Liskeard School
& Community College
achieving more together

Year 8 Knowledge Organiser

Spring Term (1) 2023

What you need to know!

#Revise to succeed

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.

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Contents

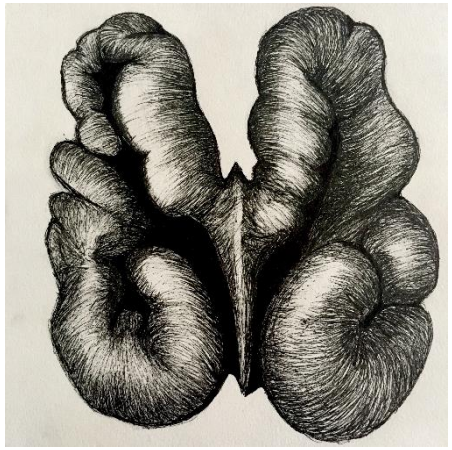
Please note: These subjects are hyperlinked. Click on the subject to take you to the relevant pages.

Subject: **Art and Design** Year: **8 Spring Term**

Topic: **Made and natural objects, Constructed spaces and natural environments. (3D Form)**

I need to know: How to interpret Shape vs Form, modelling vs reduction methods of construction and being able to apply appropriate surface embellishment.

Key Words	**Definitions**
Shape	A shape refers to the external boundary, outline, or external surface of a 3D object.
Form	Form refers to the three dimensional quality of an object. It is a surface or boundary that describes a volume or space.
Volume	Volume is the quantity of three-dimensional space enclosed by a closed surface, for example, the space that a substance or shape occupies or contains.
Weight	Weight might be used in a number of ways in sculpture. A work might be determined by a specific weight of clay to work with, limiting the scale of work. It might also refer to how a sculpture might be made to communicate the weight of something i.e. a figure might be carved with muscular tension and distortion of form to embody the weight of the person.
Line	As a visual element in art and photography, a line can be explicit and also implied. When joined it forms a shape. The quality of line used can convey meaning: i.e. thick - heavy, thin - fragile, faint - delicate, bold - loud, curved - natural, straight – mechanical…
Primary Source	In the study of art history, a primary source is an artefact, document, diary, manuscript, autobiography, recording, or other source of information. In practical work, the artist looks directly at the subject of study, i.e. the real face, object or landscape.
Secondary Source	In the study of art history, a secondary source interprets and analyses primary sources. Secondary sources are one or more steps removed from the event. In practical work, the artist may use a photograph/s to draw from combining multiple sources of information.
Synthesis	Bringing together a number of visual and tactile resources to design a unique sculptural form. The outcome might resemble elements of each but may not be recognisable.
Visual Analysis	When drawing you will ask yourself many silent questions. This internal conversation you will have with yourself is visual analysis, it is what will help you to make judgements about line, shape, tone, texture, contrast, colour.
Measuring	There are various techniques for measuring the real world to enable you to translate what you see onto a 2D surface for others to understand.
Estimating	Estimating in art usually occurs between the processes of measuring, comparing proportion and translating the real world to the 2D or 3D surface. By re-comparing, your estimations become progressively more accurate with increasing information.
Reduction	In sculpture this refers to the idea of taking away. i.e. Carving wood / stone away from a block. Once material has been taken off it is not possible to put it back on.
Modelling	In sculpture this refers to the addition or manipulation of a plastic, pliable material. i.e. Clay, plaster, wax.



Peter Randle Page. Using line to describe form.

Henry Moore. Sculpture study sheet. Using line and tonal washes to describe hypothetical forms and concepts.

Student work modelled in clay.

Gaudi and Gehry's Architecture. Sculpture and architecture are the same things. They share the same visual grammar.

Links to further resources: https://www.tate.org.uk/art/art-terms/s/sculpture
https://www.nga.gov/collection-search-result.html?classification=sculpture&pageNumber=2

Subject: **Art and Design** Year: **8 Spring Term**

Topic: **Made and natural objects, Constructed spaces and natural environments. (3D Form)**

Asymmetry	Something asymmetrical has two sides that don't match. In art this might result from accurate observation but might also be exploited to 'unsettle' the viewer. In composition, such as the rule of thirds or golden section, it is not unusual to use asymmetry to develop ideas of beauty and aesthetics.
Aesthetics	Aesthetics is a branch of philosophy that examines the nature of art and our experience of it. An aesthetic experience could include a mixture of feelings and determines our appreciation of beauty and taste. It is complex, relies heavily on objective rules, and often influences our decisions and choice. Since virtually everything made or caused by humans will have occurred through a conscious or unconscious design process, you are directly or indirectly influenced by art every day. Clothes, phones, cars, food, websites, buildings…
Site specific	Sculpture is often designed and made for a specific location. This might determine what the work looks like i.e. scale, appearance, material…
Installation	If not made for a specific permanent location, a sculpture might be installed temporarily in various locations. The installation might exploit viewpoints, proxemics, sound, the passage of people to add to the effectiveness of the work.

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: *Measuring, estimating, proportion, line, shape, form, 3D dexterity…*
Contexts: *History, responsibility, connections, location, installation…*
Rules: *Adaptability, exploration, organisation, symmetry, aesthetics…*
Audience: *Personal space, community space, tactile, purpose…*
Resolution: *Primary and secondary sources, scale, representation, abstraction, resilience, resolving…*
Communication: Abstraction, *representation, evaluation, talk, community engagement, manage emotions…*
Legacy: *Materials, honesty, heritage, culture, celebration, purpose…*

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 **Creative Learning:** Generate ideas, explore, ask questions, extend thinking, question assumptions, experiment, adapt.

Further thinking (why does this matter?):
On a functional level, it is important to us that we can adapt our thinking and improvise with increasingly sensitive, manual dexterity to solve all manner of everyday challenges.

On a more complex level, the plasticity of materials we use to create can mirror the plasticity of our brains. Learning to adapt, modify and improvise are complex cognitive processes often present in the modelling process.

Making a basic thumb pot form.

Adding clay to a form.

Clay being bisque fired to 1080°c in a kiln.

Peter Randall-Page. Planning what to carve away.

Links to further resources: https://www.tate.org.uk/art/art-terms/s/sculpture
https://www.nga.gov/collection-search-result.html?classification=sculpture&pageNumber=2

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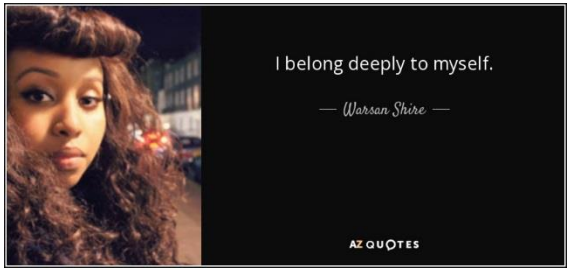
Subject: Drama Year: 8

Topic: Devising with the theme of refugees.

- I need to know: How to undertake background research to help communicate ideas. Create a sensitive performance as part of an ensemble.

Key Words	Definitions
Still image	A picture you create in a group.
List Poem	A poem created from list of objects.
Mirroring	Performing the same movements as another actor, at the same time.
Flocking	Moving as a group.
Unison	Performing in harmony with others.
Ensemble	Working as a larger group.
Cross-cutting	Performing two scenes together.
Flashback	A scene showing past events.
Flashforward	A scene showing future events.
Dramatic tension	A moment where the audience are on the "edge of their seats".
Sound-scape	Creating different sounds together.
Narration.	Telling a story.



Wider Reading: Look at the following websites:

Refugee council and refugee action.

Read "Refugee Boy" by Benjamin Zephaniah.

Research "Mountain Language" by Harold Pinter.

What We Do:

- Use original stories to devise a piece of drama with depth and sensitivity.
- Communicate a character's story to the audience, using a variety of drama techniques.
- The final piece uses more advanced drama techniques to create work that encourages the audience to think about a current issue.

Arrow Tasks: Considering the structure of the piece and its' impact on the audience.

Links to further resources: www.refugeecouncil.org.uk/truth

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Subject: English Year: 8

Topic: 'Of Mice and Men' by John Steinbeck

I need to know some of the ideas associated with historical fiction. I need to be able to see how writers engage and entertain and be able to use some of those techniques in my own writing.

Key Words

- Isolation: The process or fact of isolating or being isolated. Being alone / apart from others.
- Racism: Prejudice, discrimination, or antagonism directed against someone based on the belief that one's own race is superior.
- Segregation: The action or state of setting someone or something apart from others.
- Migrant: A person who moves from one place to another in order to find work or better living conditions.
- American Dream: The ideal by which equality of opportunity is available to any American, allowing the highest aspirations and goals to be achieved.
- The Great Depression: A long and severe recession in an economy or market.

Key themes:

- Steinbeck encourages us to empathise with the plight of migrant workers during the Great Depression.
- The American Dream is shown to be impossible: reality defeats idealism. The novella explores the human need for companionship and the tragedy of loneliness.
- Steinbeck reveals the predatory nature of mankind: the powerless are targeted by the powerful.
- Steinbeck explores the tension between the inevitability of fate and the fragility of human dreams.
- Steinbeck explores the contrasts of Nature Vs Man.

Key characters

- George: frustrated, devoted, a dreamer
- Lennie: childlike, unassuming, physically powerful
- Crooks: cynical, proud, isolated – the only black man on the ranch
- Candy: unloved, an outcast, aging. Only has one hand.
- Curley's Wife: lonely, nameless. The only woman in the novel.
- Curley: insecure, unmerciful, jealous
- Slim: compassionate, wise, respected

Big questions:

- 'Of Mice and Men' has been described as a pessimistic novel. Do you agree? What can you find in the novel that might be called hopeful or optimistic?
- Some readers might consider this book violent. Write about whether you consider that the violent events make an important, or necessary, contribution to the book.
- "All the characters have dreams; all doomed to fail." How far is this bleak view of the future reflected in the lives of the characters on the ranch?

Suggested activities:

- Research the events around The Great Depression, the Dustbowl and The Wall Street Crash.
- Design an advertisement – "WANTED: A FRIEND." Your advertisement should contain all the usual information in a "wanted ad": **what you want, job description, the requirements, and the rewards**
- Choose one of your hopes or dreams for the future, describe it, and make a detailed plan as to what you believe you can do to help make your hope or dream come true.

Links to further resources: https://www.bbc.co.uk/bitesize/guides/zpvhycw/revision/1
https://www.sparknotes.com/lit/micemen/
https://en.wikipedia.org/wiki/Of_Mice_and_Men

Reading Analysis: The Novel

Analysis Defined

Be able to select information from a text and **infer** the meaning. There are different layers to analysis and as you become more confident at analysis you can add the layers of analysis.

Basic analysis is explaining the messages in a novel, backing this up with quotations and explaining the obvious meaning.

Advanced analysis is going further to include: reasons for your thinking; alternative opinions; zoom in on words and exploring connotations; examining the writer's intentions and being able to link ideas and quotations across a novel; skilfully embedding context when relevant; going from an overview of the meaning to a close reading of the novel.

The Invisible Process to help with fiction text analysis:

Questions you can ask yourself:

WHAT:

Is the meaning?
Evidence or quotation supports what I am saying?
Is suggested or implied in the phrase or word?
Terminology is used?
Stands out when I read the text?
Is the literal/inferred (hidden/obvious) meaning?
Is the intention of the writer?
Has the writer chosen to say or not say?
Effect does the writing have?

HOW:

Has the writer used events/characters/ language/.structure?
Has the writer used setting?
Has the writer created a mood and atmosphere?
Has the writer changed or contrasted events or ideas?
The writer been influenced by what is happening in society, the time period or politics?
Has the writer been influenced by their own views or experiences?
Does the writer make you feel or think this?

WHY:

Has the writer used specific words or phrases?
Has the writer told me this information?
Has the writer portrayed characters, events or ideas in certain ways?
Do you respond to the novel in the way that you do?

Common Analysis Phrases	Definition
Link to the question	Select the key focus in the question and use those words or ideas in your response to get started or to refer back to what you are writing about.
Terminology	The methods used by the writer. The technical words used to describe what the **language** does or the **structure** is doing in a piece of text.
Methods	What the writer does in the writing (the terminology).
Language	The words or phrase combinations that are used in the piece of writing to create an **effect.**
Structure	The way a text has been organised. Anything that is a deliberate choice of how the text has been put together.
Quotation (quotes)	Repeat or copy out (words from a text or speech written or spoken by another person).
Overview meaning	Show an understanding of what the whole text means.
Literal/obvious meaning	The surface meaning of a quotation or an idea.
Inferred/hidden meaning	The under the surface meaning of a quotation or an idea (see inference).
Inference	Reaching a conclusions about the meaning or intention of a text, quote, phrase or word based on reasoning and evidence in the text.
Zoom in	Close focus on one word from a quotation that you have explored or single word analysis.
Connotations	Exploring the inferred meanings of the word, can be multiple meanings.
Writer's intentions	What the author wanted you to understand from the text they are writing, this can be about the issues, themes or what was happening at the time, as well as their perspective
Alternative opinions	Being able to offer more than one idea about what the quotation, word, phrase or writer is trying to say.
Multi-quotation analysis or quotation clusters	Linking quotations from across the text or linking quotations to show understanding of particular ideas that have been used in the text.
Context	This can be: social (about the people of the time or the author of the texts life); historical (about what was happening in that time period); political (what was happening to the policies that governments made that influenced how people felt).
Analytical verbs	Using suggests/implies/infers/creates/demonstrates etc. to show that you can explore the meaning of a text.
Effect	What the text, quotation, phrase or word makes you think or feel and why?
+ Why?	Using because to develop your reason for saying what a text, quotation, phrase or word means.
Triplets	Using three ideas about a text or three adjectives to help support your inference.

The terminology on this page is not every example of terminology that you will come across for language and structure, rather these are some of the main ones. Other terminology will be used and can be focused on in your analysis.

Language Terminology	Meaning: with all terminology 'spotting it' or 'labelling it' doesn't get you the marks. Being able to explain the EFFECT of what the writer does is the key.
Imagery: simile, metaphor, Extended metaphor Personification	General term for visually descriptive or figurative language. Using like or as to compare Comparing two things as if they are something else Using linked metaphors across a section of text, or through the whole text. Comparing something with human characteristics
Word Focused analysis: Adjective Noun Verb Adverb Pronoun Connotations Semantic field	General term for close language focus A word used to describe The name of a person, place, name and object The action How the action is carried out Replacement for names Exploring a range of implied meanings for words Groups of words that are from a similar family of words
Narrative voice Omniscient narrator Unreliable narrator	Who is telling the story? A character created by the author? This can be in first or third person. The author tells the story and we trust their point of view. The author creates a character who tells the story, but makes it clear that they are not to be trusted.
Patterns: Listing Triplets Repetition Sibilance Alliteration	General term to show word or sound patterns in language Creating a list of ideas Listing three ideas close together or using three ideas Saying something more than once across a text Repetitive s sounds Using the same letter at the beginning of a group of words

Cross Over Terminology: Terminology that can work for structure and language analysis

Semantic field, repetition, rhetorical questions, listing, triplets, sibilance, alliteration, foreshadowing, dialogue, flashbacks.

To Analyse – You can use the following as a basic reminder. You will not use every step, every time you analyse but the general process is helpful

Link to the question – use terminology – embed quotation (s) – focus on the meaning – explain why the quotation means this – offer alternative opinions – explore the effect of the quotation – embed context (when relevant) – zoom in on words or phrases or the quotation and explore the connotations

Structure Terminology	Meaning: with all terminology 'spotting it' or 'labelling it' doesn't get you the marks. Being able to explain the EFFECT of what the writer does is the key.
Sentence focus: Simple, compound, complex	Simple – single clause sentence Compound - sentence joined with a connective Complex – embedded clauses or adverb/connective starts
Links of events across the text	Spotting patterns in what happens across the text, e.g: introduction of new characters throughout the text, or repetition of a symbol or idea or event.
Characterisation	Development of character and what makes them interesting.
Tone	The way the mood is expressed in a piece of writing.
Mood	Creating or suggests a particular feeling or state of mind.
Atmosphere	The tone or mood of a place, situation, or creative work.
Action	Something takes place or occurs within the writing
Pathetic Fallacy	Using the weather to set the tone or mood or atmosphere in the writing
Setting	The place within a piece of writing
Contrasts or juxtaposition	A difference Two things being seen or placed close together with contrasting effect.
Volta or Change	A turning point in a piece of text. When something alters in the text
Punctuation for effect	Using punctuation to deliberately add information into the text, or create a specific tone or mood or atmosphere

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Subject: Ethics, Philosophy and World Views Year: 8 Spring Term

Topic: How green should Christians be?

I need to know:

- The type and purpose of the Genesis Creation texts.
- How Christians have responded to the idea of stewardship, as a community and individually. What the golden rule is and to explain the impact it could have on daily life.
- What is meant by dominion and the impact that this may have on the environment.
- Different meanings of stewardship in the context of the relationship between religion and science.
- Religious and non-religious views of the environment.

Key Words and Definitions

- **Stewardship –** Caring for the planet and managing it's resources. Many believers sat that God has given humans the special duty to care for the world in his place.
- **Dominion** – the idea that God gave humans power and authority of the Earth – we can use the world and its resources for our own use.
- **Omnibenevolent** – The state of being all-loving and infinitely good.
- **Omnipotent** – All-power, all mighty and unlimited nature of God.
- **Creator** – One who brings something into existence.
- **Transcendence –** This is the idea that God is above and beyond the physical realm, not subject to the limitations of the material.
- **Environmental sustainability –** Ensuring the demands placed on natural resources can be met without reducing capacity to allow all people and other species of animals as well as plant life, to live well, now and in the future.
- **Augustine (354—430 C.E.)** - was the Bishop of Hippo (now Annaba, Algeria) from 396 to 430.
- **Ecology** - The study of how living things on Earth interact with and rely on other living and non-living things in the environment where they live.
- **Anthropocentric –** Human beings are the central or most important element of existence. For example, they are more important than animals.

Stewardship

Stewardship suggests we should be stewards/caretakers of the earth and not exploiters and that humans have a responsibility to do this.

The Lord God took the man and put him in the Garden of Eden to work it and take care of it.' Genesis 2:15.

'The earth is the Lord's and everything in it, the world, and all who live in it.' Psalms 24:1

Dominion

This is the idea that some Christians have that God gave us the earth to rule over. This would give us the right to utilise the world's natural resources.

Then God said. 'Let us make mankind in our image, in our likeness, so they may rule over the fish in the sea, and the birds in the sky, over the livestock and all the wild animals, and over all the creatures that move along the ground'. Genesis 1:26.

St Francis of Assisi (1181–1226)

- Francis was an Italian monk.
- He gave away all his possessions and committed his life to God.
- He believed that all living creatures God had created were on an equal level and that nothing was better than another.
- He was known for his care of animals and was made a Saint in 1228.
- In 1979 Pope John Paul II named him Patron Saint of Ecology.
- In 1986 representatives from the world faiths met in Assisi to declare their support for protecting the environment. Their statements have become known as the Assisi Declarations.

Creation and the nature of God

Creation reveals something about the nature of God. For example, being omnipotent and transcendent. It reminds Christians of their place dependent upon the Creator.

There are various ways of resolving the conflict between science and religion, such as by interpreting Genesis in different ways.

The Eco Church Awards

A Rocha is UK's eco award scheme for churches in England and Wales. They want to 'demonstrate that the gospel is good news for God's earth'. They offer a free online survey and supporting resources which are designed to equip churches. They want them to express their care for God's world in worship and teaching; in how they look after their buildings and land; in how they engage with their local community and in global campaigns, and in the personal lifestyles of their congregation.

Arrow Tasks – You could enhance your learning further by visiting A Rocha website and BBC Bitesize.

Subject: Ethics, Philosophy and World Views Year: 8 Spring Term

Topic: How green should Christians be?

Genesis 1

In the beginning God created the heavens and the earth. **2** Now the earth was formless and
empty, darkness was over the surface of the deep, and the Spirit of God was hovering over the
waters. **3** And God said, "Let there be light," and there was light. **4** God saw that the light was
good, and he separated the light from the darkness. **5** God called the light "day," and the
darkness he called "night." And there was evening, and there was morning—the first day.

6 And God said, "Let there be a vault between the waters to separate water from water." **7** So God made
the vault and separated the water under the vault from the water above it. And it was so. **8** God
called the vault "sky." And there was evening, and there was morning—the second day.

9 And God said, "Let the water under the sky be gathered to one place, and let dry ground appear." And
it was so. **10** God called the dry ground "land," and the gathered waters he called "seas." And
God saw that it was good.

11 Then God said, "Let the land produce vegetation: seed-bearing plants and trees on the land that bear
fruit with seed in it, according to their various kinds." And it was so. **12** The land produced vegetation:
plants bearing seed according to their kinds and trees bearing fruit with seed in it according to their
kinds. And God saw that it was good. **13** And there was evening, and there was morning—the third day.

14 And God said, "Let there be lights in the vault of the sky to separate the day from the night, and let
them serve as signs to mark sacred times, and days and years, **15** and let them be lights in the
vault of the sky to give light on the earth." And it was so. **16** God made two great lights—the
greater light to govern the day and the lesser light to govern the night. He also made the
stars. **17** God set them in the vault of the sky to give light on the earth, **18** to govern the day and
the night, and to separate light from darkness. And God saw that it was good. **19** And there was
evening, and there was morning—the fourth day.

20 And God said, "Let the water teem with living creatures, and let birds fly above the earth across the
vault of the sky." **21** So God created the great creatures of the sea and every living thing with
which the water teems and that moves about in it, according to their kinds, and every winged
bird according to its kind. And God saw that it was good. **22** God blessed them and said, "Be
fruitful and increase in number and fill the water in the seas, and let the birds increase on the
earth." **23** And there was evening, and there was morning—the fifth day.

24 And God said, "Let the land produce living creatures according to their kinds: the livestock, the
creatures that move along the ground, and the wild animals, each according to its kind." And it
was so. **25** God made the wild animals according to their kinds, the livestock according to their
kinds, and all the creatures that move along the ground according to their kinds. And God saw that it
was good.

26 Then God said, "Let us make mankind in our image, in our likeness, so that they may rule over the fish
in the sea and the birds in the sky, over the livestock and all the wild animals,[a] and over all the
creatures that move along the ground." **27** So God created mankind in his own image, in the image of
God he created them; male and female he created them. **28** God blessed them and said to them, "Be
fruitful and increase in number; fill the earth and subdue it. Rule over the fish in the sea and the birds in
the sky and over every living creature that moves on the ground." **29** Then God said, "I give you every
seed-bearing plant on the face of the whole earth and every tree that has fruit with seed in it. They will
be yours for food. **30** And to all the beasts of the earth and all the birds in the sky and all the creatures
that move along the ground—everything that has the breath of life in it—I give every green plant for
food." And it was so **31** God saw all that he had made, and it was very good. And there was evening, and
there was morning—the sixth day.

Genesis 2

5 Now no shrub had yet appeared on the earth[a] and no plant had yet sprung up, for the LORD God had
not sent rain on the earth and there was no one to work the ground, **6** but streams[b] came up from the
earth and watered the whole surface of the ground. **7** Then the LORD God formed a man[c] from the
dust of the ground and breathed into his nostrils the breath of life, and the man became a living being.
8 Now the LORD God had planted a garden in the east, in Eden; and there he put the man he had
formed. **9** The LORD God made all kinds of trees grow out of the ground—trees that were pleasing to the
eye and good for food. In the middle of the garden were the tree of life and the tree of the knowledge
of good and evil. **10** A river watering the garden flowed from Eden; from there it was separated into four
headwaters. **11** The name of the first is the Pishon; it winds through the entire land of Havilah, where
there is gold. **12** (The gold of that land is good; aromatic resin[d] and onyx are also there.) **13** The name of
the second river is the Gihon; it winds through the entire land of Cush.[e] **14** The name of the third river is
the Tigris; it runs along the east side of Ashur. And the fourth river is the Euphrates. **15** The LORD God
took the man and put him in the Garden of Eden to work it and take care of it. **16** And the LORD God
commanded the man, "You are free to eat from any tree in the garden; **17** but you must not eat from the
tree of the knowledge of good and evil, for when you eat from it you will certainly die." **18** The LORD God
said, "It is not good for the man to be alone. I will make a helper suitable for him."

19 Now the LORD God had formed out of the ground all the wild animals and all the birds in the sky. He
brought them to the man to see what he would name them; and whatever the man called each living
creature, that was its name. **20** So the man gave names to all the livestock, the birds in the sky and all
the wild animals. But for Adam[f] no suitable helper was found. **21** So the LORD God caused the man to fall
into a deep sleep; and while he was sleeping, he took one of the man's ribs[g] and then closed up the
place with flesh. **22** Then the LORD God made a woman from the rib[h] he had taken out of the man, and
he brought her to the man. **23** The man said, "This is now bone of my bones and flesh of my flesh;
she shall be called 'woman,' for she was taken out of man." **24** That is why a man leaves his father and
mother and is united to his wife, and they become one flesh. **25** Adam and his wife were both naked,
and felt no shame.

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Subject: French Year: 8 Spring Term 1

Topic: MON IDENTITÉ

I need to be able to: talk about yourself, personality, hobbies, music preferences, style. **I need to be able** to use the past, present and future

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)

Arrow Tasks: : find out about regional identity in France. Choose one of the following regions (L'Alsace/La Bretagne/La Haute Savoie/Le Pays Basque) and find out what are the traditional dress, flag,,language, food specialities, traditional events, symbol of the region, traditional sport.

Avoir = to have

J'ai = I have
Tu as = You have
Il/elle a = He/she has

Nous avons = We have
Vous avez = You have
Ils/elles ont = they have

Être = to be

Je suis = I am
Tu es = You are
Il/elle est = He/she is

Nous sommes = We are
Vous êtes = You are
Ils/elles sont = they are

Wow structures!!!

-**Un bon ami est quelqu'un qui est**…= a good friend is someone who is…

On se chamaille… = we bicker
ça me donne envie de+ infinitive = it makes me feel like …

Quand il pleut /il fait froid, je porte… = when it it is raining/it is cold, I wear .

Perfect tense

To form the past tense, you need 3 parts.

Subject + avoir + past participle

J'ai joué
Tu as joué
Il/elle a joué
Nous avons joué
Vous avez joué
Ils/elles ont joué

To form the past participle

"er" verbs, take off "er" add "é"
"ir" verbs, take off "ir", add "i"
"re" verbs, take off "re", add "u"

Near future

You use the verb "**aller**" (to go) + **a verb in the infinitive** to say what you are going to do.

Je **vais** porter = I am going to wear
Tu **vas** porter = You are going to wear
Il/elle **va** porter: he/she is going to wear
Nous **allons** porter= we are going to wear
Vous **allez** porter: you are going to wear
Ils/elles **vont** porter =they are going to wear

Possessive adjectives: possessive adjectives are different according to whether the noun that follows is masculine, feminine or plural.

	masc	*fem*	*plur*
My	mon	ma	mes
your	ton	ta	tes
our	notre	notre	vos

	français	anglais
1	Je vais me présenter, je m'appelle…	I am going to introduce myself, my name is…
2	Je suis intelligent(e) et assez timide	I am intelligent and quite shy
3	Je ne suis pas paresseux cependant ma soeur est vraiment paresseuse.	I am not lazy however my sister is really lazy.
4	Mon meilleur copain Marc, il est pénible de temps en temps et il est sportif.	My best friend Marc, he is annoying from time to time and he is sporty
5	Ma meilleure copine Sophie, elle est assez timide mais elle est vraiment sympa	My best friend Sophie, she is quite shy but she is really nice.
6	Mes parents sont patients et gentils.	My parents are patient and kind
7	Comment es-tu ?	What are you like?
8	Tu fais quoi avec tes copains/copines ?	What do you do with your friends?
9	Normalement, le samedi, on écoute de la musique ou va en ville	Normally on Saturday, we listen to music or go into town
10	Ensuite, on fait du shopping et on rigole.	Then, we go shopping and we have fun
11	Mais, on ne parle pas du sport, on parle de mode.	But we don't talk about sport, we talk about fashion.
12	Je fais beaucoup de choses pendant mes heures libres avec mes copains.	I do lots of things in my fee time with my friends.
13	On s'entend bien.	We get on well.
14	Quelle musique écoutes-tu?	What (sort of) music do you listen to?
15	J'écoute du pop-rock, et toi?	I listen to pop music, what about you?
16	Moi, j'écoute de la musique classique	Me, I listen to classical music.
17	Mon groupe préférée, c'est …	My favourite group is …
18	Mon chanteur préféré c'est…	My favourite (male) singer is …
19	Ma chanteuse préférée c'est …	My favourite (female) singer is …
20	J'adore la chanson …	I love the song ….
21	J'aime les paroles et la mélodie	I like the lyrics and the tune
22	Qu'est-ce que tu vas porter le weekend prochain?	What are you going to wear next weekend?
23	Je vais porter une chemise bleue et un jean bleu.	I am going to wear a blue shirt and blue jenas.
24	Ce weekend, je vais aller au cinéma,	This weekend I am going to go to the cinema.
25	Aussi, je vais faire du camping et je vais faire de la rando.	Also, I am going to go camping and I am going to go hiking.
26	Mais, le weekend dernier, je suis allé (e) au stade et j'ai regardé un match de rugby, c;était incroyable!	But last weekend I went to the stadium and I watched a rugby match, it was unbelievable
27	HIGH FREQUENCY WORDS;	
	Alors	So
	Avec	With
	Bien	Well
	Comme d'hab	As usual
	Ensemble	Together
	Si	if

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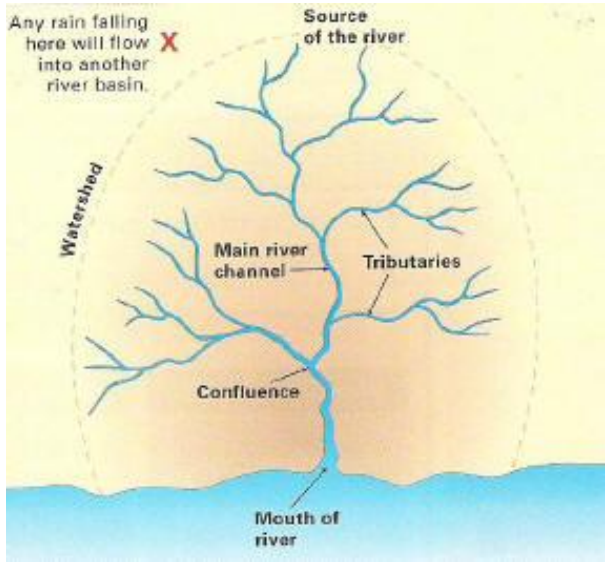
Subject: Geography Year: 8

Topic: Rivers and Flooding

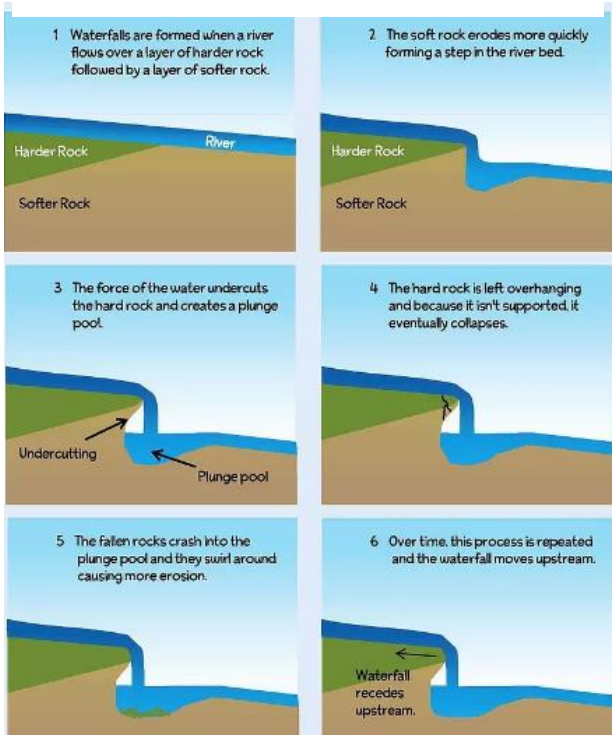
I need to know: Processes of erosion and transportation, drainage basin features, waterfall formation, ox-bow lake formation, reasons for flooding (physical and human), Boscastle case study including the responses to the 2004 flood.

Key Words	Definitions
Drainage basin	An area of land drained by a river.
Source	The start of the river.
Tributary	A small river that joins the main river.
Confluence	Where two rivers meet.
Channel	The part of the river with the water in.
Mouth	Where the river meets the sea.
Hydraulic action	The pressure of the water erodes the river bank
Attrition	Rocks hit each other and break apart.
Abrasion	Rocks are thrown at the riverbank and erode it.
Solution	Chemicals in the water cause erosion.
Traction	Rocks are rolled along the river bed
Saltation	Rocks 'hop' along the river bed
Suspension	Rocks are carried in the water
Solution	Rocks are dissolved in the water
Waterfall	Water falling from a higher to a lower point.
Gorge	A steep sided landform created by the retreat of a waterfall.
Meander	A bend in the river.
Ox-bow lake	A previous meander.
Erosion	The wearing away of the land by water or wind.
Deposition	Dropping of material
Flooding	When there is too much water in the channel and it spills onto the surrounding land.

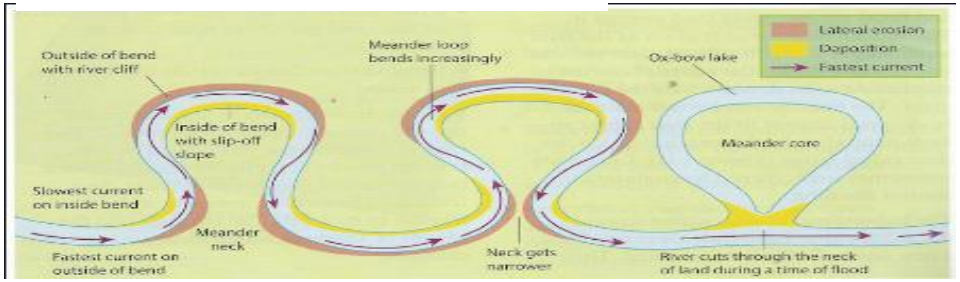
The Drainage Basin



Waterfall formation



Ox-Bow lake formation



https://alevelrivers.weebly.com/causes-and-impact-of-flooding---medc-case-study-1.html
https://www.cornwalls.co.uk/boscastle/flood.htm

Subject: Geography

Year: 8

Topic: Rivers and Flooding

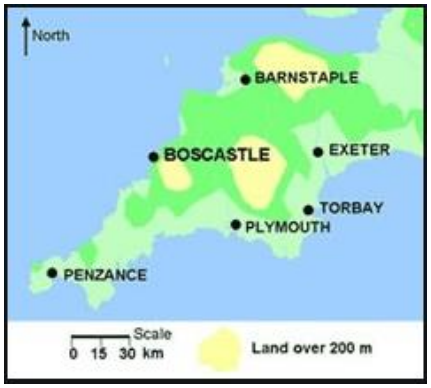
Causes of river flooding

Physical causes of flooding:

- heavy rainfall
- long periods of rain
- snowmelt
- steep slopes
- impermeable rock (doesn't allow water through)
- very wet, saturated soils
- compacted or dry soil

Human factors increasing flood risk:

- urbanisation, because towns and cities have more impermeable surfaces
- deforestation, because removing trees reduces the amount of water intercepted and increases run-off



Boscastle is a small coastal settlement in the south west of England. It flooded on 16th August 2004

Causes of flooding in Boscastle

- Heavy localised rainfall - 89 mm of rain fell in an hour.
- Saturated ground from previous rainfall.
- Topography of the land. The landscape upstream of Boscastle, a steep-sided valley, acted as a funnel directing vast volumes of water into the village.
- Narrow river channels in the village itself.

Effects of flooding in Boscastle

- People were left without homes and their possessions were ruined.
- Businesses had to close due to the flood water and the damage it caused.
- Trees were uprooted and carried down stream by the flood water.
- No one died

What has Boscastle done to prevent flooding in the future?

- A new flood defence scheme has been introduced.
- The scheme stretches along the valley, incorporating drainage, sewerage systems and land re-grading.
- Boscastle car park has been raised in height, which will stop the river from bursting its banks so easily.
- New drains allow water to run into the lower section of the river quickly.
- The river channel has been made deeper and wider so that it can accommodate more water.

https://alevelrivers.weebly.com/causes-and-impact-of-flooding---medc-case-study-1.html
https://www.cornwalls.co.uk/boscastle/flood.htm

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Subject: History Year: 8 Spring Term 1

Topic: Changes in Britain 1750-1900

I need to know: The period 1750-1900 saw vast changes in every aspect of life in Britain. The population massively increased – in 1750 there were 7 million people in Britain but by 1900 it had risen to 37 million. The Agricultural revolution saw great changes in farming with the old strip system replaced by enclosed fields and machinery replacing man and horse power. New crops and new farming techniques saw food production develop in order to feed the new increased population

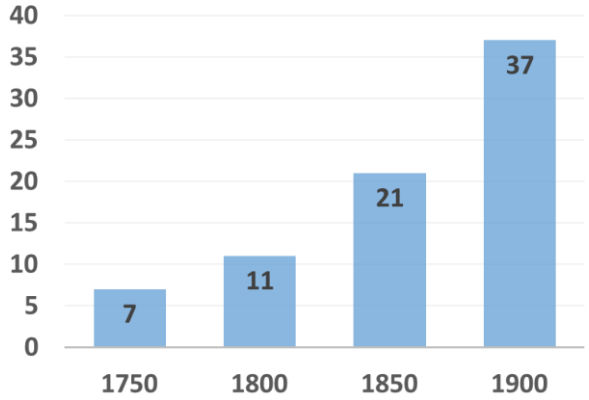
Key Words	Definitions
Vaccinations	An injected that helps to prevent a person catching a disease
Edward Jenner	The doctor who was key in the development of the first vaccine against a disease called smallpox
Anaesthetics	Pain relief during surgery
Antiseptics	Liquids that would kill germs
Revolution	A big change in something
Strip Farming	The system whereby a farmer had strips of land in a number of different fields but they were not connected
Enclosure	Building walls around a field to enclose it to protect against animals destroying crops
3 Field system	The system that saw a different crop grown in a field every 3 years – the crops rotated around the fields
Fodder crops	Crops that when grown put nutrients back into the soil as well as being able to be used e.g for animal food
Fallow	When a filed was left empty to allow the soil to regain nutrients ready for the next crop
Seed Drill	A machine invented by Jethro Tull to make planting seeds more efficient
Selective breeding	The process whereby two animals are chosen specifically to breed to produce 'better' animals

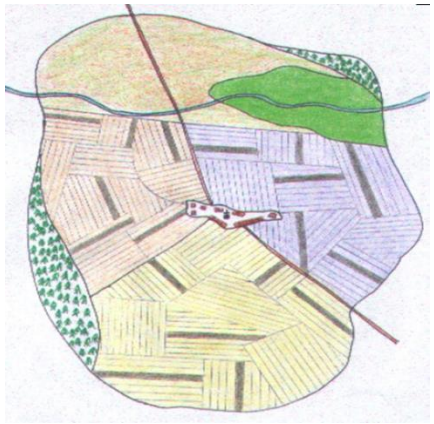
Arrow Tasks: What factor was the most significant in the increase in population?

What was the greatest change in farming 1750-1900?

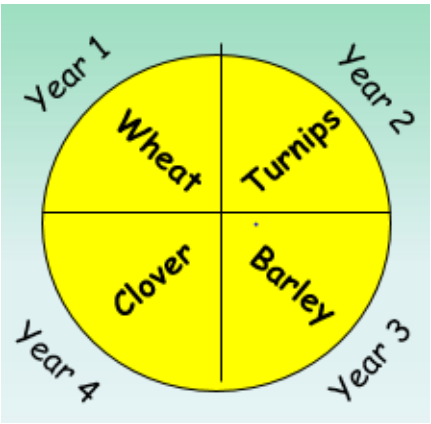
Edward Jenner

Population increase in Britain 1750-1900





The Old 3 field strip farming system



The new 4 crop rotation system

Links to further resources: http://www.bbc.co.uk/history/british/empire_seapower/agricultural_revolution_01.shtml

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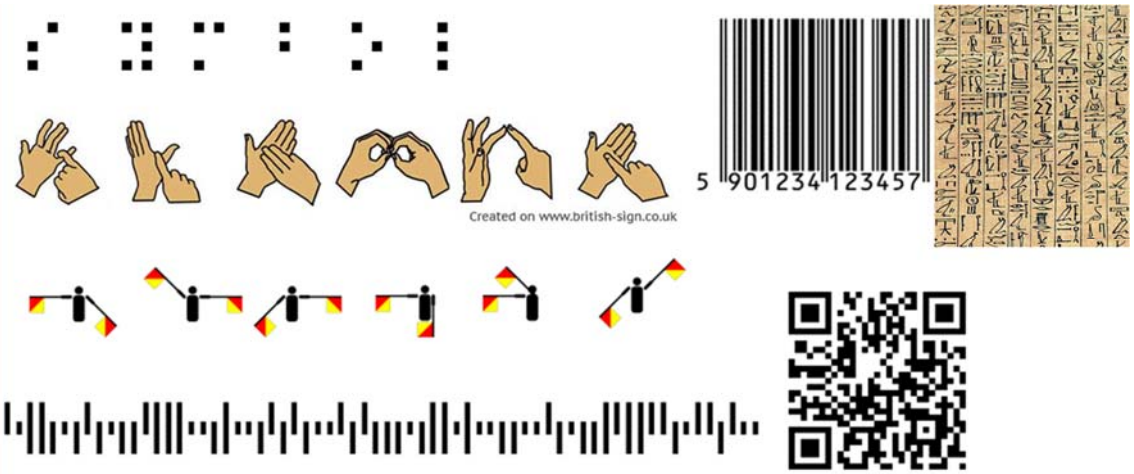
Computing - Representations from clay to silicon- Key Concept– Data representation

I need to know: How **representations**, some of which date back a millennia, are used and their characteristics. You will learn what **binary digits** are and solve simple problems that reinforce the connection between (**alphanumeric**) information and its **binary** representation. You will become familiar with the terms **byte** and the prefixes used for measuring representation size e.g. **kilo**, **mega**, **giga** and **tera**.



Sequences of symbols can be used to represent information. Flag semaphores, sign language and braille are used to communicate between humans. Machine-readable representation is used to communicate information digitally e.g. barcodes or QR codes.

ASCII	The **ASCII** character set is a 7-**bit** set of codes that allows **128 different characters**. Enough for every upper-case letter, lower-case letter, digit and punctuation mark on most keyboards.
Binary	Is the **base-2** system for numbers. The **multipliers** in binary are powers of 2.
Binary Digit (bit)	Bit comes from '**bi**nary digi**t**'. All characters are represented using sequences of bits. Computers use two symbols because they are built out of switches.
Byte	Group of eight binary digits.
Kilobyte	Thousand bytes.
Megabyte	Million bytes.
Gigabyte	Billion bytes.
Terabyte	Trillion bytes.
Transistors	A tiny **switch** activated by the electronic signal it receives. The digits 1 & 0 used in binary reflect the on and off states of a **transistor**

Counting sequences

How many 1-bit sequences can there possibly be?

2

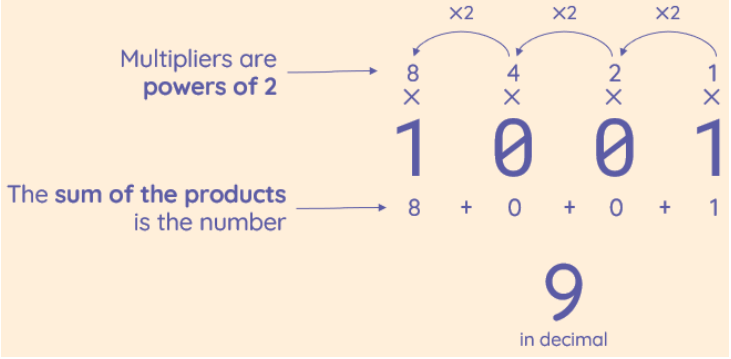
How many 2-bit sequences can there possibly be?

4 (twice the number of 1-bit sequences)

How many 3-bit sequences can there possibly be?

8 (twice the number of 2-bit sequences)

1 bit	2 bit	3 bit
0	00	000
1	01	001
	10	010
	11	011
		100
		101
		110
		111



Denary and their binary equivalents.

0 = 0	4 = 100	8 = 1000	12 = 1100
1 = 1	5 = 101	9 = 1001	13 = 1101
2 = 10	6 = 110	10 = 1010	14 = 1110
3 = 11	7 = 111	11 = 1011	15 = 111

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For a fun way to practice your binary to denary skills– Type binary game into google and click onto the Cisco link. https://learningcontent.cisco.com/games/binary/index.html

Subject: Mathematics | Year: 8 Spring 1 | Topic: Tables & Probability

What do I need to be able to do?

By the end of this unit you should be able to:

- Construct a sample space diagram.
- Systematically list outcomes.
- Find the probability from two-way tables.
- Find the probability from Venn diagrams.

Keywords

Outcomes: the result of an event that depends on probability.
Probability: the chance that something will happen.
Set: a collection of objects.
Chance: the likelihood of a particular outcome.
Event: the outcome of a probability – a set of possible outcomes.
Biased: a built in error that makes all values wrong by a certain amount.
Union: Notation 'U' meaning the set made by comparing the elements of two sets.

Construct sample space diagrams

Sample space diagrams provide a systematic way to display outcomes from events

The possible outcomes from rolling a dice

The possible outcomes from tossing a coin

	1	2	3	4	5	6
H	1,H	2,H	3,H	4,H	5,H	6,H
T	1,T	2,T	3,T	4,T	5,T	6,T

This is the set notation to list the outcomes **S** =

In between the **{ }** are a;; the possible outcomes

S = { 1H, 2H, 3H, 4H, 5H, 6H, 1T, 2T, 3T, 4T, 5T, 6T}

Probability from sample space

The possible outcomes from tossing a coin

The possible outcomes from rolling a dice

	1	2	3	4	5	6
H	1,H	2,H	3,H	4,H	5,H	6,H
T	1,T	(2,T)	3,T	(4,T)	5,T	(6,T)

This is the set notation that represents the question **P**

What is the probability that an outcome has an even number and a tails?

P (Even number and Tails) = $\frac{3}{12}$

There are three even numbers with tails

There are twelve possible outcomes

In between the **( )** is the event asked for

Numerator: the event

Denominator: the total number of outcomes

Probability from two-way tables

	Car	Bus	Walk	Total
Boys	15	24	14	53
Girls	6	20	(21)	47
Total	21	44	35	(100)

The total number of items

P (Girl walk to school) = $\frac{21}{100}$

The event

The total in the set

Product Rule

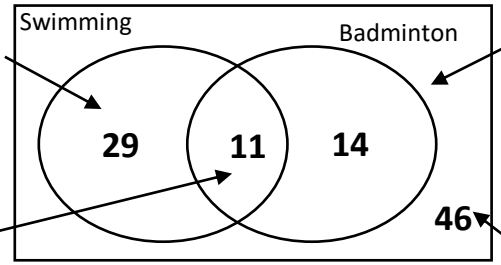
The number of items in event a **X** The number of items in event b

Probability from Venn diagrams

This whole curve includes everyone that went swimming. Because 11 did both we calculate **just** swimming by 40- 11

The intersection represents both. Swimming **AND** badminton

100 students were questioned if they played badminton or went to swimming club.
40 went swimming, 25 went to badminton and 11 went to both.



This whole curve includes everyone that went to badminton.
Because 11 did both we calculate **just** badminton by 25 - 11

The number outside represents those that did **neither** badminton or swimming

100 – 29 – 11 – 14

P (Just swimming) = $\frac{29}{100}$

Subject: Mathematics | Year: 8 Spring 1 | Topic: Brackets, Equations & Inequalities

What do I need to be able to do?

By the end of this unit you should be able to:

- Form Expressions
- Expand and factorise single brackets
- Form and solve equations
- Solve equations with brackets
- Represent inequalities
- Form and solve inequalities

Keywords

Simplify: grouping and combining similar terms
Substitute: replace a variable with a numerical value
Equivalent: something of equal value
Coefficient: a number used to multiply a variable
Product: multiply terms
Highest Common Factor (HCF): the biggest factor (or number that multiplies to give a term)
Inequality: an inequality compares who values showing if one is greater than, less than or equal to another

Form expressions

For unknown variables, a letter is normally used in its place

More than – **ADD**
Less than/ difference – **SUBTRACT**

e.g. 4 more than t → **t + 4**
8 less than k → **k - 8**

Only similar terms can be grouped together

e.g. Find the perimeter of this shape (Perimeter = length around outside of shape)

t + 2t + 1 + t + 2t + 1 → 6t + 2

Directed numbers

+ + → +

- - → +

+ - → -

- + → -

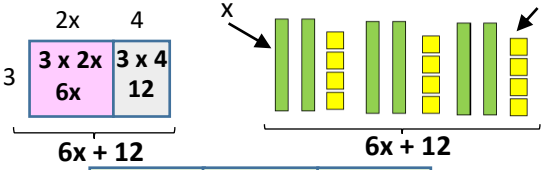
e.g. a = -5 and b = 2

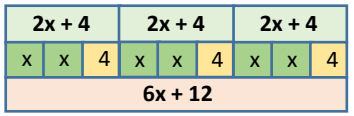
a^2 = a x a = -5 x – 5 = **25**

b + a = 2 + - 5 = **-3**

Multiply single brackets

3 (2x + 4)

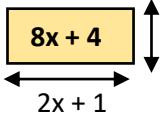




Different representations of 3(2x+4) = 6x + 12

Factorise into a single bracket

8x + 4



Try and make this the **highest common factor**

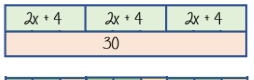
The two values **multiply** together (also the area) of the rectangle

8x + 4 ≡ 4 (2x + 1)

Note: 8x + 4 ≡ 2(4x + 2)
This is factorised but the HCF has not been used

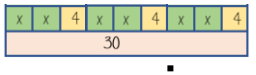
Solve equations with brackets

3 (2x + 4) = 30

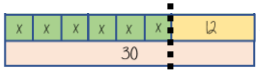


3 (2x + 4) = 30

Expand the brackets



6x + 12 = 30



-12 -12

6x = 18

÷ 6 ÷ 6

x = 3

Substitute to check your answer.
This could be negative or a fraction or decimal

Simple Inequalities

< less than
≤ Less than or equal to
> More than
≥ More than or equal to

x < 10
Say this out loud "x is a value less than 10"

10 > x
Say this out loud "10 is more than the value"

Note:
x<10 and 10>x represent the same values

x + 2 ≤ 20
"my value + 2 is less than or equal to 20"
x ≤ 18
The biggest the value can be is 18

Form and solve inequalities

Two more than treble my number is greater than 11

Find the possible range of values

Form

x → x3 → +2 → 11

3x + 2 > 11

Solve

x ← ÷3 ← -2 ← 11

x > 3

Check

This would suggest any value bigger than 3 satisfies the statement

3 x 3 + 2 = 11 ✓ 10 x 3 + 2 = 32 ✓

Algebraic constructs

Expression
A sentence with a minimum of two numbers and one maths operation

Equation
A statement that two things are equal

Term
A single number or variable

Identity
An equation where both sides have variables that cause the same answer includes ≡

Formula
A rule written with all mathematical symbols
e.g. area of a rectangle A = b x h

Subject: Mathematics | Year: 8 Spring 1 | Topic: Sequences

What do I need to be able to do?

By the end of this unit you should be able to:

- Generate a sequence from term to term or position to term rules
- Recognise arithmetic sequences and find the nth term
- Recognise geometric sequences and other sequences that arise

Keywords

Sequence: items or numbers put in a pre-decided order
Term: a single number or variable
Position: the place something is located
Linear: the difference between terms increases or decreases (+ or -) by a constant value each time
Non-linear: the difference between terms increases or decreases in different amounts, or by x or ÷
Difference: the gap between two terms
Arithmetic: a sequence where the difference between the terms is constant
Geometric: a sequence where each term is found by multiplying the previous one by a fixed non zero number

Linear and Non Linear Sequences

Linear Sequences – increase by addition or subtraction and the same amount each time

Non-linear Sequences – do not increase by a constant amount – quadratic, geometric and Fibonacci.

- Do not plot as straight lines when modelled graphically
- The differences between terms can be found by addition, subtraction, multiplication or division.

Fibonacci Sequence – look out for this type of sequence

0 1 1 2 3 5 8 …

Each term is the sum of the previous two terms

Sequences from algebraic rules

3n + 7

This will be linear - note the single power of n. The values increase at a constant rate

$3n^2 + 7$

This is not linear as there is a power for n

2n - 5 → Substitute the number of the term you are looking for in place of 'n'

e.g.
1st term = 2 **(1)** – 5 = -3
2nd term = 2 **(2)** – 5 = -1
100th term = 2 **(100)** – 5 = 195

Checking for a term in a sequence

Is 201 in the sequence 3n – 4?

Form an equation

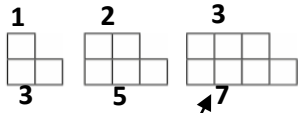
3n – 4 = 201 ← Term to check

Algebraic rule

Solving this will find the position of the term in the sequence.
ONLY an integer solution can be in the sequence.

Sequence in a table and graphically

Position: the place in the sequence



"The **term** in **position** 3 has 7 squares"

Term: the number or variable **(the number of squares in each image)**

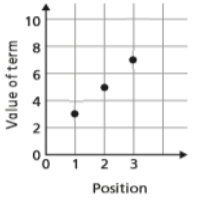
In a table

Position	1	2	3
Term	3	5	7

+2 +2

Because the terms increase by the same addition each time this is **linear** – as seen in the graph

Graphically



Complex algebraic rules

Misconceptions and comparisons

$2n^2$

2 times whatever n squared is

e.g.
1st term = 2 x **1^2** = 2
2st term = 2 x **2^2** = 8
100th term = 2 x **100^2** = 2000

$(2n)^2$

2 times n then square the answer

e.g.
1st term = (2 x **1**)^2 = 4
2st term = (2 x **2**)^2 = 16
100th term = (2 x **100**)^2 = 40000

n (n + 5)

e.g.
1st term = **1** (**1** + 5) = 6
2st term = **2** (**2** + 5) = 14
100th term = **100** (**100** + 5) = 10500

You don't need to expand the expression

(H) Finding the algebraic rule

This is the 4 times table → **4, 8, 12, 16, 20…..**

4n

7, 11, 15, 19, 22 ← This has the same constant difference – but is 3 more than the original sequence

4n + 3

4n + 3

This is the constant difference between the terms in the sequence

This is the comparison (difference) between the original and new sequence

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Subject: Music

Year 8: Spring Term 1

Topic: American Blues

''I woke up this morning, and I learned about the Blues''

I need to be able to: Recognise the style of the 12 Bar Blues, appreciate its historical significance in the development of modern music and play the melody, chords, walking bass and improvised section within a recorded ensemble performance.

KEY WORDS	MEANING
12 Bar Blues	A chord pattern, 12 bars long, found in Blues music. It uses chords I, IV and V
Blues Notes	When notes of the scale are flattened, usually notes 3 and 7
Improvisation	Creating and playing music without too much preparation
Walking bass	Describes how the double bass walks from one note to the next
AAB structure	The shape of the 3 lines of the melody or lyrics, lines 1 & 2 being the same and line 3 being different.

OTHER CHARACTERISTICS OF BLUES MUSIC

Portamento – when the singer 'bends' the note slightly

Call and Response – Where one idea is performed by a singer or on an instrument and then answered by different musicians.

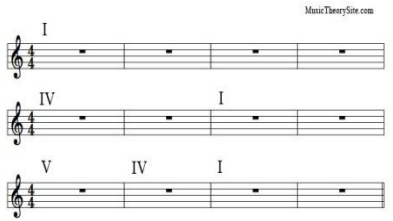
Lyrics – the words, which are usually quite sad and reflective in Blues

Instruments – they vary. Often: piano, double bass, trumpet, saxophone, electric guitar, mouth organ, kit, vocals

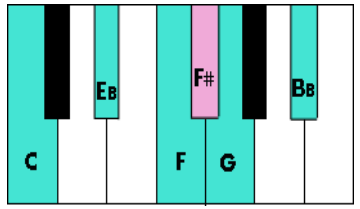
I, IV and **V** – the three different chords used (Primary chords)

INSTRUMENTS

12 BAR BLUES PATTERN



BLUES SCALE



LISTEN to this 12 Bar Blues and follow the grid on the screen. https://www.youtube.com/watch?v=o5xCVtkOPVc

Arrow Task: Where did Blues come from? How did it start? Which American city is famous for its Blues music? Can you find out the name of a Blues musician and what instrument they are famous for?

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Subject: Physical Education Spring Term Year: 8

Topic: The Muscular system

I need to know: The major muscles in the body.

Muscular System

Key Terminology!

- **Muscular Hypertrophy** - an increase in muscular size achieved through exercise.
- **Lactic Acid** – a byproduct of anaerobic respiration.
- **Antagonistic Pairs** – A pair of muscles that work together by contracting or relaxing to generate movement at a joint.
- **Agonist** - The muscle that is contracting.
- **Antagonist** - the muscle that is relaxing or lengthening.

Muscles to be labelled For Task 1
Trapezius
Deltoid
Pectoral
Tricep
Bicep
Abdominals
Latissimus Dorsi
Gluteals
Quadriceps
Hamstrings
Gastrocnemius

Homework Task 1

Label the muscular system with all the major muscles listed in the table. Challenge: Can you show a front (anterior) and back (posterior) diagram.

Homework task 2:

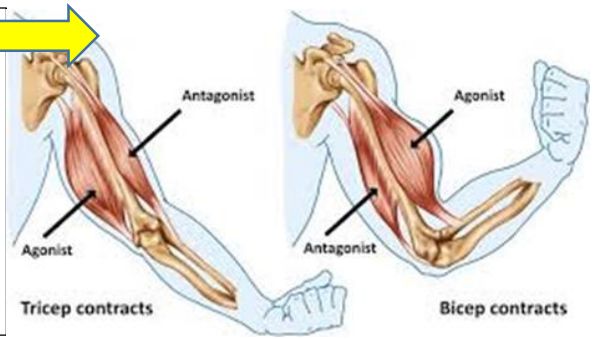
Can you fill in the blanks?

For example, when you perform the upwards phase of a bicep curl, the ……. will be the ……., as the bicep contracts to produce the movement, while the triceps will be the ……., as the triceps ……. to allow the movement to occur.

Missing words: relaxes, bicep, agonist and antagonist.

Arrow /Extension Tasks

1) **Can you identify various antagonistic pairs when analysing a participant in a chosen activity/skill?**
2) **Can you describe how these antagonistic pairs create that particular movement?**



Links to further resources: https://www.bbc.co.uk/bitesize/guides/zpkq7ty/revision/3

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Subject: Science Year: 8 Spring Term 1

Topic: Chemical Energy

I need to be able to: describe chemical reactions as exothermic and endothermic

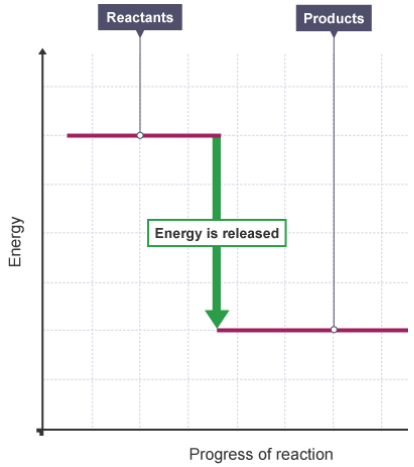
Key Words	Definitions
Catalysts:	Substances that speed up chemical reactions but are unchanged at the end.
Exothermic reaction:	One in which energy is given out, usually as heat or light.
Endothermic reaction:	One in which energy is taken in, usually as heat.
Chemical bond:	Force that holds atoms together in a molecule
Activation Energy	which is the minimum energy needed by particles when they collide for a reaction to occur.

During a chemical reaction bonds are broken (requiring energy) and new bonds formed (releasing energy). If the energy released is greater than the energy required, the reaction is exothermic. If the reverse, it is endothermic.

↑Arrow Tasks:
Predict whether a chemical reaction will be exothermic or endothermic given data on bond strengths.
Use energy data to select a reaction for a chemical hand warmer or cool pack.

Exothermic reaction

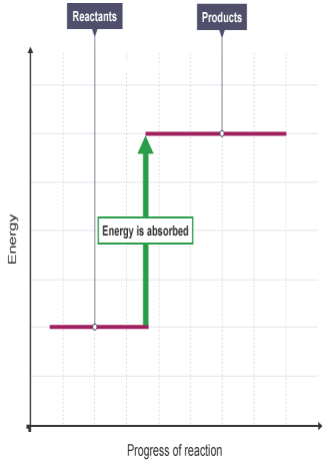
The energy level decreases in an exothermic reaction. This is because energy is given out to the surroundings.



A downwards arrow shows that energy is given out

Endothermic reaction

The energy level increases in an endothermic reaction. This is because energy is taken in from the surroundings.



An upwards arrow shows that energy is taken in

Why does it matter?

Why do industrial process uses catylsts? How can this boost profits?

Links to further resources: https://www.bbc.com/bitesize/guides/z2b2k2p/revision/1
Interactive periodic table: http://www.rsc.org/periodic-table/

Subject: Science Year: 8 Spring Term 1

Topic: Photosynthesis

I need to be able to: Describe how plants obtain resources needed for photosynthesis and explain why other organisms are dependent on photosynthesis

Key Words	Definitions
Fertilisers	Chemicals containing minerals that plants need to build new tissues
Photosynthesis	A process where plants and algae turn carbon dioxide and water into glucose and release oxygen.
Chlorophyll	Green pigment in plants and algae which absorbs light energy.
Stomata	Pores in the bottom of a leaf which open and close to let gases in and out

These are the things that plants need for photosynthesis:

- carbon dioxide
- water
- light (a source of energy)

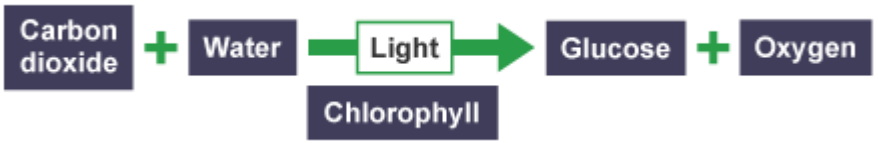
These are the things that plants make by photosynthesis:

- glucose
- oxygen

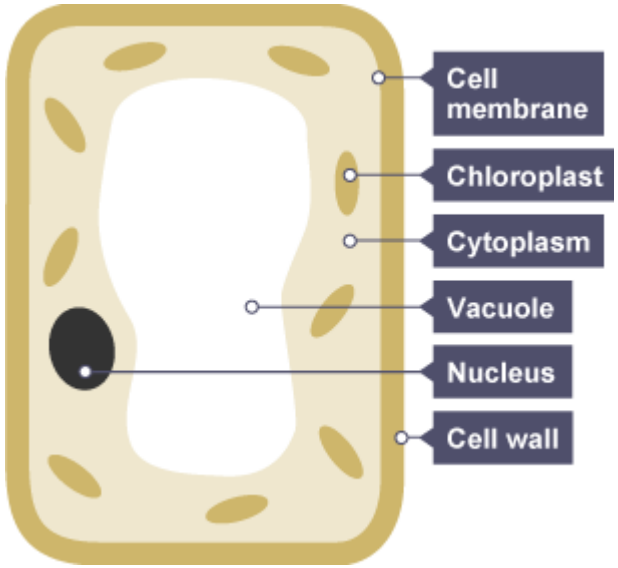
Why does it matter?

How can a gardener increase the rate of photosynthesis of their crops?

Hint: think about greenhouses



Adaptation	Function
Thin	Provides a short distance for carbon dioxide to move by diffusion into the leaf
Chlorophyll	Absorbs light
Stomata	Allows carbon dioxide to diffuse into the leaf
Guard cells	Open and close the stomata
Network of tubes (xylem and phloem)	Transport water (xylem) Transport food (phloem)



Arrow Tasks: Suggest how particular conditions could affect plant growth
Suggest reasons for particular adaptations of leaves, roots and stems.
Compare the movement of carbon dioxide and oxygen through stomata at different times of day.

Links to further resources: https://www.bbc.com/bitesize/guides/zpwmxnb/revision/1

Subject: Science

Year: 8 Spring Term 1

Topic: Respiration

I need to be able to: Explain how aerobic and anaerobic respiration are used in specific activities.

Key Words	Definitions
Aerobic respiration	Breaking down glucose with oxygen to release energy producing carbon dioxide and water.
Anaerobic respiration	Releasing energy from the breakdown of glucose without oxygen, producing lactic acid (in animals) and ethanol and carbon dioxide (in plants and microorganisms).

Why does it matter?
How do we use microorganisms and the process of anaerobic respiration to produce different foods and drinks?
Hint: think about fermentation

Aerobic respiration:

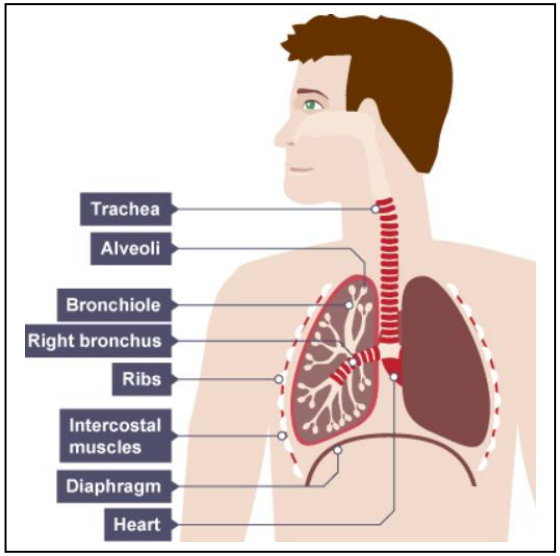
glucose + oxygen → carbon dioxide + water

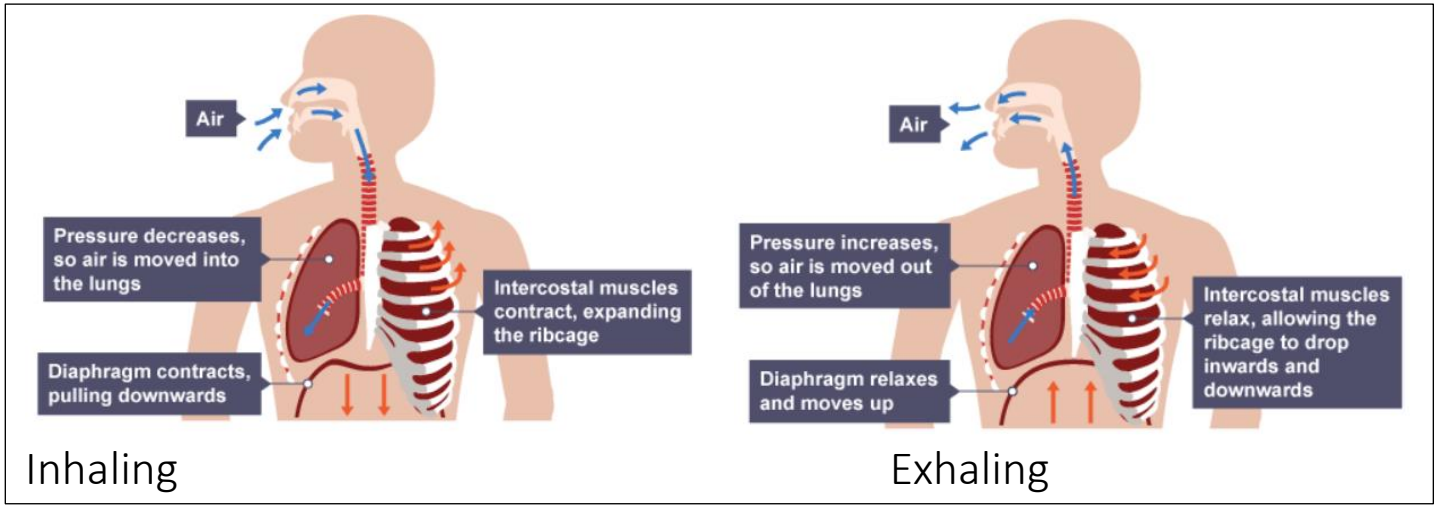
Anaerobic respiration in animals

glucose → lactic acid

Anaerobic respiration in plants and microorganisms

glucose → ethanol + carbon dioxide





Arrow Tasks: Describe why you may have an oxygen debt after intense exercise.
Suggest how organisms living in different conditions use respiration to get their energy.

Links to further resources: https://www.bbc.com/bitesize/guides/zq349j6/revision/1

Subject: Science Year: 8 Spring Term 1

Topic: Types of Reaction

I need to be able to: recognise and explain different types of reaction

Key Words	Definitions
Chemical reaction	A change in which a new substance is formed.
Neutralisation	Mixing an acid and alkali produces a chemical reaction, forming a chemical called a salt and water.
Oxidation	Is a reaction in which a substance combines with oxygen.
Displacement:	Is a reaction where a more reactive metal takes the place of a less reactive metal in a compound.
Combustion	is a reaction with oxygen in which energy is transferred to the surroundings as heat and light.
Thermal decomposition	is a reaction where a single reactant is broken down into simpler products by heating.

↑**Arrow Tasks:** Compare the pros and cons of fuels in terms of their products of combustion.
Use known masses of reactants or products to calculate unknown masses of the remaining reactant
or product.
Devise a general rule for how a set of compounds reacts with oxygen or thermally decomposes.
Balance a symbol equation.
Use mass of reactant in equation to determine mass of product eg magnesium and oxygen.

Why does it matter? Haber process and Contact process are synthesis reactions why are they important? What do they make?

Chemical changes can be described by a model where atoms and molecules in reactants rearrange to make the products and the total number of atoms is conserved.

Reactants: Substances that react together shown before the arrow in an equation.

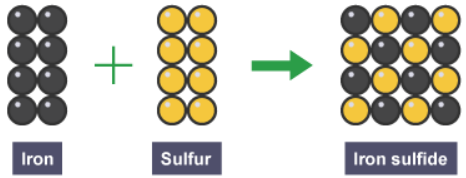
Products: Substances formed in a chemical reaction, shown after the reaction arrow in an equation.

Conserved: When the quantity of something does not change after a process takes place. When the quantity of something does not change after a process takes place.

The atoms of iron and sulfur are rearranged to form iron sulfide in the chemical reaction

Iron sulfide, the compound formed in the reaction, has different properties to the elements from what it is made

The atoms in a compound are chemically joined together by strong forces called bonds. This is why the properties of a compound are different from the elements it contains, and why you can only separate its elements using another chemical reaction.



Links to further resources: https://www.bbc.com/bitesize/guides/zqd2mp3/revision/1
Interactive periodic table: http://www.rsc.org/periodic-table/

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Subject: Spanish Year: 8 Spring 1

Topic: Module 3 - ¡A Comer!

I need to be able to: Food using the present/Near Future and Preterite tense.

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

Present Tense

Comer: To eat

Como: I eat

Comes: You eat

Come: he/she eats

Comemos- we eat

Coméis- you (pl) eat

Comen- they eat

Preterite Tense:

Comer: To eat

Comí- I ate

Comiste- You ate

Comió- He/she ate

Comimos- we ate

Comiséis- you ate

Comieron- They ate

Near Future Tense

Voy a- I am going to

Vas a- You are going to

Va a- He/she is going to

Vamos a- We are going to

Vais a- You are going to

Van- They are going to

+ an infinitive-

(Comer- to eat

Beber- to drink

Bailar- to dance etc)

To Conjugate a verb.

To conjugate a verb means to change the infinitive so that we know who is talking or being talked about.

Arrow Tasks: What food is popular in South America?

Can you create a Spanish food fact file?

Wow phrases:

Soy un obeso de la Buena mesa = I am crazy about fine dining

¡He comido a cuerpo de rey! I have eaten like a king

There will be more specific vocabulary.

This will be given to you by your class teacher.

Links to further resources: https://www.bbc.com/bitesize/subjects/zgdqxnb
https://www.bbc.co.uk/bitesize/guides/zr8c7nb/test

	español	inglés
1	¿Qué te gusta comer y beber normalmente?	What do you like to eat and drink normally?
2	Me gustan el pescado y los huevos pero ayer comí patatas bravas y bebimos agua.	I like fish and eggs but yesterday I ate spicy potatoes and we drank water.
3	¿Qué no te gusta comer?	What don't you like to eat?
4	No me gusta nada la carne, soy vegetariano	I don't like to eat meat, I am vegetarian
5	Y odio la leche, prefiero el zumo de fruta	And I ahe milk, I prefer fruit juice.
6	Estoy de acuerdo, no me gusta nada la leche	I agree with you, I really don't like milk
7	¿Te gusta el helado?	Do you like ice cream?
8	iñam ñam! Sí, me chifla el helado	Yum yum, I love ice cream.
9	¿Qué desayunas/comes/cenas?	What do you have for breakfast/lunch/dinner?
10	Tomo cereales/bocadillos/pasta	I have cereal / sandwiches/pasta
11	¿Qué bebes cuando tienes sed?	What do you drink when you are thirsty?
12	Cuando tengo sed bebo agua por lo general	When I am thirsty, I usually drink water
13	... ¿Y cuando tienes hambre?	And when you are hungry?
14	A veces como fruta	Sometimes, I eat fruit
15	Voy a ir a una fiesta y voy a traer…	I am going to go to a party and I am going to bring…
16	…quesadillas, queso y pasteles	…quesadillas, chees and cakes
17	El fin de semana pasado fui a una fiesta	Last weekend I went to a party
18	Fue divertido	It was fun

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Subject: Design & Technology

Year: 8

Topic: Food

I need to be able to: understand how the functional properties (science) of ingredients affect the physical, and sensory qualities of a recipes . To ensure you can design a balance meal using ingredients to supply protein, carbohydrate, fat, vitamin and minerals. To ensure that you take into account your knowledge about diet related diseases.

Key word	Definition
Type 2 diabetes	A health problem when too much sugar is consumed on a regular basis.
Coronary heart disease	A health problem when too many calories or saturated fat is consumed on a regular basis.
Constipation, diverticular	A diet low in fibre can cause these dietary related diseases.
Obesity	A health problem when you are not eating too many calories for the amount of energy expended.
Shortening	Rubbing fat into flour prevents long chains of gluten forming resulting in a short crumbly pastry texture.
Proving	Time allowed for the yeast to breathe out carbon dioxide gas to make bread rise.
Glazing	To apply an egg and milk mixture to improve the appearance of a product (shiny brown surface).

Arrow Tasks -
* Explain how the ingredients are produced and link to the affect upon the environment. Are they sustainable? Could alternatives be used? Explain why. Try to link to environmental pollution, the effect of deforestation, use of fossil fuel to power or make the materials.

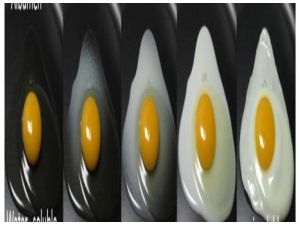
Rolling—To make a dough flat by rolling with a rolling pin.

Quality control—level and the thickness stated for the recipes.

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

Stir fry—to fry using a small amount of oil (healthy low fat cooking method. FIRE RISK

Quality control—slightly crunchy



Coagulation of egg—heat causes the amino acid protein bond to reform and go from liquid to solid.

Quality control—set structure

How to use industrial equipment correctly to reduce making time.

Quality control—smooth cake batter and creamy topping.

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Subject: Design Technology : Product Design

Year: 8

Topic: Treasure Box

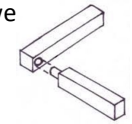
Liskeard School & Community College
achieving more together
DESIGN & TECHNOLOGY

I need to be able to:

- learn about the Art deco deign era and to show the influence of Art Deco style in designing the box lid.
- learn about CAD (computer aided design) and develop CAD skills through designing using 'Techsoft 2D design' software and learn about CAM (computer aided manufacture) as knowledge of how the laser cutter works affects the design stage.
- Develop practical skills with particular emphasis on detail and finish.

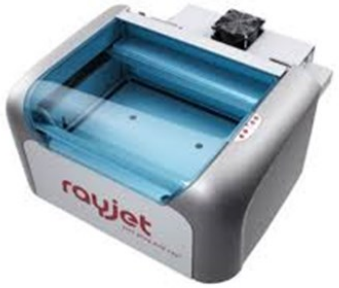
Stages of the Design Process:

Context Design Brief Task Analysis Research
Investigation Specification Design & Development
Making Testing Evaluation

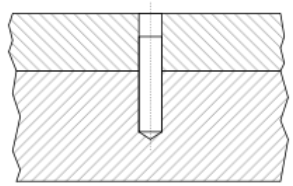
Key Words	Definitions
* Design process 	The steps a designer/maker goes through from identifying a problem and need for a product to its final making, testing and evaluating and improving.
* CAD 	Computer Aided Design is a vital tool for a Product Designer. CAD software allows a designer to quickly produce 3D images/ designs. The design can then be rotated, colour rendered and analysed/evaluated.
* CAM 	Computer Aided Manufacture: once a prototype design has been produced, it can be manufactured on a CNC machine or Rapid Prototyping machine. Products and components can be made repeatedly to the same high standard. CAM is much faster than machining by human control / by hand. Large quantities can be produced 24 hours a day, reducing the final cost/price.
* Dowe 	Dowel joints are used to strengthen a joint. It can also be made to swivel, allowing a lid to open and close on a horizontal plane.
* QCC 	Quality Control Checks are used in all areas of manufacturing to check quality against a set standard or a specification. In industry Quality Control requires constant inspection throughout the manufacturing process in order to detect products which are not up to the required standard.

New materials, tools and equipment used in the treasure box project

Techsoft 2D design Software used to produce the surface design for the lid

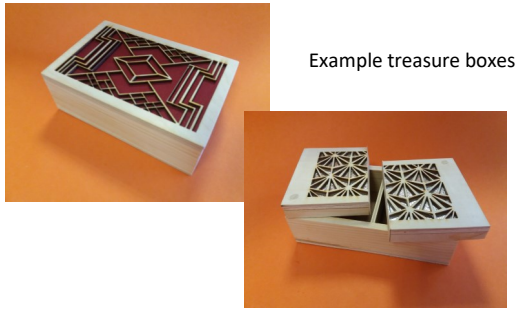


Rayjet 50 Laser engraver/cutter used to engrave and cut the lid design



The lid could open using a swivelling dowel joint

The treasure box design will be based on Art Deco—a design era that spanned from 1925—1950



Example treasure boxes

Arrow Task:

Design and make a wooden hinge.

Here is just one example...

Link to further resources:

http://www.technologystudent.com
http://www.mr-dt.com/
http://wiki.dtonline.org/index.php/Main_Page

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Subject: Design & Technology: Textiles

Year: 8

Topic: Eco Bag

Liskeard School & Community College
achieving more together
DESIGN & TECHNOLOGY

I need to be able to:

- understand the design process and the differences between man-made & natural fibres.
- identify the key features of Jasper Johns' work.
- demonstrate the importance of aesthetics within the designing and making process.
- develop practical hand sewing skills, and the use of the machines and equipment needed.

Who is Jasper Johns?

An American painter (born May 15, 1930). His style of work is often very **abstract** and **expressive**. Early pieces of his work were composed on a large scale, using simple graphics such as letters and numbers.



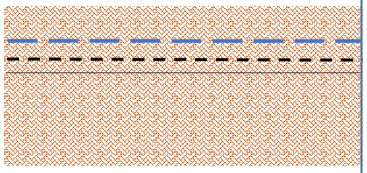
Arrow Task: Compare the environmental impact between a calico shopping bag, a rayon shopping bag and a nylon shopper.

Key Words	Definitions
* Stencil 	A thin sheet of card with letters cut out of it, used to produce the cut design on the surface below by sponging paint through the holes.
* Calico 	A strong, coarse fabric made from the jute plant.
* Natural fibres 	Fibres that have been produced by plants and animals. These fibres can be spun and then woven.
* Man-made fibres 	A type of fibre that is made artificially, such as polyester. These are often called 'synthetic'.

Stage 1

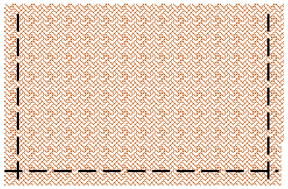
Firstly, get two pieces of calico and scrape paint on one side in the style of Jasper Johns and then stencil the lettering.

Stage 2



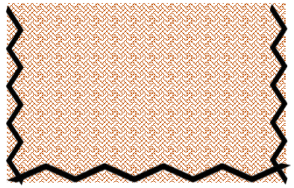
To create the top hem, fold the top of the bag 1.5cm and fold again. Then pin, tack and machine sew. Do this for the top of both panels.

Stage 3



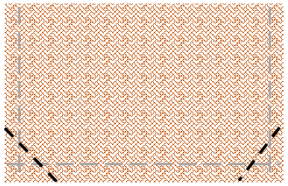
Then pin, tack and sew the two panels of the bag together, with the printed sides facing inwards.

Stage 4



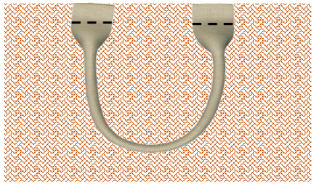
Using the sewing machine's zig zag setting, sew the sides and bottom of the fabric to stop it from fraying.

Stage 5



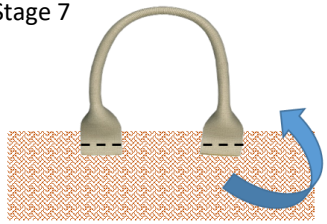
Pinch the two bottom corners and pull them to create a straight edge. Machine stitch along the straight line.

Stage 6



With the bag still inside out, sew the handle strap onto one side, in a downwards position. Then repeat on the other side of the bag.

Stage 7



Now turn the handles up the correct way and sew along the bottom so they are secure.

Stage 8

Turn the entire bag inside out so that the 'correct' side of the bag can be seen. Your Eco bag is now complete!

Links to further resources: https://www.bbc.com/bitesize/guides/zjc3rwx/revision/1

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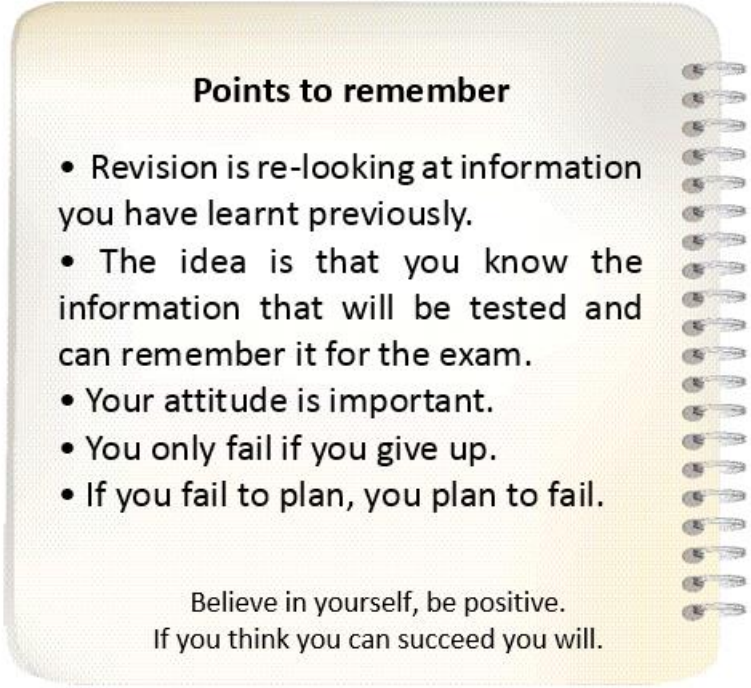
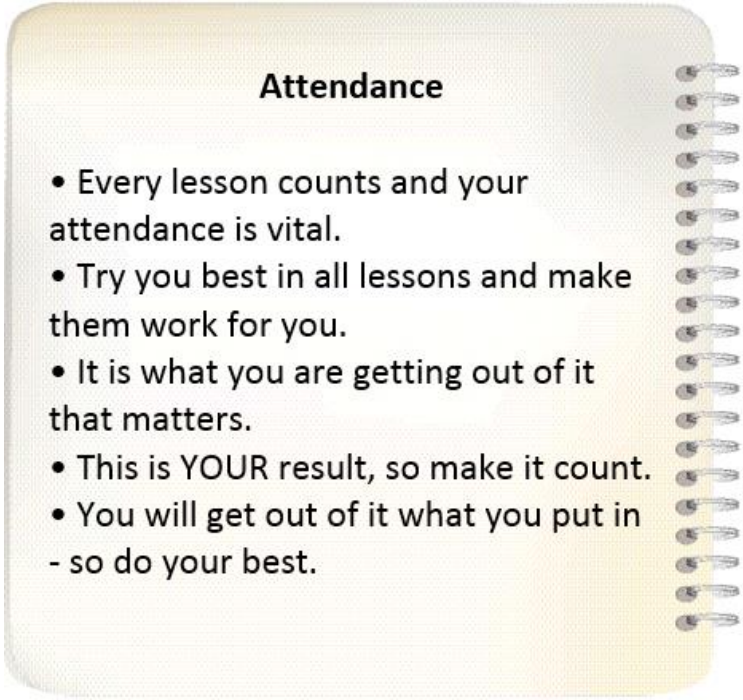
#Revise to succeed

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.





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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!

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Revision Strategies

- 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

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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

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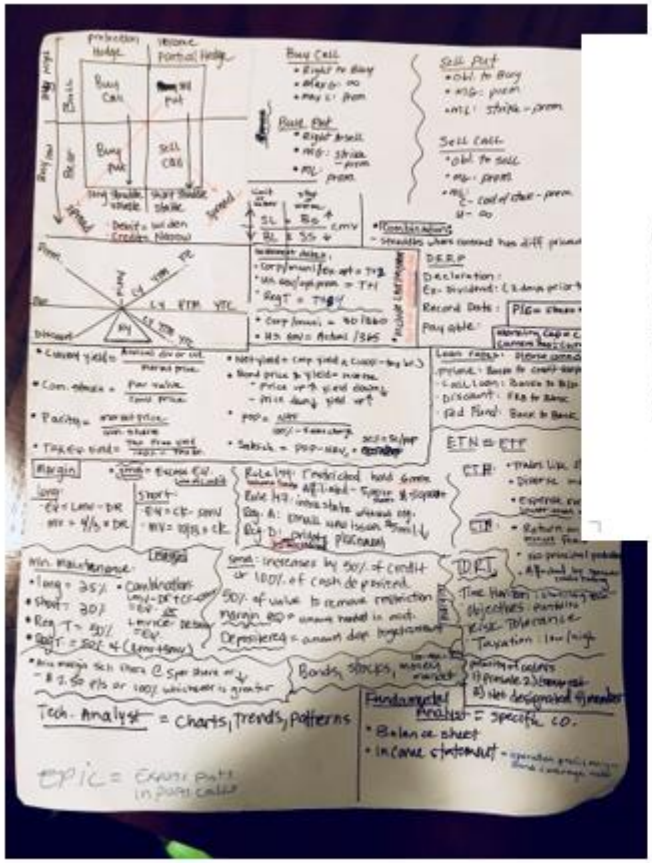
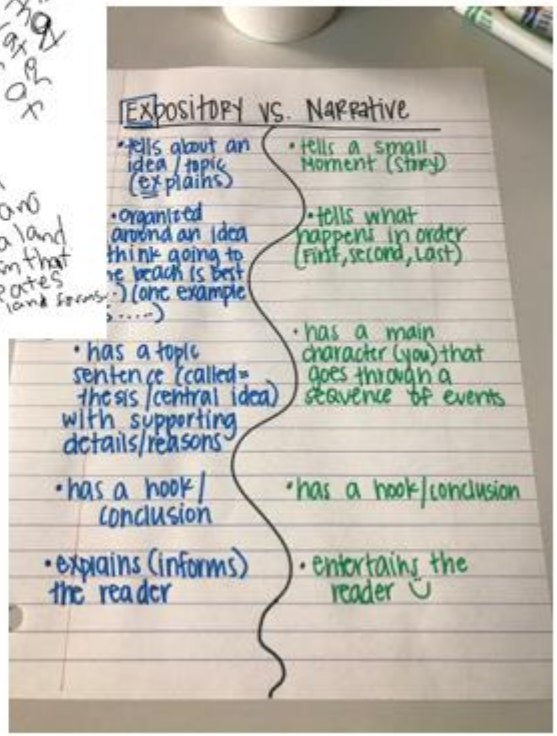
Examples of Brain Dumps





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!

#Revise to succeed

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.

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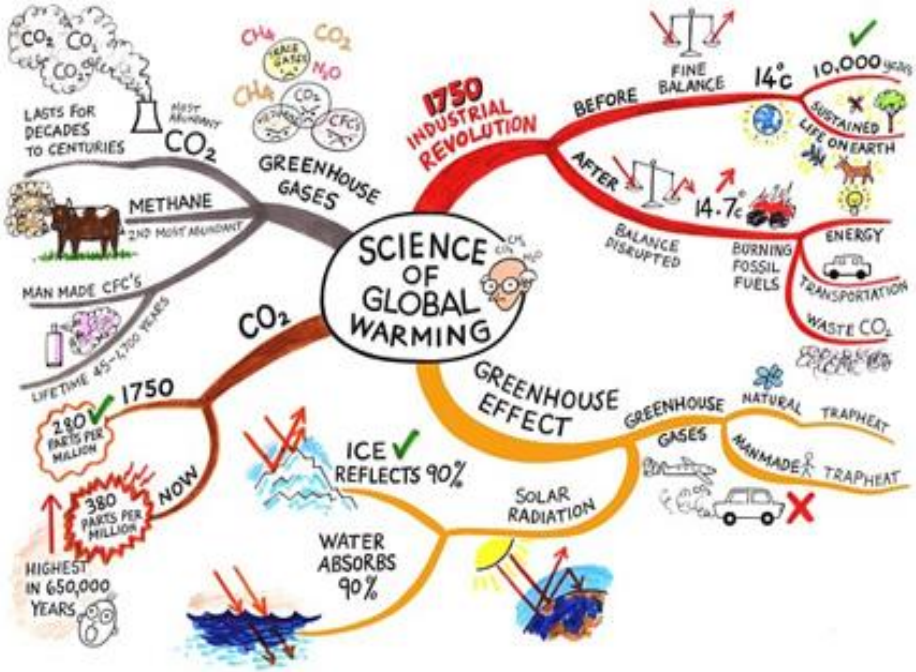
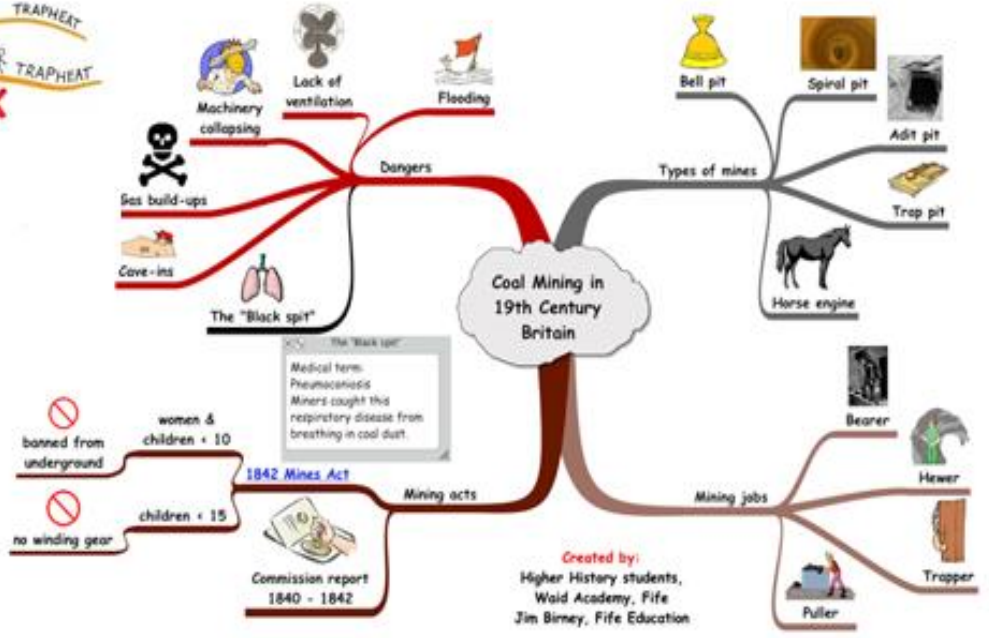
Examples of Mind Maps





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.

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

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

#Revise to succeed

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.

#Revise to succeed

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!

#Revise to succeed

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:

- **R**ichard **o**f **Y**ork **g**ave **b**attle **i**n **v**ain (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

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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!

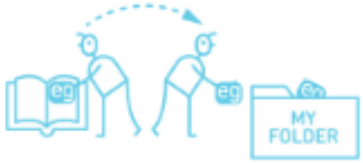
3. ELABORATE

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.

#Revise to succeed

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!

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