

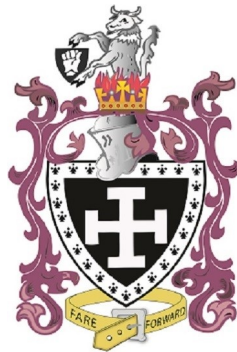
Year 8 Knowledge Organiser

"In a time of turbulence and change, it is more true than ever that knowledge is power"

John F Kennedy

Cycle 2

**Buckler's Mead
Academy**



Inspiring Education for All

Name:

Tutor:

Ready, Responsible, Respect

How to use your knowledge Organiser

Self –Quizzing.

Your knowledge organiser contains all of the key information you need to know for each subject area.

Your knowledge organiser will allow you to revise this key information and make sure it is stored and retrieved from your long-term memory

The best way to use this resource is by self-quizzing through the “**look, cover, write and check**”

First look through and read the information on a section of your knowledge organiser

Then Cover the section so you can no longer see the information

Next Try and **write out or mind map** the key definitions or facts that you need to know

Now uncover the section of your Knowledge Organiser and check how correct you were

Finally Correct anything that you wrote down that was incorrect

Look



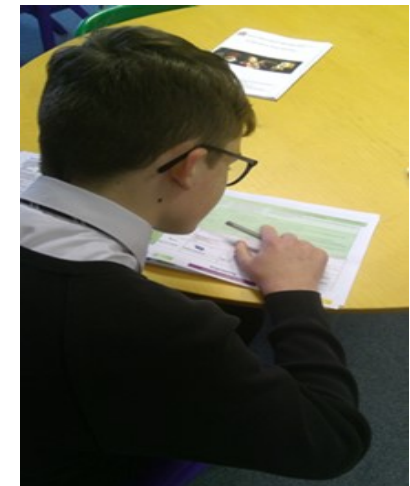
Cover



Write



Check



What are portraits?

A portrait is a study (drawing, painting, print sculpture or photograph) of a person or group of people's faces or head and shoulders.

Portraits are created to capture the likeness within a person's physical appearance. They can also depict a person's social standing, their inner feelings and thoughts, the social or artistic themes of the time and also look deeper into the uniqueness of a person to set them apart from others.



Key Words / Aspects of the Unit:

Accuracy:	This means the image created is an exact likeness of the original image or object.
Facial Features:	Facial features are a person's eyes, nose, mouth and ears.
Perspective:	To represent three-dimensional objects on a two-dimensional surface (on paper or canvas).
Portraiture:	Portraiture is the ability to be able to draw the human face and all of its features accurately..
Proportion:	The size of each part in relation to each other (Scale)
Shading:	Shading is used in drawing to show different levels of light or dark by applying pressure or layering marks to create tone.
Shape:	The outline of the object. (circle, square etc)
Tone:	Tone refers to the light and dark values used to create an object or image.

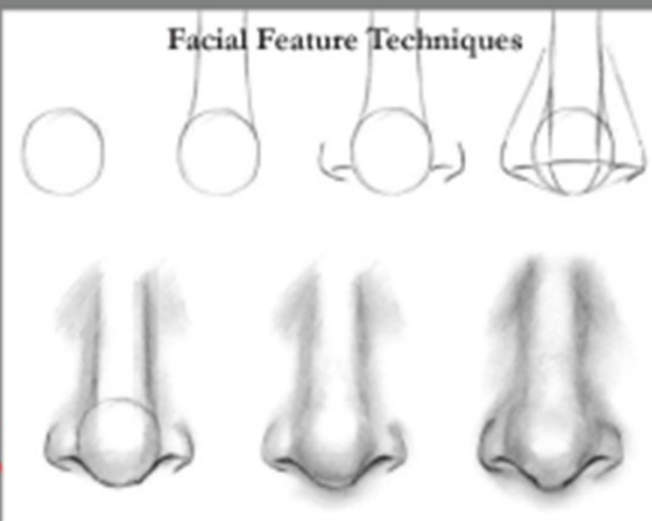


DRAWING A PORTRAIT

1. Start by drawing lightly an oval shape to represent the face.
2. Draw a light line across the face at the $\frac{1}{2}$ way point, where the eyes are positioned. The distance between the eyes is the same size as an eye. You should be able to fit 5 eyes across the face. The eyes are covered partially by the top lid.
3. The width of the nose is measured against the inside of the eyes and its tip is $\frac{1}{2}$ way between the eyes and the bottom of the face. Draw in the nostrils and the outside edge of the nose.
4. The mouth is $\frac{1}{2}$ way between the tip of the nose and the bottom of the face. Draw in the line that separates the lips (it is not straight). The bottom lip is usually bigger and has some vertical stretch lines.
5. Draw in the ears between the guides.
6. Eye brows frame the eye and the hair line usually starts in the top $\frac{1}{4}$ of the head.



Facial Feature Techniques



Draw a basic outline softly

Begin to build tones slowly from dark to light.

Art & Photography

Nature of God

Tawhid: the Oneness and unity of God the belief that there is only one God. This makes Islam a monotheistic religion.

No one can describe God or picture him, because there is nothing to compare him to – This is why there are no pictures of God in places of worship.

‘There is no God but Allah and Muhammad is his prophet.’ This belief is repeated daily in the Shahadah (Islamic declaration of faith)

Five Pillars of Islam

1. Shahadah- declaration of faith.
2. Sawm- fasting during Ramadan.
3. Zakah- 2.5% to charity
4. Hajj- pilgrimage to Makkah
5. Salah- Prayer 5 x day

Muslim: one who has submitted to the will of God and has accepted Islam.

Islam: the name of the religion followed by Muslims; to surrender to the will of God; peace.

Allah: the Arabic name for God.

Tawhid: the Oneness and unity of God

Monotheistic: a religion that believes there is only one God.

Supremacy: a supreme power or authority; a quality of God.

Prophet: a person who proclaims the message of God.

Prophethood: when God makes someone a prophet to communicate his message to people.

Risalah: the belief that prophets are an important channel of communication between God and humans.

Year 8 – Key practices and beliefs of Islam

Hajj- Pilgrimage to Makkah

- Happens once a year.
- Remembers the actions of the Prophets Ibrahim and Muhammad.

Main stages-

1. Entering Ihram- perform ritual washing and wear two sheets of white cloth (men) women wear a single colour.

This demonstrates equality.

2. Circling the Kaaba- 7 circuits around it and they try to touch the stone. The stone is believed to have come from paradise as a gift from God to Adam. It is also the site where Ibrahim and Muhammad worshipped.

3. Walking between the hills of Safa and Marwah. Reminds them of Hajira search for water and the miracle of the well at Zamzam.

4. Standing at Arafat- site where Muhammad taught his last lessons, spend the day praying and it is seen as a dress rehearsal for the day of Judgement. Muslims will ask God for forgiveness.

5. Throwing Stones at Mina- collect handfuls of pebbles from Muzdalifah and take these to Mina where they throw them at 3 stone pillars. This reminds them of the story of when Ibrahim was tempted by the devil.

6. Sacrificing an animal- sacrifice an animal as part of their celebrations of Id Ul Dha. It also reminds them of Ibrahim being asked to sacrifice his son.

7. Return to the Kaaba.

Significance of Muhammad

Muhammad is the last prophet sent by God and is referred to as the **Seal of the Prophets**. This means the Qur'an is the final revelation sent by God.

Because the Prophet Muhammad is of such importance to them, Muslims try to live in the ways of the prophet, and the **Hadith** and **Sunnah** are important sources of authority for Muslims to guide their lives.

Message

Muslims believe the Prophet Muhammad has been chosen by Allah to give a universal message to all humanity. The message is that Allah is one and he is the God of all. God is to be worshipped by all. God is the final judge.

Festivals

Id-ul Fitr- Go to Mosque and say prayers, listen to a sermon from the Imam, decorate their homes, wear best clothes, eat special meal, exchange gifts and pray for deceased relatives.

Id-ul-Adha- prayers at mosques, Imam gives service on sacrifice, visit family and friends, special meal is held, some go Hajj, slaughter an animal and share this with friends and family as well as the poor.

Ashura- Shia Muslims treat this as a day of mourning, wear black clothes, processions are held, self flagellation or donating blood. Sunnis celebrate this festival as the day when the Israelites escaped Egypt. It is not a day of mourning.

Sawm- Fasting During Ramadan

- Ramadan= most important month in Muslim Calendar.
- It marks when Jibril revealed the Quran to Muhammad (Night of Power)
- Muslims fast during daylight hours.
- Muslims only fast if they are old enough or well enough to do so.
- The fast is broken at sunset and a meal is shared with friends and family.
- It is important because- it reminds Muslims of those who are less fortunate, month when they try to be as good as possible, it is seen as test of faith and overcoming temptation, it reminds them of the night of power and brings the Muslim community together.

The Key Prophets of Islam

All prophets preached the oneness of God ('Tahwid' in Arabic). A prophet is someone chosen by God to call people to the worship of one God. In the Qur'an only 25 prophets (and messengers) are mentioned. The main prophets and messengers highlighted in the Qur'an are Adam, Noah, Ibrahim and his son Isaac, Moses, Jesus, and Muhammad, who was the last (seal) of the prophets and messengers.

They had important tasks to perform and messages to give humankind. These prophets are the most revered of all the prophets.

Beliefs & Values

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Year 8 DRAMA 'Blood Brothers'



CHARACTER		THEME		CONTEXT	
Mickey Johnstone	The lower-class twin. He is honest, sincere and goodhearted. He impregnates Linda, gets laid off, is arrested for Sammy's crime and ends up in prison and addicted to anti-depressants. His rage at Linda & Edward for having an affair drives the play's finale.	Education	Due to class, education is offered differently to the two boys- with Edward being in a private, boarding school and Mickey a comprehensive school where Mickey is poorly educated.	Marilyn Monroe	Famous and glamorous Hollywood movie star who Mrs J is compared to. Mickey is also compared to the actress as Mickey becomes addicted to antidepressants mirroring Monroe's own addiction struggles.
Edward Lyons	Is also good-natured but the higher-class twin. His sheltered upbringing makes him innocent but because of class he gets good opportunities e.g. university and a good job. His good-natured manner leads to the play's final scene.	Superstition	The audience is constantly reminded of this, as well as the superstition Mrs Lyons creates. The narrator also refers to other superstitions throughout the various songs in the play.	Margaret Thatcher	First female Prime Minister- responsible for lots of working class people (including miners) losing their jobs. During her time in power, unemployment rates were raised higher than ever before.
Mrs Johnstone	Biological mother of the twins and a horde of other children. Left by her husband she gets a job as a cleaner. She is the moral centre of the play; is tortured by guilt and regret.	Violence	The children play with toy guns and violent games out in the street. This foreshadows the violent path Mickey takes and the ultimate violent ending to the boys' lives.	Single Parents	Single mothers were looked down upon in this era. Society expected people to marry before they had children and thought badly of those who didn't. Women were expected to give up work and look after the children.
Mrs Lyons	Opposite of Mrs J whom she employs as a cleaner. She adopts Edward as her own child. Is haunted by the original act of a mother giving up her child. The guilt turns into suspicion and paranoia. She announces the affair and contributes to the murder of her adopted son.	Money	Mrs J can't afford to feed an extra two children and ends up getting her furnishings on the catalogue being taken away whilst pregnant. The children have broken toys which compares to Mrs L who can afford all of the luxuries when Edward is born.	Russell's Intentions	Russell was brought up in a working class family in Liverpool where his Dad had various jobs with one being a miner and was an alcoholic. Russell was interested in class as his mother aspired to be of a higher class. Russell feared he would end up like his father but felt saved by his in-laws who nurtured him, hence his interest of nature vs nurture.
Linda	Begins as a tomboyish young girl but both twins fancy her from an early stage. She only has eyes for Mickey as a teenager but later turns to Edward for comfort and support, which turns into an affair. Despite this, she loves both twins and is a sympathetic character.	Class	Mickey has less opportunities, poor education and an unsecure job- he is involved in drugs, depression and crime because of his poverty. Edward has all the opportunities: a good education, university and a good job. Both boys are also treated differently by society and authoritative figures.	Key Vocabulary	
Narrator	All-knowing and always slightly menacing- takes many roles throughout the play. Narrator constantly reminds the audience of the terrible choice that began this chain of events. Frequent mentions of fate and superstition but the Narrator claims it was class, not fate.	Nature vs Nurture	Focuses on the idea of what will happen if a person's character is determined by their genetics or upbringing. In this case, it is their upbringing- Mickey wishes to have had Edward's life at the end of the play.	Foreshadowing	Indication of a future event. E.g. deaths of the boys through the motifs of guns and violence. There is also foreshadowing of death when the children say 'bang, bang, you're dead'. The use of the 'devil' being mentioned throughout foreshadows the truth will come out
Sammy	When they are younger, Mickey just wants to be like Sammy. Quickly becomes a juvenile delinquent; even attempting to rob a bus as a teenager- he ends up in prison with Mickey.	Fate	The idea that because of class, the boys' fate was always decided and instead it was fate, not superstition that caused their death.	Repetition	Recurrence of an event e.g. Sammy being violent and each time this happens it becomes more serious.
Mr Lyons	Married to Mrs Lyons- away so Mrs L can adopt Edward. Grows increasingly concerned about his wife's mental health and wellbeing.	Friendship	There are close friendships between the boys as well as Linda which strengthens and suffers at different times, specifically as the boys get older as one gets everything he wants and the other does not due to their social classes.	Cyclical	Plot goes in a cycle e.g. starts with the deaths; ends with deaths.
				Pivotal	Moments that are of high importance e.g. Mrs Johnstone giving Mrs Lyons one of the babies.

Drama

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There are Learning aims:

A Develop skills and techniques for performance

B Apply skills and techniques in rehearsal and performance

Levels: 1/2

Assessment type: Internal

Guided learning hours: 36

Component 2 Developing Skills and Techniques in the Performing Arts

Assessment of Learning Aim C: Review own development and contribution to the performance

You must track your progress during this component, reflecting on the development of skills and working practices in workshops, through to rehearsals and performances.

The review can include recordings, annotations and/or written content.

C1 Review own development of skills and techniques in/for performance

- Developing skills such as physical, vocal, musical, design and interpretative.
- Responding to feedback, e.g. teachers, instructors, peers.
- Identifying strengths and areas for development.
- Actions and targets for improvement.
- Reference to professional working practices.
- Use of terminology appropriate to the discipline/style of performance.

C2 Review own application of skills and techniques in/for performance

- Applying skills such as physical, vocal, musical, design and interpretative.
- Responding to audience feedback.
- Identifying strengths and areas for future development.
- Actions and targets for future performances.
- Reference to professional working practices.
- Use of terminology appropriate to the discipline/style of performance.

Assessment of Learning Aim A : Develop skills and techniques for performance **A1:Development of performance/design and interpretative skills**

physical skills relevant to the performance discipline such as: actions, characterisation, communication, expression, facial expression, focus and control, gesture, mannerism, movement memory, pace, posture, rhythm, relaxation, reaction/interaction with others, spatial awareness.

vocal and musical skills relevant to the performance discipline such as: clarity and

articulation, projection, breath control, remembering lines, pitch, , tone, phrasing, pace, use of pause, tuning, rhythm, learning songs, interpreting lyrics, phrasing, musicality, characterisation, expression.

other performance and interpretative skills relevant to the performance discipline such as: awareness of the performance space and audience, interaction with and response to other performers, focus, energy and commitment, handling and use of props, set, costume, makeup and masks, emphasis, projection, use of space, awareness and appreciation of sound accompaniment, for example following the accompaniment, musicality, facial expression, tuning, rhythm and timing, stage presence, energy.

A2: Develop skills and techniques during the rehearsal process.

For performers: repetition and recall, learning dialogue, songs or movement, learning blocking and stage directions, learning choreography.

Experimenting with skills and techniques appropriate to the role selected.

Reproducing repertoire, such as:

- interpreting and developing a character
- communicating a style or genre
- developing the relationship between musical, lyrical, and spoken elements
- communicating themes and ideas

responding to direction, such as:

- applying health and safety procedures
- being prepared, warming up and cooling down
- positive response to teacher instruction and feedback
- peer feedback
- absorbing and applying feedback and corrections.

Reviewing and recording development of skills, techniques and progress in logbook.

Behaviours and attitudes when working with others such as cooperation, being supportive, listening to others, punctuality, consistency, commitment, reliability, being prepared, being respectful of others' opinions and skills.

Assessment of Learning Aim B: Apply skills and techniques in rehearsal and performance

B1 : Application of skills and techniques during rehearsal such as:

Physical; vocal; musicality; interpretative; stylistic; interaction with the group; interaction in performance ; refining ideas; communicating design ideas e.g., pitch, presentation.

B2 Application of skills and techniques in/for performance

You will apply/realise:

skills and techniques during the performance

performance/design skills appropriate to performance repertoire.

interpretative skills such as expression, character, mood and atmosphere.

characteristics particular to the style or genre.

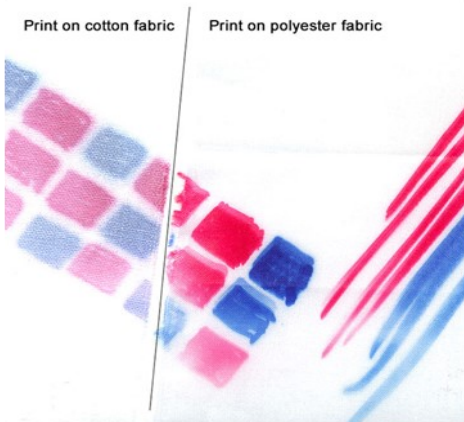
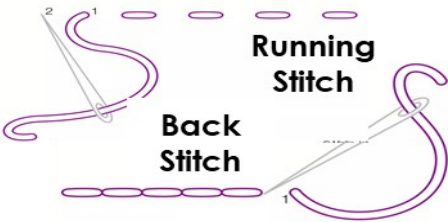
You will communicating meaning of repertoire through:

interpretation and realisation of creative intentions

demonstrating the appropriate style and influences

expressive use of voice and/or movement and/or design elements to communicate meaning to an audience.

Drama



Light Emitting Diode

An output device which produces light when electricity flows from the + leg to the – leg. Uses much less energy than a lamp.

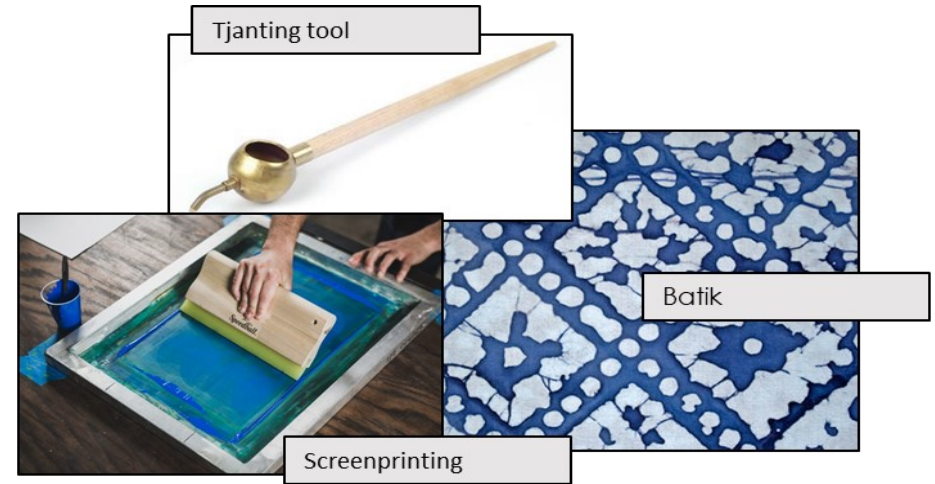


Standard components are pre-manufactured parts that come ready-made for use. They are common fixings and parts that manufacturers buy instead of manufacturing them themselves. Advantages of this are:

- They are mass produced and so available at a lower cost
- Saves time during manufacture and so they are more efficient
- Specialist training and extra materials aren't needed so it also saves money.

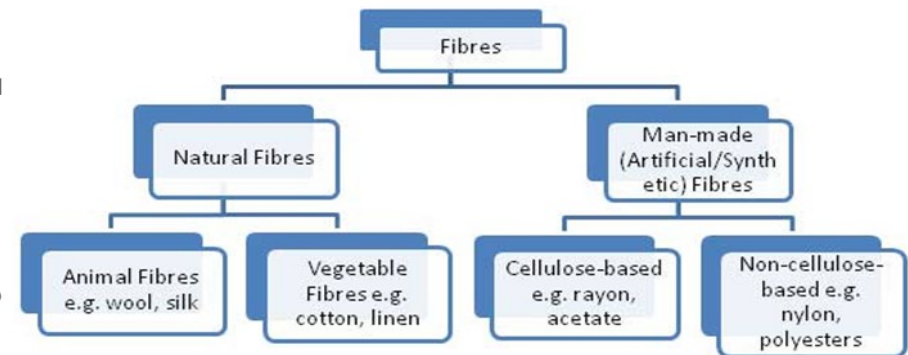
Disperse dye, also described as “sublimation” inks, can be used with various techniques and will readily dye synthetics such as polyester, nylon, viscose. They can also be used to colour plastic buttons and fastenings. Their effect is less vivid on polyester, due to the molecular structure, allowing only pastel through to medium shades. Polyester fibre contains pores or canals within its structure which, when heated to 100°C, expand to allow particles of the dyes to enter. The expansion of the pores is limited by the heat of the water – industrial dyeing of polyester is carried out at 130°C in pressurised equipment!

Full colour can be achieved when heat transfer printing with disperse dyes. Using disperse dyes on natural fibres, such as cotton and wool, are not effective but can be combined with reactive dyes to colour blends of polyester/cotton. This technique is used industrially in controlled conditions.



Batik	A technique of wax-resist dyeing which originated from the island of Java, Indonesia. A tjanting tool is used to apply wax to the areas of the design which are to be left undyed.
Screenprinting	Screen printing is a printing technique where a mesh is used to transfer ink onto a substrate, except in areas made impermeable to the ink by a blocking stencil.

Conductive thread can carry current the same way that wires can, which means it can be used to create a circuit. This allows the user to sew a circuit together, creating flexible circuits that require no soldering.



Design & Technology

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Democracy and Equality Knowledge Organiser

Key Vocabulary and Definitions: Etymology (OE- Old English, F-French, L- Latin, G- Germanic, AG – Ancient Greek, N - Norse			
Anarchy	A state of disorder due to absence of authority	G. An: without, Archos: a leader	
Eias	Unfair prejudice for or against one person or group	F. Biaisés: Slanted towards	
Courageous	Strong or brave behaviour or character	L. Cor: heart (to act from the heart)	
Brutality	Savage physical violence; great cruelty	L. Brute: stupid, mean	
Censor	To remove anything offensive from books, films, etc.	L. Censere: to assess	
Conquer	To overcome and take control of a place or people by military force	L. Conquerie: to win	
Passive	accepting or allowing what happens or what others do, without resistance.	L. Passivus: to pass, to suffer	
Exploitation	The act of treating someone unfairly in order to benefit yourself	L. Ex: out, Pilcare: to fold (to unfold, to take)	
Democracy	a system of government voted in by the whole population or all the eligible members of a state	G. Demos: The people, Kratia: power	
Ceremonial	relating to or used for formal events of a religious or public nature	L. Caerimonia: to worship	
Justice	Fair behaviour or treatment; fairness in the way people are treated	L. Justitia: uprightness, law	
Liberate	To set someone free from imprisonment, slavery or oppression	L. libere: free	
Massacre	The brutal killing of many people	L. Macacre: slaughterhouse, butcher	
Oppression	Cruel or unjust treatment over a long period of time	L. Opressare: pressed against	
Superior	Higher in rank, status, or quality.	L. Supere: Above	
Protest	A strong complaint expressing disagreement, disapproval, or opposition	L. Pro: publicly, Testari: assert	
Reform	To make changes to something in order to improve it	L. Re: again, formare: to shape	
Pretence	an attempt to make something that is not the case appear true.	L. Pretensus: to pretend	
Roots and Stems		Spelling rule: when to use 'ies' to make something plural. When a word ends in a vowel + y just add 's' to make it plural. When it ends in consonant + y remove the y and add 'ies'.	
Op (Ob) - against		Keys, delays, trolleys, babies, difficulties, companies, academies, capacities, hierarchies, surveys, monkeys, allies, possibilities, emergencies, countries, holidays, memories, enemies, parties, stories	
Super—above			
Cor—heart			

English

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Key Terms

Landscape	the visible features of an area of land
Uplands	land that is hilly or mountainous
Foreground	the part of a view that is at the front
Land use	what land is used for, e.g. farming or industry
Geology	the study of the rocks beneath our feet
Lowlands	flat land not much higher than sea level
Rock cycle	when one type of rock changes into another type of rock
Igneous	a type of rock formed on Earth's surface (during volcanic eruptions) or deep underground by the cooling of molten (hot, liquid) rock e.g. granite
Sedimentary	a type of rock formed by the deposition of sediment e.g. sandstone
Metamorphic	a type of rock that has undergone change due to intense heat and/or pressure e.g. slate
Weathering	the breakdown of rocks at or close to Earth's surface
Erosion	wearing away and removal of small pieces of rock by, for example, a river
Transportation	the movement of rocks from an area of erosion to an area of deposition
Deposition	the dropping of rock particles, mostly in the sea
Magma	molten rock formed underground
Limestone pavement	a bare, rocky limestone surface with blocks of limestone separated by deep cracks
Gryke	a deep crack in the surface of limestone
Clints	limestone blocks separated by deep cracks (grykes)
Vegetation	plant
V-shaped river valley	deep river valley shaped like a V, formed by erosion
River channel	a landform that contains a river at the bottom of a valley
Estuary	a broad flooded valley where a river joins the sea
Source	the start of a river
Tributary	a small river that joins a larger river
Confluence	the point where two rivers join
Watershed	the outer edge of a drainage basin
Mouth	the point where a river enters the sea or a lake
Drainage basin	the area of land drained by a river and its tributaries
Waterfall	a 'step' in the river over which water plunges
Gorge	narrow, steep-sided river valley
Cliff	steep, often vertical rock face
Beach	sediment (e.g. sand or pebbles) deposited by the sea
 Tombolo	a beach that joins an island to the mainland
Longshore drift	the movement of sediment (e.g. sand and pebbles) along the beach in the direction of the wind
Freeze-thaw weathering	where water continually freezes in the cracks of rock, making them bigger, and eventually breaks the rock apart
Corrie	a round hollow made in the side of a mountain by a glacier
Scree	small loose stones created by freeze-thaw weathering
Tarn	a small mountain lake
Glacier	a river of ice, usually occupying a valley
Ice sheet	a large layer of ice several kilometres thick

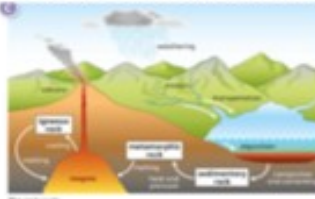
2.1 UK landscapes

- ✓ Landscapes can be described in terms of three 'layers' of information: physical (rock types and processes); biological (soils and vegetation) and human (settlements, farming and infrastructure).
- ✓ The UK has many varied landscapes, which have changed over time.
- ✓ The Lake District is a spectacular landscape of lakes and mountains in north-west England, which became a National Park in 1951.

Year 8 Topic 3 Physical Landscapes in the UK

2.2 Landscape Processes

- ✓ The UK has many different types of rock. The geology of the UK explains its varied landscape of mountains, valleys and lowlands.
- ✓ The rock cycle explains the processes by which rocks are constantly being changed from one type into another.
- ✓ The physical landscape is created by the processes of weathering, erosion, transportation and deposition.
- ✓ Weathering is the first process in the breakdown of rocks. Rock fragments are then eroded, transported and deposited in rivers or in the sea.



2.3 River Landscapes

- ✓ A drainage basin is the area of land drained by a river and its tributaries. The river forms a V-shaped valley, and its channel is eroded by rocks, becoming wider and deeper before reaching the mouth and flowing into the sea.
- ✓ The River Aire is in Yorkshire and flows from the Pennine Hills to the North Sea. Its tributaries have several large waterfalls. The river has many bends, called meanders, formed by erosion and deposition.
- ✓ The floodplain of the River Aire is used for farming and grazing cattle.

2.4 Coastal Landscapes

- ✓ The coast is shaped by the processes of erosion, transportation and deposition. Rocks are eroded and broken down by waves, and then transported and deposited by the movement of the sea.
- ✓ Cliffs are steep, vertical rock faces formed on the coast. Waves erode the cliffs, and the rock is broken down and eroded to become pebbles and sand, which are deposited by the movement of the sea to form beaches.



Figure 2- Chesil Beach



Figure 3- Durdle Door

2.5 Mountain and Glacial Landscapes

- ✓ Mountains in the UK are found mainly in the north and west, and especially in Scotland, where the highest mountain in the British Isles, Ben Nevis, is located.
- ✓ Mountains are popular with walkers and climbers, but they can be dangerous places and conditions can be challenging.
- ✓ Freeze-thaw weathering is one of the main physical processes that shape mountain landscapes. Water continually freezes in the cracks in rock, making them bigger, and eventually breaks the rock apart.
- ✓ During the last Ice Age, much of the UK was covered by ice sheets several kilometres thick.



Figure 1- Waterfall



Figure 4 Ben Nevis

Geography

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Was the Elizabethan-era a 'Golden Age'?



Key Figures

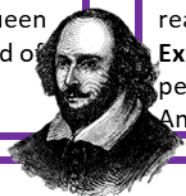
Elizabeth I – Queen of England between 1558 and 1603. Was the youngest daughter of Henry VIII from his marriage to his second wife Anne Boleyn

Francis Drake – A sea captain, he led the English navy against the Spanish Armada and circumnavigated the globe

William Shakespeare – Leading playwright in Elizabethan times, wrote plays such as *Romeo & Juliet*, *Macbeth* and *Hamlet*

Phillip II of Spain – King of Spain, he was a strong Catholic and was angry at England and Elizabeth for changing the church

Mary Queen of Scots – Elizabeth's cousin, Queen of Scotland, she was Catholic and was accused of planning to kill Elizabeth and executed



Key Points

Golden Age – A term used to describe a great time in a person or country's history

Spanish Armada – An attempt by Spain to invade Britain for mainly religious reasons. The Armada is the group of ships that tried to land in Britain.

Poor Law – A law passed by Queen Elizabeth to punish the poor and stop beggars

Witchcraft – A lot of Elizabethan people believed in witches. Many women were killed because they were accused of being witches

Health – Health and medicine in the 1500s was still very poor, towns were dirty and people didn't really know what caused illnesses

Exploration – Because of technology and Empire people began to explore the world, including the Americas. It was proven the world was not flat



Key Words

Empire – A group of countries that are controlled by one powerful country (e.g. Britain and the British Empire)

Vagrant – Another word for a beggar or someone with no fixed address

Culture – A term for all forms of art and entertainment such as plays, books and paintings

Catholic – A type of Christian. Churches are normally more ornate, services and prayers are in Latin. The Catholic Church's leader is the Pope in Rome. Britain had been Catholic before Henry VIII

Protestant – A type of Christian. Protestants were not happy with the Catholic church and saw it as corrupt. Henry VIII had changed England to Protestant to get a divorce.

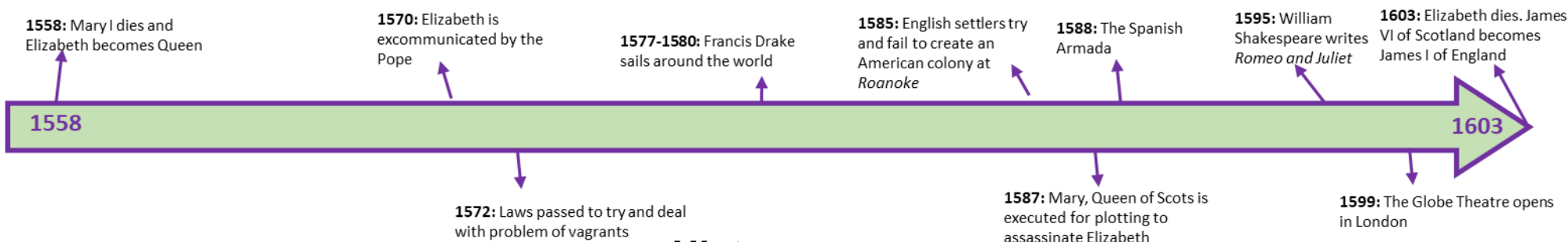


Key Questions

How did Elizabeth I become Queen? Elizabeth never expected to be Queen, her younger brother was the first in line but died when he was 15 and Mary I died without having children so Elizabeth was next in line.

What religion was Elizabeth I? Elizabeth was Protestant. Henry VII had changed Britain to Protestant before Elizabeth was born. Elizabeth's younger brother Edward VI had been Protestant but her older sister Mary I was very Catholic.

Why did people believe in witches? You have to remember there wasn't as much scientific knowledge as there is now so people often accused people they didn't like of doing things they couldn't explain

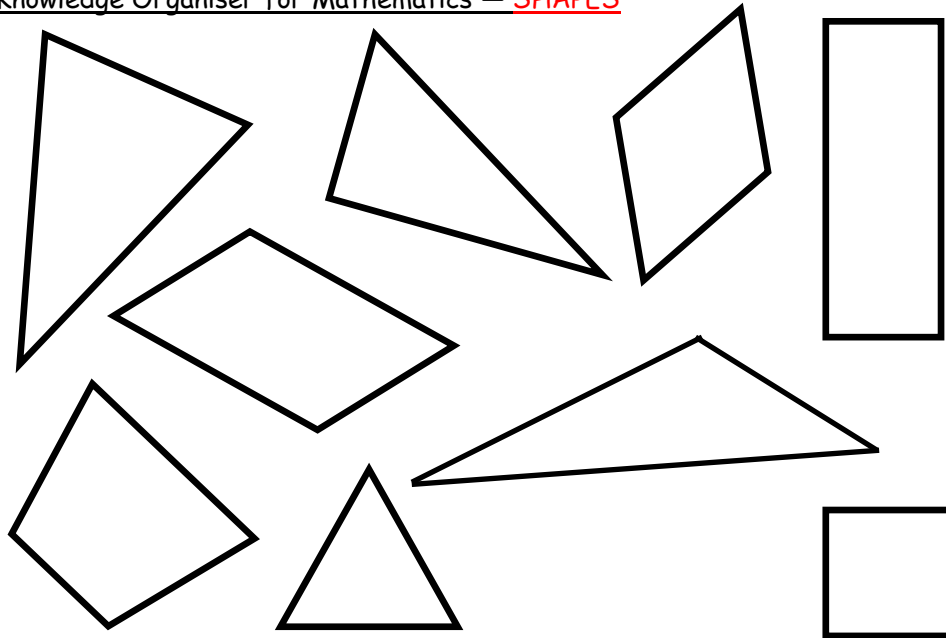


History

Knowledge Organiser for Mathematics — VOCABULARY

Vertex	Obtuse	Rotation
Parallel	Bisect	Translate
Perpendicular	Construct	Vector
Edges	Alternate	Quadrilateral
Plane	Corresponding	Square
Polygon	Vertically opposite	Rectangle
Symmetry	Sum	Kite
Regular	Congruent	Trapezium
Angle	Similar	Rhombus
Right angle	Scale Factor	Parallelogram
Acute	Enlargement	Isosceles
Reflex	Reflection	Scalene

Knowledge Organiser for Mathematics — SHAPES



Knowledge Organiser for Mathematics — FACTS & FORMULAE

360° is a FULL TURN

180° is a STRAIGHT LINE or HALF TURN

90° is a RIGHT ANGLE or QUARTER TURN

Rotation, reflection and translation are **TRANSFORMATIONS** that change position only. Enlargement is a **TRANSFORMATION** that changes both position and size.

An **OBJECT** that has been **TRANSFORMED** is called an **IMAGE**.

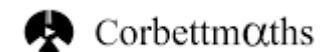
A triangle is a polygon with three sides. A quadrilateral is a polygon with four sides.

A polygon is a closed plane shape bounded by straight lines. A circle is NOT a polygon.

A regular shape is a shape in which all the angles are equal to one another and all the sides are the same length.

Knowledge Organiser for Mathematics — USEFUL LINKS

- * <https://vle.mathswatch.co.uk/>
- * PASSWORD: bucklers123
- * <https://corbettmaths.com/>
- * <https://www.dr frostmaths.com/>
- * PASSWORD:
- * <https://www.bbc.co.uk/bitesize>
- * <https://www.khanacademy.org/>

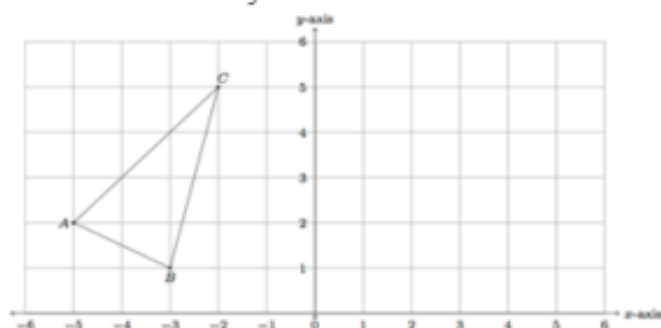


Knowledge organiser quiz – YEAR 8 – Term 2

- What does the word OBTUSE mean in mathematics?
- There are a number of shapes drawn on the organiser – sort them into two groups. Name your groups.

Group 1:	Group 2:

- What is the name given to a polygon with five sides?
- Why isn't a circle a polygon?
- How many degrees are there in three quarters of a turn?
- What does the word BISECT mean in mathematics?
- What defines a rhombus?
- What does the word CONGRUENT mean in mathematics?
- "A polygon is a closed plane shaped bounded by straight lines." What does each of the key words (underlined) in this sentence mean?
- Reflect ABC in the y-axis



- How many right-angles are there in a full turn?

I want to add another section the knowledge organiser called "Maths in Action".

Research how angles, shapes and factors, multiples and primes are used in everyday life. Add your findings to the section below.

Knowledge Organiser for Mathematics - MATHS IN ACTION

Maths

MES PASSETEMPS



Les ordinateurs et les portables

Qu'est-ce que tu fais ...
avec ton ordinateur?
avec ton portable?
Je joue.
Je surfe sur Internet.
Je tchatte sur MSN.
Je regarde des clips vidéo.
Je télécharge de la musique.
J'envoie des SMS.
Je parle avec mes ami(e)s
Je parle avec mes copains/mes copines.
J'envoie des e-mails.

Computers and mobile phones

What do you do/are you doing ...
on your computer?
on your mobile phone?
I play/I'm playing games.
I surf/I'm surfing the net.
I chat/I'm chatting on MSN.
I watch/I'm watching video clips.
I download/I'm downloading music.
I text/I'm texting.
I talk/I'm talking to my friends.
I talk/I'm talking to my friends/mates.
I send/I'm sending e-mails.

La fréquence	Frequency
quelquefois	sometimes
souvent	often
tous les jours	every day
tous les soirs	every evening
tout le temps	all the time
de temps en temps	from time to time
une fois par semaine	once a week
deux fois par semaine	twice a week
trois fois par mois	3 times a month

Les mots essentiels	Essential words
sur	on
en (été)	in (summer)
quand	when
tout/toute/tous/toutes	all
par	per
(deux fois par semaine)	(twice a week)
d'habitude	usually
d'abord	first of all
ensuite	then/next

Le sport

Je joue ...
au basket
au billard
au foot(ball)
au hockey
au rugby
au tennis
au tennis de table/au ping-pong
au volleyball
à la pétanque/aux boules
sur la wii
Tu es sportif/sportive?
Je suis (assez) sportif/sportive.
Je ne suis pas (très) sportif/sportive.
Mon sportif/Ma sportive (préférée) est ...

Sport

I play ...
basketball
billiards/snooker
football
hockey
rugby
tennis
table tennis
volleyball
boules
on the will
Are you sporty?
I'm (quite) sporty.
I'm not (very) sporty.
My favourite sportsman/sportswoman is ...





Qu'est-ce que tu fais?	What do you do?
Je fais du judo.	<i>I do judo.</i>
Je fais du parkour.	<i>I do parkour.</i>
Je fais du patin à glace.	<i>I go ice-skating.</i>
Je fais du roller.	<i>I go roller-skating.</i>
Je fais du skate.	<i>I go skateboarding.</i>
Je fais du vélo.	<i>I go cycling.</i>
Je fais de la danse.	<i>I do dance.</i>
Je fais de la gymnastique	<i>I do gymnastics.</i>
Je fais de la natation.	<i>I go swimming.</i>
Je fais de l'équitation.	<i>I go horse-riding.</i>
Je fais des promenades.	<i>I go for walks.</i>

Quand?	When?
en été	<i>in summer</i>
en hiver	<i>in winter</i>
quand il fait beau	<i>when it's nice</i>
quand il fait chaud	<i>when it's hot</i>
quand il pleut	<i>when it rains</i>
quand il fait froid	<i>when it's cold</i>

Qu'est-ce que tu aimes faire?	What do you like doing?
le soir	<i>in the evening</i>
le weekend	<i>at the weekend</i>
le samedi matin	<i>on Saturday morning</i>
le dimanche après-midi	<i>on Sunday afternoon</i>
le vendredi soir	<i>on Friday evening</i>
J'aime ...	<i>I like ...</i>
... retrouver mes amis en ville.	<i>... meeting my friends in town.</i>
... regarder la télévision (la télé).	<i>... watching TV.</i>
... jouer sur ma PlayStation.	<i>... playing on my PlayStation.</i>
... écouter de la musique .	<i>... listening to music.</i>
... faire les magasins.	<i>... going shopping.</i>
... faire du sport.	<i>... doing sport.</i>
... jouer au football.	<i>... playing football.</i>
... trainer avec mes copains.	<i>... hanging out with my mates.</i>
... téléphoner à mes copines.	<i>... phoning my mates.</i>

Jouer- to play
je joue
<i>I play</i>
tu joues
<i>you play (sing)</i>
il/elle joue
<i>he/she plays</i>
on joue
<i>we play (informal)</i>
nous jouons
<i>we play</i>
vous jouez
<i>you play (pl/formal)</i>
ils/elles jouent
<i>they play</i>

Qu'est-ce qu'ils font?	What do they do?
Il fait de la lutte.	<i>He does wrestling.</i>
Elle fait du jogging.	<i>She goes jogging.</i>
Elle a gagné le match.	<i>She won the match.</i>
Il est champion régional.	<i>He's the regional champion.</i>
Elle s'entraîne (3) fois par semaine.	<i>She trains (3) times a week.</i>
Ils font de la musculation.	<i>They do weight training.</i>
Elles écoutent de la musique.	<i>They listen to music.</i>
Ils jouent au foot.	<i>They play football.</i>
Elles regardent la télé.	<i>They watch TV.</i>
Ils sont des clowns.	<i>They're clowns.</i>
Elles aiment le R&B.	<i>They like R&B.</i>

Faire- to do
je fais
<i>I do</i>
tu fais
<i>you do (sing)</i>
il/elle fait
<i>he/she does</i>
on fait
<i>we do (informal)</i>
nous faisons
<i>we do</i>
vous faites
<i>you do (pl/formal)</i>
ils/elles font
<i>they do</i>

Home, Town, Neighbourhood and Region GCSE Foundation Tier French Knowledge Organiser

Key Ideas

- Les attractions principales de ma ville
- Les avantages et inconvénients d'où j'habite
- Les avantages et inconvénients d'habiter en ville / à la campagne
- Les problèmes environnementaux où j'habite
- Ma maison idéale

Key Vocabulary

Les noms	
un appartement	flat
les attractions	entertainment facilities
la bibliothèque	library
le bowling	bowling alley
la campagne	countryside
la chambre	bedroom
la circulation	traffic
chez moi	at my house
les magasins	the shops
le manque (de)	lack (of)
la pollution	pollution
les transports en commun	public transport
le village	village
la ville	town

Key Phrases	
J'habite dans un petit village/une grande ville dans le nord de l'Angleterre.	I live in a little village/big town in the north of England.
Il y a environ 5000 habitants.	There are around 5000 inhabitants.
J'adore habiter à la campagne.	I love living in the countryside.
Dans ma ville on peut trouver un cinéma et un bowling.	In my town you can find a cinema and a bowling alley.
Il n'y a pas de patinoire.	There isn't an ice rink.
Je voudrais avoir un centre commercial.	I'd like to have a shopping centre.
La pollution est un grand problème à Paris.	Pollution is a big problem in Paris.
Il y a beaucoup de circulation.	There is a lot of traffic.
Les transports en commun ne sont pas fiables.	Public transport is not reliable.
Le manque de magasins à la campagne est frustrant.	The lack of shops in the countryside is frustrating.
Je fais des tâches ménagères pour gagner de l'argent de poche.	I do housework in order to earn pocket money.
Je vais en ville pour faire du shopping/aller au cinéma/trainer avec mes amis.	I go to town in order to go shopping/go to the cinema/hang out with friends.



Les verbes		Les adjectifs	
gagner (de l'argent)	to earn (money)	animé(e)	lively
faire le repassage	to do the ironing	ennuyeux	boring
faire les tâches ménagères	to do housework	historique	historic
passer l'aspirateur	to vacuum	intéressant	interesting
sortir les poubelles	to take out the rubbish (bins)	joli(e)	pretty
trainer	to hang out	propre	clean
visiter	to visit (a place)	sale	dirty
		touristique	touristy



Key Verbs

Infinitif	Présent	Passé	Futur
faire - to do	je fais; il/elle fait; nous faisons	j'ai fait; il/elle a fait; nous avons fait	je ferai; il/elle fera; nous ferons
être - to be	je suis; il/elle est; nous sommes	j'ai été; il/elle a été; nous avons été	je serai; il/elle sera; nous serons
avoir - to have	j'ai; il/elle a; nous avons	j'ai eu; il/elle a eu; nous avons eu	j'aurai; il/elle aura; nous aurons
aller - to go	je vais; il/elle va; nous allons	je suis allé(e); il est allé; elle est allée; nous sommes allé(e)s	j'irai; il/elle ira; nous irons
habiter - to live	j'habite; il/elle habite; nous habitons	j'ai habité; il/elle a habité; nous avons habité	j'habiterai; il/elle habitera; nous habiterons

Home, Town, Neighbourhood and Region GCSE Foundation Tier French Knowledge Organiser

Key Questions

1. Quels sont les avantages et les inconvénients d'où tu habites? / d'habiter en ville / à la campagne?	What are the advantages and disadvantages of where you live/living in the town/the countryside?
2. Décris un problème environnemental où tu habites.	Describe an environmental problem where you live.
3. Qu'est-ce qu'on peut faire dans ta ville / ton village?	What is there to do in your town/village?
4. Décris ta maison idéale.	Describe your ideal house.
5. Qu'est-ce que tu as fait récemment dans ta ville / ton village?	What have you done recently in your town/village?
6. Quelles attractions voudrais-tu voir dans ta ville / ton village?	What entertainment facilities would you like to see in your town/village?



Useful Grammatical Structures

- Use **modifiers** to modify an adjective, e.g. **assez** (quite); **plutôt** (rather); **un peu** (a bit)
- Use **intensifiers** to intensify an adjective, e.g. **particulièrement** (particularly); **totalelement** (totally); **complètement** (completely); **si** (so)
- Use **conjunctions** to make longer sentences, e.g. **parce que** (because); **quand** (when); **si** (if)
- Use the **perfect tense with avoir or être** to describe past events. Examples of 'er' verbs include: **je suis allé(e)** (I went); **j'ai gagné(e)** (I earned). Examples of 'ir' verbs include: **je suis sorti(e)** (I left); **j'ai fini** (I finished). Examples of 're' verbs include: **je suis descendu(e)** (I went down); **j'ai répondu** (I responded).
- Use **pour** + infinitive to say 'in order to', e.g. Je vais en ville **pour aller** au cinéma (I am going to town in order to go to the cinema).

Tricky Spellings

l'appartement	flat	Check the double 'p' and 'e' in the middle.
l'environnement	environment	Check the double 'n'.
ennuyeux	boring	Learn this one by heart!
les magasins	shops	'S' not 'z' in the middle.

Tricky Pronunciation

Practise these with your teacher!

chez moi	at my house
ennuyeux	boring
l'environnement	environment

False Friends

la cave	cellar
la circulation	traffic
les distractions	entertainment venues (cinema, bowling alley etc.)
la librairie	bookshop
la pièce	room (of a house)
la place	(town) square



MFL—French

"Inspiring Education for All"

Community

Opportunity

Enjoyment

Success

Klasse 7 Deutsch – Spring Term

Was spielst du gern?

Ich spiele gern Federball
Er spielt gern Tischtennis
Sie spielt gern Korbball
Wir spielen gern Fußball
Sie spielen nicht gern Tennis

What do you enjoy playing?

I enjoy playing badminton
He enjoys playing table tennis
she enjoys playing netball
we enjoy playing football
they do not enjoy playing tennis

Was machst du in deiner Freizeit?

Ich lese
Ich sehe fern
Ich reite
Wir fahren Rad
Er macht Judo
Sie tanzt
Sie spielen Klavier
Wir schwimmen

What do you do in your free-time?

I read
I watch TV
I go horse-riding
we cycle / ride bikes
he does judo
she dances on Saturday(s)
they play the keyboard
we swim in the evening

Was machst du Online?

Ich mache meine Hausaufgaben
Er macht Fotos oder Filme
Sie sieht Videos
Wir simsen
Ich surfe im Internet
Sie spielt Computerspiele
Sie laden Musik herunter
Ich telefoniere mit Freunden

What do you do online?

I do my homework
he takes photos/films
she watches video
we text
I surf the internet
she plays computer games
they download music
I phone friends

Bist du gesund?

ich esse sehr gern Pommes
er isst nicht gern Gemüse
sie isst gern Kuchen
wir essen nie Fleisch
ich finde Obst sehr lecker
man muss viel Wasser trinken
man muss früh ins Bett gehen
man muss oft trainieren
man muss weniger Zucker essen

Are you healthy?

I really enjoy eating chips
he doesn't enjoy eating vegetables
she enjoys eating cake
we never eat meat
I find fruit very tasty
you have to drink a lot of water
you have to go to bed early
you have to train often
you have to eat less sugar

Notice that the second verb goes to the end of the clause / sentence.

Subordinating Conjunctions

These are conjunctions which send the verb to the end of the clause. Some examples of these in German are 'weil' & 'da' (because).

Here is a sentence using 'denn'

Ich spiele oft Fußball denn ich bin sportlich.

What if we swap 'denn' for 'weil' or 'da'?

Ich spiele oft Fußball, weil ich sportlich bin.

Ich spiele oft Fußball, da ich sportlich bin.

What about with different verbs?

Ich bin gesund, weil ich jeden Tag Obst esse.

Meine Mutter ist toll, da sie lustig ist.

The verb still goes to the end of the clause!

Was wirst du in den Sommerferien machen?

Ich werde mit dem Auto nach Frankreich fahren
Er wird mit dem Flugzeug nach Spanien fliegen
Sie wird mit dem Wohnwagen nach Deutschland fahren
Wir werden mit dem Zug nach Österreich fahren
Ich werde jeden Tag klettern
Er wird oft an den Strand gehen
Sie wird nicht im Meer schwimmen
Wir werden einmal pro Woche tauchen

Notice that the second verb goes to the end of the clause / sentence.

What will you do in the summer holidays?

I will travel to France by car
he will fly to Spain by plane
she will travel to Germany by caravan
we will travel to Austria by train
I will climb every day
he will often go to the beach
she will not swim in the sea
we will dive once per week

MFL—German

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Success

Home, Town, Neighbourhood and Region GCSE Foundation Tier German Knowledge Organiser

Key Ideas

- Meine Gegend – was gibt es?
- Meine Gegend – was gibt es für die Jugend zu tun?
- Meine Gegend – Vorteile und Nachteile
- Das Stadtleben oder das Landleben – Vorteile und Nachteile
- Meine Gegend – Umweltprobleme
- Mein Haus
- Mein ideales Haus
- Hausarbeit – hilfst du zu Hause?



Key Vocabulary

Adjektive		Verben		Substantive	
bequem	comfortable	abwaschen	to wash up	die Aussicht	view
geräumig	roomy	aufraumen	to tidy up	das Badezimmer	bathroom
historisch	historic	bekommen	to receive	die Bibliothek	library
hübsch	pretty	besuchen	to visit	die Bowlingbahn	bowling alley
interessant	interesting	bügeln	to do the ironing	das Dorf	village
langweilig	boring	entdecken	to discover	der Dachboden	attic
alt	old	freuen (sich auf etwas)	to look forward to	die Dusche	shower
neu	new	spazieren gehen	to go for a walk	der Garten	garden
ruhig	calm, peaceful	staubsaugen	to Hoover	die Geschäfte	shops
sauber	clean	umziehen	to move house	die Fußgängerzone	pedestrianised area
schmutzig	dirty	verdienen	to earn	das Klima	climate
verkehrsreich	busy (with traffic)	wohnen	to live	die Küche	kitchen
wichtig	important			die Menge	a lot, plenty

Key Phrases

zu Hause	at home
In meiner Gegend ist es laut.	It's noisy in my area.
Ich wohne in einem kleinen Dorf/in einer großen Stadt.	I live in a little village/big town.
im Norden/Osten/Süden/ Westen	in the north/east/south/ west
Mein Haus liegt in der Nähe von einem Schwimmbad.	My house is near a swimming pool.
In meiner Stadt gibt es...	In my town there is/there are...
Leider gibt es keine Schlittschuhbahn.	Unfortunately, there isn't an ice rink.
Ich möchte ein neues Einkaufszentrum haben.	I'd like to have a new shopping centre.
Es gibt auch zu viel Verkehr/Verschmutzung.	There is also too much traffic/pollution.
Es gibt gute öffentliche Verkehrsmittel.	There is good public transport.
Ich helfe zu Hause, um Taschengeld zu bekommen.	I help at home in order to receive pocket money.
Ich fahre mit dem Bus ins Stadtzentrum.	I travel by bus into the town/city centre.
Man kann einkaufen gehen/ins Kino gehen/sich entspannen.	You can go shopping/go to the cinema/relax.

Key Verbs

Infinitiv	Präsens	Vergangenheit	Futur
gehen – to go	ich gehe; er/sie geht; wir gehen	ich bin gegangen; er/sie ist gegangen; wir sind gegangen	ich werde gehen; er/sie wird gehen; wir werden gehen
sein – to be	ich bin; er/sie ist; wir sind	ich bin gewesen; er/sie ist gewesen; wir sind gewesen	ich werde sein; er/sie wird sein; wir werden sein
fahren – to go/travel	ich fahre; er/sie fährt; wir fahren	ich bin gefahren; er/sie ist gefahren; wir sind gefahren	ich werde fahren; er/sie wird fahren; wir werden fahren
helfen – to help	ich helfe; er/sie hilft; wir helfen	ich habe geholfen; er/sie hat geholfen; wir haben geholfen	ich werde helfen; er/sie wird helfen; wir werden helfen

MFL—German

“Inspiring Education for All”

Community

Opportunity

Enjoyment

Success

Key Questions

1. Wo wohnst du?	Where do you live?
2. Wohnst du lieber in einer Stadt oder in einem Dorf?	Would you rather live in a town or a village?
3. Beschreib die Vorteile und Nachteile deiner Gegend.	Describe the advantages and disadvantages of your area.
4. Gibt es Umweltprobleme in deiner Gegend?	Are there environmental problems in your area?
5. Was gibt es für den Besucher in deiner Stadt/in deinem Dorf?	What is there for visitors in your town/village?
6. Beschreib dein ideales Haus.	Describe your ideal house.
7. Was hast du letztes Wochenende in deiner Gegend gemacht?	What did you do last weekend in your area?
8. Wo möchtest du in der Zukunft wohnen? Warum?	Where would you like to live in the future? Why?
9. Hilfst du zu Hause?	Do you help out at home?



Useful Grammatical Structures

- Use **modifiers** to modify an adjective, e.g. **ziemlich** (quite); **ein bisschen/etwas** (a bit/rather); **kaum** (hardly).
- Use **intensifiers** to intensify an adjective, e.g. **wirklich** (really); **sehr** (very); **besonders** (particularly); **total** (totally); **völlig** (completely); **so** (so); **zu** (too).
- Use **infinitive constructions**, e.g. **um ... zu** (in order to); **ohne ... zu** (without). For example: **Ich treibe viel Sport, um fit zu bleiben** (I do lots of sport, in order to stay fit).
- Use **connectives** and **conjunctions** to make longer sentences, e.g. **weil** (because); **aber** (but); **jedoch** (however); **obwohl** (although).
- Use the **infinitive** after these key modal verbs: **man soll** (you should); **man soll nicht** (you shouldn't); **man muss/man muss nicht** (you must/you mustn't); **man kann/man kann nicht** (you can/you can't); **ich möchte** (I would like). For example: **man soll mit dem Rad in die Schule fahren** (you should travel by bike to school); **man kann das Museum besuchen** (you can visit the museum).

Tricky Spellings

geräumig	roomy
verkehrsreich	busy (with traffic)
öffentliche Verkehrsmittel (pl)	public transport
die Fußgängerzone	pedestrianised area

Tricky Pronunciation

Practise these with your teacher!

geräumig	roomy
leider	unfortunately
die Schlittschuhbahn	ice rink



False Friends

das Land	countryside
bekommen	to receive

Year 8 Knowledge Organiser

Keyword	Definition
Walking Bass Line	The bass part in the Blues 'walks' up the notes of a chord creating a 'walking bass' part.
12-Bar Blues	Traditional style of music using 3 chords over a 12-bar cycle
Syncopation	When music is played on the off beat (i.e. not played on the main beat of the bar). This creates a disjointed feel.
Improvisation	Music that is made up on the spot by a performer, often based on a given chord progression or set of notes.
Swing Rhythm	The first bit of the beat is longer as it steals time from the second bit to give the music a swinging feel.
The Blues Scale	The melody of a Blues piece uses a special scale - The Blues scale is built using the flattened 3rd, 5th and 7th notes.



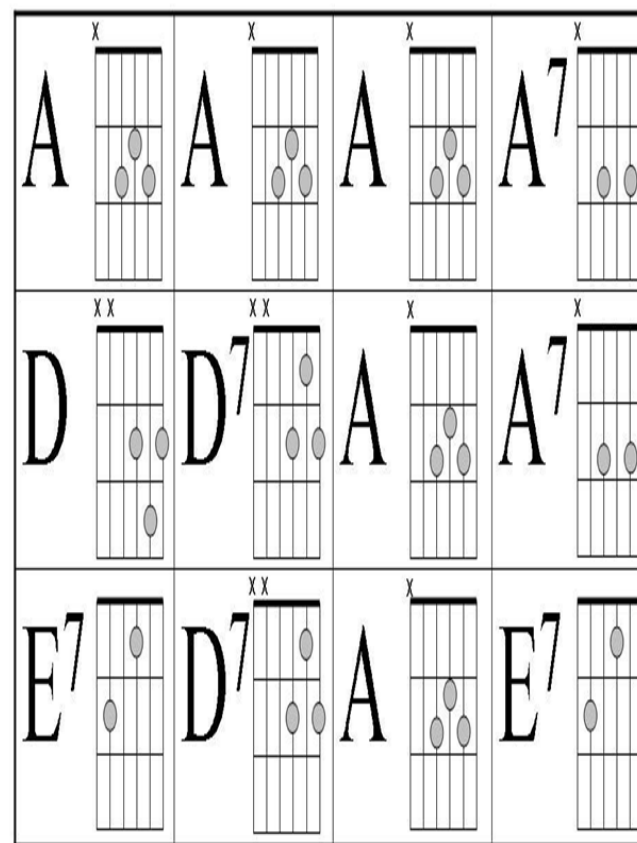
Robert
Johnson

B.B King



Sister
Rosetta
Tharpe

A 12 Bar Blues in A

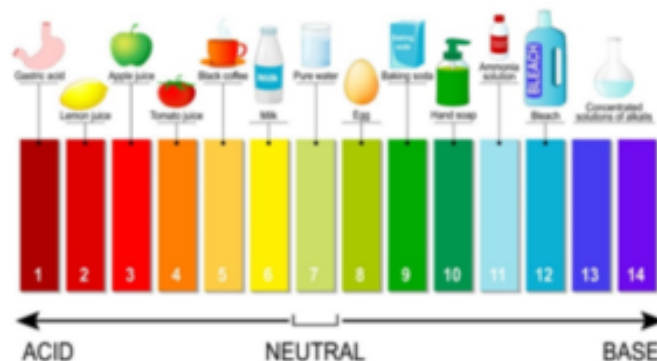


Music

Knowledge organiser – Chemical reactions

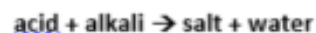
Signs that a chemical reaction is taking place:

- Flames or sparks
- Smell (sweet or foul)
- Change in temperature (hot / cold)
- Loud pop / bang or gentle fizzing (a gas is being given off)



NEUTRALISATION

A chemical reaction happens if you mix together an acid and an alkali. The reaction is called neutralisation. A **neutral solution** is made if you add just the right amount of acid and base together. The products formed are **salt and water**.



Hydrochloric acid + sodium hydroxide \rightarrow sodium chloride + water

neutral solutions = pH 7 exactly
acidic solutions have pH values < 7
alkaline solutions have pH values > 7

Litmus indicator solution turns red in acidic solutions and blue in alkaline solutions. It turns purple in neutral solutions.

KEYWORD	DEFINITION
Acid	Solution with a pH value less than 7.
Alkali	A soluble base with a pH value more than 7
Concentrated	A solution is concentrated if it has a large number of solute particles per unit volume.
Concentration	A measure of the number of particles in a given volume.
Dilute	A solution is dilute if it has a small number of solute particles per unit volume.
Indicator	Substances used to identify whether unknown solutions are acidic or alkaline.
pH scale	Shows whether a substance is acid, alkali or neutral. It ranges from 0–14.
Physical change	A change that is reversible, in which new substances are not made. E.g. ice \rightarrow water.
Reversible	A change in which it is possible to get back to the original substance.
Salt	A compound in which the hydrogen atoms of an acid are replaced by atoms of a metal element.

CHEMICAL REACTIONS

- A word equation shows the names of each substance involved in a reaction, and must not include any chemical symbols or formulae.

$$\text{methane} + \text{oxygen} \rightarrow \text{carbon dioxide} + \text{water}$$

Reactant
Product
- The arrow means 'react to make'.
- In a chemical reaction, the atoms are rearranged to make new substances. The total number of atoms does NOT change. The number of atoms is conserved (no atoms are created or destroyed).



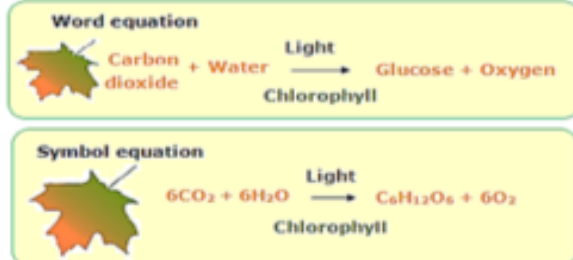
KEYWORD	DEFINITION
Catalyst	Substances that speed up chemical reactions but are unchanged at the end.
Catalytic converter	A part of a car between the engine and exhaust pipe that converts harmful substances made in the engine into less harmful ones.
Chemical bonds	Force that holds atoms together in molecules.
Chemical reactions	A change in which a new substance is formed. Atoms are rearranged and joined together differently.
Combustion (burning)	A chemical reaction in which a substance reacts quickly with oxygen and gives out light and heat.
Conservation of mass	In a chemical reaction, the total mass of reactants is equal to the total mass of products. Mass is conserved in chemical reactions and physical changes.
Conserved	When the quantity of something does not change after a process takes place.
Decomposition	A chemical reaction in which a compound breaks down to form more than one product.
Endothermic reaction	Takes in energy (usually as heat) / transfers energy from surroundings.
Energy level diagrams	Diagram showing the relative energies of the reactants and products. It shows whether a reaction is endothermic or exothermic.
Exothermic reaction	Gives out energy (usually as heat or light) / transfers energy to the surroundings.
Fossil fuels	A fuel made from the remains of plants and animals that died millions of years ago. Include coal, oil and natural gas.
Fuel	A substance that stores energy in a chemical store, which it can release as heat (e.g. petrol, diesel, coal...)
Physical change	One that changes the physical properties of a substance, but no new substance is formed. It is reversible.
Products	Substances that are formed in a chemical reaction, shown on the right of the arrow in a chemical equation.
Reactants	Substances that react together, shown on the left of the arrow in a chemical equation.
Thermal decomposition	A chemical reaction in which a compound breaks down on heating to form more than one product.

Science

Knowledge organiser – Plants and ecosystems

Plants and algae are called producers. Plants use glucose as an energy source and to build new tissue. Some glucose is stored to use later.

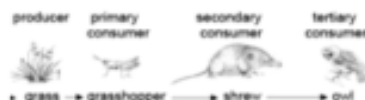
PHOTOSYNTHESIS: A chemical reaction in which plants take in carbon dioxide (from the air) and water (from the soil) and change them into glucose (food) and oxygen (waste product).



KEYWORD	DEFINITION
Algae	Green uni-cellular or multi-cellular organisms that perform photosynthesis and live underwater. They do not have leaves, stems or roots.
Chlorophyll	Green pigment in plants and algae which absorbs light energy.
Deficiency	A lack of minerals that causes poor growth.
Fertilisers	Chemicals containing minerals that plants need to build new tissue.
Iodine	Indicator used to test for the presence of starch. It will turn blue/black.
Magnesium	Mineral needed by plants for making chlorophyll.
Nitrates	Mineral containing nitrogen (N) for healthy growth.
Phosphates	Mineral containing phosphorus (P) for healthy roots.
Photosynthesis	Process plants use to make their own food.
Potassium	Mineral needed by plants for healthy leaves and flowers.
Producer	Organism that makes its own food using photosynthesis.
Stomata	Pores at the bottom of a leaf which open and close to let gases in and out.

FOOD CHAINS

The arrows show the transfer of energy (stored in food) from one organism to the next. Some energy is transferred to the surroundings by heating and as waste; this means that at each level less energy is being transferred to the next organism. The top predator is always the last link in the food chain.



FOOD WEBS AND INTERDEPENDENCE

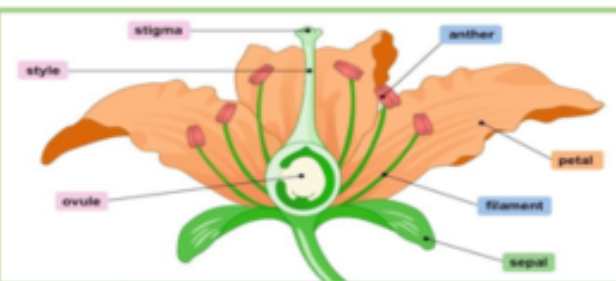
A food web is a set of linked food chains. Organisms in a food chain depend on each other for survival (interdependent).

Populations of organisms are constantly changing. The size of a population is affected by:

- Number of predators and prey
- Disease
- Pollution
- Competition

Some organisms, like the rabbit, have just one predator (hawk). If the number of rabbits decrease, due to a disease, the number of hawks would also decrease as they would have less to eat.

Decomposers (bacteria and fungi) are also found in food webs.



KEYWORD	DEFINITION
Bioaccumulation	The build-up of toxic chemicals inside organisms in a food chain.
Carnivore	A consumer (animal) that eats other animals.
Community	The collection of the different types of organisms present in an ecosystem.
Competition	Competing with other organisms for resources.
Consumer	Animal that eats other animals or plants.
Decomposer	Organism that breaks down dead plants and animal material so nutrients can be recycled back to the soil or water.
Ecosystem	The living things (plants and animals) in a given area and their non-living environment.
Environment	The surrounding air, water and soil where an organism lives.
Food chain	Part of a food web, starting with producer and ending with top predator. This diagram shows the transfer of energy between organisms.
Food web	A diagram that shows how food chains in an ecosystem are linked.
Habitat	The area in which an organism lives.
Herbivore	A consumer (animal) that eats plants.
Interdependence	The way in which living organisms depend on each other to survive, grow and reproduce.
Omnivore	A consumer (animal) that eats plants and animals.
Population	Group of the same species living in an area.
Predator	An animal that eats other animals.

Science

"Inspiring Education for All"

Community

Opportunity

Enjoyment

Success