



Year 9

Knowledge Organiser

Spring Term (2) 2023

What you need to know!

Knowledge Organisers – FAQ

What is a Knowledge Organiser?

Every ½ term this academic year, a new Knowledge Organiser will be produced and put on the school website. These documents are produced for Year 7, Year 8 and Year 9 students and contain key information, specific subject terminology and links to additional resources to help you and your child fully understand topics within the different subject areas.

Can Knowledge Organisers be used for revision and preparing for assessments?

These Knowledge Organisers are designed around the content delivered in lessons each half term in Year 7, 8 and 9. Therefore, they are an excellent revision tool to help prepare your child for end of unit tests as well as their end of year exams which cover previously learned subject content.

How should I use the Knowledge Organiser?

In order that these documents are useful and not too complicated, the Knowledge Organiser is designed to include the basic facts and information being covered in a specific subject over that half term. You may choose to print a version in order that you annotate or tick off aspects once they are fully understood. You may also choose to use this as an electronic revision guide, using the hyperlinks to webpages to secure or deepen understanding.

What are the Arrow Tasks?

At Liskeard School & Community College, teachers use Arrow Tasks as a way of stretching your child. These tasks often involve extending their knowledge through research or applying a learned concept in another way. Try to complete all the Arrow Tasks within the Knowledge Organiser to increase your knowledge and extend your conceptual understanding.

Contents

Art
Drama
English
Ethics, Philosophy and World Views
French
Geography
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ICT and Computer Science
Maths

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Physical Education
Science
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Technology: Textiles
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A guide to revision strategies

Please note: These subjects are hyperlinked. Click on the subject to take you to the relevant pages.

Topic: **Shape, Abstraction and Signification. Silhouettes, motifs or letter forms.**

I need to know: How understanding is created and how understanding is communicated. Through 'Semiotics', understand how signs and symbols are culturally mediated.

Key Words	Definitions
Sign	<i>A sign is an object, quality, event, or entity whose presence or occurrence indicates the probable presence or occurrence of something else. A natural sign bears a causal relation to its object—for instance, thunder is a sign of storm, or medical symptoms a sign of disease.</i>
Symbol	<i>A symbol is a mark, sign, or word that indicates, signifies, or is understood as representing an idea, object, or relationship. Symbols allow people to go beyond what is known or seen by creating linkages between otherwise very different concepts and experiences.</i>
Signify	<i>The terms signified and signifier are most commonly related to semiotics, which is in dictionaries as "the study of signs and symbols and their use or interpretation".</i>
Semiotics	<i>Refers to the study of how we see the world, and of understanding how the landscape and culture in which we live has a massive impact on all of us unconsciously. Our actions and thoughts – what we do automatically – are often governed by a complex set of cultural messages and conventions, and dependent upon our ability to interpret them instinctively and instantly.</i>
Syntax	<i>The way in which linguistic elements (such as words) are put together to form constituents (such as phrases or clauses).</i>
Leading	<i>Leading is a typography term that describes the distance between each line of text. The name comes from a time when typesetting was done by hand and pieces of lead were used to separate the lines.</i>
Kerning	<i>In typography, kerning is the process of adjusting the spacing between letters, usually to achieve a visually pleasing result.</i>
Rubbing	<i>A rubbing is a reproduction of the texture of a surface created by placing a piece of paper or similar material over the subject and then rubbing the paper with something to deposit marks.</i>
Frottage	<i>While superficially similar to rubbing and other forms of rubbing intended to reproduce an existing subject, frottage implies using this rubbing technique to create a new, original image.</i>
Stencilling	<i>Stencilling produces an image by applying pigment to a surface through holes cut in thin sheet.</i>
Analogy	<i>A comparison between one thing and another, typically for the purpose of explanation or clarification.</i>
Allegory	<i>A story, poem, or picture that can be interpreted to reveal a hidden meaning, typically a moral or political one.</i>
Metaphor	<i>A metaphor is a figure of speech that, for rhetorical effect, directly refers to one thing by mentioning another. It may provide clarity or identify hidden similarities between two ideas. Metaphors are often compared with other types of figurative language, such as antithesis, hyperbole, metonymy and simile.</i>
Codes / Conventions	<i>A code is a set of conventions or sub-codes currently in use to communicate meaning. The most common is one's spoken language, but the term can also be used to refer to any narrative form: consider the colour scheme of an image (e.g. red for danger), or the rules of a board game (e.g. the military signifiers in chess).</i>



René Magritte's 'The Treachery of Images'. What you're looking at is not a pipe. It's a print of a digital image of a photograph of a painting of a pipe.



Frottage is a Surrealist and 'automatic' method of creative production that involves creating a rubbing of a textured surface using a pencil or other drawing material. Surrealist automatism is a method of art making in which the artist suppresses conscious control over the making process, allowing the unconscious mind to have great sway. Max Ernst used a frottage technique to develop many textures in his drawings.

Arrow Task: Research and present a study into a sign that changes meaning. i.e. In the west, the thumbs up sign means everything is OK. This dates back to its use by Roman emperors to signal whether a gladiator should live; its reverse, thumbs down, signified death. In scuba diving this sign means go up to the surface, and by the side of the road it means you want to hitch a lift. In other words, we need to understand the context in which a sign is communicated in order to comprehend its real meaning.

Links to further resources: <https://www.tate.org.uk/art/art-terms>

Topic: **Shape, Abstraction and Signification. Silhouettes, motifs or letter forms.**

Cueva de las Manos, Perito Moreno, Argentina. The art in the cave is dated between 13,000–9,000 BP (Approx 7300 BCE), stencilled, mostly left hands are shown.



Monumental brass rubbings are a fun way of exploring, recording and interpreting history.



Michael Nelson Jagamara's Five Stories, 1984.



Joseph Kosuth. One and Three Chairs, 1965.



Neville Brody.



Keith Haring.



Robert Indiana



Jasper Johns. 0 through 9.



Banksy.

Thinking, questioning and communicating your visual intelligence using practical skills in ART. You will be able to organise your thoughts, understanding and expertise in **ART** this term under the following headings.

Skills: Manual dexterity, cutting, registering, frottage rubbing, measuring.

Contexts: History, reasoning, ideas, connections, representations, interpreting, inferring, hypothesising.

Rules: Visual analysis, exploring juxtaposition, understanding codes and conventions.

Audience: Multi-media, social media, politic, interaction, personal, commercial, ethical, moral, cause.

Resolution: Selection of appropriate media, placement, first hand and appropriated sources, scale, juxtaposition and social comment, decision making, style vs technique, form vs function.

Communication: Question, interpret, discuss, challenge, critique, represent, notions of truth, analyse, evaluate, talk, show.

Legacy: Material, pigment, permanence, honesty, heritage, culture, accuracy, pollution, digital footprint.

Throughout the year we will be asking you to articulate (to say, explain and use), a number of **Personal, Learning and Thinking skills** to help you develop your knowledge and understanding. This term we will be asking you to reflect upon your: **Independent Learning**. Identify questions, research, explore issues, evaluate different perspectives, influences, reasoned arguments and evidence.

Further thinking (why does this matter?):



On a functional level, it is important to us all that we understand this sign to mean 'One Way' (Semiotics). (The road signage system created by London designers Jock Kinneir and Margaret Calvert was launched and used on all British roads on 1 January 1965).

On a more complex, subtle level, understand that **"Good design is often invisible"**. **"Good art facilitates questions"**. Cultural intelligence supports appreciation and tolerance. Artists, designers and performers mediate our entire lives, often subconsciously; their work, woven into the fabric of our choices and directions in our daily lives. Needless to say it has enormous, far reaching impact, not least, economic. Follow the link for some infographics: <https://www.thecreativeindustries.co.uk/resources/infographics>

Subject: Drama

Year: 9 Spring.

Topic: Comedy

Key words	Definitions
Comedy	A genre of performance that aims to make the audience laugh.
Character comedy	A style of comedy that starts with a stereo-typed character
Stand-up	A style of comedy with one person delivering jokes or stories for comic effect
Satire	A style of comedy that highlights a serious topic by making it funny / ridiculous
Parody	A comedy that mocks a well known element of life.
Dark Comedy	A style of comedy that aims to change the audience for the better by getting them to laugh at a 'taboo' topic.
Caption / meme	Comedy that works in visual form with a caption that was not originally intended for the image.
Comedian	The person who is delivering the comedy
Sitcom	Situation comedy that focuses on one group of people in one place / area.
Audience	In comedy, you must consider your audience very carefully.
Convention	An element of content or technique that is crucial for a particular style.
Script	The written form of performance work – preparation for a performance.

I need to know: What the conventions are for the major styles of comedy and how to use them in a practical and written format.

Arrow Tasks:

- 1: Consideration of audience – list the key features of your audience and connect them to the decisions you have made for performance.
- 2: Analyse the performances that you watch.
- 3: Watch a wide range of comedy examples and experiment with your own versions.



Wider Reading

- Comedy Writing by Gene Perrett
- One Man, Two Guvnors by Richard Bean
- Stand-up comedians on YouTube
- 39 Steps Play by Patrick Barlow
- **Fancy a career** in comedy:
<https://www.bbc.co.uk/programmes/p03hfdlv>

What We Do:

- Explore key styles of the comedy genre, on stage and screen: dark comedy, character comedy, sitcoms, satire and parody, caption comedy and stand-up.
- Experiment with conventions of the different styles.
- Watch and analyse examples of the different styles.
- Experiment with our own versions of the styles in written, comic and performance situations.
- Explore and learn about the impact on the audience and the relationship between target audience and content.

Links to further resources: <https://www.youtube.com/watch?v=kEs8rK5Cqt8> – Use of emphasis in speech.
<https://www.youtube.com/watch?v=CFXqyl4C1J4> – vocal warm up with National Theatre

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Topic: Love and relationships poetry (GCSE text)

I need to know how to respond to different types of poetry. I need to know what to look for and how to analyse key words and techniques in a poem. I also need to begin to think about comparing the poems' themes and ideas.

Key Words

Alliteration: two words starting with the same sound

Stanza: each section of a poem

Simile: a comparison of two objects using like or as

Metaphor: a comparison of two objects which isn't literally true

Persona: the character in a poem

Sonnet: a 14 line love poem with a particular rhyme and rhythm pattern

Rhyme: two words ending in the same sound pattern

Rhythm: the beat of the line

Big questions of the texts

- How do readers use titles and details to understand a story or poem?
- How do readers identify sequence; compare; contrast?
- How do readers make inferences about the characters, plot, and setting?
- How do readers figure out the message or moral or theme of a story or poem?
- How do readers understand more about a story depending on who narrates?
- What choices does a writer make to accomplish the purpose of the writing?

Poems:

Mother, Any Distance' by Simon Armitage

'Follower' by Seamus Heaney

'Walking Away' by Cecil Day Lewis

'Sonnet 29' by Elizabeth Barrett Browning

'Love's Philosophy' by Percy Bysshe Shelley

'Before You Were Mine' by Carol Ann Duffy

Key themes

- Secret, forbidden love
- Regret
- Pain, loss, death
- Anger
- Nature
- Reconciliation
- Joy
- Family Bonds
- Desire, passion
- Unrequited love

Suggested activities:

- Think about which poems link naturally together – what common themes do they have?
- Why has the poet chosen the layout that they have? How does it represent the subject matter of the poem?
- Research the background context for any of the poems – what can you find out about the poems and poets?
- Identify important quotations from each of the poems and begin to analyse why they're important and what they reveal.

Links to further resources: <https://www.bbc.co.uk/bitesize/topics/z4nc87h>

<https://mrbruff.com/wp-content/uploads/2019/10/Love-and-Relationships-worksheets.pdf>

<https://padlet.com/MrDowling/LoveandRelationships>



Topic: Should happiness be the purpose of life?

I need to know:

- Compare and explain different ways to happiness (Christian, Buddhist and non-religious).
- How Christians use the Bible in deciding what the purpose of life is.
- Explain how Buddhists use teachings of the Buddha and other sources in deciding what the purpose of life is.
- Show how beliefs and teachings can affect people's views on whether or not it is important to achieve happiness.
- How research findings can affect people's views whether or not it is important to achieve happiness.

Key Words and Definitions

- **Happiness** - A state of well-being and contentment. A pleasurable or satisfying experience.
- **Asrey** – Used in the Old Testament meaning 'happy' or 'blessed'.
- **Makarios** - Used in the New Testament meaning 'happy' or 'blessed'.
- **Dharma** – 'Universal law' or 'ultimate truth'. The teachings of the Buddha.
- **Dukkha** – 'suffering', 'unsatisfactoriness' or 'imperfection'.
- **Samsara** – The circle of life, Birth, death, rebirth.
- **Karma** – Intentional actions have consequences in this and future lives.
- **Nibbana** – the state of secure peace that results after removing cravings and desires.
- **Utilitarianism** – An action is morally right if the most amount benefit from it.



Categories for happiness include: **Emotions, purpose, pleasure, flourishing in life, something beyond the material world and satisfaction.**

Buddhism –The Four Noble Truths (happiness)

1. Life is characterised by Dukkha. There is much discontentment in the world.
2. Humans cause discontentment through craving and hatred.
3. We need to be aware of our craving and hatred and not allow them to drive our actions.
4. Follow the middle way (The Noble Eightfold Path). The end result will be a state of happiness and peace (Nibbana).

Buddhism - The Noble Eightfold Path (action for happiness)

Wisdom

- Right understanding of life and Dharma
- Right intention having the right attitude and motivation)

Morality

- Right speech. Speak positively to and about other.
- Right action. Have positive relationships and behave well.
- Right livelihood. Have a job that makes a positive contribution.

Mental Training

- Right effort to make all thoughts and actions worthwhile.
- Right mindfulness and ensuring you are alert to what is going on inside and around you.

Christianity

The Bible uses the terms **asrey** in the Old Testament and **makarios** in the New Testament. Both can be translated as 'happy', although many translations use the word 'blessed' instead. This would indicate that happiness is a gift from God.

Two key ideas...

- happiness in relationship with God.
- happiness derived from action.

Happy are those who respect the LORD, who want what he commands. Psalm 112.1

Happy are those who consider the poor. Psalm 41:1

Happy are all who take refuge in God. Psalm 2:12

The Sunday Assembly

This is a non-religious (secular) gathering of people, which aim to replicate a Church – but without any faith in God. For example, they may sing uplifting songs and have an inspirational talk. The first took place in London in 2013.

Utilitarianism

Jeremy Bentham was the founder of Utilitarianism. Utilitarianism is an approach to ethics and to making moral decisions. It is based on the principle, the greatest happiness of the greatest number. A moral decision or action is right, if it results in the greatest number of happiness of people in a group or society.

Action for happiness campaign

- Giving
- Relating
- Exercising
- Awareness
- Trying out
- Direction
- Resilience
- Emotion
- Acceptance
- Meaning



Arrow Tasks You could enhance your learning by visiting one of the suggested websites regarding happiness such as <https://www.bbc.co.uk/newsround/49487510>

<http://worldhappiness.report/> www.sundayassembly.com/ Evaluation question challenges – "It is possible to achieve happiness by practising the Noble Eightfold Path in the twenty-first century." Discuss. 'Happiness should be the purpose of life.' Discuss. 'Unhappiness is caused by cravings and selfishness.' Discuss.



Topic: How are Sikh teachings on equality and service put into practice today?

I need to know:

- The key beliefs of Sikhism.
- The life of Guru Nanak and it's importance today.
- The Gurus and their importance for Sikhs living in Britain today.
- How Sikhs interpret the Mool Mantar and what it tells them about God, life and how to live.
- How and why Sikhs put their beliefs into action in different ways.
- How beliefs and teachings guide Sikhs in responding to the challenges of life in Britain.
- How Sikh teachings on equality and service put into practice today?

Key Words and Definitions

- **Guru** - moving from darkness (gu) to light (ru).
- **Khanda** – the Sikh symbol which is a double-edged sword.
- **The Guru Granth Sahib** - The Sikh holy book.
- **Gurdwara** – the Sikh place of worship.
- **Mool Mantar** – A poem by Guru Nanak describing God.
- **Sewa** - selfish service to others.
- **Gukta** – Prayer book.
- **Langar** – A kitchen where vegetarian food is prepared for free.
- **Nam Simran** - meditation on God's name
- **Kirat karna** - hard work.
- **Vand chhakna** - sharing, charitable giving.
- **Gurmukhi** - the language developed by Guru Nanak.

The Five Ks -These are five items worn for Sikhs to show their faith. This was instructed by Guru Gobind Singh to the Khalsa.
 1) **Kesh** – uncut hair. 2) **Kara** – a steel bracelet/ bangle. 3) **Kangha** – a wooden comb. 4) **Kirpan** – steel sword 5) **Kachera** – cotton shorts.

Guru Nanak was born in 1469 and died in 1539. He was the founder of Sikhism. Following Guru Nanak there were nine other Gurus that led Sikhism until 1708. The last of the Ten Gurus was Guru Gobind Singh.

The Ten Gurus

- Guru Nanak - the founder of Sikhism.
 - Guru Angad - taught people to read the script that Nanak used to record hymns.
 - Guru Amar Das - worked for the rights of women
 - Guru Ram Das - helped to reorganise the religion and the city that became Amritsar.
 - Guru Arjun Dev - Built the Golden Temple.
 - Guru Hargobind - Freed 52 prisoners of conscience and designed the Sikh flag, the Nishan Sahib.
 - Guru Har Rai - Collected plants, rare species. An expert in medicine.
 - Guru Har Krishan - He died as a child while he served people with cholera and smallpox during a pandemic.
 - Guru Tegh Bahadur – he led a nation-wide non-violent protest movement against new laws. He was executed in 1675 for defending the right of non-traditional Muslims and non-Muslims to practise their beliefs.
 - Guru Gobind Singh – Finalised the Sikh scriptures and founded the khalsa in 1699. The Khalsa are a dedicated religious group that Sikhs can join.
- All Gurus achieved liberation (mukti).**

The story of Guru Nanak

Guru Nanak was the first Guru of the Sikhs. Although he was born into a Muslim family he didn't want to be tied to the Hindu faith. Even at the age of 13, he refused to take the Sacred Thread ceremony, which was the most important ceremony for Hindu boys. His best friend Mardana, was a Muslim.

When Nanak was 30 years old (1499), he went to bathe in a river and disappeared. Many thought he was dead but he returned three days later. When he reappeared in the same spot where he disappeared, his face was said to have had a special glow. His first words were: **'There is no Hindu, there is no Muslim'**. He said there was one true God. He claimed he had been taken into the presence of God. He said he had been given direct knowledge about God, life and reality.

Nanak had achieved liberation (mukti). He gave away all his possessions to the poor. He travelled over 30,000 miles to spread the message.

Sikh's three duties:

1. Nam Simran - meditation on God's name.
2. Kirat karna - hard work
3. Vand chhakna – sharing and charitable giving.

In Sikhism, God is called the Real Guru.



The Sikh path of life

Do not be self-centred (**manmukh**) but be God-centred (**gurmukh**). Overcome the ego (**haumai**) by living according to the will of God (**hukam**). This will enable a person to escape from the cycle of life, death and rebirth (**samsara**) and achieve liberation (**mukti**).

Arrow Tasks You could enhance your learning by visiting one of the suggested websites such as <https://www.bbc.co.uk/bitesize/topics/zws4d2p> , <https://binged.it/2H92xUp> (Guru Nanak animation), <https://www.bbc.co.uk/bitesize/guides/znnmtv4/revision/2> (on the Mool Mantar), <https://www.youtube.com/watch?v=ZZJiodQRuC4> (langar) and https://www.youtube.com/watch?v=zi6i_fNEgZU (sewa). Find out how did Sikhs help in the UK during the covid-19 pandemic?

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Subject: French

Year 9: Spring Term 2

There will be more specific vocabulary.

This will be given to you by your class

Topic: Chez moi, chez toi

I need to be able to: talk about where you live, your home, what you have for meals, special occasions.

Key Words	Definitions
Verb	Words which tell you the action
Subject pronouns	Words that tell you who is doing the action.
Noun	A place, person or a thing.
Gender	In French, nouns and adjectives can be either masculine or feminine.
Adjective	Words which describe nouns. In French adjectives are the same gender as the noun which they describe.
Definite article	'the'
Indefinite article	'a' 'some'
Singular	One
Plural	More than one
Positive phrase	'is', 'do' 'does'
Negative phrase	'is not', 'does not', 'don't', 'never'
Possessive adjectives	My (in French, there are 3 forms; masculine, feminine and plural)

Comparative

Adjectives can be used to compare nouns with each other

plus...que : more than

Eg il est plus grand que moi.

moinsque : less than

Eg: il est moins gentil que moi

boire: to drink

je bois = I drink

Tu bois = You drink

Il/elle boit = he/she drinks

Nous buvons = We drink

Vous buvez = You drink

Ils/elles boivent = they drink

prendre to take/have

je prends = I take

Tu prends = You take

Il/elle prend = he/she takes

Nous prenons = We take

Vous prenez = You take

Ils/elles prennent = they take

It is necessary/one must

"il faut" means "you must/you have to/we need to".

It is followed by the **infinitive**

Eg: Il faut acheter du lait = you need to buy milk

"Il ne faut pas" means "we don't have to"

Eg: il ne faut pas acheter de chocola = we don't need to buy chocolate

Prepositions

They tell us where things are

entre= between

dans = in

sur = on

sous= under

devant = in front of

derrière= behind

Some prepositions are followed by "de"

à côté de = next to

en face de: opposite

près de: near

à droite de= on the right of

à gauche de = on the left of

Arrow Tasks: create and draw a floor plan of your dream house. Label each room in French and write a short description of 4 rooms in detail (furniture/colour/size..)

How to say "some" in French.

	<i>In front of masculine word</i>	<i>In front of feminine word</i>	<i>In front of a word starting with vowel</i>	<i>In front of a plural noun</i>
some	du	de la	de l'	des

Links to further resources: <https://www.bbc.co.uk/bitesize/topics/zjx947h/articles/zbqkvk7>

<https://www.bbc.co.uk/bitesize/topics/zjx947h/articles/z4xjrj6>

1. J'habite dans une petite maison nouvelle à Liskeard.	I live in a small new house in Liskeard.
2. J'aime beaucoup habiter ici parce que c'est calme!	I like a lot living here because it is quiet
3. J'habite avec mes parents, mon petit frère et ma grande soeur.	I live with my parents, my little brother and my big sister.
4. J'aime ma maison parce qu'elle est belle et confortable. Mais, je préférerais vivre à au bord de la mer!	I like my house because it is beautiful and comfortable, but I would prefer to live by the sea!
5. Mon copain habite dans une vieille ferme à la campagne. Sa ferme est plus grande que ma maison!	My friend lives on an old farm in the countryside. His farm is bigger than my house..
6. Chez moi, la cuisine est plus moderne que le salon mais le salon est plus grand que la cuisine!	In my house, the kitchen is more modern than than the living-room, but the living room is bigger than the kitchen!
7. Chez moi, il y a sept pieces: la cuisine, le salon, la salle à manger, une salle de bains et trois chambres	In my house, there are 7 rooms: the kitchen, the living-room, the dining room, a bathroom and 3 bedrooms.
8. Cependant, il n'y a pas de salle de jeux, c'est dommage!	Nevertheless, there is no games room, it is a shame!
9. Il y a aussi un petit jardin devant la maison et à côté de la cuisine il y a un grand garage.	There is also a small garden in front of the house and next to the kitchen there is a big garage.
10.J'aime beaucoup ma chambre mais elle est plus petite que la chambre de mon frère. Ce n'est pas juste!	I really like my bedroom but it is smaller than my brother's. it is not fair!
11.Dans ma chambre, il y a un petit lit en bois et en face de la fenêtre, il y a une armoire double. C'est très pratique!	In my bedroom, there is a small wooden bed, and opposite the window there is a double wardrobe . it is very convenient!
13. Sur le bureau, il y a une lampe et un ordinateur mais il n'y a pas de télé!	On the desk, there is a lamp and a computer but there is no TV!
14. D'habitude, pour le petit-déjeuner, je mange des tartines avec du beurre et de la confiture et je bois du chocolat chaud.	Usually, for breakfast, I eat some toasts with butter and jam and I drink some hot chocolate.
15. Le soir, nous prenons le diner en famille à six heures. Normalement, nous mangeons de la viande et des légumes.	In the evening, we have family dinner at 6 o'clock. Usually, we eat meat and vegetables.
16. Après, je prends un yaourt ou un fruit mais je préfère la glace au chocolat. C'est mon dessert préféré!	After, I have a yoghurt or a fruit but I prefer chocolate ice-cream.It is my favourite pudding!

17. J'adore les plats à emporter. C'est mon repas préféré!	I love takeaway food! It is my favourite dish!
18. Je ne mange pas de viande car je suis végétarien!	I don't eat meat because I am vegetarian!
19. Hier, c'était l'anniversaire de ma mère alors on a mangé au restaurant indien. C'était délicieux!	Yesterday, it was my mum's birthday, so we ate in an Indian restaurant. It was delicious!
20. J'adore les crêpes au jambon fromage mais mon frère préfère les crêpes aux champignons!	I love cheese and mushroom pancakes but my brother prefers mushroom pancakes!
21. Pour préparer la pâte à crêpe, il faut acheter du lait, de la farine et des oeufs!	To make pancake batter, you need to buy some milk, some flour and some eggs.
22. Pour la Chandeleur, on va manger des crêpes et ensuite on va regarder un film en famille!	For the "Chandeleur", we are going to eat pancakes and then we are going to watch a film together!
23. L'année dernière, je suis allé au carnaval de Nice. C'était génial. On a dansé et on a regardé le défilé!	Last year, I went to the Nice carnival. It was great! We danced and watched the parade!
24. L'année prochaine, je vais faire quelque chose de différent. On va aller à Paris pour la fête du 14 juillet et on va regarder le feu d'artifice. Ça sera super! On va beaucoup s'amuser...	Next year, I am going to do something different. We are going to go to Paris for the 14 th of July and we are going to watch the fireworks. It will be great. We are going to have a lot of fun...

I need to know: In this topic, you will explore how borders between countries are decided and how they change over time. You will also investigate how these borders, and the resources found within them, can cause conflict between different countries or areas. You will have the opportunity to investigate conflicts in the UK and in other countries across different continents.

Key Words	Definitions
Physical geography	The earth's natural features and what our planet is like such as rivers, oceans, ecosystems and hazards.
Human geography	How and where people live, such as population, development and settlement.
Border	A boundary or outer edge of something.
Conflict	To disagree with someone or something. This can lead to arguments or fighting.
Resource	A resource is something that humans attach value to due to its usefulness.
Territory	A geographical area (space) that belongs to a particular group.
Physical map	A map showing landforms and natural features in an area.
Religion	A set of beliefs or ideals that a group follow.
Language	The words used and understood by a group of people. There are many different languages across the world.
Culture	Culture is a pattern of behaviour shared by a society, or group of people. Many different things make up a society's culture. These things include food, language, clothing, tools, music, arts, customs, beliefs, and religion.
Your teacher will give you any more key words that you learn about.	

Arrow Tasks:

These questions will be asked of you in lesson to help extend and further your understanding. Can you come up with some answers to these questions?

- Will Europe's borders change again in the future? Justify your decision.
- How might the factors that influence where borders are located also influence where people live?
- What might happen if a country does not have enough energy to meet its demand? How will it affect people and businesses?
- Suggest solutions to the conflict. What should each of the sides do? Is there a solution where everybody is happy?

Homework Tasks: These are some examples of homework tasks you might get for this topic to help develop your geographical skills. Your teacher will explain the tasks in more detail, especially if they give you one not listed here.

- Research a 'local' conflict – a conflict in a small area. Is there any 'conflicts' happening where we live?

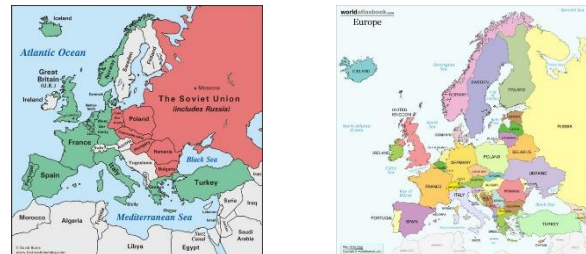
Borders

Borders are everywhere! Whether you are thinking about the border around countries, counties or towns, they all look very different. What borders do you know?



Physical and Human Geography

These are the two types of geography you have studied so far and will continue to do so in this unit. You will explore how the borders of Europe have changed over time. Are the borders there because of physical features or because of human decision?



Conflict

In geography, we look at conflict by studying the how disagreements might happen over the use of space. This could be disagreement over how to use land or resources, over government powers and over territory. Conflicts can happen at different scales:

- Local
- National
- Global

Conflict over Energy

What would happen if the lights went out?
Not just the lights... all the energy to power our homes, cars and businesses?

Russia supplies lots of countries in Europe with gas by a series of pipelines through Ukraine. This helps to power our homes and businesses. What could happen to the supply of energy to Europe if tensions between Russia and Ukraine build?



Conflict over Water

How has the building and filling of a reservoir in Africa led to conflict?

The Grand Renaissance Dam has been built in Ethiopia, who want to begin producing Hydro Electric Power (HEP) to help develop their country. Egypt needs the water supply to maintain agriculture and livelihoods in its own country. You will explore the issues around this and come to a decision... Should Ethiopia be allowed to construct and fill up the reservoir?

Links to Further Resources

World Atlas

<https://www.worldatlas.com/>

Europe's changing borders

http://news.bbc.co.uk/1/shared/spl/hi/europe/02/euro_borders/html/

Russia and Ukraine

<https://www.cfr.org/global-conflict-tracker/conflict/conflict-ukraine>

The Grand Ethiopian Renaissance Dam

<https://www.bbc.co.uk/news/topics/cyz5g9xez7m/t/river-nile-dam-dispute>

World Conflict Tracker

<https://www.cfr.org/global-conflict-tracker/?category=us>

Topic: The Holocaust

I need to know: The Holocaust the most infamous genocide in History. Hitler and the Nazis wanted to remove all Jews from Europe. From the time that Hitler became Chancellor of Germany in 1933 life got harder and harder for the Jews. As the years passed there were more and more limitations on their freedoms, they were persecuted, and eventually isolated from the rest of society. By 1942, during World War Two, the Nazis started to kill Jews in huge numbers and in total 6 million Jews were murdered.

Key Words	Definitions
Holocaust	The term used to describe the killing of 6 million Jewish people by Hitler and the Nazis
Genocide	The deliberate killing of a large group of people
Anti-Semitism	Hatred of the Jewish
Persecution	Harass with ill-treatment, especially due to race, religion, or belief
Racial Purity	Belief that one race is superior to another
Boycott	To deliberately stop using something or going somewhere
Ghetto	An overcrowded, slum area of a city
Concentration Camps	Prison Camps for political prisoners where life was tough, lots of hard labour, poor conditions
Death Camps	Extensions to concentration camps, or newly built camps, where Jews were killed in large numbers e.g gas chambers
Final Solution	The programme of mass killings of Jews
Auschwitz	One of the most well-known Death Camps
SS	The group of Nazis who ran the death camps
Oskar Schindler	One of the few brave people who tried to help the Jews – he gave them work to prevent them being killed.
Liberation	Being set free/released

Arrow Tasks: Did anyone try and stop the Holocaust? Why? How?
How was it possible for the Nazis to carry out their plans?



Top left: Boycotting of a Jewish shop
Bottom left: Bricking up the Warsaw Ghetto

Top right: Land under Nazi control in WW2
Bottom right: Jewish prisoners at Auschwitz

Links to further resources: <https://www.bbc.co.uk/bitesize/guides/zkfk7ty/revision/1>

Paper 1 | GCSE Computer Science | Networks

Factors that affect the performance of networks

Bandwidth- amount of data that can be transferred in a give time. Measured in bits per second (bps). This indicates the number of bits of information that can travel down the line in 1 second. The greater the bandwidth the better the network.

Wired connections faster and more reliable than wireless.

Latency is a measure of delay. The time it takes for some data to get to its destination across the network. It is usually measured as a round trip delay - the time taken for information to get to its destination and back again. Latency is usually measured in milliseconds (ms).

Hardware

NICs-

- Allows device to connect to a network.
- Built into motherboard.

Routers

- Transmits data between networks- they're always connected to two networks- ADSL port connects to internet & Ethernet is connected to LAN.

Switches-

- Connect devices on a LAN.
- Receive data (in units called frames).
- Transmit the data on the network with the correct **MAC address**.

Wireless Access Point (WAP)

- This is a switch that allows devices to connect wirelessly.
- **A hotspot is a location **where** you can connect to a WAP**

Cables-

- Ethernet- connect devices in LAN e.g. CAT 5e and CAT 6. Made of twisted copper wires.
- Coaxial- single copper wire surrounded by plastic and metallic mesh to stop interference.
- Fibre optic- transmit data as light, no interference, transmits large distances.

Wi-Fi is the standard for Wireless Network

- 2.4 GHz- greater range and better at getting through walls.
- 5 GHz is faster over shorter distances.
- Bands are split into numbered channels that each cover a small frequency range.

LAN

- Connects computers, peripherals, and other devices in a single building or other small geographic area.
- Typically owned by the company that uses them.
- **Advantages**- Can install and update software on all computers at once, rather than one by one. Can share files & work collaboratively. Can share hardware e.g. printers.

WAN

- Allows the transmission of data across greater geographic distance.
- Organisations hire infrastructure from telecommunications companies who own and manage the WAN.
- Connected using fibre or copper telephone lines, satellite links or radio links.

Client server-

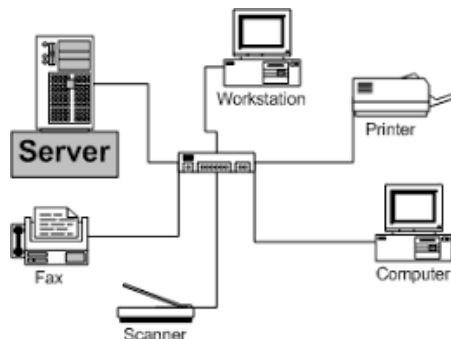
- Managed by server.
- Devices called clients.
- Clients send requests to server. Server processes the request and responds.
- Server stores profiles, passwords and access information.

Pros-

- Central storage of files.
- Easy to back up.
- Easy to install software.
- Easy to manage security.
- Reliable

Cons-

- Expensive
- Needs specialists
- If server down, all clients lose access.



Peer to peer networks-

- NO server.
- All devices equal.
- Files stored on each device.

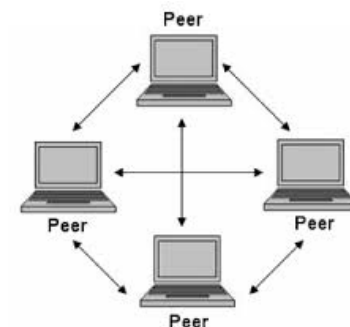
Pros-

- Easy to maintain.
- No dependence on server.

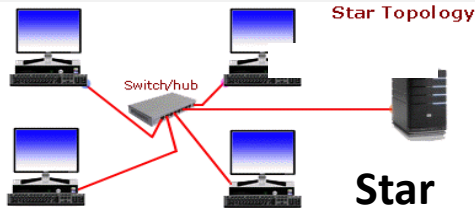
Cons-

- No centralised management so all updates done on each device.
- Copying files causes duplicate files.
- Less reliable.
- Machines prone to slowing down when other devices access them.

Skype is an example of a P2P



Network Topologies



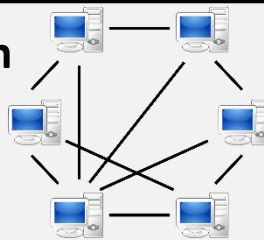
Pros of STAR topologies-

- If device fails the rest of the network is unaffected.
- Simple to add more devices.
- Better performance as data goes straight to device.

Cons-

- All devices need a cable to connect to main switch or server.
- Can be expensive.
- If switch or server breaks whole network affected.

Mesh



- Decentralised- networking devices are either directly or indirectly connected to each other.
- No need for a switch or a server.
- **Works by sending the data along the fastest route possible.**

Pros of Mesh topologies-

- No single point where network can fail.
- If one device fails the data will be sent along another route.

Cons of Mesh topologies

- Used to be expensive with lots of cables. HOWEVER with the use of wireless technology this has become more practical.

The Internet

- Network of networks.
- It's a WAN connecting devices and networks over the world.
- Based around the protocol TCP/IP.



World Wide Web

- Collection of website hosted on web server
- Accessed through the **http** protocol.

URLs

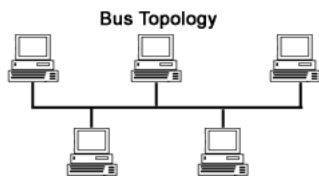
- Addresses used to access web servers and resources on them.

Domain Name Server (DNS)

- Websites domain name into its IP address.

Virtual networks

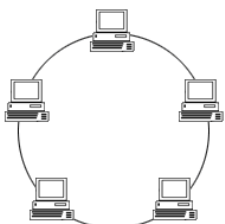
- Network that is software based. Partitioning off some physical network bandwidth to form separate network.
- Several virtual networks can exist on the same physical network.
- Share the same hardware.
- Has their own security.
- **A Virtual private network** is a type of virtual network that can be used to send data securely over a large network, like a WAN or the internet. E.g. a VPN could be used to set up a school intranet that all the students access from home.
- **Virtual LAN** allows you to split a LAN into several separate networks using the same hardware.



Bus

- Devices in a line.
- Connected with backbone cable.
- Data sent both ways which causes data collisions which slows the network.

Ring Topology



Ring

- Data moves in one direction which prevents collisions.
- Only one device can send at a time.
- Data passes through many devices before destination.

The cloud uses the internet to store files and applications.

- Hosting- a business users servers to store files for other organisations.



Pros of the cloud.

- Access from any device.
- No hardware or IT staff required.
- Can increase storage.
- Provides security.
- Updated automatically.

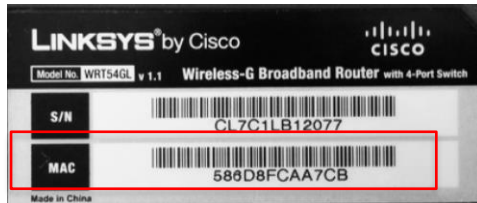
Cons of the cloud.

- Need to connect to the internet.
- Dependent on host for security.
- Data vulnerable to hackers.
- Unclear of ownership.
- Subscription costs.

Network protocols- set of rules of how devices communicate & how data is transmitted across a network.

MAC addresses-

- Unique identifiers.
- Assigned to all network enabled devices.
- 48 or 64 bit binary numbers **converted to HEX**.
- Used by Ethernet protocol on LANs. LAN switches read the MAC addresses and use them to direct data to the correct device.



Properties

Manufacturer: Realtek
Description: Realtek PCIe FE Family Controller
Driver version: 10.31.828.2018
Physical address (MAC): 98-E7-43-0E-A7-73

Communication between different networks uses IP Addresses

- Used when sending data between networks.
- IP addresses not linked to hardware.
- Assigned manually when before device can access the network.
- Static IP addresses are permanent and used to connect printers on a LAN & hosting websites on the internet.
- Dynamic IP addresses assigned to the device by a network server. Devices can have different IP addresses each time they log on.
- IP addresses can be 32-bit (converted to denary) or 128-bit (converted to HEX).

File Transfer Protocol [FTP]

FTP is used to transfer large files. It is often used for organizing files on a web server for a website. You can have private access to an area on an FTP server where you can upload your files. You can then give another user access to download the documents that you have shared.

Hyper Text Transfer Protocol [HTTP]

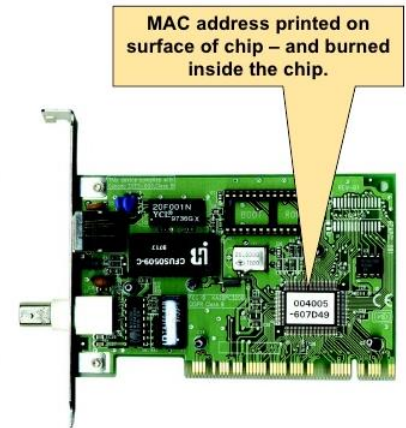
HTTP transfers web pages from web servers to the client. All web page addresses start with http.

Hyper Text Transfer Protocol Secure [HTTPS]

An https address is a secure web address which has been encrypted. An https address is used for sites holding bank details and secure information.

The NIC

- Each system must have a unique identifier
- **Media Access Control (MAC) address**
 - A unique address burned into a ROM chip on the network card
 - Each MAC address is 12 hex characters or 48 bits in length



IPv4 address in dotted-decimal notation

172 . 16 . 254 . 1
↓ ↓ ↓ ↓
10101100 . 00010000 . 11111110 . 00000001
└───┬───┬───┬───┘
8 bits 32 bits (4 bytes)

Simple Mail Transfer Protocol [SMTP] and Post Office Protocol [POP]

Email uses these protocols to communicate with mail servers. SMTP is used to send the email; POP is used to receive email. Most email clients allow for transfers of up to 10 MB.

Voice Over Internet Protocol (VOIP)

VOIP is a set of protocols that enables people to have voice conversations over the internet. Used for Skype for example.

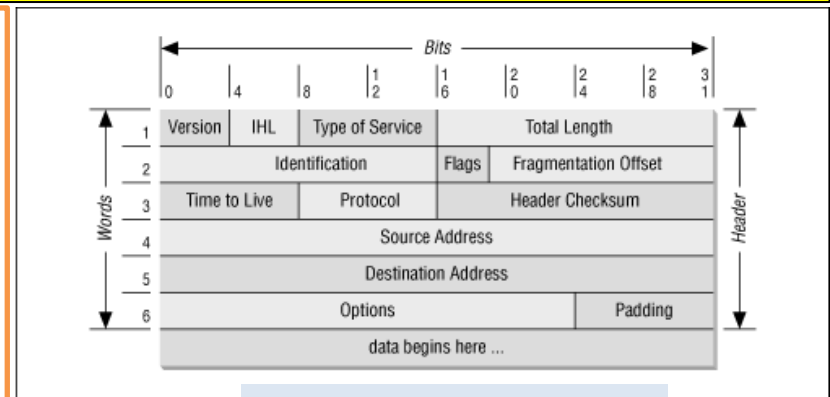
Internet Message Access Protocol (IMAP)

Used to retrieve emails from a server. Server holds the email until you actually delete it. You only download a copy.

Network protocols- Between networks (e.g. over the internet), data is sent in packets and directed by routers using TCP/ IP protocols.

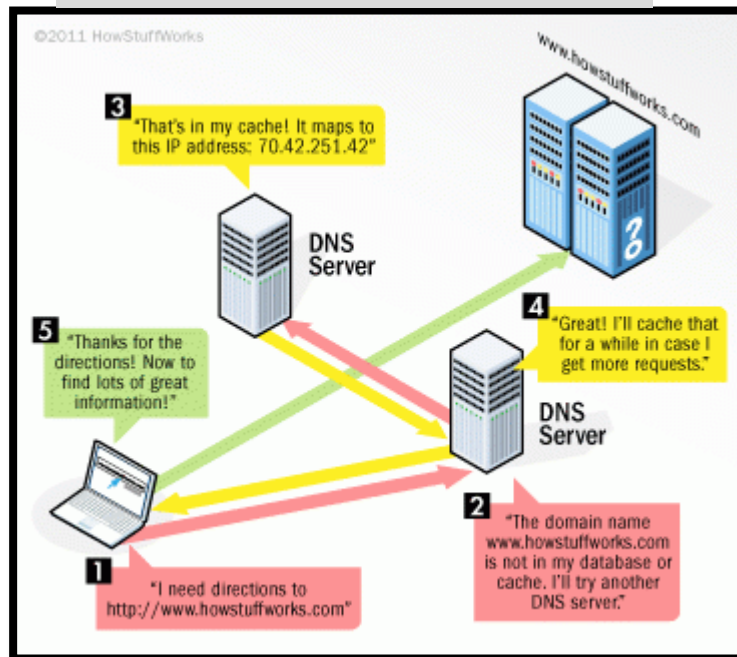
Packets

- Packet has header (control info) which includes the destination address, source address and packet number.
- **Payload**-the thing the person is to read e.g. the email or document or webpage.
- Packets include the **checksum number** which is a form of validation to check for corruption.
- Packet switching is used by routers to direct data packets on the internet & other IP networks.
- Sending device splits data into packets > Packet given packet number to show order of the data > router reads header and decides which way to send it next > packet can take different routes > packets can arrive in different orders but reassembled using the packet number > if packets are not received there is a timeout message > if all data is received & checksum matched a receipt confirmation is sent.

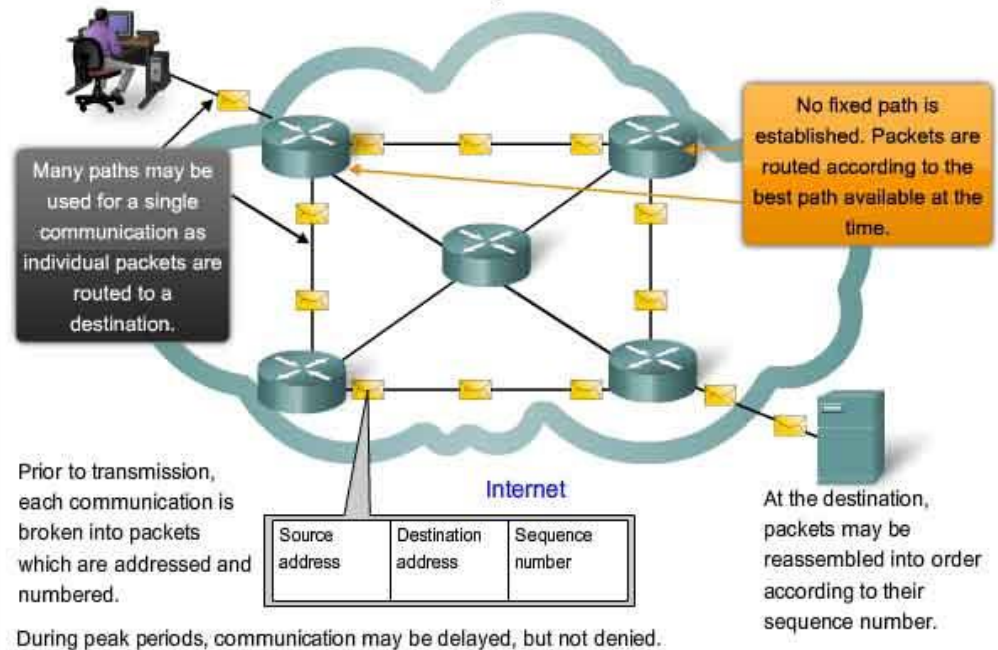


An example Packet

How do DNS servers work?



Packet Switching in a Data Network



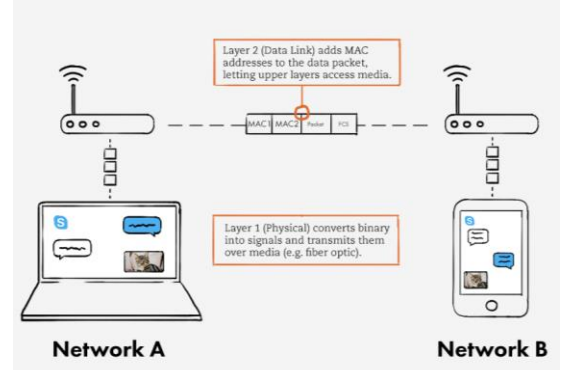
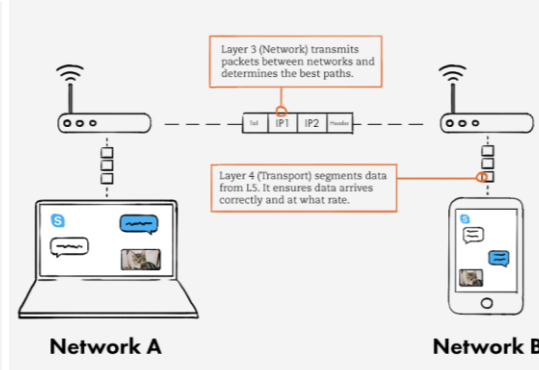
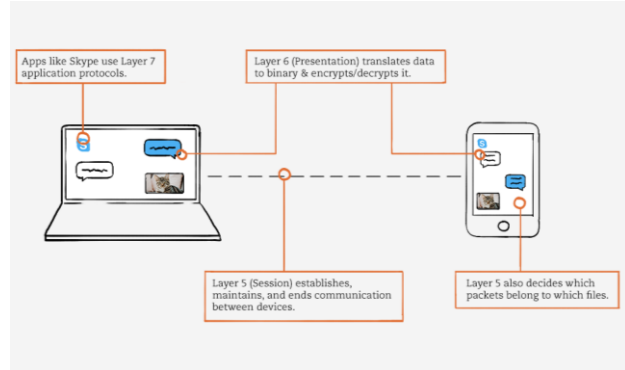
Network protocols & layers

Open Systems Interconnection (OSI)

Network protocols are divided into layers

- Layer- group of protocols with similar functions.
- Layers are self contained. They do their job and don't worry about the other layers.
- Each layer serves the layer above.

Layer 7	Application Layer	Web browser, email, file management e.g. SNMP, HTTP, FTP.
Layer 6	Presentation Layer	e.g. Encryption, ASCII, PNG, MIDI.
Layer 5	Session layer	determines which data packets belong to which files, as well as where these packets go. Also establishes, maintains, and ends communication between devices e.g. Syn/Ack
Layer 4	Transport Layer	Creating and sequencing packets on a WAN. Error checking of packets e.g. TCP, port numbers.
Layer 3	Network Layer	Routing packets on a WAN e.g. IP, routers.
Layer 2	Data Link Layer	Creating and routing frames on a LAN. Error checking of frames e.g. MAC, switches.
Layer 1	Physical Layer	Methods of encoding bits onto wires and wireless. Frequencies and channels e.g. cables, RJ45.

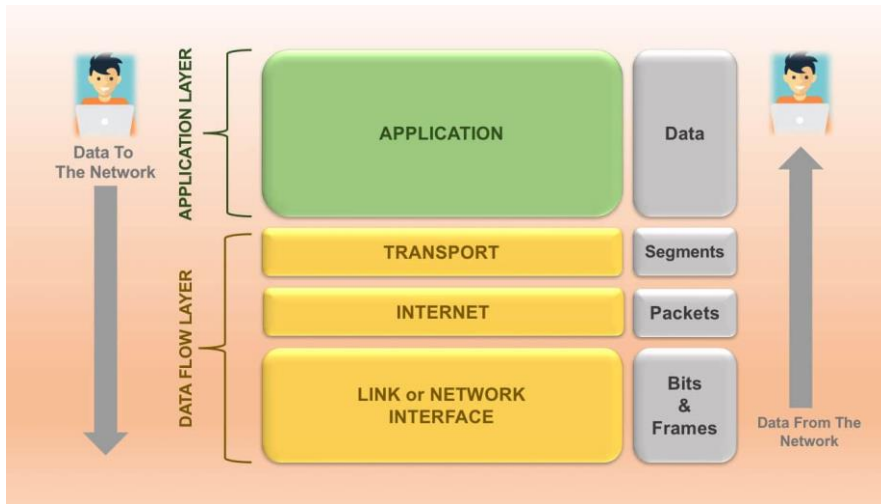


One popular mnemonic, starting with Layer 1:
“Please Do Not Throw Sausage Pizza Away.”



Network protocols & layers

4 layer model- **This model is the one in the OCR exam **



Advantages of using layers

Breaks network communication into manageable pieces which helps developers concentrate on only one side of the network.

Layers are self contained, they can be changed without other layers being affected.

Standards for each layer forces companies to make compatible, universal hardware and software, so other brands with work with each other.

Layer	Protocols in this layer cover	Protocol examples
Layer 4- Application layer	Turning data into websites and other applications and vice versa	HTTP, FTP, SMTP
Layer 3- Transport layer	Controlling data flow- e.g. checking data is sent and delivered.	TCP
Layer 2- Network or Internet Layer	Making connections between networks and directing data.	IP
Layer 1- Data link or Network interface	Passing data (as electrical signals) over physical networks.	Ethernet

Each layer serves the layer above it- it does the hidden work needed for an action on the layer above . So in the example 4-layer model, when you send an email (on layer 4), this triggers actions in layer 3, which triggers actions in layer 2, all the way down to layer 1.

Network Attacks and Security threats

Malware is short for 'malicious software'.

A general term for any hostile or intrusive software. For example it may disrupt computer operations (virus), or it may seek to secretly monitor what the user is doing (spyware).



How do they access your computer?

- Computer Virus- attaches to files e.g. .exe. Spread by copying infected files and activate by opening files.
- Trojan- malware disguised as legitimate software. Users install them.
- Worms- like viruses but they self-replicate and spread very quickly.

What are the typical actions of malware?

- Spyware- Secretly monitors users actions e.g. key presses.
- Adware-
- Pharming-
- Click fraud
- Ransomware
- Rootkits- alter permissions, giving malware & hackers administration level access.
- Scareware- tells user computer is infected- scares them into opening malicious links or paying for solutions.

Network attacks comes in different forms

Passive attack- monitoring data travelling on a network and intercepts information. Use **network- monitoring** hardware & software such as **packet sniffers**.

Active attack- someone attacks a network with **malware**. Defence against it is using **firewalls**.

Insider attack- someone in an organization exploits the **network access** to steal information.

Brute force attack- cracking passwords through trial and error. Uses **automated software** producing hundreds of passwords.

Denial-of-service attack- DoS- hacker tries to stop users from accessing a part of network or website. Floods network with useless traffic, slowing it down.

Social engineering.

- People can make mistakes; they can be tricked, fooled, bribed, or threatened. All of these threats to a network are labeled together as 'social attacks'.
- Bribing a user into allowing an attacker access to a system
- Putting a thumb-drive full of malware somewhere a user might pick it up, and labelling it like "Salary Records" or "Staff redundancies".
- Phoning up a user at work and convincing them to break policy and give them the information they want directly, like patient information records.

SQL injections (structured query language).

- SQL is one of the main coding languages used to access information in databases.
- SQL injections are pieces of SQL typed into a website input box to reveal sensitive information.

Network policies to prevent vulnerabilities

Good network policies will....

- **Test** the network to find and fix security weaknesses and investigate problems.
- Use **passwords** to prevent unauthorized access.
- Enforce **user access levels** to limit the number of people with access to sensitive information.
- Install **anti-malware** and **firewall** software to prevent and destroy malicious software.
- **Encrypt** sensitive data.

Penetration testing- Staff simulate potential attacks on the network. Identifies weakness in the security. Results reported back.

Network forensics- Investigations to find the cause of attacks on a network. They capture the data packets as they enter the network. The packets are analysed. Decisions made on how to prevent future attacks.

Passwords- Help prevent unauthorised users accessing the network. Combination of letters, numbers and symbols. Changed regularly.

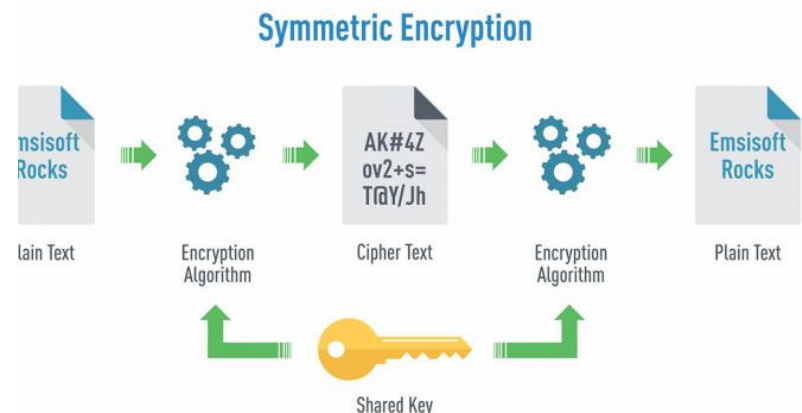
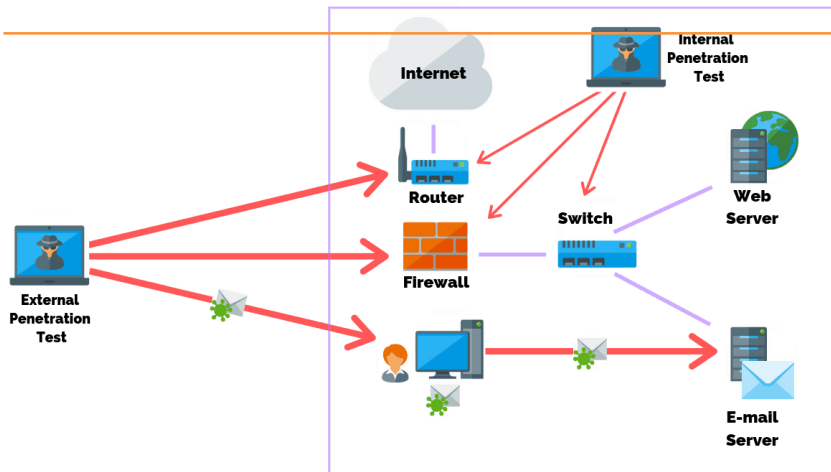
User access levels.

- E.g. a Business manager has a higher access level allowing them to access more sensitive data e.g. salaries.
- Limits the amount of people with access to important data therefore helping to prevent **insider attacks**.

Anti malware software-

- Designed to find and stop malware from damaging an organisations network and the devices on it.
- **Firewalls** examine all data entering and leaving the network and block any potential threats.

Encryption- Data translated into a code which only someone with the correct key can access. Encrypted text is called cipher text. Data not encrypted is called plain text. Allows data to be sent securely.



LANs, WANs and Hardware- Exam questions

Describe 2 differences between a LAN and WAN?	Explain one advantage of a wired network over a wireless network.
Describe some of the advantages of using a LAN?	What is the difference between a WAP and a Hot spot?
How does bandwidth affect the performance of a network?	What is the difference between 2.4GHz and 5GHz radio frequency bands.
How does latency affect the performance of a network?	Draw a client server and a peer to peer network
How is a switch used in a network?	Explain the differences between a client server network and a peer to peer network.
What is a NIC? What is it used for?	What type of network work a small business use?
What is a router used for in a network?	Give three advantages and two disadvantages of using a star network.
What is the difference between an ethernet cable and a fibre optic cable?	Describe the key features of a mesh network.
What is a DNS server? What is its purpose?	What is the difference between a bus topology and a ring topology?

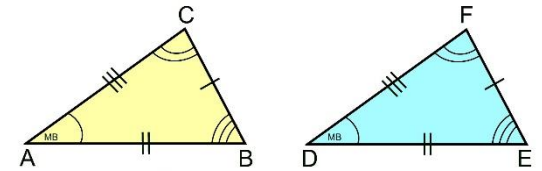
Network protocols, the internet and Network Security-

Exam questions

What is the definition of a protocol?	Can you give examples of what happens at each layer of the OSI network protocols.
What is the difference between a MAC address and an IP address?	*Describe each part of the 4 layer network model and how they interlink*
What is the difference between a static and a dynamic IP address.	Can you give examples of the advantages and disadvantages of using the cloud..
Can you write step by step how packet switching is used to direct data?	What is a virtual network?
List some of the things that a data packet contains	What is social engineering and who could it affect?
What is a packet number used for?	What is encryption?
What is a checksum? How and when is it used?	Describe 5 different types of network attacks.
Write a sentence explaining what each of the following stands for and what they do : TCP, IP, FTP, HTTP, HTTPS, SMTP, POP3, IMAP	Describe three examples of a good network policy.
What is the mnemonic to remember the 7 layers of the OSI network model?	How does a firewall work?

I need to know how to:

- Use the form $y = mx + c$ to identify parallel lines
- Rearrange an equation into the form $y = mx + c$
- Find the equation of a straight line
- Interpret the gradient of a straight line graph as a rate of change
- Plot, sketch, recognise and interpret graphs of quadratic (cubic, reciprocal) functions
- Find approximate solutions to kinematic problems involving distance, speed and acceleration
- Know the criteria for triangles to be congruent (SSS, SAS, ASA, RHS) and identify congruent triangles
- Use known facts to form conjectures about lines and angles in geometrical situations
- Use known facts to create simple proofs
- Explain why the base angles in an isosceles triangle must be equal
- Explain the connections between Pythagorean triples



$$\triangle ABC \cong \triangle DEF$$

Arrow Tasks

- ➔ Look for examples of different gradients around you, when might it be important to work out the gradient?
- ➔ Can you explain the conditions for congruency to someone else?
- ➔ Sign up on <https://parallel.org.uk/> and do the quizzes each Thursday.

Key words	Definitions
Congruent	Congruent shapes are completely identical, same angles, same length sides.
Cubic	Volume is a cubic measurement as it involves three dimensions being multiplied together. We also have cubic polynomials or expressions where the highest power of x is a 3. For examples: $5x^3$, $x^3 + x^2$, $ax^3 + bx^2 + cx + d$. We can plot graphs of cubics.
Gradient	Gradient is another word for slope, how steep something is. We can calculate the gradient of a straight line graph.
Isosceles	This is a type of triangle that has two equal lengths, and two equal angles. The name isosceles comes from the Greek language meaning .equal legs..
Kinematic	Kinematics is all about describing motion.
Linear	We can draw graphs of linear functions, the graph will be a straight line.
Parallel	Parallel ones always have the same distance between them, they will never cross.
Pythagoras' theorem	This is all about the relationship between the 3 sides of a right angled triangle, some right angled triangles have all 3 sides as integers (whole numbers), but not all!
Quadratic	Quadratic polynomials or expressions have a 2 as the highest power of x . For example: $3x^2 + x - 1$. We can plot graphs of quadratics.
Reciprocal	A reciprocal function is one where we divide by a changing x value e.g. $y = 1/x$

this makes it Quadratic

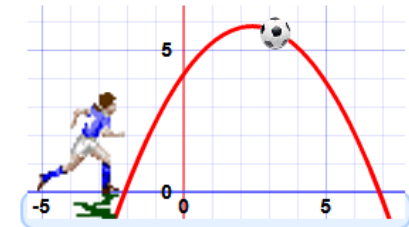
$$5x^2 + 3x + 3 = 0$$

Links to further resources:

<https://parallel.org.uk/>

<https://www.bbc.com/bitesize/subjects/zqhs34j>

<https://nrich.maths.org/secondary>






Subject: **Music**

Year 9: Spring Term 1

Topic: **Classic Classics**

"Everybody loves classical music, they just don't know about it yet" - Benjamin Zander

I need to be able to: Recognise, play and understand the style of two pieces of music, Canon by Pachelbel and Fur Elise by Beethoven **SO THAT** I can appreciate how music of this era has influenced the music of today.

<u>KEY WORDS</u>	<u>MEANING</u>	You will know more classical music than you realise due to adverts, films etc. Here are some to listen to: Zadok the Priest by Handel Ode To Joy by Beethoven Dance of the Knights by Prokofiev The Sorcerers Apprentice by Dukas Flight of the Bumblebee by Rimsky-Korsakov	
Classical	The name given to music that isn't pop, rock etc but also to music written between 1750 and 1820	 Beethoven 1710 - 1827	
Baroque	Music written between 1600 and 1750		
Ground Bass	The name given to a bass line (and chord pattern) that repeats itself a lot!		
Textures	How music is layered together		
Counter melody	A second melody that fits over the main melody		
Harpsichord	Keyboard before the piano		
		 Pachelbel 1653 - 1706	

LISTEN Here is a lesson on how to play **Fur Elise** by Beethoven = <https://www.youtube.com/watch?v=wff0zHeU3Zs>

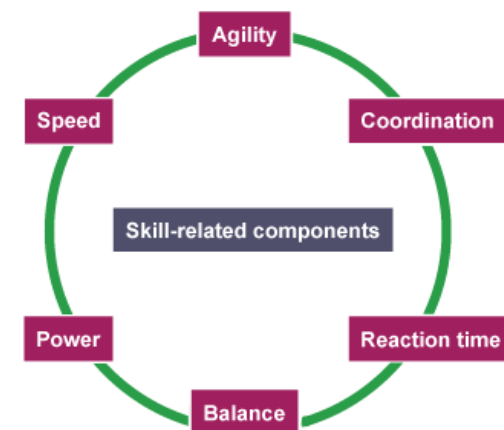
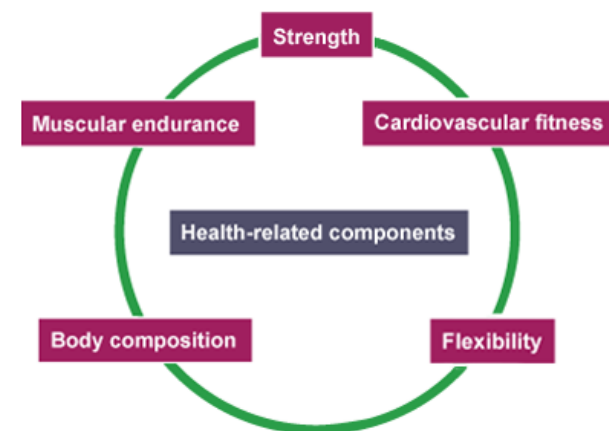
And here is a very different take on the well know piece = . <https://www.youtube.com/watch?v=AXvctC5QIC8>

Arrow Tasks – Using Youtube or online lessons, find another classical piece to learn (look at the list above). Listen to Coolio's 'See You When I Get There' rap and notice how he used Pachelbel's Canon in the background.

Topic: Fitness in Sport

I need to know: To understand the difference between health and skill related components of fitness and how to test the components of fitness.

<u>Key Words</u>	<u>Definitions</u>	<u>Test</u>
<u>Agility</u>	The ability to change the direction or position of the body at speed.	Illinois Agility Test
<u>Balance</u>	the ability to retain the centre of mass above the base of support when stationary (static balance) or moving (dynamic balance).	Stork stand test
<u>Body Composition</u>	The percentage of body weight which is fat, muscle or bone	Skinfold test
<u>Cardiovascular Endurance</u>	The ability of the heart, lungs and blood to transport oxygen during sustained exercise. Our heart and lungs are able to cope with activity for relatively long periods of time without getting tired.	Multi-stage fitness test 12-minute cooper run
<u>Co-ordination</u>	The ability to use different (two or more) parts of the body together smoothly and efficiently	Wall throw and catch test
<u>Flexibility</u>	The range of movement (ROM) at a joint. It is the ability to move the joints through their full range of motion.	Sit and Reach Test
<u>Muscular Endurance</u>	The ability to use voluntary (skeletal) muscles repeatedly without tiring.	Sit up test Press up Test
<u>Muscular Strength</u>	The ability of a muscle to apply force and overcome resistance or the amount of force a muscle can exert.	Grip Dynamometer
<u>Power</u>	Power is the ability to perform strength-based movements quickly	Standing Broad Jump Vertical Jump Test
<u>Reaction Time</u>	The amount of time it takes to respond to a stimulus.	Ruler drop test
<u>Speed</u>	The ability to move all or part of the body as quickly as possible.	30-meter fly sprint test

**Arrow Tasks**

Choose a famous sportsperson and describe what components of fitness they use for their sport and why they need them.

Oxidation **I**s **L**oss (of electrons) **R**eduction **I**s **G**ain (of electrons)

HT ONLY: Reactions between metals and acids are redox reactions as the metal donates electrons to the hydrogen ions. This displaces hydrogen as a gas while the metal ions are left in the solution.

Ionic half equations (HT only)

For displacement reactions

Ionic half equations show what happens to each of the reactants during reactions

For example:
The ionic equation for the reaction between iron and copper (II) ions is:
 $\text{Fe} + \text{Cu}^{2+} \rightarrow \text{Fe}^{2+} + \text{Cu}$

The half-equation for iron (II) is:
 $\text{Fe} \rightarrow \text{Fe}^{2+} + 2\text{e}^-$

The half-equation for copper (II) ions is:
 $\text{Cu}^{2+} + 2\text{e}^- \rightarrow \text{Cu}$

Reactions with acids

metal + acid → metal salt + hydrogen

magnesium + hydrochloric acid → magnesium chloride + hydrogen

zinc + sulfuric acid → zinc sulfate + hydrogen

Acids react with some metals to produce salts and hydrogen.

Reactions of acids and metals

Extraction using carbon

Metals less reactive than carbon can be extracted from their oxides by reduction.

For example:
zinc oxide + carbon → zinc + carbon dioxide

Oxidation and reduction in terms of electrons (HT ONLY)

Neutralisation of acids and salt production

Reactions of acids

AQA Chemical Changes 1

Reactivity of metals

Extraction of metals and reduction

Unreactive metals, such as gold, are found in the Earth as the metal itself. They can be mined from the ground.

Acid name

Salt name

Hydrochloric acid

Chloride

Sulfuric acid

Sulfate

Nitric acid

Nitrate

sodium hydroxide + hydrochloric acid → sodium chloride + water

calcium carbonate + sulfuric acid → calcium sulfate, + carbon dioxide + water

Neutralisation

Acids can be neutralised by alkalis and bases

An **alkali** is a soluble base e.g. metal hydroxide.
A **base** is a substance that neutralises an acid e.g. a soluble metal hydroxide or a metal oxide.

Metal oxides

The reactivity series

Metals and oxygen

Metals react with oxygen to form metal oxides

magnesium + oxygen → magnesium oxide
 $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$

Reduction

This is when oxygen is removed from a compound during a reaction

e.g. metal oxides reacting with hydrogen, extracting low reactivity metals

Oxidation

This is when oxygen is gained by a compound during a reaction

e.g. metals reacting with oxygen, rusting of iron

Metals form positive ions when they react

The reactivity of a metal is related to its tendency to form positive ions

The reactivity series arranges metals in order of their reactivity (their tendency to form positive ions).

Carbon and hydrogen

Carbon and hydrogen are non-metals but are included in the reactivity series

These two non-metals are included in the reactivity series as they can be used to extract some metals from their ores, depending on their reactivity.

Displacement

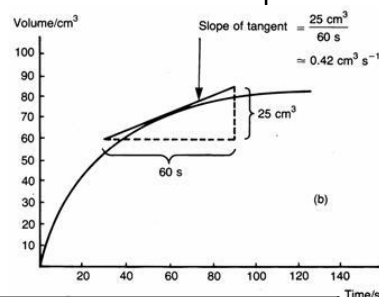
A more reactive metal can displace a less reactive metal from a compound.

Silver nitrate + Sodium chloride →
Sodium nitrate + Silver chloride

potassium most reactive K
sodium Na
calcium Ca
magnesium Mg
aluminium Al
carbon C
zinc Zn
iron Fe
tin Sn
lead Pb
hydrogen H
copper Cu
silver Ag
gold Au
platinum least reactive Pt

Rate of chemical reaction	<i>This can be calculated by measuring the quantity of reactant used or product formed in a given time.</i>	$\text{Rate} = \frac{\text{quantity of reactant used}}{\text{time taken}}$ $\text{Rate} = \frac{\text{quantity of product formed}}{\text{time taken}}$
---------------------------	---	--

Quantity	Unit
Mass	Grams (g)
Volume	cm ³
Rate of reaction	Grams per cm ³ (g/cm ³) HT: moles per second (mol/s)



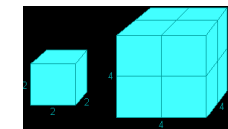
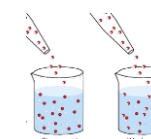
Calculating rates of reactions

Rate of reaction

Factors affecting rates

Factors affecting the rate of reaction	
Temperature	<i>The higher the temperature, the quicker the rate of reaction.</i>
Concentration	<i>The higher the concentration, the quicker the rate of reaction.</i>
Surface area	<i>The larger the surface area of a reactant solid, the quicker the rate of reaction.</i>
Pressure (of gases)	<i>When gases react, the higher the pressure upon them, the quicker the rate of reaction.</i>

Collision theory and activation energy



AQA GCSE The rate and extent of chemical change

Reversible reactions and dynamic equilibrium

Catalysts

Catalyst	A catalyst changes the rate of a chemical reaction but is not used in the reaction.
Enzymes	These are biological catalysts.
How do they work?	Catalysts provide a different reaction pathway where reactants do not require as much energy to react when they collide.

Reversible reactions

Changing conditions and equilibrium (HT)

The relative amounts of reactants and products at equilibrium depend on the conditions of the reaction.

Equilibrium

Equilibrium in reversible reactions

When a reversible reaction occurs in apparatus which prevents the escape of reactants and products, equilibrium is reached when the forward and reverse reactions occur exactly at the same rate.

Le Chatelier's Principles

States that when a system experiences a disturbance (change in condition), it will respond to restore a new equilibrium state.

Changing concentration

If the concentration of a reactant is increased, more products will be formed.
If the concentration of a product is decreased, more reactants will react.

Changing temperature

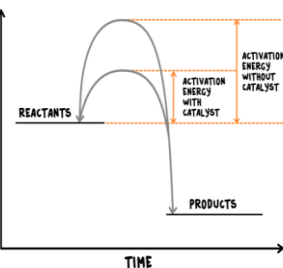
If the temperature of a system at equilibrium is increased:

- Exothermic reaction = products decrease
- Endothermic reaction = products increase

Changing pressure (gaseous reactions)

For a gaseous system at equilibrium:

- Pressure increase = equilibrium position shifts to side of equation with smaller number of molecules.
- Pressure decrease = equilibrium position shifts to side of equation with larger number of molecules.

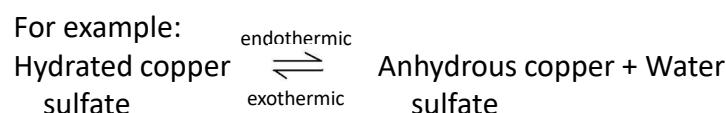


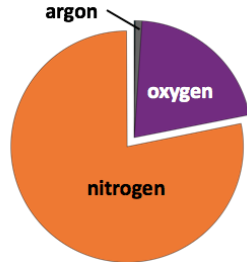
If a catalyst is used in a reaction, it is not shown in the word equation.

Reversible reactions	In some chemical reactions, the products can react again to re-form the reactants.
Representing reversible reactions	$A + B \rightleftharpoons C + D$
The direction	The direction of reversible reactions can be changed by changing conditions: $A + B \xrightleftharpoons[\text{cool}]{\text{heat}} C + D$

Energy changes and reversible reactions

If one direction of a reversible reaction is exothermic, the opposite direction is endothermic. The same amount of energy is transferred in each case.





Gas	Percentage
Nitrogen	~80%
Oxygen	~20%
Argon	0.93%
Carbon dioxide	0.04%

Proportions of gases in the atmosphere

Algae and plants	<i>These produced the oxygen that is now in the atmosphere, through photosynthesis.</i>	carbon dioxide + water → glucose + oxygen $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$
Oxygen in the atmosphere	<i>First produced by algae 2.7 billion years ago.</i>	Over the next billion years plants evolved to gradually produce more oxygen. This gradually increased to a level that enabled animals to evolve.

How oxygen increased

How carbon dioxide decreased

Reducing carbon dioxide in the atmosphere

Algae and plants

These gradually reduced the carbon dioxide levels in the atmosphere by absorbing it for photosynthesis.

Formation of sedimentary rocks and fossil fuels

These are made out of the remains of biological matter, formed over millions of years

Remains of biological matter falls to the bottom of oceans. Over millions of years layers of sediment settled on top of them and the huge pressures turned them into coal, oil, natural gas and sedimentary rocks. The sedimentary rocks contain carbon dioxide from the biological matter.

Composition and evolution of the atmosphere

AQA GCSE Chemistry of the atmosphere

Common atmospheric pollutants

CO₂ and methane as greenhouse gases

Greenhouse gases

Carbon dioxide, water vapour and methane

Examples of greenhouse gases that maintain temperatures on Earth in order to support life

The greenhouse effect

Radiation from the Sun enters the Earth's atmosphere and reflects off of the Earth. Some of this radiation is re-radiated back by the atmosphere to the Earth, warming up the global temperature.

Carbon footprints

The total amount of greenhouse gases emitted over the full life cycle of a product/event. This can be reduced by reducing emissions of carbon dioxide and methane.

Global climate change

Human activities and greenhouse gases

Carbon dioxide

Human activities that increase carbon dioxide levels include burning fossil fuels and deforestation.

Methane

Human activities that increase methane levels include raising livestock (for food) and using landfills (the decay of organic matter released methane).

Climate change

There is evidence to suggest that human activities will cause the Earth's atmospheric temperature to increase and cause climate change.

Effects of climate change

Rising sea levels

Extreme weather events such as severe storms

Change in amount and distribution of rainfall

Changes to distribution of wildlife species with some becoming extinct

Properties and effects of atmospheric pollutants

Carbon monoxide

Toxic, colourless and odourless gas. Not easily detected, can kill.

Sulfur dioxide and oxides of nitrogen

Cause respiratory problems in humans and acid rain which affects the environment.

Particulates

Cause global dimming and health problems in humans.

Atmospheric pollutants from fuels

Combustion of fuels

Source of atmospheric pollutants. Most fuels may also contain some sulfur.

Gases from burning fuels

Carbon dioxide, water vapour, carbon monoxide, sulfur dioxide and oxides of nitrogen.

Particulates

Solid particles and unburned hydrocarbons released when burning fuels.

Topic: Module 4 - ¿Qué Hacemos?

I need to be able to: talk and write about going out, getting ready, talking about what to wear and say what happened.

Key Words	Definitions
Verb Infinitive	Words which tell you the action Original form of verb ending in –ar,-er,-ir
Subject pronouns	Words that tell you who is doing the action.
Noun	A place, person or a thing.
Gender	In Spanish, nouns and adjectives can be either masculine or feminine.
Adjective	Words which describe nouns. In Spanish adjectives are the same gender as the noun which they describe.
Definite article	'the'
Indefinite article	'a' 'some'
Singular	One
Plural	More than one
Positive phrase	'is', 'do' 'does'
Negative phrase	'is not', 'does not', 'don't', 'never'
Possessive adjectives	My (in Spanish, there are 2 forms; singular and plural – Mi /mis

Example of a stem changing verb in the Present Tense

Querer = to want

Quiero = I want

Quieres = you want

Quiere = he/she wants

Queremos = we want

Queréis = You want (pl)

Quieren = they want

Example of a reflexive verb in the present tense:

Ducharse = to have a shower

Me ducho = I ...

Te duchas = you ...

Se ducha = he/she ...

Nos duchamos = we ...

Os ducháis = you ...(pl)

Se duchan = they

Using 'this' and 'these'

Masculine (s) = este

Este vestido = this dress

Masculine (pl) = estos

Estos zapatos = these shoes

Feminine (s) = esta

Esta camiseta = this T-Shirt

Feminine (pl) = estas

Estas zapatillas = these trainers

HIGH FREQUENCY WORDS

al/a la = to the

por supuesto = of course

demasiado = too (much)

demasiados = too many

este/esta = this

estos/estás = thes

¡Lo pasé fenomenal! = I had a fantastic time

There will be more specific vocabulary.

This will be given to you by your class teacher.

Arrow Tasks: Research Spanish designers, describe one of their designs, give your opinion about it.

Create a fact file or presentation about fashion in Spain.

	español	inglés
1	¿te gustaría ir al cine o a la bolera?	Would you like to go to the cinema or to the bowling alley?
2	Prefiero ir a la pista de hielo ¿Qué piensas?	I prefer to go the ice rink, what do you think?
3	De acuerdo	All right, OK
4	¿Te gustaría venir a mi casa después?	Would you like to come to my house afterwards?
5	Sí, me gustaría mucho	Yes, I would like that very much.
6	¿Te gustaría ir al parque esta tarde?	Would you like to go to the park this afternoon?
7	¡Ni hablar!...no tengo ganas, prefería ir al polideportivo.	No way! ...I don't feel like it, I would prefer to go to the sports centre.
8	¿Dónde quedamos?	Where shall we meet?
9	Pues....delante de la cafetería o en frente del cine	Well... in front of the café or opposite the cinema?
10	Muy bien.	Very well.
11	¿A qué hora? ¿a las tres y media?	At what time? At 3:30?
12	Lo siento puedo, ¿...a las cuatro menos cuarto?	I'm sorry, I can't...at a quarter to four?
13	¿Quieres salir esta noche?	Do you want to go out tonight?
14	Lo siento, no puedo, tengo que cuidar a mi hermano menor y no tengo dinero y tengo que lavarme el pelo también.	I'm sorry, I can't, I have to look after my little brother and I don't have any money and I have to wash my hair also.
15	¿Cómo te preparas cuando sales de fiesta?	How do you get ready when you go to a party?
16	Primero, me baño o me ducho...	At first I have a bath or a shower...
17	...me lavo la cara y me lavo los dientes, claro	... I wash my face and I clean my teeth, of course.
18	Me maquillo, me visto luego me aliso el pelo pero no me pongo gomina.	I put on make-up, I get dressed, then I straighten my hair but I don't put gel on my hair.
19	¿Qué llevas normalmente?	What do you normally wear?
20	Por lo general llevo unos vaqueros y una sudadera.	Normally I wear jeans and a hoodie.
21	A veces mi padre dice que soy demasiado joven para salir a unas fiestas.	Sometimes my dad says that I am too young to go out to parties.
22	¡ No es justo! En mi opinión no tiene razón	It is not fair! In my opinion he is not right.
23	¿Tú qué opinas?	What do you think?

Year 9 Product Design: Candle Holder



I need to be able to:

- understand how to design using CAD - Adobe Illustrator
- identify the key features of the Modernist Design Movement
- demonstrate the importance of aesthetics within the designing and making process.
- develop practical skills in metalwork and woodwork

Key Words/ Terms	Definition
Task Analysis	To analyse the product design project to ensure that you are aware of what is expected.
Modernist Design	The style of visual arts, architecture and design. Modernism promoted sleek, clean lines and used modern technologies
Research:	The systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions
Sconce	This is the cup-shaped component at the top of a candlestick /candelabrum which holds the candle in place
Surface Finish	The final design will be created using CAD (computer aided design) and CAM (computer aided manufacture). The cut parts will be joined and the surface will be ' finished ' by fine sanding and applying a wax coat in layers to create a protective, smooth finish
Packaging	Products are usually displayed and sold in packaging which protects the contents and gives visual information about the product in the form of graphics - images and text



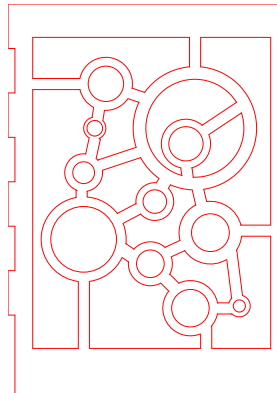
Risk Assessment Table

		Severity of Harm (Impact)		
		Low (L)	Medium (M)	High (H)
Likelihood	High (H)	3	4	5
	Medium (M)	2	3	4
	Low (L)	1	2	3

Workshop Safety

Personal Protective Equipment (PPE)

Risk Assessment



Making the sconce:

Planishing: A metalwork technique using a hammer to form and texturize metal.



Design influence:
Modernist design



Arrow Tasks:

- Research alternative materials and techniques that could be used for the candle holder and see if you can incorporate them into your own design
- Explain the different materials and techniques you could use.

Links to further resources:

<https://www.bbc.co.uk/bitesize/topics/zhv8q6f/resources/1>

http://wiki.dtonline.org/index.php/Main_Page

<https://www.technologystudent.com/equip1/equipex1.htm>

Topic: Wall Hangings

Who is Marcia Baldwin?

An American artist that works in many styles from realistic through to abstract, specialising in artwork based upon nature, animals and flowers. Baldwin's batik work contains bold and vivid colours which draw the eye in and help to create a sense of movement.

**I need to be able to:**

- understand the batik process and the importance of colour theory.
- identify the key features of Marcia Baldwin's work and to understand its context.
- demonstrate the importance of aesthetics within the designing and making process.
- develop practical sewing skills & fabric dyeing, and knowledge of embellishments.

Key Words

* Wax pot



* Tjanting



* Wax resist

**Definitions**

A thermostatically controlled wax pot for melting the wax. The wax pot keeps the fluid melted wax at a constant temperature.

The copper bowl is used for scooping up the melted wax. The wax flows through the spout allowing you to create drops, lines and surface patterns onto fabric.

A method used to "resist" or prevent the dye from reaching all the fabric, thereby creating a pattern, a mark or an image.

BatikWhat is Batik?

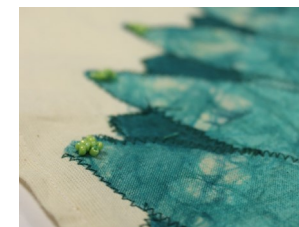
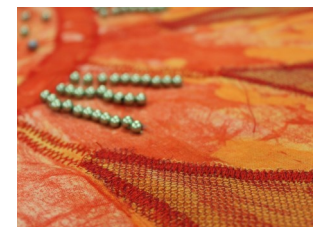
A method (originally used in Java, Indonesia) of producing coloured designs on textiles by dyeing them, having first applied wax to the parts to be left undyed.

The Batik method

1. Outline your design in wax onto the fabric (this will create the undyed areas).
2. Paint batik dye over the fabric. Start by creating thin washes of colour and build it up like a watercolour. The wax will act as a resist and hold back the paint that will spread on the fabric.
3. Apply a second layer of wax to protect some of the dyed areas and paint again using mid tones of colour.
4. Apply a third layer of wax to protect more of the dyed areas and paint again using dark tones of colour.
5. Iron the fabric between layers of newspaper to remove the wax.

Textile Embellishments

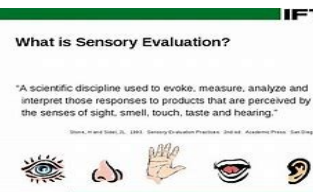
The process of adding colour, pattern or texture to fabric through the use of mediums such as thread, ribbon, sequins, yarns and buttons.

**Beading** - creates a focal point.**Ribbon** - provides straight lines.**Embroidery** - creates an outline.**Applique** - creates a sense of depth.

Topic: Food

I need to be able to: secure and demonstrate a range of complex food skills, applying the knowledge of food science and dietary related diseases to modifying recipes, to cook a wider range of dishes, safely and hygienically, and understand commercial food production/ provenance of ingredients.

Key word	Definition
Allergic reaction	The immune system is part of the body's defence system, as it protects against foreign organisms like bacteria and viruses. In some people, it may also react to substances in foods, or in the environment, e.g. pollen, milk, nuts
Lactose intolerance	A person is allergic to lactose found in milk— this also includes all products made with milk— cheese, yogurt, cream, butter.
Coeliac	A person is allergic to gluten found in wheat. This includes any product made with it—flour, bread, pasta, pastry, cakes, biscuits, commercial products containing starch.
Gelatinisation	Starch (flour) is used to thicken a sauce . It absorbs the liquid , swells and bursts open at 100 °c thickening the sauce.
Reduction	Boiling a sauce to thicken it. The water boils at 100°C turning to steam. The water evaporates from the sauce causing it to thicken.
Lamination	To roll and fold pastry to create layers of air, fat and pastry (lamination) so it rises when baked— flaky , rough puff pastry.



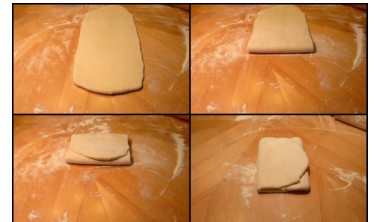
Gelatinised sauce— flour, butter and milk is cooked to make a sauce—Macaroni cheese, lasagne sauce. **Quality control—thick smooth glossy sauce.**

Reduction sauce— to simmer a sauce to evaporate the water to increase the thickness and intensity of the flavour.—**curry— lasagne meat sauce. Quality control—thick rich viscosity.**

Lamination— rough puff pastry. Creating layers of fat, air and pastry so it rises when baked.—**Filled pastry parcels. Quality control—well risen flaky layers.**

Cake methods—creaming, melting, whisking, rubbing in—investigating the structural, sensory properties. **Evaluation techniques.**

How to use industrial equipment correctly to reduce making time. To use quality control points to achieve high quality products. **Quality control example—elastic dough—gluten window check**



Arrow Tasks -

- Explain the benefits of seasonal local foods. Apply this to the food miles, carbon footprint and link to global warming. Understand welfare issues when producing meat, poultry and fish. Explain how commercial foods are produced and understand food labelling . Apply this information to make informed food choices relating to diet, allergies, religious beliefs and consumer choices - vegan, vegetarian, Buddhism, low fat diet, coeliac etc.



A Guide to Revision

We hope you find these pages about revision useful. You will need to use these skills throughout your time at school, from Year 7 all the way through to Year 13. Developing these skills early means they will become second nature and revision will become easy!

We want you to achieve the best possible results throughout your time at school and achieve results that will not only increase your life chances but also take you to the next step on your chosen career pathway. Speak to any one of your teachers for more advice on revision.

Points to remember

- Revision is re-looking at information you have learnt previously.
- The idea is that you know the information that will be tested and can remember it for the exam.
- Your attitude is important.
- You only fail if you give up.
- If you fail to plan, you plan to fail.

Believe in yourself, be positive.
If you think you can succeed you will.

Attendance

- Every lesson counts and your attendance is vital.
- Try your best in all lessons and make them work for you.
- It is what you are getting out of it that matters.
- This is YOUR result, so make it count.
- You will get out of it what you put in - so do your best.

Revision materials you'll need



These are to help you organise your revision and keep everything in one place.

Top Tip: Revision materials are available from the school shop in the library.

You can also buy these items very cheaply from a local pound shop!

Revision Strategies

		Revision Planner						
		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Time	Morning							
	Afternoon							
	Evening							

- Plan your time – create a revision timetable
- Break revision into chunks
- Find a quiet space to revise



- Revise in 20 minute blocks
 - This is the optimum concentration time
 - Have a short break between blocks



- Avoid distractions!
 - Turn off your phone
 - Turn off the TV



Brain Dump

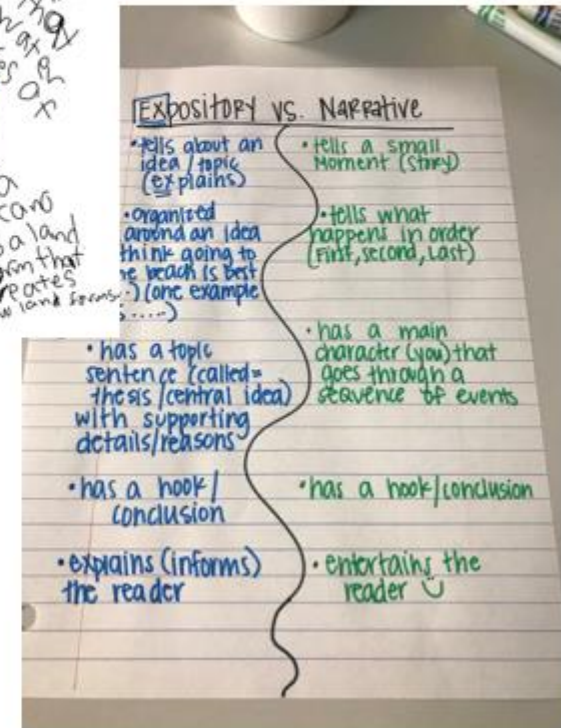
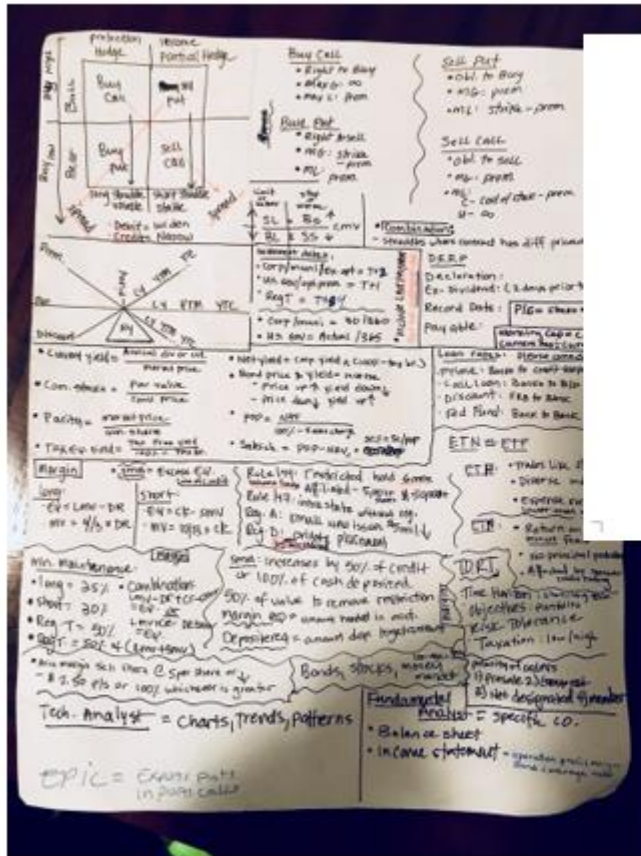
WHEN: beginning of 20 minute revision block

HOW:

- Take a blank piece of paper
- Write down (DUMP!) everything you know about the topic
 - No books
 - No notes
 - Be as messy as you like
- Time limit of 60 seconds
- Now revise the topic (15 minutes)
- Finally, go back to your DUMP and add everything you have learnt
 - Use a different colour pen

IMPACT: you should be able to add 7-15 new things to your DUMP

Examples of Brain Dumps



Top Tip: Repeat a brain dump regularly.

This will help identify which aspects of a topic you have **forgotten** to include. These are the areas you need to **focus on** when revising!

MIND MAPS

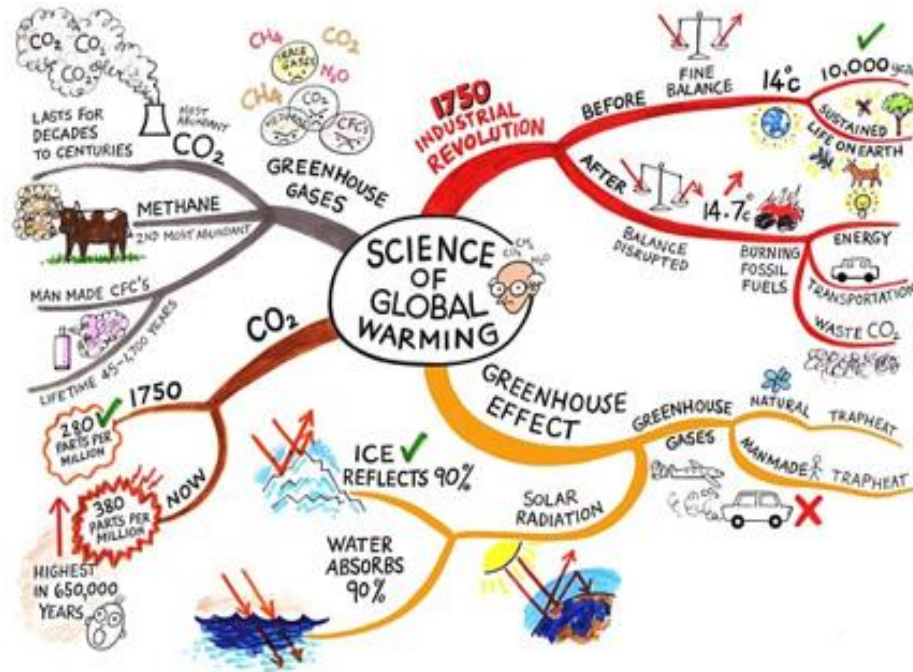
WHEN: to organise information from your exercise/text book.

HOW:

- Put the topic in the centre of a blank page
- Add big branches with the main ideas/themes of the topics
- Add small branches to these with more detail
- Try to write only 1 or 2 words per branch
 - Focus on the key points only
- Add an image to each branch (dual code)
- Revisit your mind map next time you DUMP

IMPACT: whole topic with the key ideas on a single page.

Examples of Mind Maps

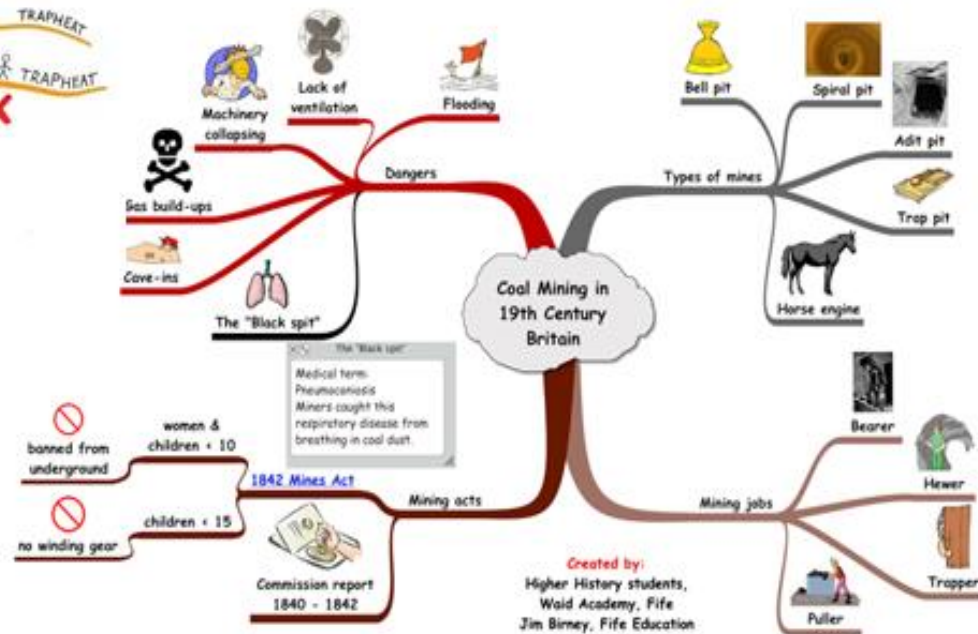


Top Tip: Use different colours for each branch of your mind map.

This helps your brain distinguish between each of the different information stems.

Top Tip: Use 'dual coding' in your mind maps.

Dual coding means using both words and images to record the information you need to remember.



FLASH CARDS

WHEN: to organise information from your exercise or text book.

HOW:

- Put a key question on one side
- Bullet point the key points that answer the question on the other side
- Put a formula / word on one side
- Put the definition on the other side
- You might be able to group key formulae/words together
- Bullet point the key points of a topic on one card (use both sides)

IMPACT: great for targeting key questions/formulae/words that you are finding hard to remember. Easy to carry around.

Examples of Flash Cards



Top Tip: Once you have created your flash cards, take a photo with your phone.

Create revision folders in your gallery so that you can revise in the car, on the bus... in fact anywhere when you've got a few spare minutes!

Mnemonics

WHEN: remembering a list of things or items in a particular order

HOW:

- Create a song, rhyme or poem using the first letter of each word in a sequence

For example:

- Richard of York gave battle in vain (to remember the colours of the rainbow)
- **Red Orange Yellow Green Blue Indigo Violet**



- Write out the first letter of each word in a sequence or list then make up your own rhyme

IMPACT: great for remembering sequences and orders of words relating to a topic.

Top Tip: Be **creative** when using mnemonics.

The sillier the rhyme, the more likely you are to remember it! **Repeat** the rhyme **regularly** to make sure it goes into your long term memory

Liskeard's Six Effective Learning Strategies

Check out the link on our school website for more information:

<http://www.liskeard.cornwall.sch.uk/students/six-strategies-for-effective-learning>

1. SPACE IT OUT



Don't just revise what you've just learnt.
Study older information to keep it fresh.

2. RETRIEVE



Without using your books, write or sketch
everything you know. Then check it!

3. ELABORATE



Think about the detail.
Describe, Explain, Compare, Question...

4. INTER-LEAVE



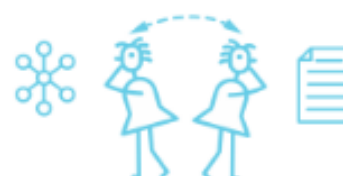
Don't study one topic for too long.
Switch between topics when studying.

5. USE EXAMPLES



Collect examples you have used in
class, or found yourself.
Link the examples to what you are studying.

6. DUAL CODE



Turn your words & notes into diagrams or pictures.
Turn your diagrams & pictures into words or notes.

Revision Websites

In addition to the website links within the subject pages, there are as a wide range of resources available online. Below is just a small section of those available.

<https://www.educationquizzes.com/ks3/>

Interactive resources for a wide range of subjects

<https://www.bbc.com/bitesize/levels/z4kw2hv>

Resources for a wide range of subjects

<https://mathsmadeeasy.co.uk/ks3-revision/>

Great for maths, also offers English and science resources

<https://www.senecalearning.com/>

Quick fire interactive questions across a range of subjects

Top Tip: Ask your teacher for a list of the topics you need to revise.

Websites contain a lot of information, some of which that will not be relevant to your course. Make sure you revise everything you need to know!