brother)
	Halbbruder (half brother)
	Vater (dad)
	Stiefvater (step-dad)
eine (a) keine (no)	Pflegevater (foster dad)
	Schwester (sister)
	Stiefschwester (step-sister)
	Mutter (mum)
zwei	Pflegemutter (foster mum)
	Brüder (brothers)
keine (no)	Schwestern (sisters)
	Geschwister (siblings)

CORE KNOWLEDGE – HT4

Connectives

und	and
aber	but
denn	because
auch	also

Intensifiers

sehr	very
ziemlich	quite
gar nicht	not at all

Opinions



Ich liebe + noun	I love + noun
Ich mag + noun	I like + noun
Ich mag + noun nicht	I don't like + noun
Ich hasse + noun	I hate + noun
meinen Bruder / Vater...	my brother / father...
meine Schwester / Mutter...	my sister / mother...



Key verbs



haben	to have	sein	to be
ich habe	I have	ich bin	I am
du hast	you (singular) have	du bist	you (singular) are
Hast du?	Do you have ?	Bist du?	Are you ?
er / sie hat	he / she has	er / sie ist	he / she is
wir haben	we have	wir sind	we are
ihr habt	you (plural) have	ihr seid	you (plural) are
sie haben	they have	sie sind	they are

Appearance



Wie siehst du aus?	What do you look like?
Ich bin...	I am...
Er / Sie ist...	He / She is...
...groß	...tall
...klein	...small
...dick	...big / large
...schlank	...slim
Ich habe...	I have...
Er / sie hat	He / she has
lange Haare	long hair
mittellange Haare	medium-length hair
kurze Haare	short hair
blonde Haare	blond hair
braune Haare	brown hair
schwarze Haare	black hair
rote Haare	red hair
glatte Haare	straight hair
lockige Haare	curly hair
grüne Augen	green eyes
blaue Augen	blue eyes
braune Augen	brown eyes

Alphabet

Wie schreibt man das? How do you spell it?			
Man schreibt das ... You spell it ...			
a = ah	i = eee	q = koo	y = oopsilon
b = bay	j = yot	r = air	z = tset
c = tsay	k = car	s = ess	ö = ir in shirt
d = day	l = ell	t = tay	ä = air
e = eh	m = em	u = oo	ü = ooooo
f = eff	n = en	v = fow	ß = esstsett
g = gay	o = oh	w = vay	
h = ha	p = pay	x = eeks	

Musical instruments

Was spielst du?	What do you play?
Ich spiele...	I play...
Flöte	flute
Geige	violin
Klavier	piano
Gitarre	guitar
Schlagzeug	drums



Sports

Was spielst du?	What do you play?
Ich spiele...	I play...
Fußball	football
Basketball	basketball
Badminton / Federball	badminton
Volleyball	volleyball
Tennis	tennis
Tischtennis	table tennis
Rugby	rugby
Handball	handball
Eishockey	ice hockey
Wasserball	water polo



Opinions

Was spielst du?	What do you play?
Ich spiele...	I play...
Ich spiele gern ...	I like playing...
Ich spiele ziemlich gern ...	I quite like playing...
Ich spiele nicht gern ...	I don't like playing...

CORE KNOWLEDGE – HT5

Time phrases

In German, an expression of time (when?) or frequency (how often?) goes straight after the verb just like when we use gern and nicht gern as the pronoun and the verb stay together.

am Abend	in the evening
am Wochenende	at the weekend
oft	often
nicht so oft	not so often
jeden Tag	everyday
jeden Morgen	every morning
einmal pro Woche	once a week
zweimal pro Woche	twice a week
dreimal pro Woche	three times a week
einmal pro Monat	once a month
immer	always
manchmal	sometimes
nie	never
heute	today

Adjectives

irre	amazing	nicht schlecht	not bad
sehr gut	very good	okay	OK
super	super	langweilig	boring
toll	great	nervig	annoying
gut	good	stinklangweilig	deadly boring
cool	cool	furchtbar	awful

Free time activities

Was machst du in deiner Freizeit?	What do you do in your free time?
Ich fahre ...	I go...
Skateboard	skateboarding
Rad	cycling
Ski	skiing
Snowboard	snowboarding
Ich gehe in den Park.	I go to the park.
Ich gehe in die Stadt.	I go to town.
Ich gehe ins Kino.	I go to the cinema.
Ich gehe einkaufen.	I go shopping.
Ich mache ...	I do ...
Judo	judo
Karate	karate
Sport	sport
Ich lese ...	I read ...
Bücher	books
Comics	comics
Ich reite	I ride horses
Ich schwimme	I swim
Ich sehe fern	I watch TV
Ich tanze	I dance
Ich höre Musik.	I listen to music.
Ich chill	I chill/relax
Ich esse Pizza oder Hamburger.	I eat pizza or hamburgers.
Ich spiele Xbox.	I play Xbox.





Ich chatte mit Freunden auf Facebook.	I chat with friends on Facebook.
Ich lade Musik herunter.	I download music.
Ich mache Fotos oder Filme.	I take/make photos or films.
Ich sehe Videos.	I watch videos.
Ich simse	I text
Ich spiele Computerspiele.	I play computer games.
Ich suche und lese Infos für die Hausaufgaben.	I look for and read information for homework.
Ich surfe im Internet.	I browse the internet.
Ich telefoniere mit Freunden.	I call my friends.



Opinions

Was spielst du?	What do you play?
Ich spiele...	I play...
Ich spiele gern ...	I like playing...
Ich spiele ziemlich gern ...	I quite like playing...
Ich spiele nicht gern ...	I don't like playing...

CORE KNOWLEDGE – HT6

Future tense

You need four parts to form the future tense in German:

- 1: the subject - ich (I)
- 2: a form of werden - **werde** (will)
- 3: the rest of the information (e.g. football, a book, my friends, a pizza)
- 4: the infinitive (the verb ending in 'en' which is at the end of the sentence.)



Ich werde	I will
Du wirst	You (sing) will
Er /sie / es wird	He / she / it will
Wir werden	We will
Ihr werdet	You (pl) will
Sie werden	They will

in die Stadt gehen.	go to town.
Freunde treffen.	meet friends.
Fußball spielen.	play football.
einkaufen gehen.	go shopping.
ins Kino gehen.	go to the cinema.
einen Film sehen.	see a film.
eine Pizza essen.	eat a pizza.
im Internet surfen.	browse the internet.
Bücher lesen.	read books.
mit Freunden online chatten.	chat with friends online.
tanzen.	dance.
chillen.	chill.

Intensifiers

sehr	very
ziemlich	quite
gar nicht	not at all

Connectives

und	and
aber	but
denn	because
auch	also

Adjectives

irre	amazing	nicht schlecht	not bad
sehr gut	very good	okay	OK
super	super	langweilig	boring
toll	great	nervig	annoying
gut	good	stinklangweilig	deadly boring
cool	cool	furchtbar	awful

Time phrases

In German, an expression of time (*when?*) or frequency (*how often?*) goes straight after the verb just like when we use *gern* and *nicht gern* as the pronoun and the verb stay together.

immer	always	nächste Woche	next week
manchmal	sometimes	in zwei Wochen	in two weeks
nie	never	nächstes Jahr	next year
heute	today	nächstes Wochenende	next weekend
morgen	tomorrow	nächsten Freitag	next Friday



History Skills: Year 7

Provenance and Causation

Causation

In History, causation is what has caused Historical events to happen. They are split up into several different types of causes:

- 1) Long Term Causes: These are causes which happen a long time before the event, but contribute to the event happening
- 2) Short Term Causes: These happen in the months/days before the event begins, and they make it much more likely for the event to happen
- 3) Trigger Cause: This is the final cause which makes an event happen. It means that now the event has to happen, and there is no way for it to be stopped.

Short Term Causes

Causes which happen hours, days or weeks before the event.
Words to describe these include:

Trigger/triggered: The final event/situation where something has to now happen. This event is usually the final straw.

Spark/sparked: To be the immediate cause of something

Long Term Causes

Causes which happen months, years, decades or centuries before the event. To describe a long term cause, you could use the terms:

Foundation: The basis of where the cause/s begin

Origins/beginning: Where an event/situation has its roots or beginnings

The root of: Where an event/situation began

Causes which develop

Exacerbate: To make a situation much worse

Further: To develop an event/situation

Consequently: As a result...

This led to: use this to link causes together

Causes which are part of a bigger picture

Underlying: The cause which supports others. This cause will link to lots of others.

Contributed: To cause something by increasing or adding to it. Usually not the main cause.

Negative causes

Prevent: To stop something from happening

Discourage: Causing someone to lose enthusiasm/confidence

Extinguish: Completely stopping something from happening

Impede: to delay or prevent something

Here are some ways to describe causes in your arguments.

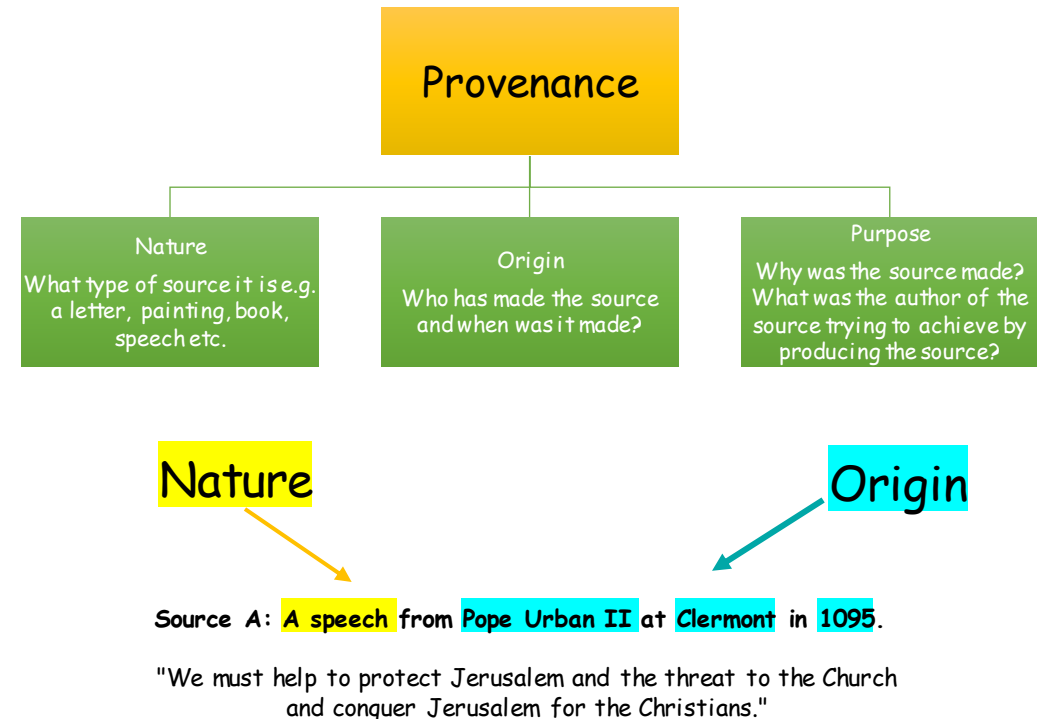
Remember you should also try to think about which cause was the most important in making an event happen.

Provenance

Provenance means where something has come from. In History, we look at Provenance when we examine sources. Sources provide us with a way to learn about the past.

Sources are any pieces of evidence from the past, e.g. jewellery, pottery, letters, books etc.

When we examine Provenance, we also look to see how reliable pieces of information are from the past. We also make a comment about how reliable a source is, so we can work out how useful the information inside the source is, e.g. has it been over-exaggerated?



The nature of the source is a speech.

The origin of the source is it was spoken by Pope Urban II in Clermont on 1095.

The purpose of the source is that it was spoken to try to persuade Christians to try to invade the Middle East in order to recapture Jerusalem.

Reliability: The source is likely to be over-exaggerated, as the Pope would want to ensure Christians would go on Crusade, however, it is useful to us learning about what the Pope wanted out of the Crusade as it is from the time when he was trying to motivate Christians to go on the First Crusade.

History Topic 1 - Were the Vikings raiders or traders?
Core Knowledge



1. Who were the Anglo-Saxon people?

- They were two tribes who invaded England after the fall of the Roman empire in 410
- One reason the Roman Empire fell was it was too big to rule
- The Anglo-Saxons could not read or write.
- There were only around 1 million people living in scattered villages
- In 597 Anglo-Saxon England slowly began to convert to Christianity through the work of Augustine who was a monk sent from Rome.
- They had lots of kingdoms in England which were not united such as Mercia and Wessex. They were only united under King Æthelstan in 937



2. Who were the Vikings?

- They came from the Scandinavian countries of Denmark, Norway and Sweden
- They were skilled at building ships called Longboats
- They sailed as far west as Canada and as far east as Russia
- They invaded England for the first time in 793
- They were Pagans and so worshiped many different Gods



Essential Vocabulary	
AD - Used to record historical dates as a number of years after Christ's birth	
Anglo-Saxons- Two Germanic tribes who invaded England from Germany between 400-600AD	
Burh- A fortified town in a local area	
The Dark Ages- a time period which began in 410 and ended in 1066. It was called 'Dark' as not much was recorded.	
Jorvik- The centre of Viking power in England. It is in modern day York.	
Migration - moving from one place to another.	
Monastery- a building occupied by a community of monks or nuns	
Monk- A man who dedicates his life to God. The female equivalent is called a nun	
Vikings- Seafaring people from Scandinavia	

3. The case for them being raiders

- In **793** and for years afterwards the Vikings attacked defenceless monasteries in England and plundered their wealth
- Some towns paid Vikings a danegeld to get them to stop attacking but the Vikings often just took the money and then attacked them anyway
- In 865 the Vikings launched the Great Heathen Army with 1000-6000 men and captured the city of York in 867. **Jorvik** became the centre of Viking England
- The army then marched and attacked East Anglia and tied King Edmund to a tree and fired arrows at him when he refused to renounce [give up] his faith. It was said he looked like a hedgehog.
- In 990 the Vikings began invading again. King Æthelred the Unready tried to pay them off but they kept coming back. Eventually, a Viking became king in 1016 (King Cnut).

4. The case for them being traders and settlers

- Viking traders brought different goods from areas of land they had sailed to such as silks, wine and jewellery
- There is lots of archaeological evidence to suggest that Vikings were more interested in trading with areas they discovered
- The Vikings had a large and extensive trade network, such as to the Middle East, Russia and to the far east
- Several trade routes connected Scandinavia with both Europe and further beyond down the 'Silk Road' of trade into Asia
- It has been suggested that Vikings settled in the places they sailed to. DNA evidence suggests they settled in areas such as England, Scotland, Germany etc and married those there, rather than destroying the communities.
- They even settled in northern France and became what we now know today as the 'Norman' people.

Cat Jarman- The vision and idea of the Vikings as very brutal, raiding and pillaging, causing damage is a common misconception. The Vikings weren't necessarily more violent than the Anglo-Saxons. It is possible that Vikings may have gone to trading sites even as far as Baghdad. There are suggestions even Viking women would go out and trade across different countries outside England and Scandinavia.



What do the historians think?

Kenneth Clark- The Vikings were nothing more than axe-wielding barbarians who pillaged and plundered their way across Europe with dire consequences for Western Civilisation which only scraped through by the skin of its teeth. They were brutal and rapacious [aggressive]. The terror of the Viking ship was not unlike the nuclear submarine in the modern age.

History Topic 2: How successful were challenges to the King's power?

Core knowledge



Prior learning

- There were many monasteries in England, which were rich and caused many to be envious of England
- Many people were interested in England due to its wealth and learning, despite the Viking attacks. This made different people want to rule England.
- England was now united after being lots of different Anglo-Saxon Kingdoms

1. Why was there a crisis in 1066?

Edward the Confessor died without an heir, leading to four claimants demanding the throne

- 1) William of Normandy
- 2) Harold Godwinson
- 3) Edgar Aetheling
- 4) Harald Hardrada

Edgar was ignored as he was too young. The Witan chose Harold Godwinson instead. However, Godwinson had to fight the Battle of Stamford Bridge to get rid of Harald Hardrada [Viking ruler]. Then, William of Normandy arrived in England to take the throne.

At the Battle of Hastings (14th October 1066), William won against Harold and became King. This was partly due to his good tactics but also that Harold Godwinson's men were poorly trained and tired.

After his victory, William established power by ensuring the Anglo-Saxons didn't rebel (Harrying of the North and building castles), as well as making the Domesday book to work out how wealthy England was.

2. Who was the most powerful medieval monarch?

Henry II - Ruled over the Angevin Empire (England and half of France); incredibly rich but argued with the Church and his sons/wife rebelled against him.

Richard I - Led the third Crusade to the Middle East; a strong ruler and called Lionhearted because of his bravery. However, he spent less than 6 months in England and spoke no English.

John I - Poor king who lost most of the land in France; he was excommunicated in 1209 and his nobles rebelled against him. He was made to sign Magna Carta in 1215.

Edward I - Conquered Scotland in less than a month and called the Hammer of the Scots. Also built lots of castles in Wales and Conquered them.

3. How powerful was the Medieval Church?

- The head of the Roman Catholic Church was the Pope
- The most senior Churchman in England was the Archbishop of Canterbury
- Henry II and Thomas Beckett argued over who should have more power- the King or the Church. When Beckett refused to give Henry the power, Henry got angry and four knights killed Beckett. This was because they thought Henry would reward them.
- England had lots of monasteries where monks and nuns lived. In the monasteries
- The Church was important to the lives of everyday people
- Everyone paid a tithe (10% of their income) to the Church
- The Church was also powerful as William gave them 1/3 of all land in England after 1066

4. Why did the nobles challenge the King?

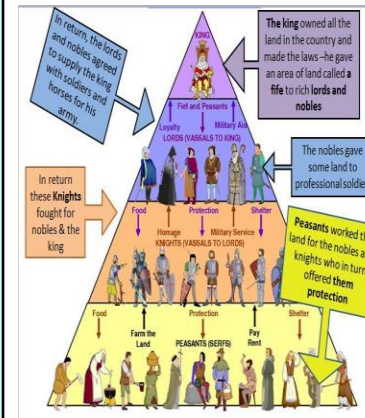
Nobles were second on the Feudal Pyramid. They challenged the power of the King for three reasons:

- To get more power
- To get more money/land
- To make the country a better place

One example of how the nobles challenged the power of the King was when Henry of Lancaster joined with rebellious nobles in 1399 to remove his cousin, Richard II from the throne. Henry then made himself king (Henry IV) so he'd have more money/power and could make the country a better place.

5. Why did the peasants revolt?

- After the Black Death (1348-51) the peasants asked for higher wages. However, Edward III introduced the Statute of Labourers (1351) which made asking for a higher wage illegal
- Then in 1381 a Poll Tax was introduced by Richard II to pay for his war in France.
- The Peasants refused to pay. Wat Tyler led peasants to London. Here, they killed nobles, but it ended badly for the peasants when Tyler was killed.
- The revolt failed, but their rights improved over time



Essential Vocabulary

Monarch - The King or Queen

Motte and Bailey - A wooden castle built on a hill that is quick and easy to construct

Rebellion/Revolt - To fight back or protest against the king.

Feudal system - A system of dividing up land used by William to keep control of the English.

Conquer - Taking an area by force.

Normans - People from the Normandy region of France, led by King William the Conqueror

Anglo-Saxons - People that lived in England before the Norman Conquest

Nobles - People of high social position who have titles such as that of duke/duchess or lord/lady. They have lots of land and money.

Excommunicate - where you are kicked out of the Church and are not allowed to go to heaven after death

Peasants - the lowest on the Feudal System. They were poor farmers who worked for a noble.

Witan - An early form of government. They were responsible for selecting the King in Anglo-Saxon England.

Causation - the reasons why something happens. It is a historical skill.

Pilgrim - someone who makes a religious journey (a pilgrimage)

Church - the organisation of the Christian religion, including its leaders, ceremonies and rules. It is not just the building.

History Topic 3: How did the Islamic World react to the Crusades?

Core knowledge

Prior learning

- Europe was mainly Christian in the Medieval period
- The Pope was the head of the Church, and the Church was very powerful in each European country
- The Dark Ages in England was called this because very little was recorded.

1. What was the Islamic Golden Age?

The Islamic Golden age began in the 8th century and continued until the 13th century. During this time, Jerusalem became an important city in the Islamic world after being conquered by Muslims in 638AD. Baghdad was the capital of the Islamic World and as built by Al-Mansur in 762AD. Baghdad became an important city, and Al-Mansur developed the House of Wisdom there which became an important library. The House of Wisdom also began to translate important works, like Hindu, Persian and Greek into Arabic, as well as improving the study of subjects like: Maths, Science and Geography.

2. Why did Christians go on Crusade?

The Pope had always wanted to conquer Jerusalem; however, they were given an excuse to invade the Middle East when the Seljuk Turks stopped the Christians going on pilgrimage to Jerusalem. The Byzantine Empire asked the Pope for help in defending against the Seljuk Turks. This led the Pope to deliver a speech at Clermont in France in 1095AD. There were other reasons the Christians went on Crusade:

Chivalry

Some went to prove they were good knights and followed the code of Chivalry, for example to protect the Church.

Land and Money

20,000 peasants went to try to improve their economic situation. Some went for land/money as they knew the Islamic Empire was rich.

Religious Reasons

The Pope promised all Christians who went on Crusade an indulgence, which was forgiveness from all sins and a guaranteed place in heaven.

First Crusade 1095-1099

Led by: Godfrey of Bouillon, Baldwin of Boulogne, Bohemond of Taranto and Adhemar of Le Puy

Main events: The Crusaders defeated some Muslim leaders, eventually taking the cities of Antioch and Jerusalem. When they took over Jerusalem, they massacred many of the inhabitants inside the city.

Third Crusade 1189-1192

Led by: Richard I of England, Philip II of France and Frederick Barbarossa.

Main events: The Crusaders went to recapture Jerusalem. Barbarossa died on the way, and Philip left in 1191. This left Richard to face Saladin alone. Richard had to leave to deal with his brother John, so he made a truce with Saladin, which said he kept Jerusalem but allowed Christian Pilgrims into the city.

4. How did the Christians consolidate their power?

It wasn't enough to just conquer Jerusalem, the Crusaders also had to consolidate their power through:

- Leadership:** Strong monarchs like Queen Melisandre and King Fulk improved trading and also the defences in the area
- Treaties/peace:** The Crusaders traded and made peace with the local Muslim population, as well as making treaties with local Muslim rulers
- Castles and defences:** Crusaders built castles like Krak des Chevaliers in order to show how powerful they were. These were all similar ways to how William had consolidated his power in England after 1066.

5. How did the Islamic Empire begin to fight back?

There were three main leaders in the Muslim fightback against the Christians:

Zengi

Nur ad-Din

Saladin

Initially, the Islamic World had not been ready for the Crusades. After the First Crusade, it took a while for the Muslim world to expand its armies again and begin to fight back against the Christians.

Each of these leaders began to push back the Crusaders, until Saladin reconquered Jerusalem in 1187 after a one month siege. This is what led to the Third Crusade, as the Pope wanted to retain control of Jerusalem.

Essential Vocabulary

Crusade - a series of wars between European Christian countries against the Muslims in the Middle Ages. It can also mean a long and determined effort to achieve something.

Monarch - The King or Queen

Siege - A military operation in which an army tries to capture a town by surrounding it and stopping the supply of food to the people inside

Consolidate - To make a position of power or success stronger so that it is more likely to continue

Jihad - a holy war fought against Christians and other non-Muslim groups. The term can also mean a personal struggle to improve a believers faith in Islam.

Conquer - Taking an area by force.

Massacre - the killing of a large number of people especially in a cruel way

Pope - The head of the Roman Catholic church. Generally the Pope lives in Rome.

indulgences - where you get a guaranteed place in heaven and all of your sins are forgiven

Peasants - the lowest on the Feudal System. They were poor farmers who worked for a noble.

Knights - A man of high social rank who had a duty to fight for his king.



Pilgrim - someone who makes a religious journey (a pilgrimage)

Church - the organisation of the Christian religion, including its leaders, ceremonies and rules. It is not just the building.

History Topic 4 - What caused Henry VIII to break from Rome?
Core Knowledge



Essential Vocabulary	
Annulment—a legal declaration that a marriage is null and void, so never happened	
Heir- a person who legally can receive property/titles after someone dies	
Reformation- where the English Church changed from Catholic to Protestant	
Catholic- belonging to the Roman Catholic Church. The Pope is the head of the Church.	
Protestant- those who 'protested' against the Catholic Church. The head of state is the head of their Church.	
Renaissance – A time of rebirth for literature, music and art between 14th-17th century	
Vagabond – a name Tudors gave to homeless beggars	
An Act – Another name for a law	
Heresy - Going against the religion of the monarch	
Rebellion - an attempt by some of the people in a country to change their government, using violence	

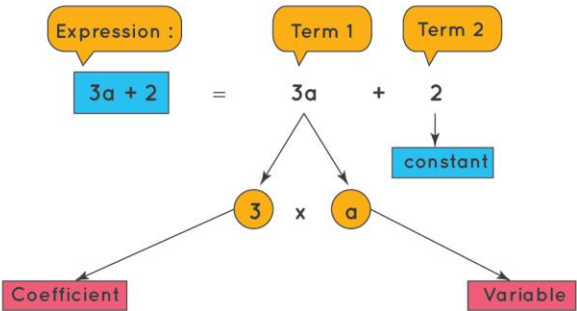
1. How did the Tudor dynasty begin?	2. What was life like in Tudor England?	3. Was Henry VIII a renaissance King?
<ul style="list-style-type: none">The Wars of the Roses (1455-1485) was between the house of Lancaster (red rose) and the house of York (white rose), because of a lack of a strong male heirHenry Tudor went into exile as he was the only heir to the house of Lancaster in 1471Richard III was a mostly unpopular king due to the rumours he killed his nephewsIn 1485, Henry Tudor killed Richard III at Bosworth, leading to the beginning of the TudorsHenry VIII died in 1509, and Henry VIII became the next King of England	<ul style="list-style-type: none">It was illegal to be homeless (a vagabond)90% of people lived in the countrysideIf you didn't go to church, you had to pay a fineIn the cities, there wasn't much of a feudal triangleIn the countryside, the nobles began to kick off the peasants from their land and put sheep on the land instead.	<ul style="list-style-type: none">Renaissance King = someone who is intelligent, improves the lives of the poor, enjoys music and is sportyHenry had 6 wives, two were divorced, two were beheaded, one died in childbirth and one survived HenryHenry was desperate to have a male heir as he didn't want the country to return to the fighting of the Wars of the RosesHe became overweight following a jousting injury in 1536
	4. Why did society begin to question the Catholic Church? There were three reasons society was unhappy with the Catholic Church: <ol style="list-style-type: none">The Black Death killed 1/3 of England. Many thought a benevolent God would not allow thisThe monks/nuns were not behaving wellMany disagreed with paying indulgences	5. Why did Henry VIII break from Rome? Henry VIII broke from Rome for four main reasons: <ol style="list-style-type: none">New Protestant ideas - Henry liked the new Protestant ideas that the King was the head of the ChurchA male heir - Henry was refused a divorce by the Pope, so he wanted to make a new Church to get rid of Catherine of Aragon as she was too old to have another childLove - Henry had fallen in love with Anne Boleyn and wanted to marry her, but the Pope wouldn't let him get rid of Catherine of AragonMoney - Henry wanted to take the money/goods from the monasteries as well as the taxes they'd usually send to Rome. Thomas Cromwell helped Henry to create the Church by using an act passed in 1533: The Act of Supremacy, which made Henry the head of the Church of England
	<div></div> <div>Roman CatholicProtestant</div>	

6. What was the impact of the Reformation?	
Short Term	Long Term
<ul style="list-style-type: none">The poor could no longer go to monasteries for charityPoor children could no longer be educated at monasteriesMonks/nuns were made homelessHenry VIII became rich and his nobles got the monasteries land	<ul style="list-style-type: none">Each of Henry VIII's children tried to change the religion of the country, leading to many being executed for heresyEventually it became illegal to be a Catholic, and no Catholic could inherit the throneReligious conflict between Catholics and Protestants continue to the modern day




Core Knowledge

Essential Vocabulary	Definition	Example
Term	One part of an algebraic expression, separated by + or -	
Like Terms	Terms that have the same variables and exponent	$3x + 7y + 2x + 9y$
Constant	A term that has a fixed value, usually a number without a variable	$2x^2 + 5x + 6$
Coefficient	A number which multiplies a variable (the number in front of a variable)	$3x^2 + 6x - 3$
Variable	A letter representing a number which may change	$3x + 3$ x is the variable
Expression	A group of terms and separators without an = sign (coefficients, constants, variables and operations)	$3x + 5$
Equation	A mathematical statement containing an equals sign, to show that two expressions are equal	$3x + 5 = 14$
Input	The number you put in to a function machine or expression	
Output	The number which comes out of a function machine	
Inverse	Operations that are the opposite of each other	The inverse of \times is \div The inverse of $+$ is $-$
Simplify	To find the simplest form of an algebraic expression by collecting like terms	$3x + 4x = 7x$
Substitute	Giving a variable a fixed value (replacing the variable with a number)	x when $x = 2$ $3 \times 2 = 6$
Formula	A statement linking two or more variables together	$A = \frac{b \times h}{2}$

Language



Expression	Terms
$2a + b^2$	$2a$ and b^2
$4x^3 + 3xz - 5$	$4x^3$, $3xz$ and 5
$9x^3 + 5x^3 + x + 16$	$9x^3$, $5x^3$, x and 16

Essential Vocabulary	Definition	Example
Integer	A positive or negative whole number , including zero.	− 134 , − 2, 0, 6, 2345
Base 10 number system	Our number system which uses 10 digits to show all numbers.	See place value table
Unit of measure	A standard value of a quantity used to measure or compare.	metre, gram, litre
Metric	Measurement system using metre, gram and litre as the standard units of length, mass and volume.	
Length	Distance from one end to the other. How long something is.	45 <i>cm</i>
Mass	The quantity of matter in an object. Often called weight in everyday life.	3.4 <i>kg</i>
Convert	Change a quantity from one unit of measure to another	0.18 <i>m</i> = 18 <i>cm</i>
Ascending	Arranged from smallest to largest (going up)	2, 5, 19, 36
Descending	Arranged from largest to smallest (going down)	1.4, 0.14, 0.1, 0.04
Greater than	Symbol >	2450 > 245
Less than	Symbol <	0.3 < 0.356
Equal	Having the same value, symbol =	2 × 3 = 6
Not Equal	Having different values (not the same), symbol ≠	2 × 3 ≠ 5
Multiple	The result of multiplying a number by an integer. The times tables of a number.	First 5 multiples of 12 : 12, 24, 36, 48, 60
Factor	A number that divides exactly into another number without a remainder.	Factors of 12: 1, 2, 3, 4, 6, 12
Factor pair	It is useful to list factors in pairs. Two integers which multiply to make another integer.	1 × 12 = 12 2 × 6 = 12 3 × 4 = 12
Prime number	A positive integer with exactly 2 factors (1 and itself).	1 is not prime as it's only factor is 1.
Prime factor	A factor which is a prime number	is a factor of 
Prime factorisation / Product of prime factors	Finding out which prime numbers multiply together to make the original number. Use a prime factor tree.	18 = 2 × 3 × 3 = 2 × 3 ² 
Composite number	A positive integer with more than 2 factors (not prime)	4, 9, 15, 125
Highest common factor	The largest number that divides exactly into two or more numbers.	HCF of 12 and 16 is 4
Lowest common multiple	The smallest number that is in the times tables of each of the numbers given.	LCM of 6 and 9 is 18
Exponent/Index	A small number placed to the upper-right of a base number which shows how many copies of the base number are multiplied together.	
Base number	A number being raised to an exponent/index - the large number to the bottom left of the exponent/index	
Power	The base number and exponent/index together	

Command Words	
Calculate, find, work out, evaluate	Give a numerical answer to the question - some working out will normally be needed
Write down	Give an answer - no working out will be needed

Key Numbers

Prime numbers	2, 3, 5, 7, 11, 13, 17, 19, 23, 29, ...		
Square numbers	1 ² = 1 × 1 = 1	5 ² = 5 × 5 = 25	9 ² = 9 × 9 = 81
	2 ² = 2 × 2 = 4	6 ² = 6 × 6 = 36	10 ² = 10 × 10 = 100
	3 ² = 3 × 3 = 9	7 ² = 7 × 7 = 49	11 ² = 11 × 11 = 121
	4 ² = 4 × 4 = 16	8 ² = 8 × 8 = 64	12 ² = 12 × 12 = 144
Cube numbers	1 ³ = 1 × 1 = 1	5 ³ = 5 × 5 = 125	9 ³ = 9 × 9 = 81
	2 ³ = 2 × 2 = 8	6 ³ = 6 × 6 = 216	10 ³ = 10 × 10 = 1000
	3 ³ = 3 × 3 = 27	7 ³ = 7 × 7 = 343	11 ³ = 11 × 11 = 1331
	4 ³ = 4 × 4 = 64	8 ³ = 8 × 8 = 512	12 ³ = 12 × 12 = 1728

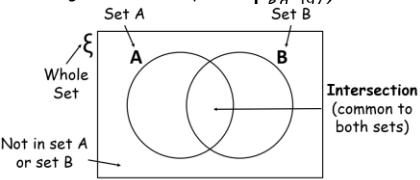
Place Value Column Headers

										$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
10 ⁹	10 ⁸	10 ⁷	10 ⁶	10 ⁵	10 ⁴	10 ³	10 ²	10 ¹	10 ⁰	10 ⁻¹	10 ⁻²	10 ⁻³
Billions	Hundred Millions	Ten Millions	Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths

Divisibility Tests

2	A whole number is divisible by 2 if the last digit is even (0,3,4,6,8)	e.g. 345,678
10	A whole number is divisible by 10 if the last digit is 0	e.g. 1,000,550
5	A whole number is divisible by 5 if the last digit is 0 or 5	e.g. 15, 60, 385
4	A whole number is divisible by 4 if the last two digits form a multiple of 4	e.g. 4536
3	A whole number is divisible by 3 if the sum of the digits is a multiple of 3	378 → 3 + 7 + 8 = 18, 18 is a multiple of 3 so 378 is divisible by 3
9	A whole number is divisible by 9 if the sum of the digits is a multiple of 9	1243 → 1 + 2 + 4 + 3 = 10, 10 is not a multiple of 9 so 1243 is not divisible by 9
6	A whole number is divisible by 6 if it is divisible by 2 and 3 (check both tests)	e.g. 378
8	A whole number is divisible by 8 if the last three digits form a multiple of 8	e.g. 1972

Venn Diagrams



Unit Conversions

Length	
1 kilometre (km)	1000 metres (m)
1 metre (m)	100 centimetres (cm)
1 centimetre (cm)	10 millimetres (mm)

Mass	
1 tonne (t)	1000 kilograms (kg)
1 kilogram (kg)	1000 grams (g)
1 gram (g)	1000 milligrams (mg)

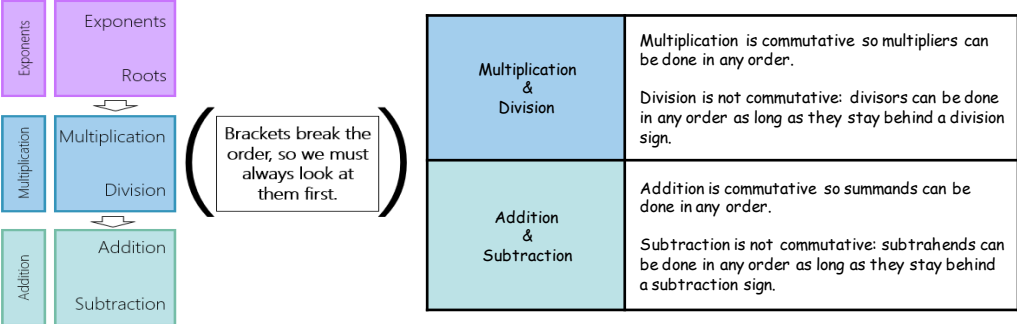
Essential Vocabulary

Word	Definition	Example
Commutative (Commutativity)	The order in which numbers are added or multiplied does not change the result.	$3 + 4 + 10 = 4 + 10 + 3$ $3 \times 4 \times 10 = 10 \times 3 \times 4$
Associative (Associativity)	When more than two numbers are added or multiplied, the result remains the same, irrespective of how they are grouped.	$(3 \times 5) \times 2 = 3 \times (5 \times 2)$ $(3 + 5) + 2 = 3 + (5 + 2)$
Operation	A mathematical process.	Adding, dividing, cubing, square rooting
Operator	The symbol for an operation.	$+$ \div ■^3 $\sqrt{\text{■}}$
Addition	An operation to find the total of a set of quantities.	Words indicating addition: add, plus, total, sum
Subtraction	An operation to find the difference between quantities.	Words indicating subtraction: minus, less, difference
Multiplication	An operation where a number is added to itself a number of times.	Words indicating multiplication: multiply, times, product
Division	An operation where a number is split in to equal parts or groups.	Words indicating division: divide, share, 'how many times does 5 go in to 10'
Exchange	To swap a quantity in one place value column for the equivalent quantity in another place value column.	Exchange 5 hundred for 50 tens Exchange 3 tenths for 30 hundredths
Remainder	An amount left over after a division (occurs when the dividend does not divide exactly by the divisor).	$9 \div 4 = 2 \text{ r}1$
Recurring Decimal	A decimal number with a digit (or group of digits) that repeats forever.	$3333 \dots$ $0.32\dot{4} = 0.32444444 \dots$ $5.1\dot{4}3 = 5.143143143143 \dots$
Brackets	Symbols used in pairs to group things together.	$(2 + 4)$
Positive	A number greater than zero.	$+5$ $^+5$ all mean positive five
Negative	A number less than zero.	5 (-5) $^-5$ all mean negative five
Zero pair	A pair of numbers whose sum is zero (when added together give a total of zero).	-1 and 1 -12 and 12
Additive inverse	The number added to another number to give a sum of zero.	The additive inverse of i is -3 The additive inverse of -2 is 2

Language

Addition	$6 + 2 \rightarrow$ "six plus two"	summand + summand = sum
Subtraction	$6 - 2 \rightarrow$ "six minus two"	minuend - subtrahend = difference
Multiplication	$6 \times 2 \rightarrow$ "six multiplied by two"	multiplier \times multiplier = product
Division	$6 \div 2 \rightarrow$ "six divided by two"	dividend \div divisor = quotient

Order of Operations



Mental Strategies of Addition

Jumping	Jump up by each place value column in turn.	$45 + 37 = 45 + 30 + 7$ $= 75 + 7 = 82$
Making multiples of 10	Start by jumping to the next multiple of 10 and then jump the rest.	$5 \qquad \qquad \qquad = 60 + 34$ $\qquad \qquad \qquad = 94$
Compensation	Start by jumping too far and then subtract to go back.	$1 + 19 = 18 + 20 - 1$ $= 38 - 1$ $= 37$
Adjusting	Make one number bigger and the other number smaller.	$24 + 38 = 22 + 40 = 62$
Partitioning	Split numbers in to their place value columns and then add separately.	$15 + 33 = 10 + 30 + 5 + 3$ $= 40 + 8 = 48$

Mental Strategies of Subtraction

Jumping	Jump back by each place value column in turn.	$96 - 42 = 96 - 40 - 2$ $= 56 - 2 = 54$
Making multiples of 10	Start by jumping back to the next multiple of 10 and then jump back the rest.	$76 - 39 = 76 - 6 - 33$ $= 70 - 33$ $= 37$
Compensation	Start by jumping too far back and then add on to compensate.	$96 - 49 = 96 - 50 + 1$ $= 46 + 1 = 47$
Adjusting	Make both numbers bigger or smaller.	$267 - 39 = 268 - 40$

Written Methods

Addition/Subtraction	Column method.	<div><div><div>506</div><div>+ 248</div><div>754</div></div><div><div>8123</div><div>- 496</div><div>7</div></div></div>
Multiplication	Area model	<div><div><div>30</div><div>5</div><div>600</div><div>100</div><div>120</div><div>20</div></div><div>$600 + 120 + 100 + 20 = 840$</div></div>
Division	Short division (bus stop)	<div><div>2</div><div><div>068:25</div><div>41275:06</div></div></div>

Music Year 7: Unit 1 Dynamics (In the Hall of the Mountain King)

Key Vocabulary

Dynamics	How loud or quiet the music is.
Rhythm	How long or short the notes are.
Pitch	How high or low the notes are.
Instruments	What is playing the music.
Tempo	How fast or slow the music is.
Texture	How thick or thin the music is.
Structure	How the music is built.
Piano	A quiet dynamic.
Forte	A loud dynamic.
Crescendo	Gradually getting louder.
Diminuendo	Gradually getting quieter.
Treble	The top line in a piece of music.
Bass	The bottom line in a piece of music.
Flat	An accidental where you move one semi tone to the right.
Sharp	An accidental where you move one semi tone to the left.

Core Knowledge - DR PITTS

DR PITTS stands for the seven key elements in KS3.

Dynamics, Rhythm, Pitch, Instruments, Tempo, Texture, Structure

In this unit, you must understand the seven key words, their definitions and how we remember them. You must then be able to identify and describe each element in a piece of music.

Link: Apply your knowledge:

Revise the key terms, definitions and how you remember them.

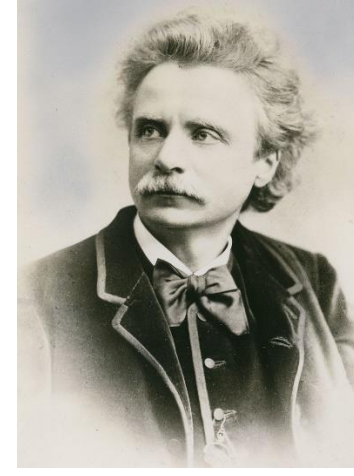
Context

Edvard Grieg

Edvard Grieg (born 15 June 1843 Bergen, Norway; died 4 September 1907) was a Norwegian composer and pianist who composed in the Romantic period. He is well-known for his Piano Concertos and his music for Peer Gynt

In the Hall of the Mountain King

In the Hall of the Mountain King was composed by Grieg in 1875. It was used for the sixth scene of act 2 in Henrik Ibsen's play Peer Gynt



Link: Show your understanding

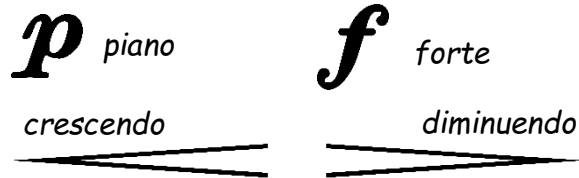
Listen to [In the Hall of the Mountain King](#). Can you describe the changes in dynamics, pitch, tempo and texture throughout?

Core Knowledge - Dynamics

Dynamics is the first key element in DR PITTS, it means how loud or quiet the music is.

In this unit, you will develop your understanding of dynamics further, describing loud, quiet and changes in dynamics using key musical vocabulary.

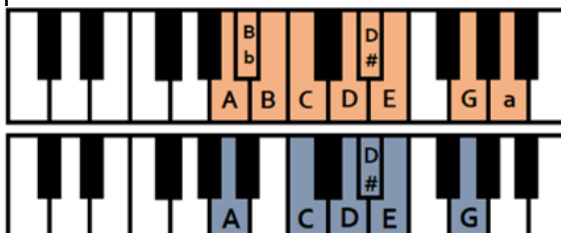
You must recognise the dynamic symbols and their meanings.



Keyboard Skills - In the Hall of the Mountain King

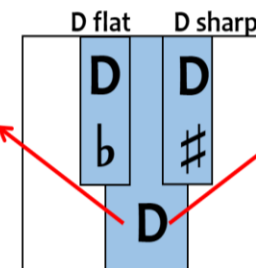
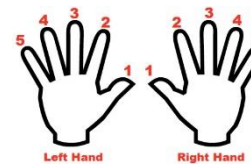
Key performance tips

- Play the treble line with your right hand and the bass line with your left hand.
- Flats are to the left, sharps are to the right.
- C is to the left of the two black keys.
- If the letter is lowercase (a), it means it is higher in pitch than the other note (A)
- The focus of a good performance is accuracy (playing the correct notes and rhythms) and fluency (allowing the piece to flow).



Right hand
(Treble clef)

Left hand
(Bass clef)



Link: Apply the knowledge, master the skill.




- If you have access to a keyboard at home, practice ITHOTMK using your performance skill understanding.
- Listen to your favourite piece of music. Look at how DR PITTS has been used in this piece to create an effective composition.

Link: Show your understanding of key vocabulary

- What are the four families of instruments?
- How would you describe a thin texture?
- How would you describe a thick texture?
- What are the symbols for flats and sharps?
- Which hand do you use to play the treble clef on a piano?
- Which hand do you use to play the bass clef on a piano?

Core Knowledge - Rhythm

Rhythm indicates how long or short note values are. In this scheme of work, you will focus on the four main note values in music, understanding their value and what they look like.

Note name	Value	Symbol
Semibreve	4 beats	
Minim	2 beats	
Crotchet	1 beat	
Quaver	$\frac{1}{2}$ beat	

Link: Apply your knowledge:

Revise the rhythms, their symbols and how many beats they are worth.

Remind yourself of how we remember a crotchet, quaver and a minim.

Core Knowledge - Metre

Metre is how the music is organised into beats and bars. It is indicated by a time signature at the beginning of a score.

There are two types of metre - simple metre and compound metre. It is important to recognise these two types of metre and identify how many beats are in a bar.

Simple metre example

4
4

Compound metre

6
8

Link: Apply your knowledge:

- What words do we use to identify a simple or compound metre? (think fruit!)
- Listen to your favourite piece of music, see if you can identify the metre and how many beats are in a bar.

Music Year 7: Unit 2 Rhythm & Metre (Shape of You)

Key Vocabulary

Rhythm	How long or short the notes are
Pulse	A steady, regular beat that continues through a piece of music.
BPM	Beats per minute (BPM) is how you measure a pulse.
Semibreve	A four-beat note.
Minim	A two-beat note.
Crotchet	A one-beat note.
Quaver	A half-beat note.
Dotted	A dot indicates half of the note value is added to the note.
Rest	Musical notation that indicates a break/no sound.
Metre	How the music is organized into beats.
Simple metre	When each beat can be divided into two.
Compound metre	When each beat can be divided into three.
Bass line	The lowest part of the piece of music.
Chords	Multiple notes played at the same time.
Riff	A repeated pattern in popular music.



Context

Ed Sheeran

Ed Sheeran (born 17 February 1991) is a British singer-songwriter and guitarist. He has released six studio albums and has had 13 UK Number Ones.

Shape of You

Shape of You was released in January 2017. It was the first released single from the studio album 'divide'. It was a number one single in the UK, US, Canada and Australia.

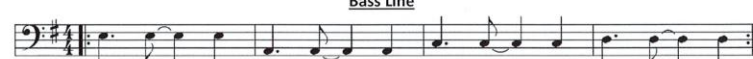
Link: Show your understanding

Listen to [Shape of You](#). Can you appraise this piece using DRPITTS and identify its metre?

Performance Skills - Shape of You

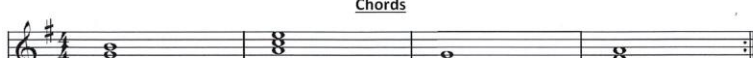
Key performance tips

Bass Line



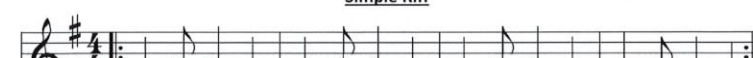
E E E A A A C C C D D D

Chords



E+G+B A+C+E C+E+G D+F#+A

Simple Riff



E G E E G E E G E F# E D

- You are performing as part of an ensemble it is crucial you are in time with others in your group.
- The bass line and riff have the same rhythm, use "Ed Sheeran" to help you remember how the rhythm sounds.
- All notes in the chords need to be played at the same time, each chord is a semibreve and lasts for four beats.
- The symbol at the end of each line indicates repeat marks.

Link: Apply the knowledge, master the skill.

- If you have access to a keyboard at home, practice Shape of You using your performance skill understanding.
- Practice each part, to improve your understanding of the song.
- Compose a four-bar phrase, incorporating your understanding of metre and using all the note values you know.

Link: Show your understanding of key vocabulary

- How do you calculate the BPM of a piece?
- How do you identify a simple metre?
- How do you identify a compound metre?


Music Year 7: Unit 3 Pitch & Tempo (He's a Pirate)

Key Vocabulary

Core Knowledge - Tempo

Tempo indicates how fast or slow the music is. When appraising, composing or performing a piece of music, it is crucial to have a deep understanding of tempo.

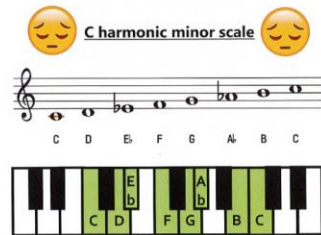
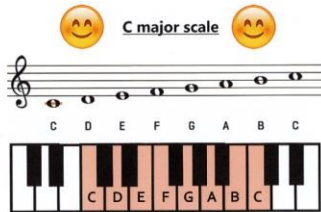
In music, key tempo terms are written in Italian. To elevate your answers, you need to be able to describe tempo using the Italian terms. The three key terms that you will use are **largo**, **andante** and **allegro**.


 **Link: Apply your knowledge:**

Find and identify three pieces of music, one which is largo, one which is andante and one which is allegro.

Core Knowledge - Tonality

Tonality is the mood of a piece of music. In KS3, you will describe tonality in two ways: major or minor.



 **Link: Apply your knowledge:**

- Learn how to play the major and minor scales on an instrument at home.
- Find two pieces of music, one which is a major tonality and one which is a minor tonality.

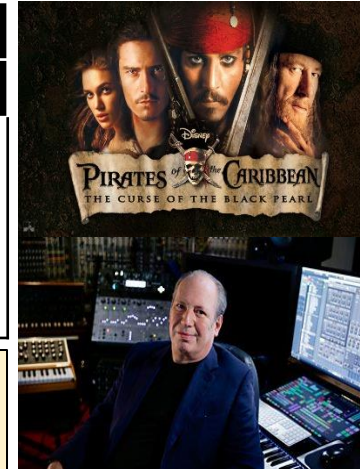
Context


Hans Zimmer

Hans Zimmer is a German film composer and music producer. He has written music for over 100 films. His most notable works are on The Lion King, Pirates of the Caribbean, Gladiator, The Dark Knight trilogy and Batman v Superman.

He's a Pirate

He's a Pirate is a piece of music composed by Hans Zimmer and Klaus Badelt for the 2003 Disney film Pirates of the Caribbean. There are currently five films in the series.



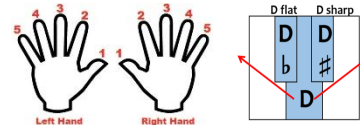
 **Link: Show your understanding**

Listen to [He's a Pirate](#). Can you appraise this piece using DRPITTS and identify the tonality and tempo?

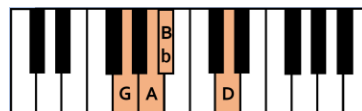
Performance Skills - He's a Pirate

Key performance tips

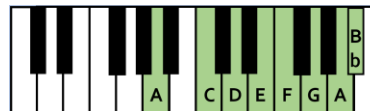
- The first and second treble lines have the same rhythm and pitch.
- Lines 1, 2 and 3 have the same rhythm.
- There is a Bb in this piece.
- The numbers above the notes indicate which finger to use.
- The metre is 3/4, meaning there are three beats in the bar.
- Key skills to remember:
 - Correct pitch
 - Correct rhythm
 - One hand
 - Multiple fingers
 - Fluent performance




Notes for bass clef line



Notes for treble clef line



 **Link: Show your understanding of key vocabulary**

- How do you remember allegro, andante and largo?
- What does a major tonality sound like?
- What does a minor tonality sound like?

Tempo

How fast or slow the music is.

Pitch

How high or low the music is.

Tonality

The mood of a piece of music.

Major

A 'happy-sounding' tonality.

Minor

A 'sad-sounding' tonality.

Allegro

A fast tempo.

Andante

A moderate tempo.

Largo

A slow tempo.

Music Year 7: Unit 4 Instruments & Texture (Ode to Joy)

Core Knowledge - Timbre

Timbre is the quality of sound that is produced by an instrument, it can also be known as **sonority** or **tone colour**.

When describing timbres we use words that match the sound we are hearing (e.g. dull, bright). We try not to use words that are used to describe other elements (e.g. high, thin).

A good way to help you describe timbre is thinking about onomatopoeia (words that sound like the sound it makes). For example: boomy, crashing etc.

Link: Apply your knowledge:

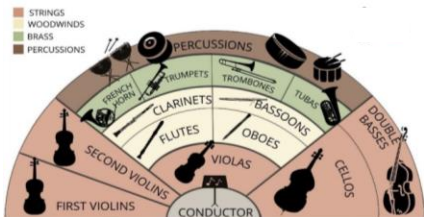
Listen to an instrument in each family (BPWS). Choose a word to describe its timbre.

Core Knowledge - Instrumental Families

In this scheme of work, you need to have an understanding of each of the instrumental families, the instruments within in and what they sound like.

You will learn about orchestral instruments first, then other instruments that aren't in orchestras (e.g. piano, guitar).

You will also learn about the layout of the orchestra, which you can see below.,



Link: Apply your knowledge:

- Make a list of all the instruments you know. Work out whether which family they belong in.
- Memorise the layout of the orchestra, see if you can redraw it out.

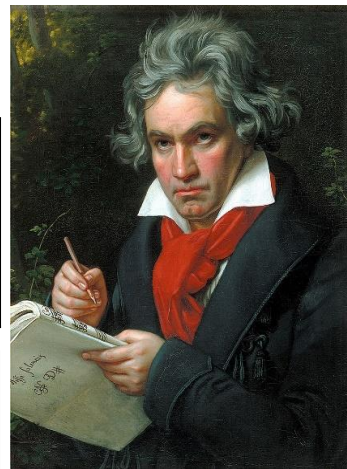
Context

Ludwig van Beethoven

Ludwig van Beethoven (1770 - 1827) was a German composer. He wrote classical music for a wide range of instruments and ensembles. His best-known works are Moonlight piano sonata, Fur Elise and his 5th Symphony. By 1817, he had gone completely deaf, yet he continued to compose.

Ode to Joy

Ode to Joy is from the fourth movement of Beethoven's Symphony No.9, the last symphony he ever wrote. It is based on a poem by Friedrich Schiller. Ode to Joy was adopted as Europe's national anthem in 1972.



Link: Show your understanding

Listen to [Ode to Joy](#). Appraise the piece using DRPITTS and identify all the instruments you can hear.

Performance Skills - Ode to Joy

Key performance tips

- The flute line contains the **melody** (the main tune), the violin, clarinet and tuba lines provide the **harmony** (the supporting parts).
- Familiarise yourself with the flute (melody) line first before playing any other parts.
- You are performing this piece as an ensemble, meaning you have to remember to stay in time with members of your group.
- Each group should aim to have one person playing each line (flute, violin, clarinet and tuba) at the same time.

Ode to Joy Ludwig Van Beethoven

Link: Apply the knowledge, master the skill.

- If you have access to a keyboard at home, practice Ode to Joy using your performance skill understanding.
- Practice each part, to improve your understanding of the song.
- Perform each part using the sounds from that instrument, see if you can describe the timbre of the four instruments included in this piece.

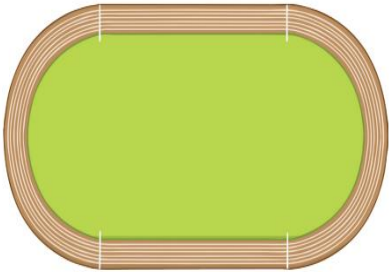
Key Vocabulary

Instruments	What is playing the music.
Timbre	The quality of sound that is produced by an instrument.
Orchestra	A group of instrumentalists, combining brass, percussion, woodwind and string instruments.
Brass	One of the four instrumental families, containing instruments such as the trumpet.
Percussion	One of the four instrumental families, containing instruments such as the xylophone.
Woodwind	One of the four instrumental families, containing instruments such as the flute.
Strings	One of the four instrumental families, containing instruments such as the violin.
Melody	The main idea or main tune in a piece of music.
Harmony	The supporting lines in a piece of music that complement the melody.
Monophonic Texture	A single melody line on its own.
Homophonic Texture	A main melody with an accompaniment.
Polyphonic Texture	Multiple melodies played at the same time.

Link: Show your understanding of key vocabulary

- How do you remember all of the instrumental families?
- Write down some common words to use to describe timbre.

Physical Education - Year 7 Athletics



Athletics

Athletics is a collection of sporting events across a number of disciplines, including running, jumping and throwing events.

Athletics is often associated with the Olympics. However, it is not just for elite athletes. Athletes also compete at national, county, school or club level events which can be held indoors or outdoors.

Historical evidence of the first ever Olympics held in Ancient Greece show events that are very similar to today.

Running events

The definition of running: An action to move quickly with correct technique using arms and legs as effectively as possible.

Sprinting (running fast with maximum effort)

- 60m (indoor)
- 100m
- 200m
- 400m
- 100m Relay
- 100m/ 400m Hurdles

Middle Distance running events

- *400m
- * 800m

Long Distance running events

- *1500m
- * 3000m
- * 5000m
- * 10,000m

Link: Apply your knowledge:

Throwing Events

The definition of throwing: The ability to propel an object through the air as far as possible.

- Shot put
- Javelin
- Discus
- Hammer

Research:

In what year did the first Olympics take place? What events are no longer a part of the games?

Scoring for Track events

Timed: All Running events otherwise known as track events are timed using stopwatches therefore, we want to know how fast the athlete has run.

What is speed: Speed tells us how fast something/ someone is travelling. You can find the average speed of an object if you know the distance travelled and the time it took.

The formula for speed is speed = distance divided by time.

Jumping Events

The definition of jumping: The technique to propel the body into the air to either distance, height or both.

- High jump
- Long jump

Research: A British athlete create a Athlete profile. Include name, age, event they take part in and any other interesting facts.

Extension: Do they hold a current world record, British record or Olympic record?

Scoring for Field events

Measured: All throwing and jumping events otherwise known as field events are measured using a tape measure.

The metric system: Length is measured in **millimetres** (mm), **centimetres** (cm), **metres** (m) or **kilometres** (km).

1 cm = 10 mm/ 1 m = 100 cm/ 1 km = 1000 m/ 1 cm is about the width of a staple/ 1 m is about the width of a single bed.

Many athletic events involve aerobic and anaerobic aspects. The definition of the two terms are below.

Aerobic Exercise

A activity that raises the heart rate and breathing rate and requires oxygen to sustain over time

Anaerobic Exercise

An activity that pushes the performer to the maximum physical limits without oxygen, leading to fatigue.

Link: Apply the knowledge, master the skill. 🔗

1. Make a table with the two headings Aerobic (with oxygen and Anaerobic (Without oxygen).
2. Decide if the following events are Aerobic or Anaerobic types of exercise.

100m / 200m/ 400m/ 800m/ 1500m

The Track

This area consists of an oval-shaped running track, which has a grass field in the middle where throwing and jumping events can take place.

An average track is 400m. And consists of two straight sections and two semi-circular bends.

The track generally has 8 lanes.

Essential Vocabulary

Sprint

Endurance

Pacing

Power

Speed

Aerobic

Anaerobic

Acceleration

Pacing

Fatigue

Coordination

Baton

Physical Education - Year 7 Badminton

Net/Wall

Badminton is a game that is played between single or doubles. The purpose of an net/wall game is to outwit their opponent through strategy and tactics.

Type of shots

There are number of different shots played in badminton to outwit your opponent .

A **serve** starts the match off, it must be served diagonally and land in the serving box.

A **forehand overhead clear** is a defensive shot played to the back of the court to force the opponent back.

A **forehand smash** is a very attacking shot played at someone's feet with power to win the point.

A **net sheet** is a shot played to force an opponent to front of the court, it is played with a light touch to just land over the net.

Link: Apply your knowledge:

- Why would you play a defensive shot?
- How can you outwit your opponent?
- What qualities do you need to be a badminton player?

Defensive shots

Overhead clear:

- Side on position
- L Shape- wrist, elbow and shoulder
- Racket head square at contact
- Follow through to complete the action with back foot coming through

Serving

- Hold the shuttlecock with two fingers. Racket head close to the shuttle cock.
- Side on position using either forehand/backhand serve below the waist.
- Concentrate focussing on the racket head meeting the shuttlecock.
- Follow through completing your action by transferring your weight through your back foot.

Rules

Serving	Players must serve diagonally across the net to their opponent. As points are won then serving stations move from one side to the other. There are no second serves so if your first serve goes out then your opponent wins the point
Fault	If a player touches the net with any part of their body or racket, then it is deemed a fault and their opponent receives the point.
Let	Let may be called by the referee if an unforeseen or accidental circumstance arose. These may include the shuttlecock getting stuck in the net, server serving out of turn, one player was not ready or a decision which is too close to call.

Link: Apply the knowledge, master the skill.

- How could badminton help with 3 aspects of health, physical, emotional & social. Provide a reason for your answer.
- What is the role of an official?
- What is the local badminton club?

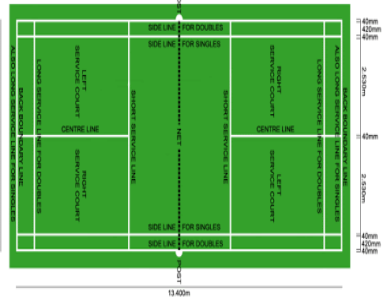
Attacking shots

Forehand smash:

- Side on position
- L shape- wrist, elbow and shoulder
- Hit at the highest point
- Follow through to complete the action with back foot coming through

Health & Safety

- No jewelry
- Hair tied back
- Wear suitable clothing
- Warm up before playing
- Follow the rules of the game
- Cooldown after the game



Badminton Court

A badminton court is divided in 2 equal parts. It has a serving box and a different size court depending whether you playing singles or doubles. Singles play long and thin and Doubles play short and wide.

Essential Vocabulary

Serving
Forehand
Backhand
Overhead clear
Forehand smash
Net shots
Flight
Precision
Control
Strategy

Physical Education - Year 7 Basketball

Invasion Game

Basketball is an invasion game played between two teams of 5. The purpose of an invasion game is to score more baskets than the other team to win the game. All of the team attack and defend and the game is played in 4 quarters.

Types of Passes

Passing in Basketball is a fundamental aspect of the game. The ability to move the ball around the court accurately and strategically as a team is imperative to winning games.

A **chest pass** is a very fast and flat pass. This enables a team to move quickly up the court. A **bounce pass** is a short pass that enables the player to find a teammate in a crowded area.

A **shoulder pass** is a very dynamic, fast and long pass.

A **overhead pass** is a powerful high pass used to move the ball over the opposition.

How can a player pass the ball with more force?

A player can step forward with the dominate foot, transferring the body weight forward to create more momentum behind the pass.

Link: Apply your knowledge:

- Which types of passes are better for longer distances and why?
- How can an attacker outwit a defender?

Attacking/Defending

Attacking in Basketball involves players keeping possession of the ball. Attackers are required to make short, sharp movements using dodging techniques to get free from defenders. Defenders in Basketball, aim to gain possession of the ball from the opposing team. Defenders can achieve this by intercepting the ball or even blocking the opposing team.

Shooting Technique

- Base: Shoulder width apart.
- Eyes: Eyes on the target of the backboard to focus on your shooting.
- Elbows: Elbows nice and high which raises your hands in front of you ready to release the ball.
- Follow through: Bend the knees and elbows at the same time, then straighten them at the same time to release.

Rules

Travelling	This occurs when you take two or more steps without bouncing the ball, this is known as travelling.
Double dribble	This occurs when a player has already dribbled the ball, stopped and then dribbled again.
No contact	A foul is called if a player makes contact with another player. If this is done whilst a player is about to take a shot then a free throw is given as a punishment for committing the foul.

Link: Apply the knowledge, master the skill.

1. How could Basketball help with 3 aspects of health, physical, emotional & social. Provide a reason for your answer.
2. In Basketball you will have to work as part of a team how could this be beneficial for life after Brian Clarke?
3. What other skills are you developing alongside developing your technique to improve your game?

Dribbling

Dribbling allows you to travel up the court. It is important to use the following technique:

Keep your head up and focus on what is in front of you

Use your fingers, not your palm, to control the ball.

Do not bounce the ball too high while dribbling keep it at hip height

Health & Safety

- No jewelry
- Hair tied back
- Wear suitable clothing
- Warm up before playing
- Follow the rules of the game
- Cool down after the game



Basketball Court

A netball court is divided in 2 equal halves. There is an arch that identifies whether you score three points- outside the arch or two points from within the arch. The shaded area is known as the key where you have three seconds to stay in.

Key Vocabulary

Passing

Receiving

Attack

Defend

Dribbling

Travelling

Double dribble

Intercept

Spatial awareness

Shooting

Physical Education - Year 7 Cricket

Cricket

Cricket is a striking and fielding game played 11v11. All players bat but not all players bowled. The objective is to score as many runs as you can in a certain amount of overs when you bat and to get the opposition out for less runs than you scored.

How the game is played.....

A cricket game consists of one innings. Both teams' bat and field. The winning team is the team with the most runs at the end of the game.
You can score by running between the wickets, hitting a four or a six.

You are also given runs for a wide bowl or a no ball.

When batting you are out off the following deliveries:
Bowled
Caught
Leg before wicket
Stumped
Run out

Link: Apply your knowledge:-

Cricket is a striking and fielding game. Can you name any others.

Bowling – Overarm bowling

- Hold the ball in your dominate hand, gripped by the fingers along the seam and held by the thumb.
- Side on bowling.
- Hold your bowling arm straight and release the ball at its highest point getting close your head
- Follow through all the wicket.

Fielding- catching

- Watch the flight of the ball .
- Point your fingers down
- Cup your fingers when catch the ball
- Watch the ball all the way into your hands.

Fielding- Long barrier

- Watch the pitch of the ball.
- Get in line to stop the ball
- Create a barrier with your foot and knee
- Fingers point down
- Scoop the ball up ready to throw.

Batting stance and grip

- Stand side on facing the bowler
- Ensure you have two hands on the bat creating a V shape
- Back lift straight and above the wicket
- Make sure your feet are splitting the crease
- Keep your head still when you are watching the ball
- Identify where the pitch of the ball lands
- Move feet to the ball and make the right choice of shot whether attacking or defending.

Bowling Rules

- A ball has to be bowled with a straight overarm
- Bowled balls must be bowled before the creaseline
- There is a six bowls in an over as.
- A wide ball is when the ball is too wide for the batter to hit.
- A no ball is considered when the ball is either bowled above the waist without bouncing or bounces more than once.

Link: Show your understanding
Research what equipment is needed for Cricket. Make an equipment checklist that can be used at the start of each lesson.

Forward Defensive

- Identify the pitch of the ball
- Keep your head still
- Bat ready with backlift
- Step forward to the ball
- Ensure bat is close to your front leg so there is no gap.
- Use soft batting grip to push the ball down
- Head over the ball

Rules

- Six balls an over- unless a no-ball or wide ball
- A batter is out when bowled, caught, stumped, run out or LBW
- A run is scored by running when you hit the ball and run between the wicket, hitting a four or six.
- Can you think of another rule?



Key Vocabulary	
Catching	
Throwing	
Bowling	
Batting	
Batting grip	
Side on	
Pitch of the ball	
Long barrier	
Fielding	
Sportsmanship	

Physical Activity
Regular physical activity is one of the most important things you can do for your health. Being physically active can improve your physical strength but also improve your emotional and social health.
3 Aspects of Health
<p><u>Physical</u></p> <p>Physical health is your body's ability to function. This includes diet and nutrition, getting enough physical activity or exercise and enough sleep to allow your body to rest and recharge.</p>
<p><u>Social</u></p> <p>Social health is about our relationships with others. Whether it is family, friends or peers. Social health measures the way a person reacts to people in their environment. It includes how they communicate, care for others, seek and lend support and the ability to make and keep relationships.</p>
<p><u>Emotional</u></p> <p>Emotional health focus on your thoughts, feelings and emotions such as anger or worry. Emotional health is your ability to cope with stress and problems that are a part of everyday normal life. Accepting who you are and being positive about it is also important part of your emotional health.</p>
<p><u>Link: Apply your knowledge:</u></p> <p>List 3 benefits of exercise for the 3 aspects of health. Make it personal to you and have time to reflect.</p>
<p>Exercise does not just mean being able to run a marathon, exercise can be any form of physical activity, for example: going out to walk the dog. Write a list of around 4-6 activities you enjoy doing that would be classed as a form of exercise.</p>
<p>An aspect of physical health is having a balance diet, research what a balance diet looks like and create a menu for the day. Challenge be creative and make it look like a menu from a restaurant.</p>

Physical Education - Year 7: Active Healthy Lifestyle			Key Vocabulary
Warm up			Warm up
A warmup is a way to prepare both the mind and body for exercise and should be completed before any physical activity. There are 3 stages to a warmup: Pulse Raiser – To slowly raise the body temperature, to increase the heart rate and to get oxygenated blood to the muscles. Stretches – We stretch to reduce the risk of injury on the joints and muscles. Skills related Activity – To include practicing common movements or skills that will be used in the activity. For example, football dribbling drills, body weight squat technique.			Cool down
Cool Down:			Physical
Just like a warmup a cooldown should be completed at the end of every lesson or training session. A cooldown allows the body to recover more efficiently and reduce any muscle soreness for the participant. There are 2 stages of a cool down. Firstly, we want to decrease the heart rate and to lower the body temperature. This may include a light jog or walk. Secondly, stretches should be performed for both the upper and lower body. Stretches for a cooldown should be held for 30 seconds to prevent muscle soreness after a exercise.			Emotional
<u>Link: Show your understanding</u> Create a warmup for an activity for example netball, football or the gym. Show your understanding by, including all 3 sections and give details of exercises, muscles that you are stretching how long you do the stretches for etc.			Social
<u>Link: Show your understanding</u> List the benefits of warming up and the benefits of cooling down. Try to include the following key vocabulary below: Decrease/ Heart rate/ Body Temperature/ Injury/ Increase/ Oxygenated Blood			Increase
Health related components of Fitness	Definition	Example for activity	Decrease
Cardio-vascular Endurance	The ability to perform exercises at a moderate to high intensity for a prolonged period of time.	To walk/ jog at a continuous pace for 20 minutes at a moderate pace.	Heart Rate
Muscular Strength	How much force your muscles can exert or how heavy a person can lift.	To perform 3 sets of 10 squats. 3 x per week. Increase difficulty by performing squats with a small weight.	Cardio-vascular Endurance
Muscular Endurance	The ability that your muscles can sustain exercise for a period of time.	To walk on a treadmill at a continuous pace for 20 minutes. Add challenge by increasing the incline every 2 minutes by 0.5.	Muscular Endurance
Flexibility	The ability to move muscles and joints through a full range of motion.	Spend 10 minutes every session at both the beginning and end to practice both static and dynamic stretches.	Safety
Body Composition	Your bodies ratio of body mass to fat-free mass like muscle and bone.	Spending time to reflect and ensure we a encouraging body positivity. Being kind to yourself & being kind to others.	Circuit
			Heart Rate
			Heart rate is measured in beats per minute (bpm) During exercise the heart rate increases so that sufficient blood is taken to the working muscles to provide them with enough nutrients and oxygen.
			How to check your heart rate.... First, find your pulse either the on the neck or on the wrist.
			Secondly, count how many beats you feel in 30 seconds.
			Finally, times the number by 2 and you will have your bpm.

Physical Education - Year 7/8 Football

Invasion Game

Football is an invasion game played between two teams of 11. The purpose of an invasion game is to score more goals than the other team to win the game. The game is played with two halves of football.

Types of Passes

Passing in football is a fundamental aspect of the game. The ability to move the ball around the pitch accurately and strategically as a team is imperative to winning games.

Technique: Use either inside of your foot or laces. Non kicking foot close to the ball. Head watching the ball and extend your knee and leg through the ball, following through to the target.

A **short pass** is an accurate pass normally played on the floor. This enables a team to keep possession of the ball.

A **long pass** is a pass that enables the player to outwit their opponent by gaining more distance and usually in the opposition half. It is usually hit with the laces and is in the air.

A **cross** is a pass that is used as a strategy to attack and mainly played in the opposition box to create an opportunity to score.

Possession: It is important to keep the ball so that the opposition doesn't attack, therefore you can create opportunities to score or not concede.

Link: Apply your knowledge:

- Which types of passes are better for longer distances and why?
- How can an attacker outwit a defender?

Attacking/Defending

Attacking in football involves players keeping possession of the ball. Attackers are required to create space to receive the ball or dribble to create goalscoring opportunities. Defenders in football, aim to gain possession of the ball from the opposing team. Defenders can achieve this by intercepting the ball or even tackling the opposing team.



Shooting Technique

- Look to receive the ball with a good touch in front of your body.
- Head over watching the ball.
- Non kicking foot next to the ball
- Strike the ball with extending your kicking foot through the ball.

Rules

Handball	This occurs when a outfield player or goalkeeper outside their box handles the ball.
Two foot challenge	You can't tackle the player and go for the ball with a touch foot challenge, this receives a red card.
Offside	This is when the attacker is ahead of the last defender when the ball is played deeming them to be offside.

Link: Apply the knowledge, master the skill.



1. How could Football help with 3 aspects of health, physical, emotional & social. Provide a reason for your answer.
2. In Football you will have to work as part of a team how could this be beneficial for life after Brian Clarke?
3. What other skills are you developing alongside developing your technique to improve your game?

Dribbling

Dribbling allows you to move forward with the ball. It is important to use the following technique:

Keep your head up and focus on what is in front of you

Keep the ball close to your feet taking small touches,

Lean forward to create your body moving in a forward direction

Health & Safety

- No jewellery
- Hair tied back
- Wear suitable clothing
- Warm up before playing
- Follow the rules of the game
- Cooldown after the game



Football Pitch

A football pitch is divided in 2 equal halves. There is a goalkeepers area identified where only the goalkeeper can handle the ball. Thrown ins take place on the side of the pitch and either a corner or goal kick takes place depending on which team touches the ball last.

Key Vocabulary

Passing

Receiving

Attack

Defend

Dribbling

Possession

Crossing

Tackling

Spatial awareness

Shooting

Invasion Game

Netball is an invasion game played between two teams of 7. The purpose of an invasion game is to invade the opponent's territory or zone to score goals.

Types of Passes

Passing in netball is a fundamental aspect of the game. The ability to move the ball around the court accurately and strategically as a team is imperative to winning games.

A **chest pass** is a very fast and flat pass. This enables a team to move quickly up the court.

A **bounce pass** is a short pass that enables the player to find a teammate in a crowded area.

A **shoulder pass** is a very dynamic, fast and long pass.

An **overhead pass** is a powerful high pass used to move the ball over the opposition.

How can a player pass the ball with more force?

A player can step forward with the dominate foot, transferring the body weight forward to create more momentum behind the pass.

Link: Apply your knowledge:

- Which types of passes are better for longer distances and why?
- How can an attacker outwit a defender?
- What qualities should a shooter have?

Physical Education - Year 7 Netball

Attacking

Attacking in netball involves players keeping possession of the ball. Attackers are required to make short, sharp movements using dodging techniques to get free from defenders.

Qualities of an attacking player:
Quick, selfless, creative & driven.

Defending

Defenders in netball, aim to gain possession of the ball from the opposing team. Defenders can achieve this by intercepting the ball or even blocking the opposing team. Defenders use marking techniques to enable them to watch the opposing player and the ball at the same time using their peripheral vision.

Qualities of a defensive player:
Strong, confident & calm.

Shooting Technique

- Stand upright with feet shoulder width apart.
- Hold the ball high above the head with your dominate hand, keeping the fingers soft. Use the opposite hand to steady the ball.
- Bend the knees and elbows at the same time, then straighten them at the same time to release.
- Release the ball high in a up and over motion towards the ring on the goal.

Health & Safety

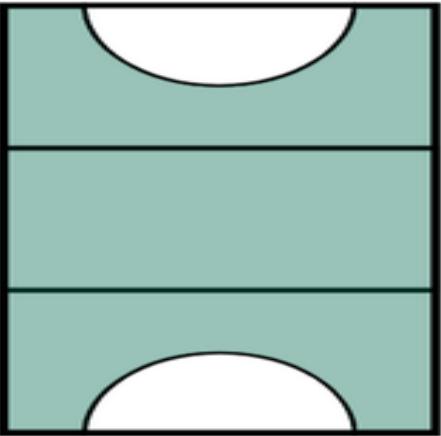
- No jewelry
- Hair tied back
- Wear suitable clothing
- Warm up before playing
- Follow the rules of the game
- Cool down after the game

Rules

Footwork	Once the ball has been caught/ received by a player they cannot move their landing foot. If incorrect footwork is applied a free pass will be awarded to the opposite team.
Obstruction	When marking a player with the ball the player must be at a distance of 3ft/ 1m away. Marking too close would result in a free pass or if in the shooting area a free shot.
3 seconds	Once the ball has been caught/ received by a player they must pass the ball within 3 seconds. Failure to pass within 3 seconds would result in a free pass to the other team.

Link: Apply the knowledge, master the skill.

- How could netball help with 3 aspects of health, physical, emotional & social. Provide a reason for your answer.
- In netball you will have to work as part of a team how could this be beneficial for life after Brian Clarke?
- Manchester Thunder are a local super league netball team. How can these real girls/ women inspire others to take part in netball?



Netball Court

A netball court is divided in 3 equal parts otherwise known as thirds. The thirds can be split up into one Centre third and two goal thirds.

Key Vocabulary

Passing
Receiving
Attack
Defend
Marking
Footwork
Pivot
Intercept
Peripheral
Shooting

Physical Education - Year 7 Rounders

Rounders

Rounders is a bat-and-ball game played between two teams. Rounders is a striking and fielding team game that involves hitting a small, hard, leather-cased ball with a rounded end wooden, plastic, or metal bat. The players score by running around the four bases on the field.

How the game is played.....

A rounder match consists of two innings. Both teams' bat and field twice. The winning team is the team with the most rounders at the end of the game.

An inning consist of a certain number of good balls that need to be bowled by the fielding team or until all the fielding team have fielded all the batting team out

A Fielding team should consist of

Bowler
Back-stop
Base 1 fielder
Base 2 fielder
Base 3 fielder
Base 4 fielder
All remaining fielders – field in the area around the posts.

Link: Apply your knowledge:

Rounders is a striking and fielding game. Can you name any others.

Bowling – Underarm technique

- Hold the ball in your dominate hand, gripped by the finders and held by the thumb.
- Step forwards into the move to gain power as you transfer the weight from the back foot to the front foot.
- Hold your bowling arm straight and swing from behind the body to the front.
- Release the ball at waist height.
- Aim for the back-stops hands

Link: Show your understanding

Do you agree or disagree with this statement “The bowler is the boss?” give reason for your answer.

Batting technique

- Hold the bat high in one hand
- Ensure you have a strong grip on the handle
- Make sure your wrist is strong
- Keep your eye on the ball
- Stand side on to the bowler
- Swing through the ball
- Step forwards into the swing to gain power.

Link: Show your understanding

Batting is a skill that may need lots of practice and repetition. Explain why repeating this skill might be beneficial?

Rounders is a form of physical activity, but can you list 2 benefits rounders could have on your social and emotional health?

A player in your team is nervous and says that they are not very good. What can you do as a team mate to help them feel better and encourage them to not give up?

Bowling Rules

- A ball can only be bowled underarm
- Bowled balls must be between shoulder and knee height.
- Balls must be bowled within the batting square
- A ball can not bounce
- A bowler must make sure both feet are in the bowling square when releasing the ball.

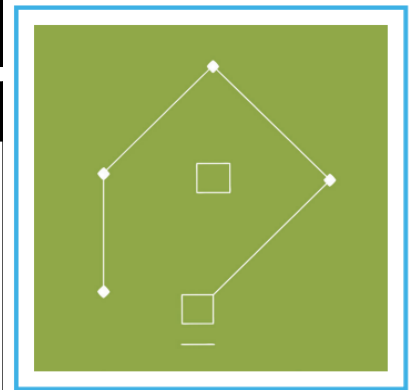


Link: Show your understanding

Research what equipment is needed for rounders. Make an equipment checklist that can be used at the start of each lesson.

Batting Rules

- Batters must carry the bat all the way around the posts and must not be thrown at any time.
- Batters must run outside the bases and make contact with each post with their bat as they run around.
- Batter must not over take another batter
- Batter can hit a no-ball if they want
- Batters must have both feet inside the batting square when batting a ball.
- Only one batter can wait at a base at one time.
- Batters must run out of the side of the batting square, not the front of the square.



Key Vocabulary

Catching

Throwing

Bowling

Batting

Grip position

Side on

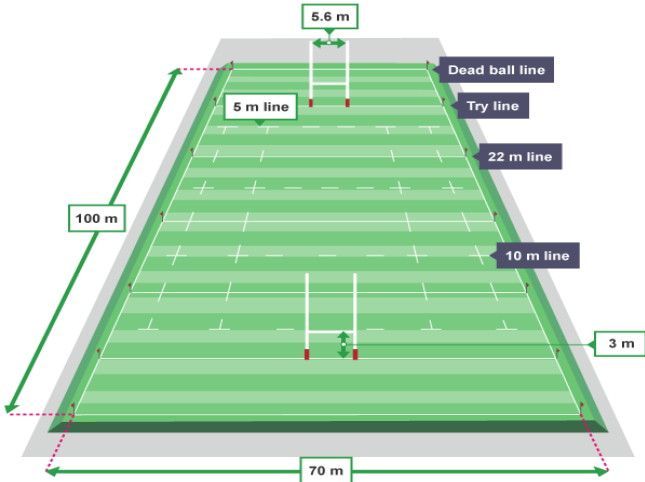
Accuracy

Timing

Determination

Perseverance

Rugby
Rugby is an invasion game that brings together a combination of skill, athleticism and tactics. The game is contested by two teams of players and involves one team invading another team's territory with the aim of scoring a try.
RugbySafe
It is important when playing Rugby that students listen and follow instructions at all times and when it comes to injuries prevention is better than a cure.
Questions: Why is safety so important in Rugby? What are the most common injuries in Rugby? Why is it important to listen to the referee during a game at all times?
Something to think about..... Rugby is a tough game both physically and mentally. Why is it important to develop our mental strength as well as our physical strength? Aim Higher: How could mental strength be beneficial for you as you progress through secondary school?

Physical Education Year 7/8: Rugby		Key Vocabulary
The Rugby Field A rugby field is rectangular. Each end of the field has a goal line. Touchlines run along the sides of the field. Most of the game takes place between the goal lines and the touchlines. This playing area is no more than 70 meters wide and 100 meters long. Behind each goal line is an area called the “in goal.” At the centre of each goal line stand two goalposts that are 5.6 meters apart. The goalposts are connected by a crossbar that is 10 feet (3 meters) above the ground. The goalposts and the crossbar form an H shape.		Passing
		Handling
		Attacking
		Defending
Playing the game There are two versions of rugby. In one version, called Rugby Union, two 15-member teams compete. In the other version, called Rugby League, the teams have 13 members. A rugby game usually has two 40-minute halves. There are no time-outs and play rarely stops. The game starts with a kick-off where one team kicks the ball to the other team. The two teams then move up and down the field as they gain and lose control of the ball. The players may catch the ball, throw it, or run with it. Teammates may pass the ball to each other either sideways or backwards. They may not pass the ball forward. Players may also kick the ball.		Offside
		Rucking
The two ways of scoring points in rugby are called tries and goals. A player scores a try by touching the ball to the ground behind the opponent’s goal line. A player scores a goal by kicking the ball over the crossbar between the opponent’s goalposts. After a try, the scoring team can kick a type of goal called a conversion goal. During play, a player scores a dropped goal by dropping the ball and kicking it after it bounces. A team can score a penalty goal after the other team breaks the rules. Rugby Union and Rugby League award different numbers of points for tries and goals. In both versions, however, a try is worth more points than a goal.		Mauling
		Speed
Values: Rugby prides itself on values. Values such as teamwork, respect, enjoyment, discipline and sportsmanship. These value could also link with the British Values we learn in citizenship. Explain why?		Stamina
		Strength
		Task: Use the key vocabulary words to make flash cards. Write a key word on one side of the flash card and the definition (the meaning of the word on the other. Test your knowledge of each word. Get a Parent or Carer to quiz you.

Year 7 Topic 1: What is a worldview and what is mine?



What is a worldview?

A worldview is how people see things that happen in the world around them. It is like a lens of a camera; we might see things that happen differently to another person. A worldview is linked to a person's attitudes and their deeply held beliefs. An organised worldview is one that is shared with other people, that has a structure and a community. For example, a religion like Christianity or a non-religious view like Humanism. A personal worldview is a person's own unique view of the world - their own beliefs and assumptions which shape how they live and see things in the world.



What influences a person's worldview?

A person's worldview can be influenced by their upbringing, their environment and their religion. It can change over time.

What impact does our worldview have?

Our worldview affects how we see the things that happen in the world around us. It shapes how we make decisions about what is right and wrong. It can affect our responses to events such as natural disasters, war, poverty and climate change.

Why is it important to learn about worldviews?

- So that we can understand why people might react in different ways to ourselves and show tolerance.
- So that we can understand why people might have a different opinion to us.
- So that we can try to be respectful of how other people choose to live their lives.

Why do some people believe in God?

A person who believes in God is called a **theist**. This can form an important part of a person's worldview, and can have an impact on how they interpret things that happen in the world around them.


There are many reasons why people might believe in God such as:

- Upbringing - believing in God is something they have been brought up to do.
- They believe that there is evidence for God's existence in holy books such as the Bible and Qur'an.
- They believe that God has intervened on earth to perform miracles, such as curing people from illness. There is no other explanation for these unnatural events.
- Belief in God makes society a better place - it gives people rules to follow that help humans to protect each other and the environment.
- Their belief in God gives them comfort and peace in a world that can be filled with suffering.
- The world cannot have come about by chance because it is so complex. It must have been created by an intelligent designer - God.
- They believe that they have experienced God in their lives through a religious experience - they may have seen a vision of God or heard Him speak to them through prayer.
- Belief in God provides answers to ultimate questions that cannot be explained in any other way.

What do we mean by non-religion?

Non-religion is the absence or rejection of religion, or lack of interest in it. Non-religion is on the increase in the UK and British society is becoming increasingly secular, so a non-religious worldview is more common today than in the past.

Why do people not believe in God?

Atheists and agnostics might give some of the following reasons for their disbelief  lack of certainty about God:

- Upbringing - they have been brought up to believe that God does not exist.
- Not enough evidence - we cannot see God with our senses and there are alternative explanations for the existence of the universe, religious experiences and miracles.
- Science can now provide answers to ultimate questions - religion was only needed in the past when we did have scientific answers e.g. we now know that the universe was created by the Big Bang.
- God does not seem to answer everyone's prayers. If people ask for God to cure a sick relative and nothing happens, they might think that God is not real.
- The world is full of evil and suffering - why would an all-powerful and loving God allow this to happen?
- Religion and belief in God causes conflict - society would be a better place without it.








What do we mean by 'religion'?

Worldviews can be religious...but what does this mean?

It is difficult to define what we mean by a religion, because there is a lot of diversity between and within religions around the world.



A Scottish scholar called Ninian Smart tried to identify things that all religions had in common. He found 7 things that he believed all religions have or do, and he called these the 7 dimensions of religion:

Myths (stories)		All religions have important stories that teach us about the meaning and purpose of life. These shared stories provide a sense of identity for the religious community that believes in them.
Rituals (actions)		All religions have symbolic actions that are carried out by members of the religion to give a sense of identity. For example, worship, pilgrimage, ceremonies and celebrating festivals.
Materials (objects)		Most religious groups reflect their beliefs through special objects and places, such as art work, music, buildings, and artefacts.
Doctrines (beliefs)		All religions have a set of beliefs that usually come from stories. These beliefs are about God/gods, spirit forces, the meaning and purpose of life, the nature of the world and how we should live.
Ethics (rules)		Religions have rules about how we should behave, make decisions and live our lives. They usually come from a God or something beyond the natural world (spiritual).
Society (community)		Religions have an organisation and structure that creates a community. People can become members and they are encouraged to participate. This community will meet together at a place of worship, have special times when they celebrate together, and have special people who conduct ceremonies.
Experiential (emotions)		In religions, most people try to find a personal experience of God or peace and truth from something beyond the physical world. They will experience emotions such as guilt, mystery, awe and wonder, devotion and inner peace.

All of the Big 6 major world religions have these 7 dimensions of religion. However, other things such as football or Jediism can be said to lack some of them. For instance, football does not have a set of rules about how to live that are revealed from beyond this world.

What makes something true?

Throughout their lives, people try to find answers to ultimate questions, whether they are religious or not; they are searching for truth. What people believe to be true shapes their worldview. For example, if someone believes that it is true that there is life after death, they may spend their life preparing for what they believe will await them in the afterlife, or they may be comforted and hopeful when a loved one passes away.

People search for truth in different places: in holy books, using their senses and looking at the world around them, by doing scientific experiments, talking to experts, through prayer, by thinking through different ideas.



Challenge: Ancient Greek philosophers, Plato and Aristotle, had very different views about where to search for truth.

Plato believed that truth came from beyond the physical world. The physical world is constantly changing and we should not rely on it for true knowledge. Sometimes our senses can deceive us. **Aristotle** believed that we should look for truth in the physical world using our senses. We should 'test' things and rely on our experiences to decide what is true knowledge.

There is a difference between evidence and proof. Evidence can suggest that something is true and give us clues, but sometimes it can be wrong. Proof means that something is a conclusive fact that cannot be wrong; we are 100% sure of something.

Key Term Box

Worldview: The way something sees and thinks about the world.

Identity: The qualities and beliefs that make a particular person or group different from others.

Diversity: When there are many different types of things or people included in something.

Religion: A system of beliefs and practices used to worship a god, gods, or something sacred (holy).

Origins: The point or place where something begins or is created.

Belief: A feeling of being sure that something is true or right.

Faith: A belief and trust in something, even when there is no proof.

Spirituality: The quality of being concerned with religion and the human spirit/soul, rather than the physical, material world.

Community: A group of people who have the same interests, beliefs and practices.

Theist: A person who believes that God exists.

Atheist: A person who believes that God does not exist.

Agnostic: A person who does not have a definite belief about whether God exists or not.

Non-religion: The absence or rejection of religion, or lack of interest in it.

Secular: Something that is not religious or spiritual.

Truth: A belief or fact that is true and real.

Ultimate Question: A question about the purpose and meaning of life, that does not have a definite answer, or where people cannot agree what the answer might be.

Year 7 Topic 2: What are the Abrahamic Faiths? Part A



What are the Abrahamic Faiths?

The Abrahamic Faiths are 3 religions that are all linked to Abraham and recognise him as a important prophet or founding father. These 3 religions are Judaism, Christianity and Islam. Throughout the unit you will see and understand that the 3 religions, their prophets and stories are all linked together. Judaism was the first religion to emerge. Abraham was the founding father of Judaism and had a covenant (special promise with God). Christianity emerged (started) out Of Judaism. People at the time of Jesus were Jewish but not everyone believed that Jesus was the Son of God. The people that followed Jesus became known as Christians. Islam was the last of 3 religions. Muslims see Islam as a continuation of these religions but believe Muhammad (pbuh) was the final prophet to receive messages from God and these messages were the true and last revelation. So a new religion, Islam, emerged with Muhammad's (pbuh) followers. Islam traces it's origins back to Abraham's son, Ishmael.



What do the creation stories teach us about God and humans?

The Genesis creation stories in Genesis are important to both Jews and Christians. For these religious believers, the creation stories teach about the nature of God (what God is like), the nature of humans (what humans are like) and the duties of humans (the things humans should do on Earth). This is why it is such an important story for believers today.

God: The story teaches that God is omnipotent. We can see evidence of this in the way things are created: God speaks and things are made; "Let there be light". The story also shows that God is omnibenevolent. He created a perfect world for humans to live in which shows how much He loves them: "And God saw that it was good".

Humans: The creation story teaches humans that they are made to be more special or important than God's other creations because they were "made in the image of God". No other creation was made to be like this. It also means that humans are a bit like God; we can be loving and have power but we are not all-powerful or all-loving. God also told humans to rule over the other creations which shows they are the most important. The final duty of humans from this story is that they have to look after God's creation. He gave it as a gift and it is humans' job to care for it.

Impact on believers today:

This story has a large impact on believers today. As a result of this story religious believers may see it as vital that they look after the planet - they may recycle, campaign against climate change etc. All humans are special so believers may think that any act that harms another human is wrong e.g. no violence. They may also believe that because God is all-powerful and all-loving they should pray to God as he can answer prayers and will pray to thank Him for what he has created.

How was the perfect world destroyed?

The Fall:

The Fall is the name given to the first sin committed by Adam and Eve. This first sin was when they ate the fruit from the tree of knowledge of good and evil. God had made a perfect world and had placed Adam and Eve in the Garden of Eden. He had told them not to eat from that specific tree, but they were tempted by a snake/serpent and disobeyed God. As a result, they were banished from the Garden and punished; man would have to work the land and it would be difficult, women would suffer great pain in childbirth etc. This act also brought sin and death into the world. Before this, Adam and Eve had been innocent and obedient, but by disobeying God they had sinned. God told them that the result of this would be that they would eventually die. This act is known as The Fall because humans had "fallen away" from their good position with God. They had failed to obey God; they "fell" into temptation and were punished as a result. They had sinned (broken God's laws) and were now being separated from God.

How did God respond to humans continuing to destroy the Earth and disobey Him?

After The Fall, humanity continued to disobey God and sin. An example of this is the story of Cain and Abel; Adam and Eve's children. Cain was jealous of his brother Abel and killed him. In the Bible it says that sins and wickedness increased in the time after Adam and Eve, so how did God respond? God responded by sending the flood.

Noah:

God was disappointed with humans because of their sins. He decided to send a flood that would wipe out life on Earth but he saved Noah, his family and 2 creatures of every kind on the Ark. After this, God made a promise to Noah (a covenant) that this would never happen again.



Who is Abraham?

Abraham is an important prophet in the Abrahamic Faiths and the founding father for Jews as he was the first prophet within Judaism. Abraham received the first covenant (promise between God and Abraham). This covenant meant that as long as Abraham did what God had asked him, he and Sarah would be blessed with many descendants and land.

What happened to Abraham?

Abraham and Sarah were very old and couldn't naturally have children so this is something that they wanted dearly. One night God spoke to Abraham and asked him to sacrifice his son Isaac. Although this is not easy for Abraham, he shows complete devotion and takes his son to the altar ready to give him to God as a sacrifice as God had asked. As he is about to kill his son God spoke to Abraham and tells him to stop. God tells him he was just testing his faith and he had passed this test. Abraham and Sarah lived very long lives full of happiness and went on to have many more children. Jews believe they have all descended from Abraham.

What does it teach religious believers today? (Jews, Christians and Muslims)

Abraham's story teaches believers to have faith in God and to trust God. Abraham showed total obedience to God; he trusted God and did exactly what he asked. As a result God rewarded him.

Why is Abraham so important?

Abraham is important to Judaism, Christianity and Islam as within all three religions Abraham plays a vital role e.g. in Islam it dates back to the very beginning when Abraham's son Ishmael started practicing Islam (not as we know it today).

What impact does Abraham have on believers today?

Abraham is an extremely important prophet as he influences people to persevere when faced with challenges and uncertainty, he encourages people to put their complete trust in God just like he did. He also encourages people to make sacrifices for their religion. He influences people to only worship one God just like he did as Judaism, Christianity and Islam are all monotheistic religions.

Who is Moses?

Moses is an important prophet in the Abrahamic Faiths and one of the important forefathers of Judaism. Moses played a key role in the history of Judaism and had an important covenant with God, often referred to as the second covenant as it came after the first covenant with Abraham.

What happened to Moses?

Moses was Jewish but was raised in Egypt but when he fled from there, God chose him to return and rescue the Israelites (Jews) from slavery by the Egyptians. Moses achieved this, with the help of God, and the Jews were freed. After this, Moses received the Ten commandments and other rules from God on Mount Sinai. God made a second covenant with Moses; that if the Jews followed God's rules he would protect them from harm. Moses led the Jews to the Promised Land.

Why is Moses so important?

Moses is seen as an important figure in Judaism because he was trusted by God to save the Jews and to make a second covenant. This must mean that God and Moses had a special relationship. Moses was chosen to receive the Ten commandments and other rules which believers still follow today (Judaism and Christianity). Moses was responsible for saving the Jews which means he is an important figure in Jewish history. Finally, Moses led the Jews to the Promised Land, which was a promise from the first covenant.

What impact does Moses have on believers today?

Moses is seen as a role model by believers today. He possesses a lot of qualities that believers would want to try to have themselves; to be loyal to God, trust God and obey his commands. So they may follow his example and put it into practice in their lives. Moses will also influence believers to follow the 10 commandments and God's other rules.

Key Term Box

Abrahamic - Religions that recognise Abraham as an important figure. Christianity, Judaism and Islam.

Origin - The word that tells us when something begins / starts.

Prophet - A person chosen by God to deliver messages to humans on His behalf.

Omnibenevolent - God is all loving.

Omnipotent - God is all powerful.

Image of God - The belief that humans were made to share some of God's characteristics and that set them apart from the rest of creation.

Sin - An action that is considered immoral and goes against God and the laws.

The Fall - The term used to describe when Adam and Eve disobeyed God.

Impact/influence - this means how an event/person makes other people feel or act. How might a person, event or story change someone's behaviour? How might it make them feel? What will it make them believe?

Original sin - The inbuilt urge that humans are born with to do wrong. Christians believe this is a consequence of what Adam and Eve did.

Covenant - A 'deal' or promise between two people. Jews think of this as the first being a promise between God and Abraham.

Monotheism - The belief in one God.

Ten Commandments - Ten rules that were given to Moses on Mount Sinai.

Year 7 Topic 2: What are the Abrahamic Faiths? Part B



Chosen People

The Jewish people have **covenant** agreements with God, which are described in the **Torah**. These covenants require the Jewish people to **act** in a certain way, if they follow these covenants they will be **rewarded** by God. It is because of these covenants that Jews see themselves as a **chosen** people. Many people think this means that Jewish people think they are **better** than others. This is not true. Jews believe they have been chosen by God for a **serious** responsibility: to receive; learn; live and **stick** to God's word and will. They do not believe they are superior to any other **religious** group.



The Messiah

The Messiah means the chosen or anointed one. Jews were waiting for the Messiah as many Jews were being mistreated and had felt upset due to losing their promised land to the Roman Empire. Many wanted freedom and some believed that a special leader, a saviour known as the Messiah would come and rid them of their enemies. Jews thought the Messiah would be: a great political leader and judge; bring the world to an end; be a human who is descended from King David and be an inspiration to others; bring the Jews back to Israel and restore Jerusalem. They expected someone who would completely follow all the religious laws and who would bring a time of complete peace. They weren't passively waiting for him to appear though. Most were not preoccupied with this. Christians believe Jesus is the Messiah.

Jesus and his life

Jesus was born to Mary and Joseph as his parents on Earth however Jesus is the incarnation of God meaning, God in human form. Jesus was born in a stable and can be seen as both Son of Man and Son of God. Son of man showing his 'normal' side for example he was humble and washed his disciples feet, he was born in a stable and he felt pain and emotion when he was killed on the cross. His Son of God side shows that he was also special so he performed miracles such as walking on water, feeding the 5000. This tells us he is special as he defied the laws of nature. No other person could do this. The miracles remind Christians that Jesus was omnipotent and omnibenevolent.



Parables

Jesus used parables to teach others how to live. It was important he came to Earth to be a role model and set a physical example. He was known as God in the flesh so his teachings are important to Christians to they know how to please God and get to Heaven. One of the famous parables was the Good Samaritan. This is the story when Jesus is explaining to get to Heaven you should 'love your neighbour', in the story a man is beaten and is left for dead, the two people you would expect to help him walked by, his enemy the Samaritan was the one who helped. This teaches Christians to show agape (unconditional love) to all including enemies. Jesus used parables as they appeal to all including younger children and are easy to remember and pass on.

The crucifixion and resurrection

Crucifixion

The crucifixion of Jesus was important as it took away the sin that all humans had due to the sins from Genesis 3 - from Adam and Eve. Jesus dying on the cross allowed atonement, meaning humans and God fixed their broken relationship. Jesus was the ultimate sacrifice to save humans and re-open the gates to Heaven. Jesus dying allowed humans the chance to be forgiven and to enter Heaven. The quote 'for God so loved the world he gave his only son' tells us that God loved humans unconditionally, so much so he gave his only son (Jesus) as a sacrifice to help and save us. This is the biggest act of love humans could ever experience. Jesus was killed on good Friday and was in a lot of pain, he was mocked and made to carry his own cross.

Resurrection

On the third day (Easter Sunday) Jesus rose from the dead. His tomb was found empty and this was a miracle. When Jesus rose from the dead an angel told his friends and followers. Jesus rising again proves that life after death is real, it also proves he was truly the son of God. Without the resurrection we wouldn't have Christianity today. The quote 'I am the resurrection and the life whoever believed in me will have eternal life' proves that through Jesus we now get a chance to live on in Heaven according to the Christian belief. This does mean to get to resurrect in Heaven like Jesus Christians have got to believe in Jesus and God and pray to be forgiven now we have this second chance.

The Trinity and Pentecost

The Trinity belief is an attempt to explain what the Bible says about the kind of relationship that exists between the Father, the Son and the Holy Spirit. Christians believe that the one God is a Trinity of three Persons. The word 'Person' is used in a very different way from its meaning in modern everyday life.

However, believing something to be both three and one at the same time can be a confusing idea. Christians accept this is the case but they say that:

1. God cannot be known. The nature of God is totally beyond human understanding.
2. Belief in God as Trinity makes the best sense of what they read in the Bible and experience in their lives.

The Pentecost

The Pentecost is the event when the Holy Spirit first came to Earth. The story in the Bible suggests the Holy Spirit went first to the disciples. The Holy Spirit cannot be seen but Christians believe they can feel the Holy Spirit. Christians believe the Holy Spirit provides gifts such as knowledge, wisdom, comfort etc. The Holy Spirit is the part of God that is left on Earth for Christians to experience. Jesus sent it down after he ascended to Heaven.

Key Term Box

Messiah - The anointed one / king / leader - Christians believe this is Jesus.

Chosen people - people who believe they have been specifically chosen by God.

Incarnation - God in the flesh as Jesus

Miracle - An event that happens that defies the laws of nature. Christians believe Jesus performed miracles.

Parable - A story with a meaning - Jesus used these

Agape - Unconditional Christian love

Crucifixion - When Jesus was killed on the cross on Good Friday

Resurrection - when Jesus rose from the dead on the third day (Easter Sunday)

Impact/influence - this means how an event/person makes other people feel or act. How might a person, event or story change someone's behaviour? How might it make them feel? What will it make them believe?

Trinity - The belief that God is three in one. The Father, Son and Holy Spirit.

Pentecost - When the Holy Spirit came to Earth.

Prophecy - A predication about something that will happen in the future. People believe they come from a divine being or God.

Year 7 Topic 2: What are the Abrahamic Faiths? Islam



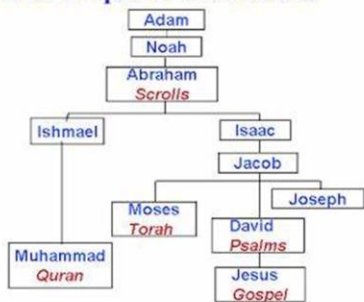
Islam as an Abrahamic tradition?

Islam is the youngest Abrahamic tradition. The word Islam means 'submission to the will of God'. Islam is the second largest religion in the world with over 1 billion followers. Muslims refer to God using the Arabic term Allah.

The followers of Islam are known as Muslims. Muslims believe that the final revelation was revealed 1400 years ago in Mecca to the Prophet Muhammad (pbuh). Muslims believe that Islam has always existed, Allah sent down Prophets to various nations to teach them about monotheism and the belief in only one LORD. According to Muslims, Abraham, Moses and Jesus were all Muslims, they were Prophets of Allah.

Muslims believe that each Prophet was given a book of guidance, however, each time the book was mistreated or the key message was lost. The final revelation is known as the Qur'an and is the holy book revealed to the Prophet Muhammad (pbuh).

The Prophets and Books



Muslim teachings about the Trinity

O People of the Scripture, do not commit excess in your religion or say about Allah except the truth. The Messiah, Jesus, the son of Mary, was but a messenger of Allah and His word which He directed to Mary and a soul [created at a command] from Him. So believe in Allah and His messengers. And do not say, "Three"; desist - it is better for you. Indeed, Allah is but one God. Exalted is He above having a son. To Him belongs whatever is in the heavens and whatever is on the earth. And sufficient is Allah as Disposer of affairs.

And [beware the Day] when Allah will say, "O Jesus, Son of Mary, did you say to the people, 'Take me and my mother as deities besides Allah?'" He will say, "Exalted are You! It was not for me to say that to which I have no right. If I had said it, You would have known it. You know what is within myself, and I do not know what is within Yourself. Indeed, it is You who is Knower of the unseen.

Muslim teachings about the crucifixion

- ✓ Muslims do not believe that Isa was crucified.
- ✓ The verse says '**they did not kill him, not did they crucify him**'. This suggests that Isa did not die.
- ✓ The verse also says '**it was made to appear to them so**'. This suggests that something else took place.
- ✓ According to the Qur'an, Isa was raised up to Allah (someone was crucified but it was not Isa but a person that looked like Isa).

Muhammad (pbuh) was a spiritual man, and often went to a cave by himself to pray. In 610, when he was forty years old, the angel Jibril (Gabriel) visited him in the cave. He told him to read what was written on a scroll. However, Muhammad (pbuh) could not read because he was illiterate. The angel told him again to read, and Muhammad (pbuh) said that he couldn't. Finally, the angel put words into Muhammad (pbuh)'s mouth, and he started reciting. Muslims believe that these were the words of God.

Muhammad (pbuh) kept receiving revelations from God via the angel Jibril for 19 years, and recited them word for word. Soon afterwards, these were written down. The book of these words is the Qur'an, and it is the sacred text of Islam.

One particular revelation is known as the Night Journey. Here, Muhammad (pbuh) was purified by angels, and they took him to Jerusalem (the isra), which is seen as one of the holiest cities in the world. Later, Muhammad (pbuh) was taken to heaven (the mi'raj), where he met the other prophets (including Ibrahim (Abraham), Musa (Moses) and Isa (Jesus)) and spoke to God.

Muhammad (pbuh) understood the Abrahamic traditions in the authentic way- he recognised used the key teachings from these faiths to show a clear understanding of the one God.

Unlike Jews, Muslims do not consider to be the chosen people. Muslims believe that anyone can follow the path of Allah and that the message of Allah is available to everyone.

Unlike Christians, Muslims do not accept the concept of the Trinity, they believe that this contradicts the omnipotent nature that Allah has.

Key Term Box

Qur'an - The holy book in Islam which is considered to be the word of Allah.

Allah - The name Muslims use for God. Allah is Arabic and is unique as it cannot be said using plurals, it cannot be used with a pre-fix or a suffix. There are 99 names that Muslims use to describe the characteristics of Allah.

Mecca - Mecca is the name of the holiest city in Islam. It is the birth place of the Prophet Muhammad (pbuh) and also the place of pilgrimage for Muslims.

Ka'ba - The Ka'ba is considered by Muslims everywhere to be the most sacred place on Earth. It is located in the City of Mecca and is a cube shaped structure built by prophet Ibrahim.



Year 7 Topic: Dharmic Faiths

What is Buddha Dharma?

Buddha Dharma began around 563 BCE with the birth of Siddhartha Gautama (the Buddha) in Lumbini, in the foothills of the Himalayas in Nepal.

Who is the Buddha?

Prince Siddhartha Gautama, also known as the awakened one, founded Buddha Dharma. He had a sheltered upbringing in his father's palace until he left his home and witnessed the four sights.

What did the Buddha teach?

Four Noble Truths

The Buddha's teaching to cure the world's illnesses and the way to enlightenment. The first Noble Truth starts with accepting that we all suffer. The second Noble Truth teaches that the root of all suffering is desire. We always want something more and so are never truly happy. From this the Buddha taught that we can rid ourselves from this suffering by stopping cravings (the third Noble Truth). The final Noble Truth is to follow the eightfold path.

Eightfold path

The fourth Noble Truth. A way to escape suffering in life and achieve enlightenment.

Middle Way/Enlightenment

The Buddha achieved enlightenment through meditation under a Bodhi tree. By achieving enlightenment, one realises the truths of the universe and how to remove suffering.

Who are the Sangha?

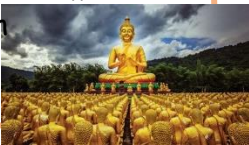
The Buddhist community.

How did the Sangha grow?

At the request of the Buddha's aunt, she cut her hair, put on yellow clothes and walked for 150 miles to Vesali in order to convince the Buddha to let her join.

What do the Sangha do?

Buddhist monks and nuns give up all of their possessions, which links to the teachings on suffering (Dukkha) being caused by attachments to the material world. They also spend most of their time meditating as said in the eightfold path. Monks and nuns (Bhikkus/Bhikkunis) have a stricter life with more rules (e.g. living without money) in order for them to better focus on Buddhist teaching and achieving Enlightenment.



Sikhi

Who was Guru Nanak?

Guru Nanak was born in 1469, he was the founder of Sikhi but born a Hindu.

He was born in The Punjab, an area now part of Pakistan.

Throughout his life, Guru Nanak experienced key events that to:

- reject the caste system within Hindu Dharma.

- teach that everybody is equal through the belief in the oneness of humanity.

- Guru Nanak established the langar (free kitchen). On his travels he invited all people to sit and eat with him. He offered free food to all.

Who was Guru Hargobind?

The sixth Guru encouraged Sikhs not to give up and continue to defend themselves. When he was made Guru, he asked for two swords in the ceremony. One sword represented his political power (miri) and another represented his spiritual power (piri). The miri piri is important in Sikhi because it teaches Sikhs about the importance of being both religious and a warrior. These two swords are found today on the symbol of Sikhi, which is called the Khanda.

Who was Guru Gobind Singh?

Guru Gobind Singh was the 10th and final human Guru. He became Guru at the age of 9 after his father, Guru Teg Bahadur, was beheaded. In 1699, he chose the festival day to transform the Sikhs into the Khalsa, a family of soldier saints.

Guru Gobind Singh declared the Sikh holy book as his successor instead of a human being. The Guru Granth Sahib would be the Sikhs' guide forever.



Key event in Guru Nanak's life	Importance	How this influences Sikhs today
Guru Nanak rejected the Sacred Thread ceremony when he was a young boy.	This shows that Guru Nanak rejected using rituals and physical items to remember God. Using pictures and objects to remember God is known as idolatry.	Sikhs today do not have pictures to represent Waheguru. Although there might be pictures of the Gurus in gurdwaras and homes, there are no pictures to represent God.
Guru Nanak's father tried to teach him to help with his business. He sent him to the market to buy food and then sell it for a profit. Instead of selling the food, Guru Nanak gave it to the holy men he met at the side of the road. Guru Nanak's father was unhappy with him as he hadn't learned about profit.	Guru Nanak understood the importance of helping others who had nothing. He wanted to help people and felt that profit was not important. He started teaching others the same principle.	To work hard and earn an honest living. They also help and support others through voluntary work and by offering money to charity.
Guru Nanak went to the river Bain to wash, as normal, and did not reappear for three days. On his return, Guru Nanak explained his revelation of God. He is said to have declared, "God is neither Hindu nor Muslim".	Guru Nanak began teaching the importance of the equality of all people, regardless of their caste, religion or gender. He taught that everyone is created by God's will and therefore we must all be treated equally and with respect.	Today, Sikhs follow this teaching. They welcome all beings into the gurdwara and offer food from the langar.
Guru Nanak travelled across North India teaching about the oneness of God and the equality of men and women. He gathered many followers.	Guru Nanak's teachings placed importance on equality.	Sikhs today reject the caste system. They follow the actions of Guru Nanak by treating men and women equally, giving both genders equal roles in the gurdwara.
Guru Nanak established the langar (free kitchen). On his travels he invited all people to sit and eat with him. He offered free food to all.	Everyone is important and therefore everyone must be treated equally.	Sikhs today follow these teachings by volunteering in the langar and offering free vegetarian food to all.

Key Term Box

The Buddha- The enlightened one; one who is awake (the title given to Siddhartha Gautama)

Enlightenment- When a person realises the truths of the universe and how to remove suffering.

Ascetic- someone who rejects all worldly/material things and dedicates their life to being more spiritual

Middle way- having found fault with both extremes, the Buddha embraced a path in between, the middle way.

Sangha- the Buddhist communities.

The four noble truths- The Buddha's teaching to cure the world's illnesses and the way to enlightenment

Bhikku- The word for Buddhist monks

Dhamma- The Buddha's teachings about the truth.

Dukkha- Buddhist concept of Suffering

Guru Nanak- The founder of Sikhi. Guru means teacher.

Langar- A community kitchen of a Gurdwara which serves meals to everyone free of charge.

Sikhi- the youngest of the six world religions beginning with the life of Guru Nanak.

Miri- political power
Piri- spiritual power

Khanda- Symbol of Sikhi religion

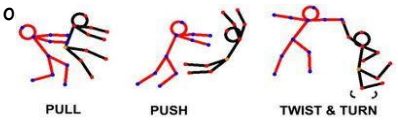
Khalsa- a worldwide family of pure Sikhs

5K's- 5 physical symbols worn by Sikhs who have been initiated into the Khalsa

What are forces?

A force is a push, pull or twist.

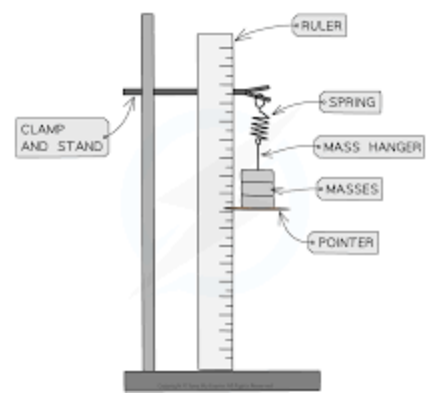
Forces can cause an object to change speed, shape or direction.



Stretching Objects

When a force is applied to an object, the object will stretch. This causes the object to be **deformed**. Objects may be **temporarily deformed**, which means they will return to their original shape and size once the force is removed. Objects may be **permanently deformed**, which means they will not return to their original shape and size when the force is removed.

Stretching forces can be investigated in the lab, using the equipment shown in the diagram.



Link: Apply your knowledge:

Explain why we use a pointer when carrying out the stretching practical.

We usually repeat the stretching experiment and calculate an average. Suggest why we might repeat the experiment.

Interaction Pairs

Forces **always** happen in pairs. The name for a pair of forces is an **interaction pair**.



The boat **exerts** a force downwards on the water. The water **exerts** an **equal** and **opposite** force upwards on the boat.

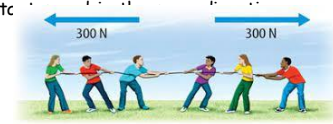
Link: Show your understanding

How do forces link to the particles and movement topics?

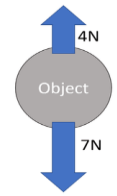
Balanced and Unbalanced Forces

Balanced forces: Two forces of **equal magnitude**, acting in **opposite direction**.

If forces are balanced, the object is in **equilibrium**. The object will remain at rest or continue to move at constant speed.

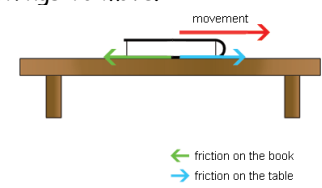


Unbalanced forces: The forces acting on an object are different sizes and/or not acting in opposite directions. The object will speed up/move in the direction of the resultant force.



Friction

Whenever an object moves against another object, it feels **frictional forces**. These forces act in the **opposite direction** to the movement. Friction makes it harder for things to move.



Friction may be **useful**, for example, friction between our feet and the ground helps us walk!

Friction can also be a **problem**, for example, when it is icy, there is less friction which makes things slippery!

Contact and Non-Contact Forces

Contact Forces: Occur between two objects that are touching each other, for example, **air resistance**, **water resistance**, **friction**, **upthrust**.

Non-Contact Forces: Occur between two objects that are not touching each other, for example, **gravity**, **weight**, **magnetic force** and **electrostatic force**.

Link: Show your understanding

Explain why air resistance is a contact force. Explain why the magnetic force is a non-contact force.

Compression

Forces can compress objects, causing them to change shape.

Objects may be **temporarily deformed**, which means they will return to their original shape and size once the force is removed.



Objects may be **permanently deformed**, which means they will not return to their original shape and size when the force is removed.

Equilibrium - State of an object when opposing forces are balanced.

Contact Force - One that acts by direct contact.

Non-contact Force - One that acts at a distance.

Resultant Force
Single force which can replace all the forces acting on an object and have the same effect.

Newton
The unit of force.

Friction
Force opposing motion which is caused by the interaction of surfaces moving over one another. It is called 'drag' if one is a fluid.

Compression
Force squashing or pushing together.

Tension
Force extending or pulling apart.

Deformation
Changing shape due to a force.

Drag
Force which resists an object moving through a fluid.

Link: Apply the knowledge, master the skill.

Using any information from your knowledge organiser:

1. Create a 20-question quiz to test yourself or a friend on this topic. Use 'look, cover, write, check' to test yourself.
2. Write a short paragraph to explain why friction may be a problem in a machine with moving parts and how friction could be reduced.
3. Find the resultant force on the object in the Balanced and Unbalanced Forces box. Create 5 similar questions, with model answers to check your understanding or to quiz a friend.

Science- Year 7: 7.2 Energy Stores and Transfers Core Knowledge

What is Energy?

Energy is not something that we can see, however, energy stores are required to make things happen.



Energy Transfers

Energy can be transferred between stores to make things happen. **Remember! The total amount of energy does not change!**

A remote control car



Aiming a Catapult



Dog running



A child climbing up a slide



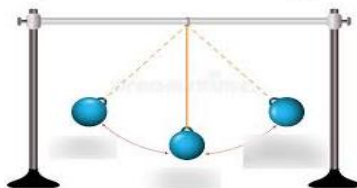
Link: Show your understanding

Can you draw energy transfer diagrams for a microphone and a television?

Conservation of Energy

Conservation of Energy

Energy cannot be created or destroyed; it can only be transferred from one store to another.



Energy Transfer Pathways

Energy can be transferred between different stores. This happens via energy pathways;

Electrical: When energy is transferred by batteries/wires.

Mechanical: When energy is transferred by a force or moving machine.

Radiation: When energy is transferred by light or sound.

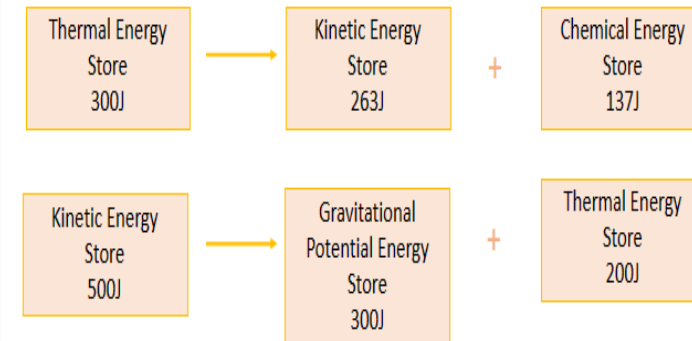
Heating: When energy is transferred by heating or cooling an object.

Task: Complete the match up task below.

Electrically	<input type="checkbox"/>	<input type="checkbox"/>	When energy is transferred through currents
Radiation	<input type="checkbox"/>	<input type="checkbox"/>	When energy is transferred as objects heat up
Mechanically	<input type="checkbox"/>	<input type="checkbox"/>	When energy is transferred as sound or light
By Heating	<input type="checkbox"/>	<input type="checkbox"/>	When energy is transferred by parts moving in a machine or a force is applied.

Energy Conservation Calculations

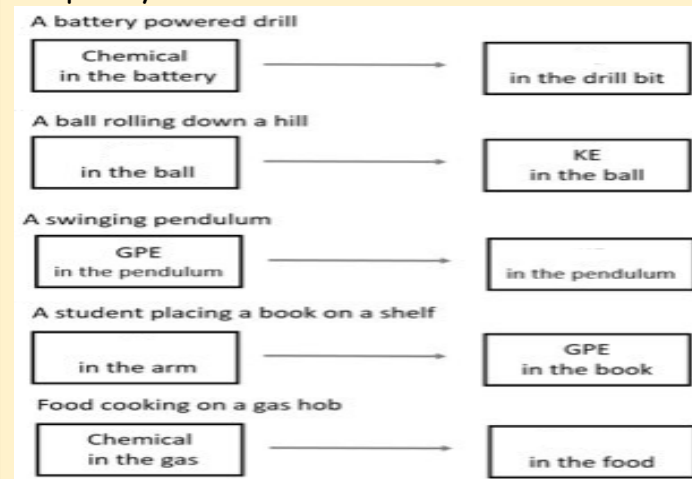
When completing energy calculations, remember, the total amount of energy at the start, must equal the total amount of energy at the end.



Link: Apply the knowledge, master the skill.

Using any information from your knowledge organiser:

1. Create a 20-question quiz to test yourself or a friend on this topic. Use 'look, cover, write, check' to test yourself.
2. Complete the energy transfers below, including adding the pathways above the arrow.



Essential Vocabulary

Thermal Energy Store

Filled when an object is warmed up

Kinetic Energy Store

Filled when an object speeds up.

Gravitational Potential Energy Store

Filled when an object is raised.

Chemical Energy Store

The energy stored in chemical bonds.

Elastic Potential Energy Store

Filled when a material is stretched or compressed

Conservation of Energy

Energy cannot be created or destroyed; it can only be transferred from one store to another.

Joule

The unit of energy.



Link: Show your understanding

Draw images that represent each energy store, to help you to remember them!

Science- Year 7: 7.3 Particle Model

Particle Model

Particles are tiny objects that cannot be seen, even with a microscope. Particles make up everything.

The particle model is a way to think about how substances behave in terms of small, moving particles.

Density

Density
How much matter there is in a particular volume, or how close the particles are.
Density can be calculated using the formula below.

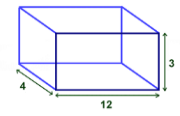
$$\text{Density} = \text{mass} \div \text{volume}$$

Density is measured in kg/m^3 or g/cm^3
Density of regular and irregular objects can be found using laboratory equipment.

- Find the mass of the object using a **balance**.



Then, for regular objects:
Measure the length, height and width of the object, and calculate volume = $l \times w \times h$.

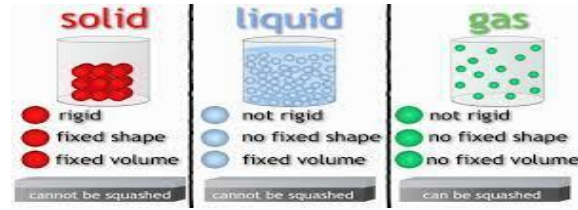


Or, for an irregular object. Use a eureka can and measuring cylinder to find the volume of the object.



Solids, Liquids and Gases

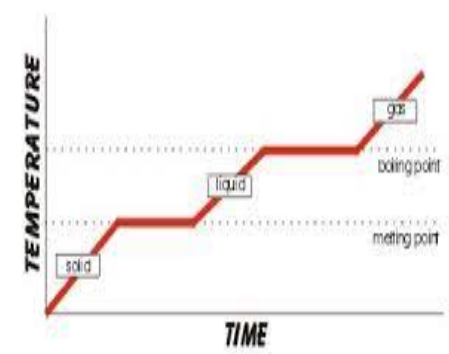
Particles are arranged differently in solids, liquids and gases..



Link: Show your understanding
Explain why a liquid can be poured but a gas cannot.

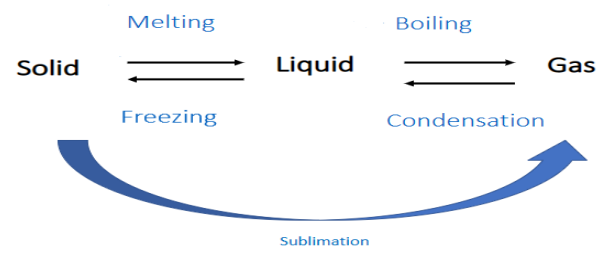
Changing States in a Graph

Changes of State can be represented in a graph. The graph can be used to find the melting and boiling point of a substance.



Link: Apply the knowledge, master the skill.
Using any information from your knowledge organiser:
1. Create a 20-question quiz to test yourself or a friend on this topic. Use 'look, cover, write, check' to test yourself.
2. Write a short paragraph to explain why you can smell food cooking in the kitchen, when you are upstairs.
3. Create 5 questions using the density equation, with model answers, to check your understanding or to quiz a friend.
4. Explain why a balloon will burst if you put too much air in it, using ideas about gas pressure.

Changing States



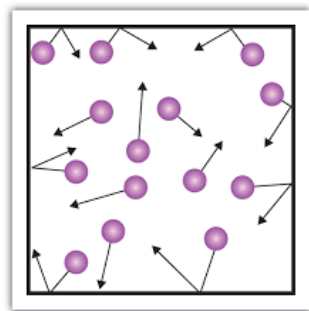
Link: Show your understanding
Explain how the movement and arrangement of particles changes when a solid becomes a liquid.. Which state of matter has the highest kinetic energy store and why?

Gas Pressure

Gas Pressure is caused by **particles colliding** with the walls of a container.

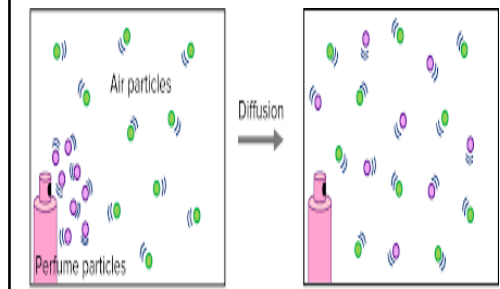
Gas Pressure is affected by:

- Temperature
- Volume of object
- Speed of particles.



Diffusion

Diffusion is the **spreading out** of particles from an area of **high concentration** to an area of **low concentration**.



Essential Vocabulary

Particle
A very tiny object such as an atom or molecule, too small to be seen with a microscope.

Particle Model
A way to think about how substances behave in terms of small, moving particles.

Freezing
Change from liquid to a solid when the temperature drops to the melting point.

Melting
Change from solid to liquid when the temperature rises to the melting point.

Condensing
Change of state from gas to liquid when the temperature drops to the boiling point.

Boiling
Change from liquid to a gas of all the liquid when the temperature reaches boiling point.

Sublimation
Change from a solid directly into a gas.

Diffusion
The process by which particles in liquids or gases spread out through random movement from a region where there are many particles to one where there are fewer.

Density
How much matter there is in a particular volume, or how close the particles are.

Gas Pressure
Caused by collisions of particles with the walls of a container.

Science Year 7: 7.4 Movement

Core Knowledge

Essential Vocabulary

1. Organisation in living things

2. The Human Skeleton

3. Joints

Biology - The study of living things

Link: Show your understanding
Where in our skeleton/muscles do forces act?

A living thing

A group of organs linked together to perform a function

A group of tissues that work together to perform a function

A group of cells of the same type

The basic building block of life

Organism

Organ system

Organ

Tissue

Cell

Increase in size and complexity

Some of the main bones in the human skeleton include...

Skull

Vertebrae

Clavicle

Ribs

Radius and Ulna

Wrist bones

Pelvis

Femur

Tibia and Fibula

Ankle bones

Synovial Joints

Fixed Joints

Synovial joints include **hinge** joints, **pivot** joints and **ball and socket** joints. They allow body parts to **move**.

Hinge Joints

• Allow movement forwards and backwards only

• e.g. fingers

Pivot Joints

• Allow two bones to rotate around each other


• e.g. wrist

Ball and socket Joints

• Allow almost 360° of movement at the joint

• e.g. shoulder

Fixed joints are **not** a type of synovial joint. They **do not** allow movement. The best example of a fixed joint is the bones in the skull.



Cell - The basic building block of life

Tissue - A group of cells of the same type

Organ - A group of tissues that work together to perform a function


Organ system - A group of organs linked together to perform a function

4. Antagonistic Muscle Pairs

Movement of the limbs is controlled by **antagonistic muscle pairs**.
e.g. the lower arm


Raising the arm

When the forearm is raised, the **biceps muscle contracts** and the **triceps muscle relaxes**.

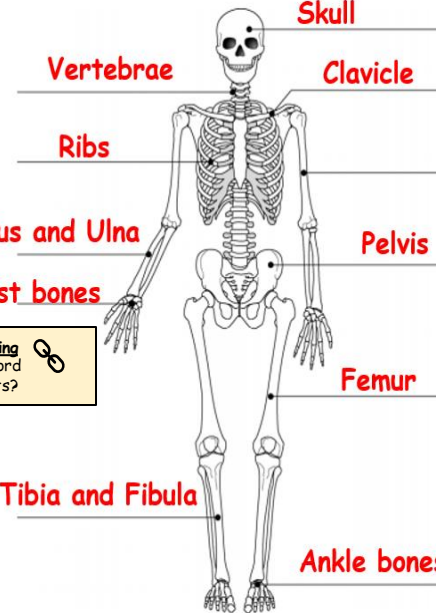


Lowering the arm

When the forearm is lowered, the **biceps muscle relaxes** and the **triceps muscle contracts**.

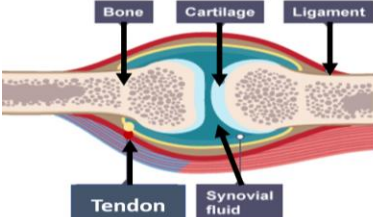


Link: Show your understanding
Where have you heard the word 'antagonistic' in other subjects?



3. Structure of a synovial joint

Synovial joints all have the same basic structure as shown below...



Cartilage - Prevents bones rubbing against each other and reduces friction.

Synovial fluid - Further reduces friction at the joints.

Ligament - Attaches bones together at a joint.

Tendon - Attaches the muscle to a bone at a joint.

Organism - A living thing

Joint - A place where two bones meet to enable movement

Ligament - Attaches a bone to another bone at a joint

Tendon - Attaches a muscle to a bone at a joint

Cartilage - Found on the end of bones. Reduces friction at a joint

5. Joint Injuries

Injury name	How has it happened?	What are the symptoms?	How is it treated?
Dislocation	<input checked="" type="checkbox"/> Impact <input type="checkbox"/> Twisting and bending	<input checked="" type="checkbox"/> Pain and can't move <input checked="" type="checkbox"/> Big lump <input type="checkbox"/> Bruising <input type="checkbox"/> Pop or snap sound	<input checked="" type="checkbox"/> Medication <input checked="" type="checkbox"/> Rest <input type="checkbox"/> RICE <input checked="" type="checkbox"/> Physiotherapy <input checked="" type="checkbox"/> X-ray and surgery
Sprain	<input type="checkbox"/> Impact <input checked="" type="checkbox"/> Twisting and bending	<input checked="" type="checkbox"/> Pain and can't move <input checked="" type="checkbox"/> Big lump <input type="checkbox"/> Bruising <input type="checkbox"/> Pop or snap sound	<input type="checkbox"/> Medication <input type="checkbox"/> Rest <input checked="" type="checkbox"/> RICE <input checked="" type="checkbox"/> Physiotherapy <input checked="" type="checkbox"/> X-ray and surgery
Torn tendon	<input type="checkbox"/> Impact <input checked="" type="checkbox"/> Twisting and bending	<input checked="" type="checkbox"/> Pain and can't move <input checked="" type="checkbox"/> Big lump <input checked="" type="checkbox"/> Bruising <input checked="" type="checkbox"/> Pop or snap sound	<input type="checkbox"/> Medication <input type="checkbox"/> Rest <input type="checkbox"/> RICE <input checked="" type="checkbox"/> Physiotherapy <input checked="" type="checkbox"/> X-ray and surgery
Torn ligament	<input type="checkbox"/> Impact <input checked="" type="checkbox"/> Twisting and bending	<input checked="" type="checkbox"/> Pain and can't move <input checked="" type="checkbox"/> Big lump <input checked="" type="checkbox"/> Bruising <input checked="" type="checkbox"/> Pop or snap sound	<input checked="" type="checkbox"/> Medication <input type="checkbox"/> Rest <input checked="" type="checkbox"/> RICE <input checked="" type="checkbox"/> Physiotherapy <input checked="" type="checkbox"/> X-ray and surgery

Questions - Look, Cover and Check

What are the 4 main functions of the human skeleton?

Protect the body organs, support the body, enable movement and make new blood cells.

What are the 3 main synovial joints?

Ball and socket, hinge and pivot joints.

What is a fixed joint?

A joint where no movement is able to occur e.g. the plates of the human skull.

What is an antagonistic muscle pair?

A pair of muscles that work in opposition to one another (one contracts while the other relaxes).

What are the names of some common joint injuries?

Dislocation, sprain, torn tendon, torn ligament.

What does the treatment RICE entail?

Rest, Ice, Compression, Elevation

Synovial fluid - Lubricates the joint and reduces friction

Antagonistic muscle - A muscle that opposes (goes against) the action of another muscle

Contract - When a muscle becomes shorter and fatter and pulls on a bone

Relax - When a muscle becomes longer and thinner and stops pulling on a bone

Science- Year 7: 7.5 Atoms and Elements

Atoms

Atoms are the smallest particle of an element that can exist.

Atoms are modelled as small, solid spheres. This model was proposed by John Dalton in 1803.

Elements

Elements are what all substances are made of. The periodic table shows all of the known elements.

Elements are still being discovered!

All elements have a symbol. It is either a capital letter or a capital and a lower case letter.

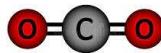
For example:

Hydrogen has the symbol H
Sodium has the symbol Na

Compounds

A compound is two or more different elements that are chemically joined together.

For example, carbon dioxide.



Link: Show your understanding

Why do we not use an = sign in chemical equations?

Naming Compounds

When a metal and a non-metal form a compound, the ending of the non-metal changes to 'ide'

For example:

Potassium + Oxygen → Potassium Oxide
Aluminium + Sulfur → Aluminium Sulfide

When a metal and two non-metals form a compound, the compound has an 'ate' ending.

Group of Atoms	Element 1	Element 2	Compound name will include.
OH	Hydrogen	Oxygen	Hydroxide
NO ₃	Nitrogen	Oxygen	Nitrate
SO ₄	Sulfur	Oxygen	Sulfate
CO ₃	Carbon	Oxygen	Carbonate

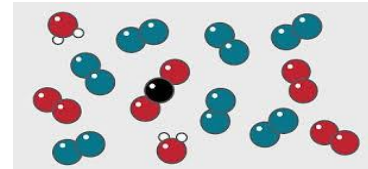
For example:

Magnesium + Sulfur + Oxygen → Magnesium Sulfate.

Copper + Nitrogen + Oxygen → Copper Nitrate.

Mixtures

A mixture is different elements and/or compounds that are not chemically joined together. For example, the air is a mixture.



Link: Show your understanding

Can you write a formula for a molecule containing 2 iron atoms and 3 oxygen atoms?

Polymers

A **polymer** is long chain molecule made of smaller molecules in a repeating pattern.

The molecules can be the same (molecules of an element) or different (molecules of a compound).

Natural polymers such as rubber and cotton come from plants and animals.

Synthetic polymers are man made polymers such as polystyrene and PVC.



Link: Apply the knowledge, master the skill.

Using any information from your knowledge organiser:

1. Create a 15-question quiz, with model answers to test yourself on this topic.
2. Write a short paragraph comparing man made and natural polymers.

Essential Vocabulary

Atom

The smallest particle of an element that can exist.

Element

What all substances are made up of, and which contain only one type of atom.

Molecules

Two to thousands of atoms joined together. Most non-metals exist either as small or giant molecules.

Compound

Pure substances made up of two or more elements strongly joined together.

Chemical Formula

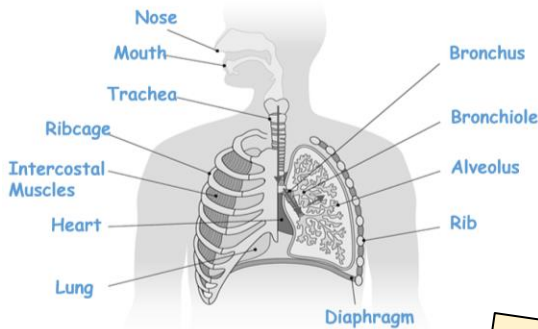
Shows the elements present in a compound and their relative proportions.

Polymer

A molecule made of thousands of smaller molecules in a repeating pattern. Plastics are man-made polymers, starch is a natural polymer

Science Year 7: 7.6 Breathing Core Knowledge

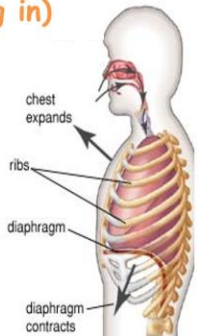
1. Gas exchange system



2. Breathing

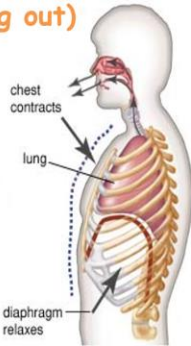
Inhalation (breathing in)

The intercostal muscles **contract**.
The rib cage moves **upwards** and **outwards**.
The diaphragm **contracts** and moves **downwards**.
This **increases** the volume of the thorax and **decreases** the pressure in the lungs.
Air moves **into** the lungs.



Exhalation (breathing out)

The intercostal muscles **relax**.
The rib cage moves **downwards** and **inwards**.
The diaphragm **relaxes** and moves **upwards**.
This **decreases** the volume of the thorax and **increases** the pressure in the lungs.
Air moves **out** of the lungs.



3. Gas exchange

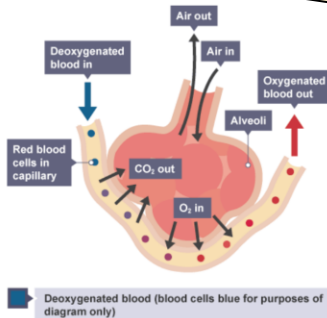
Gas Exchange

Gas exchange is the name given to the movement of oxygen and carbon dioxide in the lungs. Gas exchange happens in the alveoli.

The gases move by diffusion. Diffusion is the movement of particles from an area of high concentration to an area of low concentration.

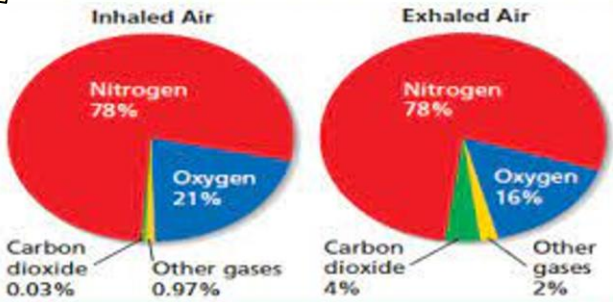
Oxygen moves from the alveoli to the capillaries by diffusion.

Carbon dioxide moves from the capillaries to the alveoli by diffusion.



Link: Show your understanding
Which unit of work have you covered diffusion in before?

4. Composition of air



5. Smoking and health

Substances found in cigarettes and how they can affect human health.

Substance	Harm to the body
Smoke	Breaks down alveoli walls, increased risk of emphysema and lung cancer.
Tar	Destroys cilia, mucus builds up, increased risk of bronchitis.
Nicotine	Binds to haemoglobin, reduces oxygen content of red blood cells, increased risk of heart attack and strokes.
Carbon monoxide	Narrows blood vessels, less oxygen to the heart, can increase the risk of a heart attack.

Essential Vocabulary

Trachea - A tube carrying air from the nose and mouth down the throat.

Bronchi (bronchus) - Two tubes carrying air into the left and right lungs.

Bronchioles - Smaller tubes inside the lungs carrying air deep into the lung tissue.

Alveoli (Alveolus) - Small air sacs at the end of bronchioles where gas exchange occurs. They have a large surface area for diffusion.

Intercostal muscles - The muscles between the ribs which contract and relax to move the rib cage during breathing.

Diaphragm - A large muscle below the rib cage which relaxes and contracts during breathing.

Inhale - To breathe in.

Exhale - to breathe out

Diffusion - The movement of particles from a high concentration to a low concentration.

Lung volume - A measurement of the amount of air breathed in or out.

Breathing rate - The number of breaths (inhalation and exhalation) in one minute.

Asthma - A lung condition which can affect the breathing.

Questions - Look, Cover and Check

What is the composition of air?	78% nitrogen, 21% oxygen, 0.03% carbon dioxide and 0.97% other gases.
What happens during inhalation?	The intercostal muscles contract pulling ribs upwards and out, the diaphragm contracts moving downwards. The lung volume increases, pressure inside the lungs decreases - air moves into the lungs.
What happens during exhalation?	The intercostal muscles relax moving ribs downwards and in, the diaphragm relaxes moving downwards. The lung volume decreases, pressure inside the lungs increases - air is pushed out of the lungs.
What is diffusion?	The movement of particles from an area of high concentration to an area of low concentration.
How are alveoli adapted for gas exchange?	Large surface area, good blood supply (capillaries).
How does breathing rate change with exercise?	It increases.