BRISTOL METROPOLITAN ACADEMY

Knowledge Organisers 2024-25

Year 8 – Term 4

Monday 24th February	Week A
Monday 3rd March	Week B
Monday 10th March	Week A
Monday 17th March	Week B
Monday 24th March	Week A
Monday 31st March	Week B

Complete your homework on the night stated e.g. if it is a Monday Week A you will complete ICT/DT

	Week A	**Week B**
Monday	ICT/DT	MFL
Tuesday	English	English
Wednesday	Science	Science
Thursday	History	Geography
Friday	RS	Music/Art

Please note: Maths homework will be on an online platform for this term. It will be set and checked weekly separately from the timetable.

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This Knowledge Organiser is to help you see the key information for each subject for this term. You can use this to help you both with homework and with revision, supporting your learning at home. In the table below you will find the instructions for each subject to be completed on the correct day.

Subject	Tasks
Maths	Homework question tasks/sets will be set weekly on an online platform. You will have one week to complete this online, before it is checked for competition and the next set is published.
Science	For term 1 this will be directed by your classroom teacher. It could involve an online platform too.
English	Using the separate question booklet, divide your homework book page in half length ways, write the questions out on the left hand side. First, attempt to answer the questions from memory/your own knowledge. Then use your knowledge organiser booklets to check your answers and fill in the missing ones.
MFL	Find the correct date in the KO and the question booklet. With the list of 10 key words for that week, complete the look – say - cover – write – check method in your homework book. Complete this process for each word/phrase 4 times each.
Geog/Hist/RS/ DT/Computing	Same process as outlined for English above. DT and ICT/Computing have 5 questions and not 10.
Music/Art	For music and art, you will have two practical tasks to complete each term for each subject. These will be found in the question booklets and will be checked by you classroom teacher.

At the back of this booklet, you will find: Sentence starters, a history chronology, DT sentence starters, a periodic table, maps of the world, subject websites, a RAG sheet and a timetable.

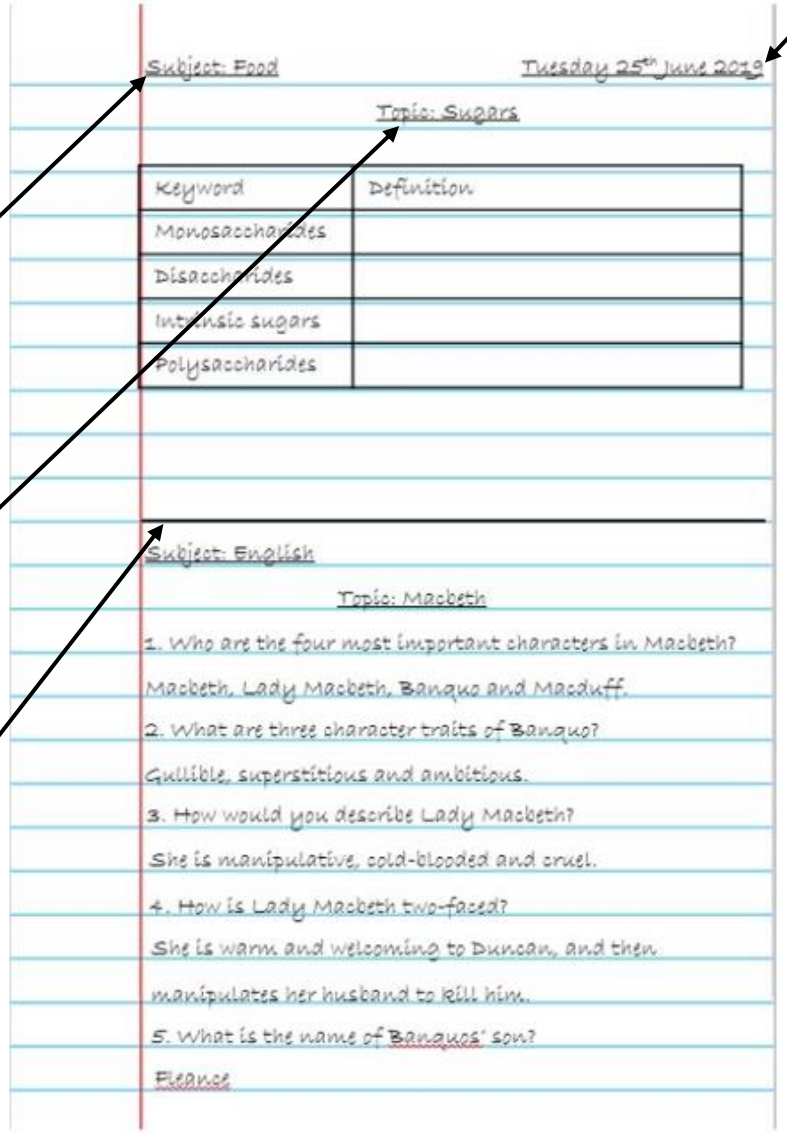
How to present your homework:

Date written fully on the right-hand side of the page and underlined. This should be the day you complete the homework.

Subject written on the left-hand side of the page and underlined.
For example: Food

Topic written on the centre of the page and underlined.
For example: Sugars

One single straight line between both pieces of homework.



Subject: Food — Tuesday 25th June 2019

Topic: Sugars

Keyword	Definition
Monosaccharides	
Disaccharides	
Intrinsic sugars	
Polysaccharides	

Subject: English

Topic: Macbeth

1. Who are the four most important characters in Macbeth?

Macbeth, Lady Macbeth, Banquo and Macduff.

2. What are three character traits of Banquo?

Gullible, superstitious and ambitious.

3. How would you describe Lady Macbeth?

She is manipulative, cold-blooded and cruel.

4. How is Lady Macbeth two-faced?

She is warm and welcoming to Duncan, and then manipulates her husband to kill him.

5. What is the name of Banquos' son?

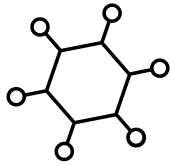
Fleance

Home Learning Strategies to help you revise

Brain Dump

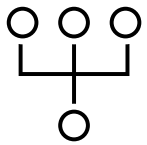
Write down everything you know about o certain topic on a page. Use your KO to add extra notes in a different colour.

Mind Map



Condense a topic showing the important links and connectors between key parts. Use your KO to add in extra notes.

Diagram



Draw a clear diagram for a subject including labels and key features. Make sure you use correct vocabulary and spellings.

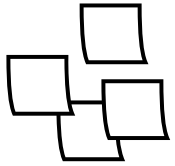
Vocabulary

Learn the key words associated with a topic and commit the word and spelling to memory. Test yourself or ask someone else to test you.

Retrieval Quiz

Write key questions about a topic as well as the answers. Use the content of the KO to help you. Check to see if you can remember the answers without looking.

Compare



Complete a comparison table showing two different sides of a topic. Can you use it to create an argument for one viewpoint?

Year 8 Our Environment

Keywords:

Climate Change

Graffiti

Extinction

Environment

Habitat

Street Art

Content: In this project you will develop knowledge of environmental issues.

Understand-what inspired artists to create their work and how to critically analyse their work.

Develop skills- in observational drawing, colour theory, painting and visual communication.

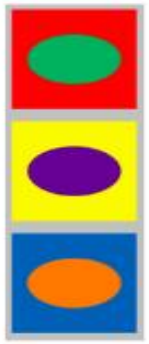
Outcomes- Art works inspired by environmental issues and the Artists you have studied.

Andy Warhol's "Endangered Species" series includes 10 silkscreen prints. The animals where listed on the endangered at the time they were made in 1983. Andy Warhol made these prints to raise awareness about the endangered species. Andy Warhol is a famous artist from the Pop Art movement. He used images found in popular culture and used an industrial printing method to make his work .

ARTISTS

NeverCrew are a Swiss based street artist duo; Christian Rebecchi and Pablo Togni. The mural above 'Exhausting Machine' was created for the Vancouver Mural Festival in 2016. Nevercrew's art work explores the issues of climate change and pollution and the effect it is having on nature. You can find more information about their work at their website. https://nevercrew.com/about

In colour theory, a **tint** is a mixture of a colour with white, which reduces darkness, while a **shade** is a mixture with black, which increases darkness.



Complementary colours are pairs of colours that contrast with each other more than any other colour, and when placed side-by-side make each other look brighter.

Term 4 – Flowcharts and algorithms

Computational thinking

Algorithm
Step by step list of instructions to complete a task
Abstraction
Process of removing unnecessary details
Decomposition
Process of breaking down tasks into smaller sub tasks

Pseudocode

Representing algorithms using a common language

```
1.    Get name
2.    IF name == "Mr Ahmed":
3.        Display "You are cool"
4.    ELSE:
5.        Display "You are ok"
6.    ENDIF
```

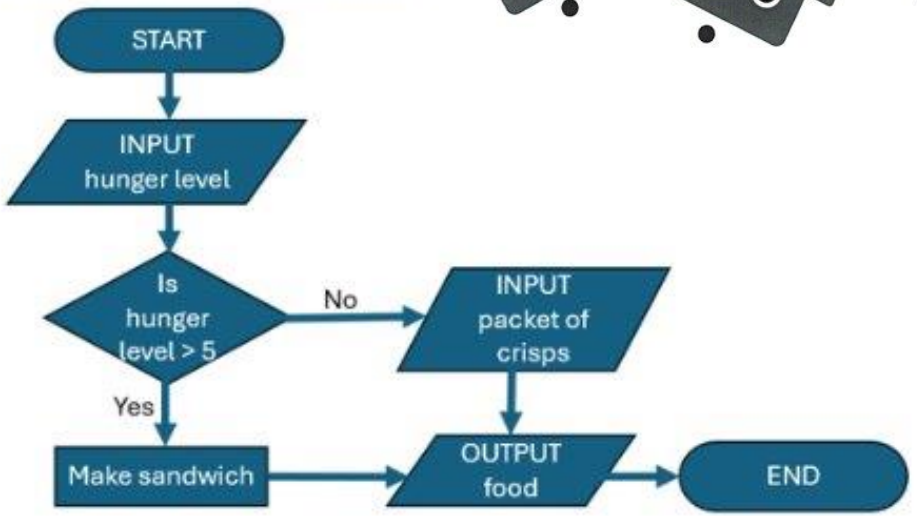
Rules for flowcharts

1. Every path must have an END
2. Everything must have an arrow going into it AND coming out (except START and END)
3. Only **decision** shapes can have more than one arrow coming out
4. Paths can join back up to other paths

Flowchart symbols

Symbol	Name	Description
Oval	Terminator	START or END
Parallelogram	Input / output	Something goes into or comes out of the system.
Rectangle	Process	Something is changed / something happens
Diamond (No / Yes)	Decision	When a question needs to be answered

Flowchart example 1



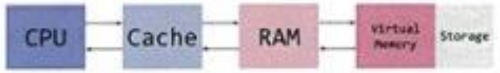
Recap:

Primary storage

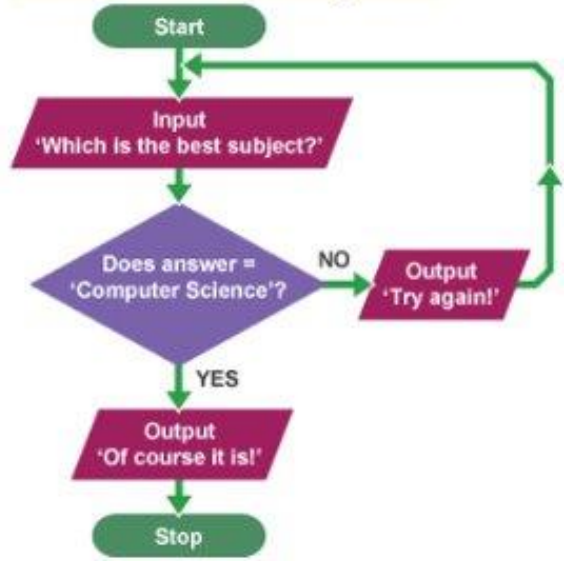
Main memory – accessed directly by the CPU
RAM
Volatile memory used to store data currently in use.
ROM
Stores the instructions to boot/load a computer.

Secondary storage

Stores data long term/permanently
E.g. Hard drive or USB stick.



Flowchart example 2



Key themes

The most obvious theme in *Romeo and Juliet* is that of love, but the play deals with many other important ideas too. Shakespeare invites us to examine the importance of fate, death, honour, friendship and duality. All of these themes are still relevant today, which is why the play is still popular after all these years.

The main themes in *Romeo and Juliet* are:

- love
- fate
- duality (or opposites)

Romeo and Juliet - Plot summary

Romeo and Juliet is a play written by Shakespeare. It is a tragic love story where the two main characters, Romeo and Juliet, are supposed to be sworn enemies but fall in love. Due to their families' ongoing conflict, they cannot be together, so they kill themselves because they cannot cope with being separated from one another. Romeo and Juliet is a Shakespearean **tragedy.**

1. Two wealthy families, the Montagues and the Capulets, have another brawl in the city of Verona. The Prince and the townspeople cannot cope with the constant fighting so the Prince declares that the next person to break the peace will be killed.
2. Romeo Montague and his friends gatecrash a Capulet party and Romeo meets Juliet Capulet. He falls in love with her instantly. They are shocked to discover they are sworn enemies due to their feuding families. Friar Laurence marries Romeo and Juliet.
3. Romeo goes to celebrate his marriage with his friends, Mercutio and Benvolio, but gets into a fight with Juliet's cousin, Tybalt. Tybalt kills Mercutio and Romeo avenges his death by killing Tybalt.
4. The Prince banishes Romeo because he killed Tybalt. Both Romeo and Juliet are heartbroken.
5. Capulet, Juliet's father, decides she should marry Paris. Juliet refuses and goes to Friar Laurence where they come up with a plan for Romeo and Juliet to be together.
6. Juliet fakes her death and lies in a tomb waiting for Romeo to come so they can run away together. Romeo doesn't receive the message about the plan, so thinks Juliet has actually died. He goes to Verona and sees Juliet in her tomb, 'dead'.
7. Romeo drinks poison so he can be with Juliet in death. She wakes up to discover Romeo is dead. Juliet kills herself with his dagger.
8. The Capulet and Montague families vow never to argue again.

The very first word of this play is **"two"**, and throughout the play we are presented again and again with pairs of people and concepts. In terms of people we have Capulets and Montagues, Romeo and Juliet, Tybalt and Benvolio. As you can see, sometimes the pairs are complementary and work together. Other times they are opposites. We also see duality in the main ideas the play deals with. For example, love and hate, war and peace, home and exile. Perhaps Shakespeare was trying to show us that everything is part of a whole.

The main theme of love is introduced at the very beginning by the Chorus who tells the audience that this is a play about **"star-crossed lovers"**. When we first meet Romeo he is love-sick for Rosaline and talks to Benvolio about how painful love can be.

During the Capulet's party, we are presented with 'love at first sight' when Romeo and Juliet fall instantly for each other. The romantic love between the couple develops throughout the play and for them love ultimately leads to death.

We also see the strength of love between friends when Mercutio stands up to take Romeo's place in a fight with Tybalt.

Parental love is also explored when Capulet suggests that his daughter is too young to marry Paris. He is protective of Juliet. Later when Tybalt dies, Capulet brings the wedding between her and Paris forward, as he thinks this celebration will ease her grief.

Opposites and oxymorons

"Feather of lead, bright smoke,
COLD FIRE,
sick health!"

In this play, two families are at war, the Capulets and Montagues. These two sides can be seen as opposites. Throughout the play, Shakespeare highlights other opposites that we find in life:

- life and death
- love and hate
- light and dark

This emphasises the hate and the love that exists between the two families.

When words with contradictory meanings are placed side by side, it is called an oxymoron. Again, they highlight the contradiction between Romeo and Juliet's love against the backdrop of their warring families.

The prologue introduces the theme of fate when the lovers are called **"star-crossed"** and **"death-marked"**. This means that the events of their lives, and their deaths, are somehow already decided.

There are lots of incidences throughout the play when the main characters refer to omens that hint at their tragic ending. For example, before the Capulet party, Romeo feels worried that something bad is **"hanging in the stars"**. Later when Juliet looks at Romeo from the balcony she is upset that she sees him **"as one dead in the bottom of a tomb"**.

We know from the start of the play that the lovers will die, and the events all lead to this tragic end.

Imagery and metaphor

"It is the east, and Juliet is the sun."

Imagery in *Romeo and Juliet* is vivid and often poetic. It adds to the feelings that the characters express and often makes the language of the play beautiful and romantic. For example, when Romeo spots Juliet on her balcony, instead of saying 'Oh, she looks nice!' he says **"It is the east, and Juliet is the sun."** This image of Juliet as the sun shows us how bright she appears to him. The sun is necessary for life, so perhaps Romeo is suggesting that Juliet is essential for his life.

Year 8 D&T – Night Light Project

A is for **Aesthetics**

C is for **Cost**

C is for **Customer**

E is for **Environment**

S is for **Size**

S is for **Safety**

F is for **Function**

M is for **Material**

Analyse the Dinosaur Night Light by using ACCESS FM

You can use ACCESS FM to analyse existing products, write a specification, annotate designs and to evaluate the final outcome!

Remember to consider the sustainability of your design – try using the 6 R's!

Pillar Drill

File

Fret Saw

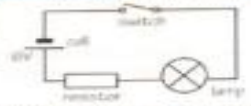
Line Bender

Soldering Iron

Practice your tonal drawing skill here

Electrical Systems Involve Circuits

1) All electrical systems need to have a complete circuit to make them work. Here's a simple circuit:



2) The materials you use in a circuit have to be conductors — they need to let electricity flow through. E.g. copper is used for the wire that joins the components because it's a good conductor and is ductile.

3) Insulators (e.g. PVC) don't let electricity through, so they're used to coat the outside of wires.

4) Voltage from a power cell (a battery) or the mains pushes the electric current around a circuit.

- Mains power is used for non-portable products like fridges and televisions.
- Batteries are used in portable products. There are disposable batteries and rechargeable ones.
- Rechargeable batteries are more expensive than disposable batteries, but can be cheaper in the long run as you don't need to keep replacing them. They're built in to some products, e.g. mobile phones.

5) Resistors are used to reduce the current in a circuit so you don't damage delicate components (e.g. the lamp in the circuit above). Resistance is measured in ohms (Ω). A larger resistance means less current flows.

Colour-coded stripes show the resistance.

Acrylic

polymethyl methacrylate (PMMA) is available in a variety of colours. It is a hard, rigid material that weathers well.

Night Light Circuit Diagram

CAD = Computer Aided Design
CAM = Computer Aided Manufacture

Use modelling to improve your design

Modelling is a good way to solve problems with your design. You can make models using card as it's cheap and easy to work with.

When modelling, try out different aspects of your design. For example, you could model just one part of the product separately, to check it works, before going on to the rest.

Test and evaluate each model

After you've made each model, do some tests to check that it's how it should be. Get some potential customers to try it out and give you feedback too.

1. You'll probably find there are some things that don't work out quite how you'd hoped. Write down what he problem is, suggest how to fix it and try out another model.
2. Record how the design develops – take photos of your models.
3. You should evaluate each model, against the design by considering the strengths and weaknesses.

Develop Ideas with Sketches

1) 'Freehand' means drawing without using any equipment (except a pencil or pen).
2) You can combine 2D and 3D sketches to explain details.
3) And you can annotate your sketches (add notes) to explain details further, e.g. describing the materials and processes you'd use.

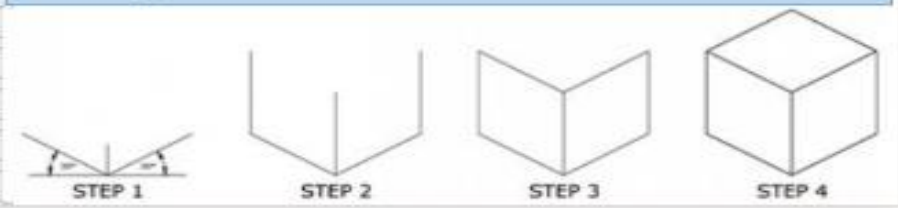
Practice your isometric drawing here

Isometric Drawing Shows Objects at 30°

1) Isometric drawing can be used to show a 3D picture of an object.
2) It doesn't show perspective (things don't get smaller in the distance), but it's easy to get dimensions right.
3) There are three main rules when drawing in isometric:

- Vertical edges are drawn as vertical lines.
- Horizontal edges are drawn at 30°.
- Parallel edges appear as parallel lines.

This drawing is been done on isometric dot paper. You could use plain paper and a 30°/90° set square instead.



Year 8 | Term 3 Knowledge Organiser | Gothic Literature

1. Antagonist	Character who opposes the main character. Sometimes known as a villain.
2. Unreliable Narrator	A narrator who we cannot trust. They might be crazy or mad.
3. Pathetic Fallacy	When the weather is used to reflect the mood. EG rain = sadness, fog = mystery, sun = joy/happiness
4. Personification	When an inanimate object is given a human quality. EG The wind howled, the door screamed as it opened.
5. Atmosphere	The general mood or feeling of a place. Gothic tends to create eerie or mysterious atmospheres.
6. Foreshadowing	Clues that are given to suggest something that will happen later on.
7. Outsiders	Characters that are excluded from society EG Frankenstein's creature is treated differently because he is manmade.
8. Tension	Feeling on edge about events that are about to happen
9. Climax	The peak of action and intensity
10. juxtaposition	Contrasts between two ideas.

11. Gothic	A literary genre that creates a sense of fear an haunting.
12. Supernatural	Things that are beyond the real world. Eg ghosts, vampires, demons, werewolves.
13. Ominous	The worrying impression that something bad will happen
14. Foreboding	Fearful apprehension
15. Submissive	A character being weaker than others.
16. Isolation	Being alone.
17. Dominance	A character being stronger or more powerful than others.
18. Tyrannical	Leaders that are mad with power and control

Notable Gothic texts (in chronological order)
The Castle of Otranto – Horace Walpole, 1765
Vathek – William Beckford, 1786
Frankenstein – Mary Shelley, 1818
The Hunchback of Notre Dame – Victor Hugo, 1831
The Raven – Edgar Allen Poe, 1845
Wuthering Heights – Emily Bronte, 1847
The Strange Case of Dr Jekyll and Mr Hyde – R.L. Stevenson, 1887
The Picture of Dorian Gray, Oscar Wilde, 1890
Dracula – Bram Stoker, 1897
Rebecca – Du Maurier, 1931
The Woman in Black – Susan Hill, 1983
The Twilight Series – Stephanie Meyer, 2006

How to create the Gothic mood
Features of buildings:
towers, trapdoors, gargoyles, mysterious corridors, tunnels, vaults, strange portraits
Weather: howling wind, thunder and lightning and torrential rain.
Eerie sounds: creaking doors, approaching footsteps, clanking chains, slamming doors, distant howling, strange laughter, toiling bells.
Dark or dim spaces: lights going on and off, flickering candles, dimmed lamps.
Supernatural: curses, hidden books and secret manuscripts, Extreme emotions (isolation and nightmares), Science used for evil purposes, Family curses and secrets

Gothic Adjectives for places:
Ancient Antique Creepy Desolated Distant Dusty Elaborate Eerie Empty Gruesome Isolated Locked Macabre Neglected Ornate Overgrown Peculiar Solitary Untouched Unusual

Gothic Adjectives for people:
Austere Determined Drawn Friendly Helpless Hideous Intimidating Looming Menacing Murderous Pallid Sinister Sleepless Surprised Taken aback Terrifying Treacherous Villainous Vulnerable

Some of the texts you will study: | Gothic Literature

The Woman in Black by Susan Hill	The Woman in Black is a ghost story by Susan Hill, in which Arthur Kipps relates his haunting experiences at Eel Marsh House. In his story, a young Arthur Kipps, a junior solicitor, is sent to settle the affairs of Alice Drablow. He sees a woman dressed in black at her funeral, though apparently no one else does.
The Tell-tale heart by Edgar Allen Poe	It is narrated by a madman who decides to kill the old man he lives with because he can't stand the gaze of the man's strange eye. However, after committing the crime, the narrator becomes convinced he can hear the old man's heart beating and gives away the location of the body.
The Red Room by H G Wells	It follows a confident young sceptic-the unnamed narrator of the story-as he attempts to spend the night in an infamously haunted room in a castle. Owing to the black and red décor of the room the narrator finds it necessary to light several candles to see his way around, but a draft keeps extinguishing the candles faster than he can keep them lit.
Frankenstein by Mary Shelley	Frankenstein tells the story of gifted scientist Victor Frankenstein who succeeds in giving life to a being of his own creation. However, this is not the perfect specimen he imagines that it will be, but rather a hideous creature who is rejected by Victor and mankind in general. The Monster seeks its revenge through murder and terror.

As well as:
The Werewolf by Angela Carter

Click Clack the Rattle Bag by Neil Gaiman

Poetry:
The Cold Earth Slept Below Percy Bysshe Shelley

Spellbound Emily Bronte

Gothic writing also includes a lot of poetry. Writers might use methods such as:

Meaning – the main message of the poem
Speaker – the voice of the poem.
Imagery – the words which paint images in the reader's mind.
Simile – indirect comparison (like/as)
Metaphor – direct comparison
Personification – when a non-living object is described as looking like or behaving like a human.
Tone – the feeling/atmosphere of the poem
Structure – the organisation of the poem, its rhyme scheme, the rhythm.
Stanza – grouped lines in a poem

Form – the type of poem – i.e. sonnet, ode.
Caesura – punctuation which occurs mid-line; slows the rhythm.
Enjambment – lack of terminal punctuation, speeding up the poem.
End-stopping – punctuation at the end of a line
Metre – number of beats per line
Plosive – sound made by stopping airflow – b,t,k, d, p; it creates a harsh sound.
Onomatopoeia – a word which sounds like the thing it is describing – i.e. bang
Alliteration – the repetition of the same sound
Sibilance – the repetition of the 's' sound

The term 'gothic' comes from the Germanic tribe 'the Goths', who played a part in the fall of the Roman Empire. The Goths are sometimes called barbarians. They destroyed a lot of Roman architecture in around C3 and replaced it with buildings in the gothic style.

- Medieval Europe (C3-14) is sometimes referred to as the 'Dark Ages' (although this can be contested for a number of reasons.) Some believe that people lived in fear due to superstition and ignorance and that not much learning took place in this time. Castles with gargoyles were built to ward off evil spirits, this architecture is known as 'gothic' e.g. Notre Dame.
- Figures from The Age of Enlightenment (C18-19) believed that scientific progress was the only way to advance society, and great discoveries were made in this time. They tried to rid Europe of superstition and ignorance through promoting reason and logic.
- A group of poets, artists and thinkers called the Romantics challenged this because they believed that not everything can be explained by science, and too much reason rids the world of beauty and mystery.
- The gothic genre first emerged from the Romantic movement. It used art and ideas from the Dark Ages, wild emotion and nature to contrast modern ideas about science and logic.
- Gothic writing transformed into the format of the extremely popular Victorian ghost story.
- Today, we use the term 'gothic' widely to describe art, style, clothing (e.g. Alexander McQueen couture) music and film (e.g. Tim Burton films). The style and genre is very much still alive.

Why do we cook food?

The application of heat in the preparation of a food or mixture may:
improve digestibility;
improve appearance, flavour, odour and texture;
increase the availability of nutrients;
prevent spoilage;
increase keeping qualities.

Heat Exchange

As a food is heated, its molecules absorb energy and vibrate more vigorously. The faster they move, the more the temperature of the food rises. If heat is removed, the molecules become less active, reducing the foods temperature.

Heat can be exchanged in three ways:

- conduction;
- convection;
- radiation

Factors that affect food choice

Coeliac – cannot eat products containing gluten.
Lactose intolerance – the body can't digest the sugar lactose in dairy products.
Vegetarian: No meat in the diet
Vegan: No products from animals in the diet e.g. meat, milk or honey.
Religion :
Islam: Requires Halal meat, no alcohol, no pork
Judaism: Requires Kosher food, no meat and dairy together, no pork
Hinduism: No beef

Micro-nutrients

Vitamins and minerals are essential nutrients that your body needs in small amounts to work properly.

Fat-soluble vitamins

Fat-soluble vitamins (vitamin A, D, E and K) are mainly found in:
animal fats, vegetable oils, dairy foods, liver and oily fish
While your body needs these vitamins to work properly, you don't need to eat foods containing them everyday.

Water-soluble vitamins

Water-soluble vitamins (vitamin C, the B vitamins and folic acid) are mainly found in:
fruit and vegetables, grains, milk and dairy foods
These vitamins aren't stored in the body, so you need to have them more frequently.
If you have more than you need, your body gets rid of the extra vitamins when you urinate.

Minerals

Minerals include calcium and iron amongst many others and are found in:
Meat, cereals, nuts, fish, milk and dairy foods, fruit and vegetables

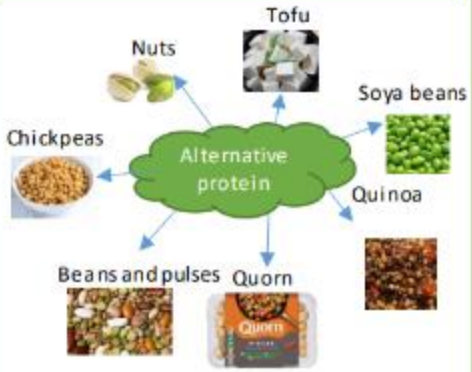
Minerals are necessary for 3 main reasons:
Building strong bones and teeth
Controlling body fluids inside and outside cells
Turning the food you eat into energy

Micros

Macros

Alternative protein

Proteins are known as the building blocks of life: In the body, they break down into amino acids that promote cell growth and repair. (They also take longer to digest than carbohydrates, helping you feel fuller for longer and on fewer calories—a plus for anyone trying to lose weight.) You probably know that animal products—meat, eggs, and dairy—are a good source of protein.



Food Poisoning

Food poisoning is a disease caused by eating a spoiled or contaminated food. Such food may contain certain microorganisms, toxins or enzymes.

Symptoms of food poisoning:

- Stomach pains and cramps
- Nausea and vomiting
- Diarrhoea
- Fever
- Shivers

Vegetarians and **vegans** don't consume meat so instead they use protein alternative products which are manufactured in order to provide protein in a diet and protein rich foods.

Protein complementation is when two LBV **proteins** are eaten together. Examples of protein complementation's are: hummus with pitta bread; nut roast made from a variety of nuts and seeds; vegetable curry and rice; lentils soup and wholemeal bread; baked beans on toast.

LBV proteins- . Foods that are deficient in one or more of the essential amino acids are said to have a **low biological value (LBV)**. Foods originating from plants (cereals, nuts, seeds, lentils, beans, pulses)

Functions of Eggs

Setting and thickening (coagulation): Eggs will set when cooked. This is shown when you make a quiche or an egg custard.
Enriching: Eggs add nutritional value to a dish. This is shown when you make egg fried rice.
Raising agent: When whisked, eggs can hold air and become a raising agent. They can make a mixture light in texture, e.g. Chocolate éclairs.
As a glaze and to add colour: Beaten egg can be used as a glaze which turns golden brown on heating. An example is glazing sausage rolls with egg before cooking to give a golden brown finish.
Aeration: Eggs can be whisked to hold air and form a foam. The protein in the egg white becomes stretched and holds the air bubbles. This is shown in making meringues or a whisked sponge. When the meringues or whisked sponge are cooked the protein sets and hardens.

Food Spoilage

Cross- contamination

Cross-contamination means that bacteria, toxins or food particles were transferred to a food product.
Cross-contamination can cause food poisoning and allergic reactions.
Anaphylactic shock is a life-threatening reaction of the immune system to an allergen.

Food can become contaminated from:

- ❑ Waste food and rubbish
- ❑ Pest and rodents
- ❑ The cook's hand
- ❑ Work surfaces and equipment
- ❑ Other contaminated foods, including high-risk foods.

Most common allergens:

- ❑ Nuts
- ❑ Fish and seafood
- ❑ Milk
- ❑ Eggs

Signs of Food Spoilage- Many species of microorganism and some enzymes can cause food spoilage.

	Bacteria	Yeast	Mould	Enzymes
Food Spoilage	The bacteria Clostridium botulinum produces a toxin which causes meat preserves to bulge. Bacteria can also make meat products look slimy and green in colour.	Ferments sugar in juices and beverages, making them sour, fizzy and foamy. 	Create green, white or black coat on food products such as bread, grapes, tomatoes and jams. 	Turns bananas, apples, potatoes and other foods brown. 

Key words

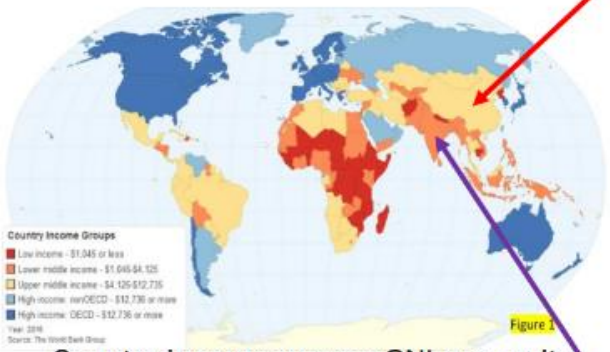
Microorganism- a very small living bacteria.
Toxins- poison of plant or animal origin, especially one produced by or derived from microorganisms
Preserves – something in its original state
Ferments – The process in which yeast produces the gas carbon dioxide and alcohol.

Keywords	
Development	A process of change that improves the standards of living of people in a country
NEE	Newly emerging economy (not yet fully developed but making progress at a rapid rate)
Global	The world
Globalisation	The process by which the world is becoming increasingly interconnected
Transnational Corporation (TNC)	A huge company that does business in several countries
Urbanisation	An increase in the proportion of people living in urban areas in a country
Human Development Index (HDI)	Combines three measures of development: life expectancy, average number of school years and GNI per capita. This produces a number between 0-1, where 1 is the highest HDI score.
GNI per capita	The value of a country's goods and services, divided by the number of people living in that country
BRICs	5 economies working together to develop and grow their economies - Brazil, Russia, India, China, South Africa
Push factor	Negative things that make people want to move to a new area e.g. war
Pull factor	Positive aspects that attract people to move to a place e.g. employment opportunities

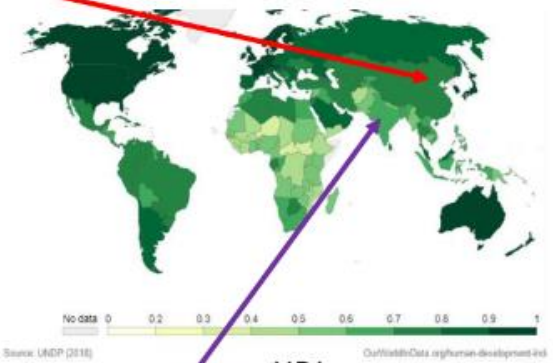
Year 8 Geography

How is Asia changing?

How has China developed?	Advantages of China's growing industry	Problems with China's growing industry
A huge population = large workforce	Factories offer lots of jobs which reduces unemployment	Factory smoke harming the rural industry
Has 12% of the world's mineral resources	Workers pay tax which helps the government to provide other services	People work long days and sometimes in poor conditions



Country income groups: GNI per capita



HDI

Rapid development in India has led to urbanisation. This has had positive and negative impacts:

Positive	Negative:
More people have access to clean water and medical care in cities	Air pollution has increased from industry and transport developments
Wages have increased and TNCs employ thousands of people	Poor working conditions and claims of exploitation

Cabot Learning Federation

Typical holidays Year 8 German Term 4 vocab. list

Wohin fährst du	Where do you travel?
Ich reise …	I travel…
Ich fahre…	I go …
nach Berlin/ London	To Paris / to London
nach Frankreich	To France
nach Spanien	To Spain
nach England	To England
nach Schottland	To Scotland
nach Irland	To Ireland
nach Polen	To Poland
nach Deutschland	To Germany
nach Österreich	To Austria
nach Wales	To Wales
nach Italien	To Italy
in die Schweiz	To Switzerland
in die Türkei	To Turkey
in die Karibik	To the Caribbean
nach Amerika	To the States

Wie fährst/reist du?	How do you travel?
zu Fuß	On foot
mit dem Fahrrad	By pushbike
mit dem Motorrad	By motorbike
mit dem Auto/Wagen	By car
mit dem Zug	By train
mit dem Schiff	By boat
mit der U-Bahn	By tube/underground
mit dem Reisebus	By coach
mit dem Bus	By bus
mit dem Flugzeug	By plane

mit der Straßenbahn = by tram
mit der Fähre = by ferry

Wo bleibst du?	Where do you stay?
Ich bleibe in……	I stay in..
einem Hotel	A hotel
einer Ferienwohnung	A holiday flat
auf einem Campingplatz	A campsite
einer Jurte	A yurt
einem Wohnwagen	A caravan
einem Zelt	A tent
einer Jugendherberge	A youth hostel
einem Mobilheim	A static caravan
bei meinen Großeltern	At my grand-parents'

In der Stadt	In the town
Ich besuche	I visit…
Wir besuchen	We visit…
der Supermarkt	The supermarket
die Brücke	The bridge
das Schwimmbad	The swimming pool
das Eisstadion	The ice rink
die Stadtmitte	The town centre
das Kino	The cinema
das Museum	The museum
das Theater	The theatre
das Verkehrsamt	The tourist information office
das Einkaufszentrum	The shopping centre
das Freizeitzentrum	The leisure centre
der Markt	The market
das Stadion	The stadium
der Freizeitpark	The theme park
das Krankenhaus	The hospital
die Monumente	The monuments
die Geschäfte	The shops
die Kirche	The church
der Bahnhof	The train station

Was machst du in den Ferien?	What do you do on holidays?
Sich entspannen (ich entspanne mich)	To relax (I relax)
Spaß haben/es macht Spaß	To have fun (it is fun)
sich sonnen	To sunbathe
Denkmäler besuchen	To visit monuments
zum Strand gehen	To go to the beach
ins Restaurant gehen	To go to the restaurant
einkaufen gehen	To go shopping
spazieren gehen	To go for walks
Fotos machen	To take photos
Souvenirs kaufen	To buy souvenirs
Wassersport machen	To do water sports

Wo ist…?	Where is…?
Es ist weit	It's far
Es ist in der Nähe	It's nearby
Es ist 5 Minuten von hier entfernt	It's 5 minutes away
Es ist à 300 Meter entfernt	It's 300 metres away
Gehen Sie geradeaus	Go straight on
An der Ampel	At the traffic lights
Zum Kreisverkehr	To the roundabout
Gehen Sie links	Go left
Gehen Sie rechts	Go right
Nehmen Sie die erste/zweite Straße über die Brücke	Take the first / second road over the bridge

Wie ist das Wetter?	What is the weather like?
Es ist schön	It is good weather
Es ist heiß	It is hot
Es ist sonnig	It is sunny
Es ist kalt	It is cold
Es ist 25 Grad	It is 25 degrees
Es ist schlecht	It is bad weather
Es regnet	It is raining
Es schneit	It is snowing
Es ist windig	It is windy
Es ist wolkig	It is cloudy
Es gibt einen Regenbogen	There is a rainbow

History
Year 8 Term 4

We need to talk about the British Empire.

Why are we learning about this?

The British Empire covers over 400 years of British History. It was the largest empire in history. We are going to learn how the British Empire impacted different locations around the world and how the legacy of the empire still impacts peoples' lives today.

Key Events

1	**1500s** - England begins to establish itself as a naval power and looks to control more land.
2	**1612** – East India Company began a small empire of trading posts in India.
3	**1770** – Captain James Cook landed his ship in Australia
4	**1807** - Slave trade outlawed (but does not outlaw slavery itself)
5	**1833** - Slavery abolished in British Empire
6	**1842** – Britain took control of Hong Kong after the opium wars with China
7	**1857** - Rebellion in India (Indian Mutiny). British government took over India from the East India Company, start if the British Raj.
8	**1901** – Australian independence from the British Empire.
9	**1919** – The Amritsar massacre takes place in India.
10	**1947** – Indian gains independence from the British Empire.
11	**1919** - British government massacred a peaceful gathering at Amritsar, India.
12	**1947** - India and Pakistan given independence.
13	**1997** - Hong Kong was handed back to China.

The British Empire was so large it was said: "the sun never sets on the British Empire"

Why did Britain want an Empire?

Trade (and money) 	The British could make huge amounts of money from trading across the Empire. They could also access resources which otherwise were not available to them.
Warfare 	The British used soldiers from around the Empire in their army.
Political power and influence 	The British became one of the most powerful countries in History. Even today, Britain is far more powerful than it's size suggests.
Religion 	The British tried to spread Christianity across the Empire, often ignoring local religions and cultures.

Key Terms

14	Aboriginals	The people native to Australia. They have lived there for over 60,000 years
15	The British Raj	Period of British rule in India after 1857. From the Hindi word for reign.
16	colony	A country that is controlled by an empire. E.g. India, South Africa, Australia, Canada.
17	Commonwealth	A group of countries that were once part of Britain's Empire that associate with each other today.
18	empire	When one country rules over other countries. E.g The British Empire.
19	mutiny	Disobeying or fighting against the leaders in charge.
20	native	Some from an area.
21	opium	An addictive illegal drug from the juice of the opium poppy.
22	partition	The action or state of dividing or being divided into parts.
23	Sepoy	An Indian soldier serving under British orders.

History Skills Focus

Similarities and differences	We will be explaining how **similar and different** the impacts of the British Empire were on different colonies.
Consequence	What were the results/impacts of the British Empire on the colonies.

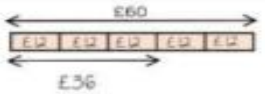
Keywords

Percent: parts per 100 – written using the / symbol
Decimal: a number in our base 10 number system. Numbers to the right of the decimal place are called decimals
Fraction: a fraction represents how many parts of a whole value you have
Equivalent: of equal value
Reduce: to make smaller in value
Growth: to increase / to grow
Integer: whole number, can be positive, negative or zero
Invest: use money with the goal of it increasing in value over time (usually in a bank)

Fraction / Percentage of amount

R

Find $\frac{3}{5}$ of £60



Remember
$\frac{3}{5}$ = 60/

10/ of £60 = £6
50/ of £60 = £30
60/ of £60 = £36

Remember
$\frac{3}{5}$ = 60/ = 0.6

60/ of £60
= 0.6 x 60
= £36

Fractions – on a diagram

The denominator is represented by EQUALLY sized parts – this is split into quarters

Fractions – on a number line

One whole split into 18 equal parts
18 is the **denominator**

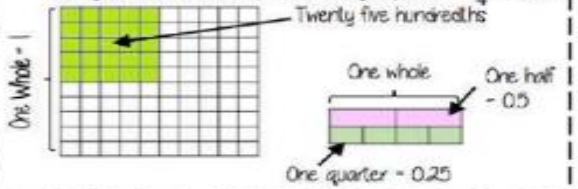
This point is at the 6th part
6 is the **numerator**

$\frac{6}{18} \leftarrow \frac{3}{9} \leftarrow \frac{1}{3}$

Quarters

One **quarter** (one whole split into 4 equal parts) = $\frac{1}{4}$ = 0.25

Twenty five hundredths



Convert FDP

$\frac{70}{100}$ → This also means 70 ÷ 100 → 70 out of 100 squares → 70 "hundredths" = 7 "tenths" 0.7 →  → 70 hundredths = 70/

Using a calculator

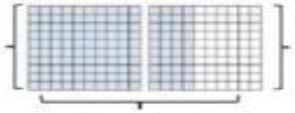
 → S⇔D Convert to a decimal

This will give you the answer in the simplest form

× 100 converts to a percentage

Be careful of recurring decimals
e.g. $\frac{1}{3}$ = 0.3333333
= 0.3̇
The dot above the 3

Convert FDP < and > 100/



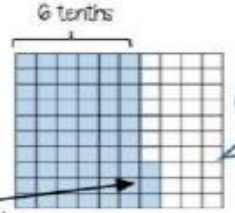
100/ + 40/
1 + 0.40
= 140

Percentages on a hundred grid

100/ = a whole = 100 hundredths

7 hundredths
7 out of 100
7/

6 tenths



6 tenths and 3 hundredths
63 hundredths
63/

Express as a percentage

R

27 per every 50 shaded → $\frac{27}{50}$
54 per every 100 shaded → $\frac{54}{100}$ = 54/

$\frac{13}{30}$ →  → $\frac{13}{30}$ × 100

43.3333...%
43/

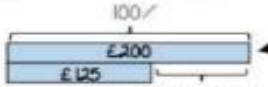
Can't use equivalence easily to find 'per hundred'

Decimal percentages are still a percentage

Percentage change

I bought a phone for £200
A year later sold it for £125

100/



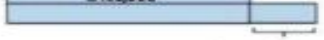
All values of change compare to the ORIGINAL value

Percentage loss:
$\frac{75}{200}$ × 100 = 37.5/

$\frac{\text{Difference in value}}{\text{Original value}}$ × 100

I bought a house for £180,000, I later sold it for £216,000

100/



Percentage profit

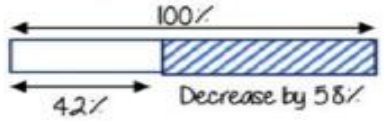
Money made (profit value) $\frac{36000}{180000}$ × 100 = 20/

Choose appropriate method

The language and wording of the question is the key

Have you represented the question in a bar model?
Can you use a calculator?

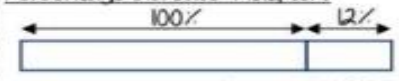
Percentage decrease: Multipliers



100% − 58% = 42%

100 − 058 = 042 ← Multiplier Less than 1

Percentage increase: Multipliers



100% + 12% = 112%

100 + 012 = 112 ← Multiplier More than 1

Find the original value

Percentage calculations

Original amount × Multiplier = Final Value

In a test Lucy scored 60% of her questions correctly. Her score was 24. How many questions were on the test.

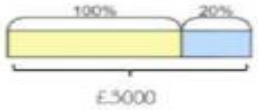
Original x 06 = 24

24 ÷ 06 = 40 marks

10% = 6

100% = 40

A car sold for a profit £3000 with a profit of 20%. How much was the car originally?



Original x 12 = 3000

120% = £3000

10% = £250

100% = £2500

Proportion

The ratio of green to yellow counters is 3 : 2

$\frac{3}{5}$ are green $\frac{2}{5}$ are yellow

The ratio of green to yellow counters is 6 : 4

$\frac{6}{10} = \frac{3}{5}$ are green

$\frac{4}{10} = \frac{2}{5}$ are yellow

Ratio increases proportionally

The proportion remains the same

There are five parts in this ratio: *2 blue + 3 yellow = 5 total*

The fraction painted blue is $\frac{2}{5}$ and the fraction painted yellow is $\frac{3}{5}$.

This can be used to write other fraction facts

Blue is 2/3 of yellow.

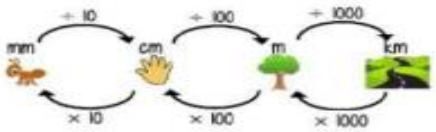
Yellow is 3/2 of blue.

We can also write this as an equivalence relationship.

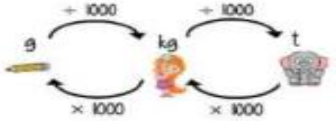
3 blue are equal to 2 yellow or 3b=2y

Metric conversions

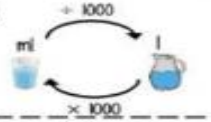
Length



Mass



Capacity



Mill — thousandth
Centi — hundredth
Kilo — thousand

Metric measures

Length Common units of length or distance are:

Millimetres (mm) — "Mill" prefix means one thousandth or ÷ 1000

Centimetres (cm) — "Centi" prefix means one hundredth or ÷ 100

Metres (m)

Kilometres (km) — "Kilo" prefix means a thousand × 1000

Mass (Weight)

Grams (g)

Kilograms (kg) — "Kilo" prefix means a thousand × 1000

Tonnes (t)

Capacity

Millilitre (ml) - "Mill" prefix means one thousandth or ÷ 1000

Litre (l)

Length: the distance from one point to another

Mass: a measure of how much matter is in an object

Capacity: the amount an object can contain (normally liquids)

Volume: the amount of 3-dimensional space an object takes up (units of length cubed)

Convert: to change a value or expression from one value to another

Imperial: a system of weights and measures originally developed in England

Metric: a system of measuring that replaced the imperial system to fall in line with the rest of Europe

Proportion: values of two items that increase in the same ratio

Time and the calendar

1 Year – the amount of time it takes Earth to go around the sun **365** (and a quarter) **days**

Leap Year – **366 days** (every 4 years)

12 Months = one year = 52 weeks

31 days – **Jan, March, May, July, Aug, Oct, Dec**

30 days – **April, June, Sept, Nov**

28 days – **Feb** (29 in a leap year)

1 week – 7 days

Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday

1 day – 24 hours

1 hour – 60 minutes

1 minute – 60 seconds

Use a number line for time calculations!

Analogue Clock

12-hour clock

- Use am (morning) and pm (afternoon)
- Only use hour times up to 12

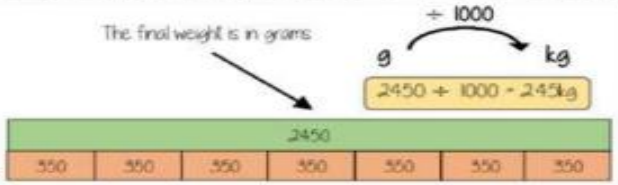
Digital Clock (24-hour times)

24-hour clock

- 0-11 (morning hours)
- 12-23 (afternoon hours)

Metric calculations

A package weighs 350g. How much will 7 packages weigh? Give your answers in kilograms



The final weight is in grams

÷ 1000

g → kg

2450 ÷ 1000 = 2.45kg

Calculations tips:

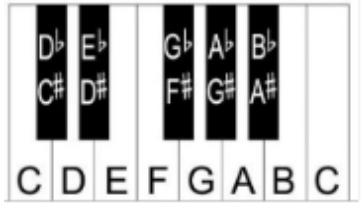
- Do all calculations in the same unit (often the smaller measurement)
- Read for the units of your answer
- Do all conversions of units at the same time
- Represent your image pictorially where possible

Year 8 Terms 3 & 4: What makes a great composer?

Shaping my musical toolkit

Key Words

Major
Minor
Key Signature
Chromaticism
Composer
Ground Bass
Sequence
Motif
Harpsichord
Chord
Sharp
Flat
Solo
Duet
Trio
Orchestra



Musical Elements

Dynamics	*(volume)*
Rhythm	*(duration of notes)*
Tempo	*(speed)*
Context	*(background info)*
Structure	*(sections)*
Melody	*(organisation of pitches)*
Instrumentation	*(instruments & voices)*
Texture	*(layers)*
Harmony	*(chords & key)*

Note Durations


Minim (2beats)


Crotchet (1 beat)


Quaver (½ beat)


Semiquaver (¼ beat)

Composers & Pieces

• Pachelbel (1653-1706)	Canon in D
• Bach (1685-1750)	Toccata & Fugue
• Mozart (1756-1791)	Eine Kleine Nachtmusik
• Beethoven(1770-1827)	Moonlight Sonata
• Chopin (1810-1849)	Funeral March
• Tchaikovsky (1840-1893)	Dance of the Sugar Plum Fairy

Periods of musical History

- Baroque Era – 1650-1725.
- Classical Era – 1725-1810.
- Romantic Era – 1810-1900.
- 20th Century Era – 1900 onwards.

Instruments & Techniques

Strings	(Violin, Viola, Cello, Double Bass)
Woodwind	(Flute, oboe, clarinet, bassoon)
Brass	(Trumpet, French Horn, Trombone, Tuba)
Percussion	(Timpani, Bass drum, Snare drum, triangle, maracas, bells)
Harpsichord	(keyboard instrument from the Baroque era, before piano)
Pizzicato	(plucking strings)

PRINCIPLES OF TRAINING

Basic – FITT

FREQUENCY
How often you train

INTENSITY
How hard you train

TIME
How long you train for

TYPE
What type of training you do

Advanced - SIVRPAR

SPECIFICITY – Training should be specific to the individual's sport, activity or fitness goal

INDIVIDUAL DIFFERENCES/NEEDS – The programme should be designed to meet the individual training goals and needs

VARIATION – It is important to do different activities in training to prevent boredom

REST & RECOVERY – A sports performer needs to rest to allow their body to recover and repair

PROGRESSIVE OVERLOAD – In order to progress training needs to be demanding enough to cause the body to adapt, improving performance

ADAPTATION – How the body reacts to training loads by increasing its ability to cope with those loads

REVERSIBILITY – When training stops, training effects are reversed

How do religions practice their faith?

Knowledge Organiser

RS

Key terms

Allah
God in Arabic - the one and only God in Islam.

Five Pillars of Islam
Five duties that every Muslim must follow in order to live a good and responsible life according to Islam.

Medina
The place from which Muhammad established the Muslim community

Mosque
a place where Muslims come together to pray.

Qur'an
The holy book of Islam. Believed to contain teachings from Allah.

Salah
The pillar that focuses on the five daily prayers

Worship

Within Islam, there are compulsory duties that Muslims must try to carry out. All Muslims follow the Five Pillars of Islam. For Sunni Muslims, the Five Pillars are the core duties of Islam.

Salah is the second of the **Five Pillars of Islam**. It is the belief that Muslims should pray five times each day. Prayer is important as it allows Muslims to communicate with Allah, listen to Allah and follow in the footsteps of the prophets.

Prayer is performed five times each day because of what the Qur'an says about prayer: *Establish prayer at the decline of the sun [from its meridian] until the darkness of the night and [also] the Qur'an of dawn. Indeed, the recitation of dawn is ever witnessed.* **(Qur'an 17:78)**.

Place of prostration

There are over 2.5 million Muslims in the UK and over 1,500 mosques. The mosque is a place to gather for prayers, to study and to celebrate festivals such as Ramadan. It can also be used to house schools and community centres.

The Arabic word for mosque, "masjid", means "place of prostration". The first mosque was the Prophet Muhammad's home in Medina, Saudi Arabia, a 7th-Century house with a large courtyard surrounded by long rooms.

The simplest mosque would be a prayer room with a wall marked with a "mihrab" – a niche indicating the direction of Mecca, which Muslims should face when praying. A typical mosque also includes a minaret, a dome and a place to wash before prayers. Each feature has its own significance.

How do religions practice their faith?

Knowledge Organiser

RS

Key terms

Afterlife
Life after death

Hadith
a collection of traditions containing sayings of the prophet Muhammad (pbuh)

Hajj
the fifth pillar of Islam. It is the pilgrimage to Makkah

Muslim Aid
An Islamic charity that provides help to people who are victims of natural or human-made disasters

Pilgrimage
a journey made to some sacred place as an act of religious devotion

Zakah
The third pillar of Islam. It is the compulsory giving of a set proportion of one's wealth to charity.

Hajj

Hajj is the Muslim pilgrimage, which it is compulsory for Muslims to undertake at least once in their lifetime as long as they are healthy and can afford it. In order for it to count, a Muslim's journey must take place within the month of Dhu'l-Hijja, the 12th and final month of the Islamic calendar.

Importance of Hajj

Those completing the Hajj are known as Hajji. Everyone taking part in the Hajj pilgrimage is treated as an equal and there is a great sense of unity. The pilgrimage shows self-discipline and fulfils a religious duty, bringing Muslims closer to God.

Some hadith agree that sins are cleansed by the journey: *He will return as if he were born anew* (Sahih al-Bukhari 26:596).

Zakah

Zakah is the practice where a Muslim gives 2.5 per cent of their wealth to charity, after they have paid for what is necessary to support themselves and their families. People who are too poor will not be required to suffer hardship to give Zakah.

Muslims give to charity because they see wealth as a loan from Allah. These donations help Muslims to purify their souls by not being greedy. It is said that the giver of the money will receive a "hundred-fold" back in the afterlife.

In countries such as the UK, some Muslims perform Zakah by giving directly to a charity, such as Muslim Aid. Others contribute to collections in the mosque, which then distributes the money to those in need. In Islamic countries, often Zakah is collected as a tax.

Year 8 Block 3 Biology Knowledge Organiser Evolution

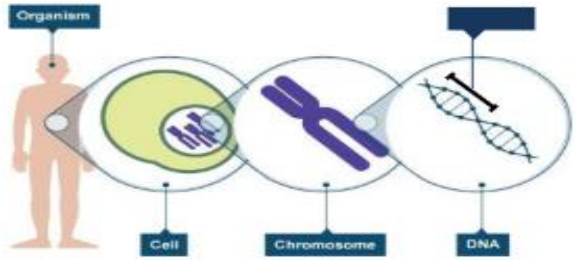
Revision guide Pgs: 26-29

https://www.bbc.com/bitesize/subjects/z4882hv

KPI 9.1: Identify variation between individuals of a species and state the differences between species, describing the difference between continuous and discontinuous variation.

DNA

- All the instructions to make organisms are kept in coded form on a very long molecule called DNA.
- DNA is kept in the nucleus of every cell.
- The molecule is so long it is twisted and folded into tiny structures called chromosomes so it can fit inside the nucleus.
- It has a ladder like structure and is a double helix.
- A short length of chromosome which codes for a characteristic is called a gene.
- There are four bases in DNA: A, T, C, G. A only pair with T, C only pair with G.
- As the sequence of the bases differ, the protein produced differ. This account for many variations.



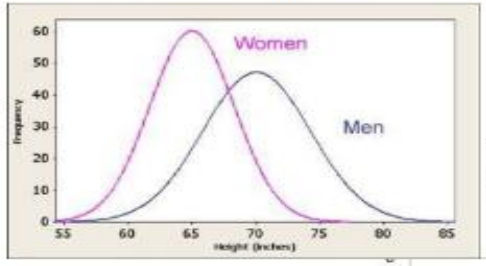
Variation

- The differences between living things of the same species is known as variation.
- Variation can be caused by differences in genes or differences in the environment.
- Some variation is caused by a mixture of both genes and environment.

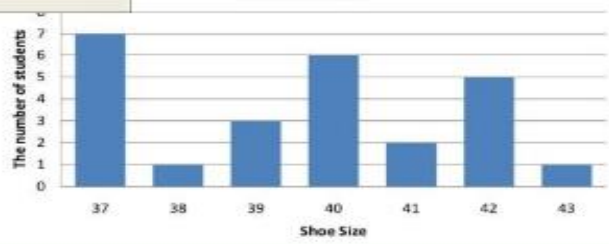
Key Terms	Definition
DNA	Molecule that carries all the instructions needed for an organism
Gene	A short length of DNA that has the information for a characteristic
Chromosome	A structure containing DNA found inside the nucleus of a cell
Variation	Differences between living organisms of the same species
Continuous variation	Differences that can take any value, e.g. height
Discontinuous variation	Differences that can only take set values, e.g. blood groups

Measuring variation

- Continuous variation is variation that can take any value (e.g. height or weight).
- Continuous variation should always be shown on a line graph.
- Discontinuous variation is variation that can only take set values (e.g. shoe size or blood group).
- Discontinuous variation should always be shown on a bar chart.



Continuous variation



Discontinuous variation

Year 8 Block 3 Biology Knowledge Organiser Evolution

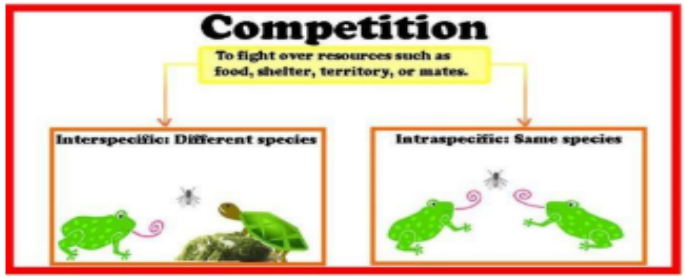
Revision guide Pgs: 26-29

https://www.bbc.com/bitesize/subjects/z4882hv

KPI 8.2: Explain how variation allow organisms to compete, and the way this drives natural selection

Organisms compete for resources like food, water, mates, space, light, and minerals.

There are 2 types of competition. Interspecific competition is between individuals of different species and Intraspecific competition is between individuals of the same species.



Organisms have special features known as adaptations to help them survive in their environment. For example polar bears are white so they are camouflaged in the snow.

Variation

Variation can be caused by genes e.g. eye colour and your blood group. It can also be caused by environment which means the food you eat, the chemicals you're exposed to , the way you're brought up. Often variation is a combination of genes and environment e.g. intelligence and weight. Genetic variation always gives rise to discontinuous data where there is a limited set of data e.g. tongue roller or non roller. Continuous data can be of any value and is caused by genetic and environmental factors.

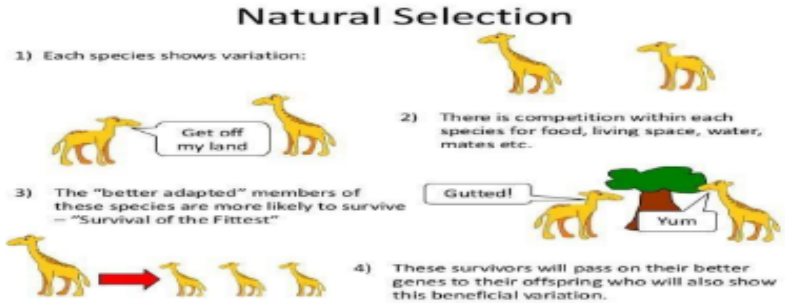
Natural selection

Natural selection states that there is variation within a species.

Some adaptations are better than others. Those with the best adaptations survive, and the others die.

The survivors can reproduce and have offspring.

Their offspring inherit the genes for the best adaptations, so the organisms population changes over time. This is survival of the fittest. Charles Darwin came up with this theory in the 1800's.



Key Terms	Definition
Adaptation	Something which helps an organism to survive in their environment, e.g, humps for storing water
Habitat	The environment that an organism lives in

Adaptation

- Every animal has evolved gradually over millions of years to become well suited, or adapted, to its habitat.
- These adaptations are specific to the environment of the animal and are essential for survival.
- An animal must be able to find food, breed and navigate its way around its habitat if it is to survive.

Year 8 Block 3 Knowledge Organiser Chemical reactions
Revision guide Pgs: 45-48 + 51-54 (48-51 + 54-57 higher)
https://www.bbc.com/bitesize/subjects/znxtyrd

Acid & metal Reactions
When an acid and a metal react together we form a metal salt and hydrogen.
Metal + acid → metal salt + hydrogen
Magnesium + hydrochloric acid → magnesium chloride + hydrogen

Metal carbonate & acid reactions
When an acid and metal carbonate are reacted together they form metal salt, water and carbon dioxide
Metal carbonate + acid → metal salt + water + carbon dioxide
Copper carbonate + hydrochloric acid → copper chloride + water + carbon dioxide

Tests for carbon dioxide and hydrogen

CO_2 – Carbon Dioxide
1. Lit splint is extinguished (goes out) in the presence of CO_2 gas.
2. ime water turns from colourless to cloudy.

H_2 – Hydrogen
Squeaky pop test - a lit splint, in the presence of hydrogen makes a squeak pop sound.

Naming compounds
When naming compounds the Periodic Table shows the different elements that are in a compound.
In metal and acid reactions the compound made is called a salt and it has 2 parts to its name: 1st from the metal, 2nd from the acid.

	Eg
Hydrochloric acid → chloride salts	Sodium chloride
Nitric acid → nitrate salts	Sodium nitrate
Sulphuric acid → sulphate salts	Sodium sulphate

Group 1 – Alkali Metals reactivity
Reactivity increases going down group 1.

Element	Observations
Lithium, Li	Fizzes steadily, slowly becomes smaller until it disappears
Sodium, Na	Melts to form a ball, fizzes rapidly, quickly becomes smaller until it disappears
Potassium, K	Quickly melts to form a ball, burns violently with sparks and a lilac flame, disappears rapidly, often with a small explosion

Thermite reaction:
$Fe_2O_3 + 2Al \rightarrow Al_2O_3 + 2Fe$

Iron oxide + Aluminium --> Aluminium Oxide + Iron

Aluminium is higher than Iron in the reactivity series so it displaces iron from iron oxide.

Thermite is used to weld train rails together.

Year 8 Block 3 Knowledge Organiser Chemical reactions
Revision guide Pgs: 45-48 + 51-54 (48-51 + 54-57 higher)
https://www.bbc.com/bitesize/subjects/znxtyrd

Chemical and physical properties

Elements in different groups have their own properties. Physical properties refer to physical characteristics such as how their colour and their states. Chemical properties refer to how the elements react when they form new bonds.

Reactivity Series:

The reactivity series is the order of metals based on their reactions with water, air and acid. We can use this to predict the products in a reaction.

	Potassium	most reactive
	Sodium	
Electrolysis	Calcium	
	Magnesium	
	Aluminium	
	Carbon	
	Zinc	
Reduction	Iron	
	Tin	
	Lead	
	Hydrogen	
	Copper	
Native	Silver	
	Gold	
	Platinum	least reactive

In displacement reactions the metal that is higher up the reactivity series will form a salt.

For example:

Magnesium + copper sulphate → magnesium sulphate + copper

The magnesium is higher up the reactivity series so it displaces copper and takes its place.

Zinc sulphate + copper → no reaction.

Copper is lower down the reactivity series so it does not displace zinc.

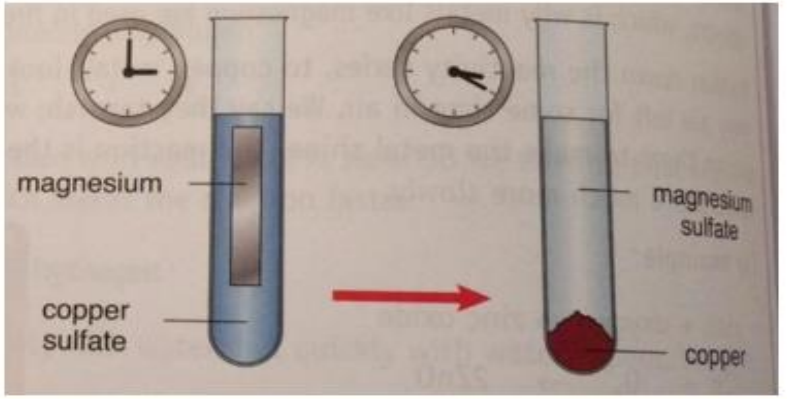
Key Word	Definition
Displacement	A reaction where a more reactive metal take the place of a less reactive metal.
Reactivity	A description of how quickly or vigorously a material reacts.
Reactivity series	A list with metals that shows how reactive they are

Displacement Reactions

Eg. Magnesium + copper sulphate → magnesium sulphate + copper

We use displacement reactions to determine the reactivity series.

The more reactive metal displaces the less reactive metal.



Metal Extraction

We use the reactivity series to help us deicde how to extract metals from their ores.

Anything below hydrogen is found on its own (native) eg gold

Anything below carbon is reduced using carbon eg zinc

Anything above carbon is extracted using electrolysis eg sodium

8.7 Present tense holidays
Year 8 Spanish Knowledge Organiser

The present and future tenses

Cabot Learning Federation

There are three types of verbs in Spanish and in their infinitive form they end in:
-ar -er -ir

The present tense : Depending on the pronoun, we change the ending of the verb using the table below :

Pronouns	**-ar**	**-er**	**-ir**
yo (I)	-o	-o	-o
tú (you)	-as	-es	-es
él (he), **ella** (she)	-a	-e	-e
Nosotros/nosotras (we)	-amos	-emos	-imos
Vosotros/vosotras (you) (pl)	-áis	-éis	-ís
ellos/ellas (they)	-an	-en	-en

Example:

Descans**ar** = **to** rest Com**er** = **to** eat viv**ir** = **to** live
Descans**o** = **I** rest Com**emos** = **we** eat viv**en** = **they** live

The Near Future :
The near future **tense** is used to express something that will be happening in the very near future. It is formed by conjugating the verb **ir** (to go) in the present tense + a + an infinitive.
Example: I'm going to travel by plane > Voy a viajar en avión.

English	To go (present)	"a"	Infinitive
I am going to go	Voy	a	ir
You are going to play	Vas	a	jugar
He/she is going to visit	Va	a	visitar
We are going to swim	Vamos	a	nadar
You (pl.) are going to read	Vaís	a	leer
They are going to do	Van	a	hacer

Time markers tell us when something happens and help us work out which tense is being used. The following can be used with the future tense.
Mañana - tomorrow
La semana próxima- next week
El fin de semana que viene – next weekend
El próximo mes - next month
El año que viene – next year
En dos años – In two years

8.7 Present Holidays - Spanish Vocab List

Cabot Learning Federation

¿Dónde vas?	Where do you go?
Voy	I go
a París / a Londres	to Paris / to London
a Francia	to France
a España	to Spain
a Inglaterra	to England
a Escocia	to Scotland
a Irlanda	to Ireland
a Gales	to Wales
a Portugal	to Portugal
a Pakistán	to Pakistan
a Polonia	to Poland
a Somalia	to Somalia
al Caribe	to the Caribbean
al Reino Unido	to the UK
a los Estados-Unidos	to the States
a los Países Bajos	to the Netherlands

¿Qué visitas?	Where do you visit?
Visto / Visitamos	I visit /We visit
la playa	The beach
la piscina	The swimming pool
el centro	The town centre
el museo	The museum
el mercado	The market
el estadio (de fútbol/rugby)	The (football/rugby) stadium
el parque de atracciones	The theme park
los monumentos	The monuments
las tiendas	The shops
los cafés	The cafés
los restaurantes	The restaurants
la oficina de turismo	The tourist office

¿Dónde te alojas?	Where do you stay?
Me alojo en / Me quedo en	I stay in
un hotel (de cinco estrellas)	A (five star) hotel
un camping	A campsite
un apartamento	An appartment
una caravana	A caravan
una tienda	A tent
un albergue juvenil	A youth hostel
una caravana estática	A static caravan
en casa de mis abuelos	At my grand-parents'
un parador	A state-owned luxury hotel
una pensión	A B&B

¿Cómo viajas?	How do you travel?
Viajo / Viajamos	I travel / We travel
a pie	by foot
en bici	by bike/pushbike
en moto	by motorbike
en coche	by car
en tren	by train
en barco / en crucero	by boat / by cruiseship
en metro	by tube
en autocar	by coach
en autobús	by bus
en avión	by plane

¿Qúe tiempo hace?	What is the weather like?
Hace buen / mal tiempo	It is good /bad weather
Hace calor/frío	It is hot/cold
Hace sol	It is sunny
Hace 25 grados	It is 25 degrees
Llueve	It is raining
Nieva	It is snowing
Hay viento	It is windy
Hay nubes	There are clouds

¿Qué haces...?	What do you do...?
Descansar	To rest
*Divertirse (me divierto)	To have fun (I have fun)
Tomar el sol	To sunbathe
Visitar monumentos	To visit monuments
*Ir a la playa	To go to the beach
*Ir al restaurante	To go to the restaurant
*Ir de compras	To go shopping
*Dar un paseo	To go for walks
Sacar/tomar fotos	To take photos
Comprar recuerdos	To buy souvenirs
*Hacer deporte	To do (play) sports
*Hacer deportes acuáticos	To do water sports
Bailar en la discoteca	To dance in the club

¿Dónde está...?	Where is it...?
Está lejos	It's far
Está cerca	It's nearby
Está a **cinco** minutos	It's **5** minutes away
Está a **300** metros	It's **300** metres away
Siga todo recto	Go straight on
En el semáforo siga todo recto	At the traffic lights go straight on
En la rotonda gira a la derecha	At the roundabout turn right
Gira a la izquierda	Turn left
Gira a la derecha	Turn right
Tome la primera	Take the first
Tome a segunda	Take the second
Cruza el puente	Cross the bridge

REMEMBER!
Any practical work you do at home, take photos and this can be classed as homework if there is evidence in your homework book!

Decorative Textile Techniques

Applique is the method of sewing pieces of fabric onto other fabric bases in beautiful designs. You can stitch the applique pieces by hand as well as by sewing machine.

Spray dying creates a speckled, graffiti effect on fabric. Try not to spray too close as it will not have the same effect on the fabric.

Dyeing involves adding colour to the fabric by way of soaking it in a solution of dye. You can dye a fabric fully or partially ; Batik, tie and dye, shibori dyeing are all variations of dyeing fabric to bring about beautiful patterns on fabric surface.

Rubbings use natural textures to create interesting designs on to fabric, layer different colours to make your design more original.

Shaving foam marbling is a method of creating a marble effect, using shaving foam and acrylic paints. You can mix colours together to create a colourful design. Be careful not to overmix as this could result in to getting an all over brown colour.

Decorative stitches are created by selecting different stitch settings on a sewing machine, these are good to use in different colours to match your creative work. They can be sewn in a curved line as well as just sewing straight.

Year 8 Textiles Knowledge Organiser

The 4 Rs of sustainability

The UK wastes around £1 billion of clothing each year, which effects the environment we live in. A way to support the environment is to follow the four Rs of sustainability at home.

Recycle – Making unwanted clothing in to something new i.e. Jeans in to shorts.
Reduce – Buy high quality clothing which will last for longer.
Repair – If there is a rip or hole in your clothing, fix it by hand sewing it or adding a patch.
Reuse – If you no long want your clothing, donate it to a sibling or local charity shop.

Textiles Hierarchy of Key words

Tier 3 'Academic' keywords.
Plain seam, analyse, sustainable, embellishment, Woven/ bonded/ knitted, Free machine embroidery, function, develop

Tier 2 Valuable keywords used in most lessons every lesson.
Complementary colours, contrast, environment, fastening, compare, embroidery, iron, equipment, context, appliqué, effect, improve

Tier 1 Basic keywords used in almost every lesson.
colour, design, shape, machine, pattern, line, Texture, tone, theme, Fabric, thread, sew

Use these in your writing and speaking

Use connectives to link each paragraph!	**Explain an idea:** • Although • Except • Unless • However • Therefore	**Sequencing:** • Firstly • Secondly • Next • Finally • Since
Adding to: • Furthermore • Also • As well as • Moreover	**Cause and effect:** • Thus • So • Therefore • Consequently	**Contrasting:** • Whereas • Instead of • Alternatively • Otherwise • Then again
To empathise: • Above all • Ultimately • Especially • Significantly	**To compare:** • Likewise • Equally • In the same way • Similarly	**Give examples:** • Such as • For example • In the case of • As revealed by • For instance

DESCRIBE

I believe that...

I think that...

The main idea is...

EXPLAIN

This means that...

Therefore...

This maybe because...

JUSTIFY

This is positive because...

This is negative because...

It is useful/not useful because...

ANALYSE

One strength is...

One weakness is...

One argument is...

EVALUATE

One advantage is...

One disadvantage is...

The best option is...

COMPARE AND CONTRAST

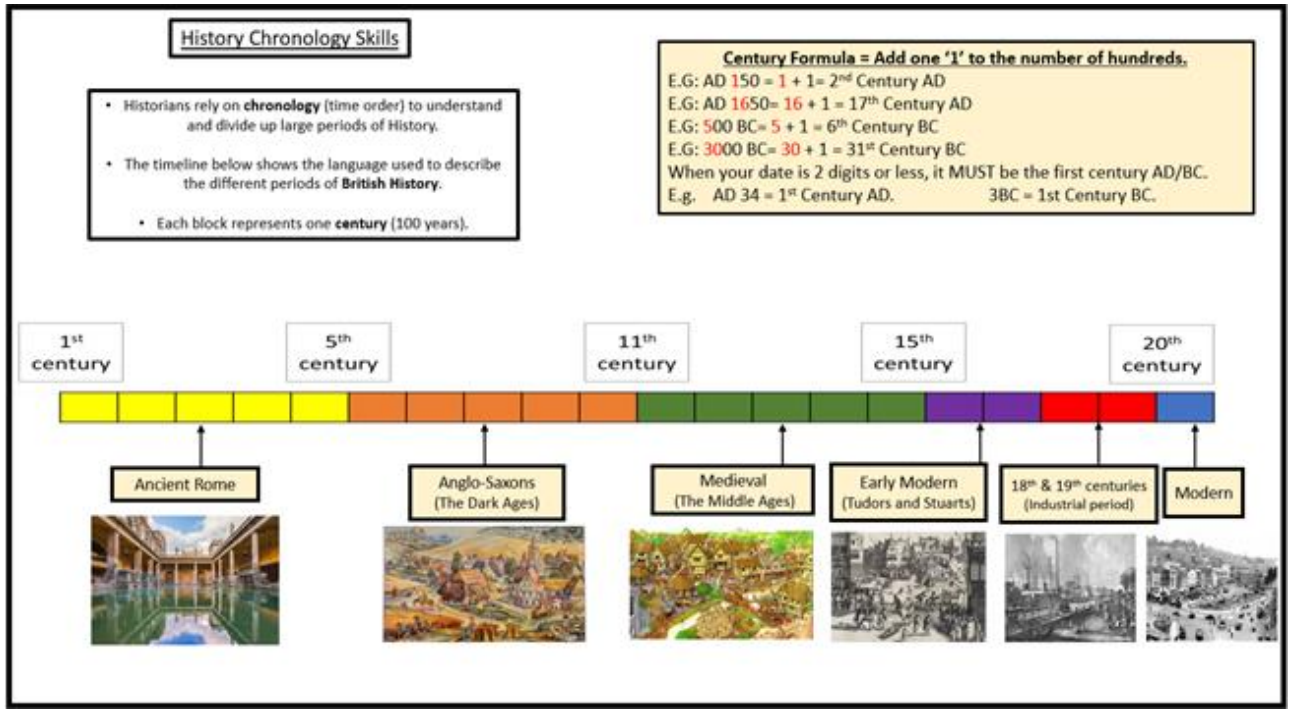
One similarity is...

One difference is...

On the other hand...

Sentence starter phrases

Most people would agree…
Only a fool would think…
We all know…
A sensible idea would be…
The fact is that…
Surely you would agree that…
Without a doubt…
I am certain that…
Some people might argue…
However…
Also…



Use these in your writing and speaking in DT

Design and Technology Keywords

Food and Nutrition	Design and Technology	Textiles
Caramelisation Aeration Amino acids Plasticity Shortening Denaturation Coagulation Gelatinisation Emulsification Pasteurisation	Carbon footprint Planned Obsolescence Iterative Design Tolerance Technology Push Anthropometrics Consumer Social Footprint Ergonomics Forming Processes	Plain seam analyse sustainable embellishment Woven/ bonded/ knitted Free machine function embroidery develop
Unsaturated Protein Radiation Saturated Carbohydrates Conduction Deficiency Digest Convection Cross-contamination Micro-organisms	Aesthetics Target Market Properties Deciduous Coniferous Automation Functionality Primary Source Sustainability Continuous Improvement	Complementary colours contrast environment fastening compare embroidery iron equipment context appliqué effect improve
Claw grip Flavour Texture Aroma Nutrients Energy Appearance Bridge hold Mix Smell	Cost Customer Materials Annotation Product Safety Environment Design User Prototype	colour design shape machine pattern Texture line tone theme Fabric thread sew

Sentence Starters - DT

I have designed…because
My project was about…
I found… during my research
My design is suitable for…
I have learnt how to…
The most enjoyable part of my project was….
The area I found the most challenging was…
Equipment I have used include…
I would improve my work by…
I am pleased with my finished product because…

Sentence Starters- Food and Nutrition

In order to work hygienically/safely I made sure I ….
I worked safely when in the kitchen by...
If I could improve any skill, I would improve...because...
Overall, I am happy/unhappy with my progress/dish because....
The texture of my dish is… this is because…

Sentence starters- Textiles

I have designed….
The context of my design is…
My research is useful because…
By researching, I am able to…..
By researching I have found out….
I researched into….
My design is suitable for…..
My design is based upon…
I have planned to..
The order I will work in is…
The most enjoyable part of m project was…
The area I found most challenging was…
I am most pleased with…
I am pleased with my finished project because…
Equipment I used was…

The periodic table of the elements

1	2											3	4	5	6	7	0
							1 **H** hydrogen 1										4 **He** helium 2
7 **Li** lithium 3	9 **Be** beryllium 4											11 **B** boron 5	12 **C** carbon 6	14 **N** nitrogen 7	16 **O** oxygen 8	19 **F** fluorine 9	20 **Ne** neon 10
23 **Na** sodium 11	24 **Mg** magnesium 12											27 **Al** aluminium 13	28 **Si** silicon 14	31 **P** phosphorus 15	32 **S** sulfur 16	35.5 **Cl** chlorine 17	40 **Ar** argon 18
39 **K** potassium 19	40 **Ca** calcium 20	45 **Sc** scandium 21	48 **Ti** titanium 22	51 **V** vanadium 23	52 **Cr** chromium 24	55 **Mn** manganese 25	56 **Fe** iron 26	59 **Co** cobalt 27	59 **Ni** nickel 28	63.5 **Cu** copper 29	65 **Zn** zinc 30	70 **Ga** gallium 31	73 **Ge** germanium 32	75 **As** arsenic 33	79 **Se** selenium 34	80 **Br** bromine 35	84 **Kr** krypton 36
85 **Rb** rubidium 37	88 **Sr** strontium 38	89 **Y** yttrium 39	91 **Zr** zirconium 40	93 **Nb** niobium 41	96 **Mo** molybdenum 42	[98] **Tc** technetium 43	101 **Ru** ruthenium 44	103 **Rh** rhodium 45	106 **Pd** palladium 46	108 **Ag** silver 47	112 **Cd** cadmium 48	115 **In** indium 49	119 **Sn** tin 50	122 **Sb** antimony 51	128 **Te** tellurium 52	127 **I** iodine 53	131 **Xe** xenon 54
133 **Cs** caesium 55	137 **Ba** barium 56	139 **La*** lanthanum 57	178 **Hf** hafnium 72	181 **Ta** tantalum 73	184 **W** tungsten 74	186 **Re** rhenium 75	190 **Os** osmium 76	192 **Ir** iridium 77	195 **Pt** platinum 78	197 **Au** gold 79	201 **Hg** mercury 80	204 **Tl** thallium 81	207 **Pb** lead 82	209 **Bi** bismuth 83	[209] **Po** polonium 84	[210] **At** astatine 85	[222] **Rn** radon 86

Key

relative atomic mass
atomic symbol
name
atomic (proton) number

* The elements with atomic numbers from 58 to 71 are omitted from this part of the periodic table.

The relative atomic masses of copper and chlorine have not been rounded to the nearest whole number.


UNITED KINGDOM
LOW / HILLS / MOUNTAINS
Orkney Islands
Shetland Islands
Prime Meridian
Scotland
Outer Hebrides
Highlands
North Sea
Atlantic Ocean
Inverness
Aberdeen
Ben Nevis
Edinburgh
Northern Ireland
Glasgow
Sunderland
N
United Kingdom (UK)
Londonderry
Belfast
Carlisle
PENNINES
Leeds
Isle of Man
Irish Sea
Dublin
Liverpool
England
Ireland
Cambrian Mts.
The Fens
Birmingham
Ipswich
Oxford
Wales
London
Bristol
Celtic Sea
130 mi
130 km
Cardiff
Thames
Portsmouth
Dover
Plymouth
Exeter
Falmouth
English Channel
Channel Tunnel
France
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EUROPE
©GraphicMaps.com
15° W
0°
15° E
30° E
45° E
60° E
Barents Sea
ARCTIC CIRCLE
Norwegian Sea
Iceland
Faroe Islands (Denmark)
Norway
Finland
White Sea
400 mi
400 km
Russia
60° N
Atlantic Ocean
Scotland
Sweden
Estonia
North Sea
Latvia
(European Russia)
Ural Mountains
Baltic Sea
Northern Ireland
Netherlands
Lithuania
UK
Belgium
Denmark
Belarus
Ireland
England
Poland
50° N
Wales
Germany
Czech Rep
Slovakia
Ukraine
English Channel
Luxembourg
Liechtenstein
Sea of Azov
Kazakhstan
Austria
Hungary
Romania
Moldova
Azores
Switzerland
Madeira Islands
Bay of Biscay
France
Slovenia
Croatia
Bosnia and Herzegovina
Caspian Sea
Monaco
Serbia
Bulgaria
Black Sea
Italy
San Marino
Montenegro
Macedonia
Georgia
Andorra
Vatican
Albania
Corsica (France)
Armenia
40° N
Spain
Sardinia (Italy)
Greece
European Turkey
Turkey
Azerbaijan
Portugal
Balearic Islands
Iran
0°
Sicily (Italy)
Malta
Crete (Greece)
Syria
Canary Islands
Cyprus
ASIA
Gibraltar (UK)
PRIME MERIDIAN
Algeria
Mediterranean Sea
Lebanon
15° E
Tunisia
30° E
Iraq
Morocco
Israel
Jordan
Libya
30° N
worldatlas
AFRICA
Egypt
Saudi Arabia
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Barents Sea
Novaya Zemlya (Russia)
Kara Sea
Laptev Sea
Arctic Ocean
NORTH AMERICA
Norwegian Sea
ARCTIC CIRCLE
Ostrova Anzhu (Russia)
worldatlas
Russian Federation
Ural Mts
Bering Sea
Alaska
European Russia
Lake Baikal
Ostrov Sakhalin (Russia)
Sea of Okhotsk
Kamchatka Peninsula
Aleutian Islands
EUROPE
Aral Sea
Kazakhstan
Mongolia
North Korea
Caspian Sea
Black Sea
Uzbekistan
Kuril Islands (Russia)
INTERNATIONAL DATE LINE
MONDAY
SUNDAY
Turkey
Turkmenistan
Kyrgyzstan
Tajikistan
ASIA
Sea of Japan (East Sea)
Lebanon
Syria
MIDDLE EAST
China
Yellow Sea
Japan
Pacific Ocean
Israel
Iraq
Persian Gulf
Iran
Afghanistan
Nepal
Bhutan
South Korea
Jordan
Kuwait
Qatar
Bahrain
Pakistan
Bangladesh
Hong Kong (China)
East China Sea
Bonin Islands (Japan)
Macau (China)
Ryukyu Islands (Japan)
India
Gulf of Tonkin
TROPIC OF CANCER
Saudi Arabia
U.A.E.
Oman
Gulf of Oman
Burma
Laos
Hainan (China)
Taiwan
Okinawa (Japan)
Volcano Islands (Japan)
Red Sea
Arabian Sea
Bay of Bengal
Andaman and Nicobar Islands (India)
Thailand
Vietnam
Philippines
Yemen
Gulf of Aden
Laccadive Sea
SOUTHEAST ASIA
South China Sea
Lakshadweep Islands (India)
Andaman Sea
Brunei
Philippine Sea
AFRICA
Socotra (Yemen)
Sri Lanka
Phuket (Thailand)
Cambodia
Sulu Sea
Malaysia
Gulf of Thailand
Celebes Sea
New Guinea (Indonesia)
Maldives
EQUATOR
0°
Borneo (Indo.)
Singapore
Sumatra (Indo.)
Java Sea
Indonesia
Banda Sea
British Indian Ocean Territory (UK)
Indian Ocean
Java (Indo.)
Bali (Indo.)
Flores Sea
Arafura Sea
East Timor
Savu Sea
OCEANIA
15° S
1000 mi
1000 km
AUSTRALIA
Coral Sea
60° E
90° E
120° E
150° E
180°
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Azores (Portugal)
Portugal
Spain
EUROPE
Turkey
15° W
Algiers
Mediterranean Sea
Syria
ASIA
Madeira Is. (Portugal)
Tunisia
Israel
Iran
30°N
Morocco
Iraq
MIDDLE EAST
Cairo
Canary Is. (Spain)
Algeria
Libya
Jordan
Persian Gulf
Egypt
Kuwait
Western Sahara
TROPIC OF CANCER
Qatar
Atlantic Ocean
U.A.E.
Oman
Saudi Arabia
Mauritania
Nile River
Red Sea
Niger
Arabian Sea
Cape Verde
Senegal
Mali
Eritrea
15° N
Dakar
Chad
Sudan
Yemen
Burkina Faso
Benin
Gulf of Aden
Gambia
Lake Chad
Djibouti
Guinea
Guinea-Bissau
Togo
Djibouti
Socotra (Yemen)
Cote D'Ivoire
Nigeria
South Sudan
Ethiopia
Somalia
Sierra Leone
Central African Rep.
Accra
Liberia
Ghana
Gulf of Guinea
Cameroon
Uganda
Indian Ocean
0° EQUATOR
Rwanda
Kenya
Eq. Guinea
Nairobi
Dem. Rep. of the Congo
Sao Tome & Principe
Lake Victoria
Zanzibar (Tanzania)
800 mi
Congo
Tanzania
Gabon
800 km
Burundi
Malawi
Cabinda (Angola)
Seychelles
AFRICA
Lake Malawi
Angola
Comoros
PRIME MERIDIAN
Zambia
15° S
Lusaka
Mozambique Channel
Namibia
Zimbabwe
Mauritius
TROPIC OF CAPRICORN
Botswana
Windhoek
Reunion (France)
Madagascar
Atlantic Ocean
Mozambique
30° S
South Africa
Swaziland
worldatlas
Indian Ocean
Lesotho
Cape Town
60° E
30° W
15° W
0°
15° E
30° E
45° E
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Subject websites

These websites will help you with homework, reading around the subject and revision

English

https://www.sparknotes.com/ - *Macbeth, A Christmas Carol, An Inspector Calls*
https://app.senecalearning.com/ - *Macbeth, A Christmas Carol, An Inspector Calls, Power and Conflict Poetry*
https://www.bbc.com/bitesize - *Macbeth, A Christmas Carol, An Inspector Calls*

Maths

https://corbettmaths.com/
https://vle.mathswatch.co.uk/vle/
https://www.mathspad.co.uk/

Science:

https://www.bbc.com/bitesize
https://www.senecalearning.com/
https://www.memrise.com/

Geography

Time for Geography - videos (mainly focused on physical processes)
Bitesize
Cool Geography

History

Seneca Learning
BBC bitesize - use Edexcel resources for GCSE.

Art Websites

https://www.tate.org.uk/
https://www.bbc.co.uk/bitesize/subjects/z6f3cdm
https://www.incredibleart.org/

Computer Science and IT.

www.mrahmedcomputing.co.uk

Drama

https://youtu.be/VeTpob9LBM8
https://youtu.be/wISEU13mRBE
https://www.bbc.co.uk/bitesize/guides/zsf8wmn/revision/1

DT:

http://www.mr-dt.com/
http://technologystudent.com/
https://www.senecalearning.com/

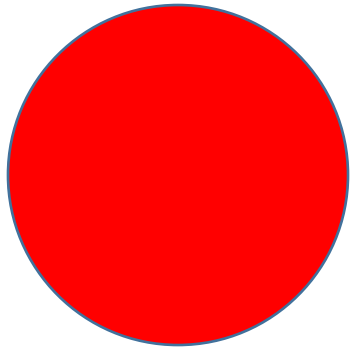
PE

https://www.bbc.com/bitesize/examspecs/ztrcg82
https://sites.google.com/view/ocrgcseperevision/home

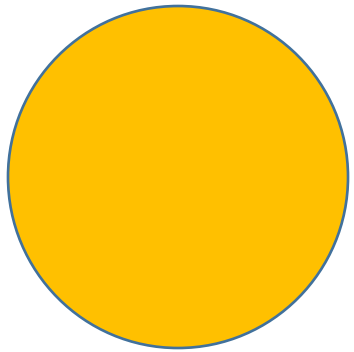
RS

KS3 https://www.bbc.co.uk/bitesize/subjects/zh3rkqt

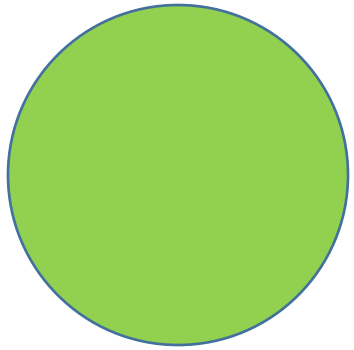
How would you describe your learning in this lesson?



I don’t understand the learning in this lesson and would like some help



I am not confident with the learning in this lesson so might need some extra help.



I am confident with the learning in this lesson and can work independently

Timetable

	Monday	Tuesday	Wednesday	Thursday	Friday
Tutor time					
Lesson 1					
Lesson 2					
Break					
Lesson 3					
Lesson 4					
Lunch					
Lesson 5					
Lesson 6					