Year 7 Cycle 2

Knowledge Organisers

Contents

LO: How to use a knowledge organiser so that you don't forget what you've learnt?

SUBHEADINGS

1. Look at the subheading.
2. Write down everything you know about that topic without looking at the KO.
3. Check what you've missed; add this to your notes in a different colour.
4. Do something else (e.g. revise something else).
5. Return to this and repeat from the beginning.

BIG IDEAS

1. Look at the list of ideas the writer is trying to convey.
2. For each idea, write down HOW the writer does this.

MINDMAP

1. Create a mindmap of what you know about the topic areas on the page *from memory*.
2. Check your mindmap against the KO.
3. Add 5 things that you've missed using a different colour pen.
4. Do something else (e.g. revise something else).
5. Repeat.

PICTURES

1. Look at just the pictures.
2. Explain how each of these pictures is relevant to the knowledge on the page.

VOCABULARY

1. Cover the vocabulary and definition columns. Try to work out what the missing word is in the example. Check. Move to the next word. Repeat until you can do this with all the words you've studied so far.
2. Try the same as above, but this time by looking at just the definition column.
3. Try the same as above, but this time just look at the vocabulary and try to explain what the definition is.

Questions

1. Cover the explanation.
2. Look at and write answers to the questions.
3. Check your answers; add anything you missed; correct anything you got wrong.
4. Do something else (e.g. revise something else).
5. Return to this and repeat from the beginning.

'Remains' – Knowledge Organiser

What happens in the poem? The speaker and two other soldiers are sent to tackle some looters who are robbing a bank. They open fire on a looter who is running away. The looter is seriously wounded He is carried away in the back of a lorry. The soldier has to walk past the blood stain left on the ground week after week. He returns home and is haunted by the memory of what he has done, reliving it again and again. He drinks and takes drugs in an attempt to forget what happened. However, he is unable to forget the looter and what he did. The memory remains stuck in his mind.

What is the context of the poem?

- Simon Armitage wrote 'Remains' (and other poems) for a Channel 4 programme called 'The Not Dead'.
- He has never been to war himself and has never been a soldier.
- To write the poems, he interviewed a number of soldiers who have survived war (in Iraq, Afghanistan, the Falklands etc.) i.e. the 'not dead'.
- The poems show the suffering soldiers experience long after wars have finished.
- 'Remains' is heavily based on the experience of Guardsman Tromans who fought in the Iraq war.
- Tromans shot a looter in Iraq and suffers from PTSD.

What is the significance of the title? The poem is about PTSD – in other words, how the traumatic experience of war REMAINS with the soldier. It could also refer to the human REMAINS – the image of the looter – that the soldier obsesses over so much as part of his PTSD.

What is a central idea in this poem? As is implied by the title, the poem explores the trauma experienced by soldiers and the terrible impact of PTSD on survivors long after the battle has ended.

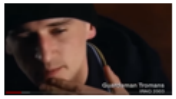
What other ideas are explored in the poem?

- War can cause suffering beyond the battlefield.
- War is damaging.
- Guilt is powerful and can overwhelm us.
- War can result in us dehumanising the enemy.
- War can cause us to act in ways we later regret.
- Memory can have a powerful effect on us.

Key Vocabulary	Definition	Example
Traumatic	Causing severe and lasting emotional shock or pain.	Being involved in war is deeply disturbing and a highly _____ experience.
PTSD (post-traumatic stress disorder)	This is an anxiety **disorder** caused by very stressful, frightening or distressing events. Someone with this often relives the **traumatic** event through nightmares and flashbacks, and may experience feelings of isolation, irritability and guilt.	The soldier in 'Remains' is suffering from _____.
Guilt	A feeling of worry or unhappiness that you have because you have done something wrong.	The soldier struggles to come to terms with the _____ he feels over shooting the looter.
Haunt	To revisit again and again.	The memory of the shooting _____ the soldier.
Dehumanisation	To treat people as less than human.	It can be argued that the soldiers in 'Remains' _____ the looter by treating him with so little respect.
Dramatic monologue	A poem made up of a single *character* speaking (i.e. the poet is very clearly writing as someone else).	'Remains' is a _____ because Armitage is writing as someone else and there is only one speaker in the poem.

Writer's Craft:	Example
Why is the poem written as a dramatic monologue?	To explore a traumatised soldier's thoughts and feelings; because the poem was produced following an interview with a soldier.
Why does Armitage use colloquial language?	To create a convincing voice – an ordinary person/soldier; to contribute to the almost matter-of-fact tone in the first half of the poem.
What does the first/second half focus on? What is the turning point?	First half: the shooting; second half: the emotional impact on the soldier. Turning point = 'End of story, except not really.'
Why is the shooting described with graphic imagery?	To convey the brutality; to show what has traumatised the soldier; because it's so vivid in the soldier's mind.
Why is the blood on the street described as a 'blood shadow'?	Shadow = dark imagery – connotations of death and misery; the shooting has cast a shadow over his life; a shadow follows you around
What does the imagery 'dug in behind enemy lines' suggest?	To the looter, the soldier is the enemy; the soldier's mind is enemy territory. The looter is in the soldier's mind, so this is 'behind enemy lines'. 'Dug in' means well defended and prepared for attack – this suggests that the memory of the looter is difficult to remove; 'dug in' is a military term, suggesting that the war/conflict is still going on for the soldier.
What impression does the final stanza leave us with and what is meant by 'bloody hands'?	It leaves us with the impression that the pain will be ongoing – there seems little hope of an end as the looter is still 'here and now'. 'Bloody' can suggest frustration (swearing), but 'to have blood on your hands' also means to be responsible for an act of violence against someone i.e. to be guilty of something.



Design & Technology *knowledge organiser* Year 7 All Cycles

Year	Curriculum Overview	KS3 Curriculum covered	Assessment - how you will be assessed
YEAR 7 8-10 week rotation	You will make a snack dispenser machine using MDF wood, an upcycled glass jar or plastic bottle. You will personalise it with a laser cut element and apply a surface decoration. Theory includes learning about materials and making processes, correct use of workshop tools & equipment. You will learn how to measure and mark out accurately, following step by step instructions to make a fully working product.	**Design:** Using research and exploration, such as the study of different cultures, to identify and understand user needs **Make:** Selecting from and using specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided design and manufacture **Technical knowledge:** You will understand and use the properties of materials and the performance of structural elements to achieve functioning solutions	**Design:** On your ability to design the creative elements of a cohesive idea where the parts of the dispenser link together under a clear design theme **Make:** On your ability to make an accurate and well-finished product. It will be well decorated, neatly finished and the mechanism will function. **Technical knowledge:** You will use keywords and correct technical terminology in lessons and in your homework

Use www.technologystudent.com to research the meaning of core Key terms: Renewable and non-renewable energy sources, sustainable design, AI, Automation and Robotics, Scales of Production, Properties of materials, CAD/CAM, the iterative design process,

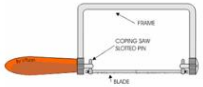
Can you name and know the purpose of the tools you will use

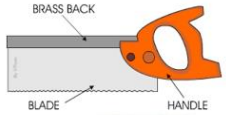
Coping saw used for cutting curves

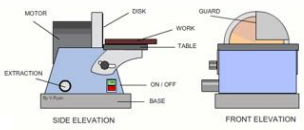
Tenon saw used for cutting straight lines

Sandpaper or glasspaper used for smoothing rough edges

Disc sander used for smoothing rough edges and the outside of curves







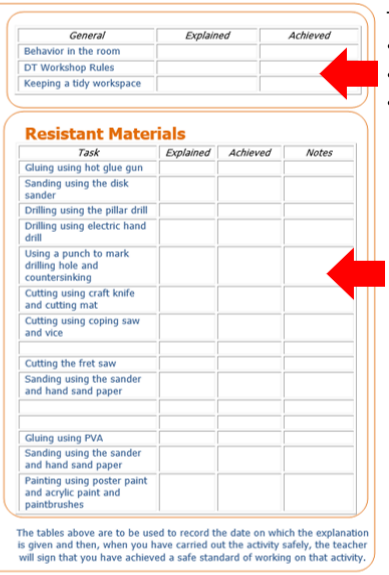
Bobbin sander used for smoothing down the inside of curves

Electric hand drill used to drill holes of different sizes

Pillar drill used to drill holes of different sizes

Forstner bit used to drill larger holes of different sizes

Health and safety passport



General	Explained	Achieved
Behavior in the room		
DT Workshop Rules		
Keeping a tidy workspace		

Resistant Materials

Task	Explained	Achieved	Notes
Gluing using hot glue gun			
Sanding using the disk sander			
Drilling using the pillar drill			
Drilling using electric hand drill			
Using a punch to mark drilling hole and countersinking			
Cutting using craft knife and cutting mat			
Cutting using coping saw and vice			
Cutting the fret saw			
Sanding using the sander and hand sand paper			
Gluing using PVA			
Sanding using the sander and hand sand paper			
Painting using poster paint and acrylic paint and paintbrushes			

The tables above are to be used to record the date on which the explanation is given and then, when you have carried out the activity safely, the teacher will sign that you have achieved a safe standard of working on that activity.

Tick
- Behaviour
- DT workshop rules
- Tidy workspace

You will tick when you are trained
- Sanding using the disk sander
- Cutting using coping saw and vice
- Sanding using files and hand sand paper
- Gluing using PVA
- Using a punch or bradawl to mark a drill hole

HOMEWORK 1

Why we need food & the Eatwell guide

https://forms.office.com/r/MhyY7v2jd4

The body needs food for:

- Growth and repair of cells
- Energy
- Warmth
- Protection from illness
- Keeping the body working properly

Your diet should include:

- A variety of foods to make sure you get all of the nutrients to stay healthy.
- No single food can supply all of the nutrients that you need

Foods are vital for our survival and are made up of different things called nutrients. Each nutrient has its own function in the body

- Protein - growth and repair of cells, maintenance of the body and to provide energy.
- Fat - provide energy, to keep the body warm, to protect internal organs and provide fat soluble vitamins and essential fats
- Carbohydrates - needed for energy
- Vitamins & minerals - needed to protect the body and prevent illness and disease

<u>The Eatwell guide</u>:

<u>Questions:</u>

1. Why should you eat a variety of foods?
2. List the 5 main nutrients needed by the body and give a function of each
3. How much water should we drink a day?
4. List the sections of the Eatwell Guide including foods you would find in each section

HOMEWORK 2

Protein

https://forms.office.com/r/p3J2B43Veu

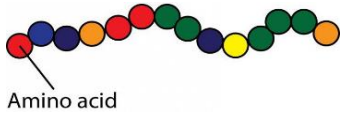
There are two main types of nutrients:

- Macronutrients - needed in large amounts by the body (protein, fats and carbohydrates)
- Micronutrients - needed in smaller amounts (vitamins and minerals)

Protein is needed for growth, repair, maintenance and a secondary source of energy

Some people will need more protein than others e.g. children, teenagers and pregnant women

Proteins are made from amino acids and there are 20 of them



Essential amino acids must be provided by food because the body cannot make them

10 are essential for children and 8 are essential for adults.

High biological value (HBV)

- Contain all of the essential amino acids
- Mainly come from animals e.g. meat fish and eggs

Low biological value (LBV)

- Missing 1 or more essential amino acid
- Mainly come from plant foods e.g. peas, beans

Complimentary proteins

- When 2 or more LBV proteins are combined they can make a HBV protein e.g. beans on toast

<u>Questions:</u>

1. What is the 4-letter word to remember the functions of protein
2. Which groups of people need more protein in their diet?
3. What are proteins made from and how many are there?
4. Can the body make all of the amino acids?

HOMEWORK 3
Fat
https://forms.office.com/r/cwmWqcQAKk

Many people eat too much fat which is not good for our health and can lead to several health problems

Fats like butter are solid at room temperature and are called saturated fats.
Oils are liquid at room temperature and are called unsaturated fats.

Saturated or unsaturated fat:

- Saturated fat - too much in the diet can be harmful to health.
- Unsaturated fat - this type of fat is better for our health and can have several benefits.

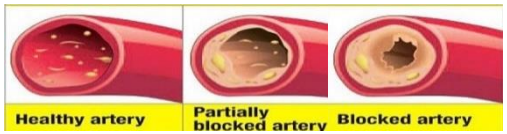
Eating this type of fat is better for our health and can have several benefits.

The functions of fat are:

- It protects vital organs by covering them with a layer of fat
- It insulates us and keeps us warm
- Provides energy (2 x as much as a gram of carbohydrate)
- It provides fat soluble vitamins A, D, E & K

P
I
E

Cholesterol is a fatty substance needed to function properly and help with the digestion of fats. Eating foods high in fat can raise cholesterol levels in the blood



Eating too much fat can cause:

- Obesity
- Type 2 diabetes
- Heart disease

Questions:

1. What are 3 of the main functions of fat in the body?
2. Name 3 sources of animal fat & 3 sources of vegetable fat
3. Which type of fat should we be eating less of and which should we eat more of?

HOMEWORK 4
Carbohydrate
https://forms.office.com/r/xt9T70F6JH

The main function of carbohydrate is to provide energy! There are 3 different groups of carbohydrate.

Sugar:

- All sugars, treacle and syrups, honey, jam and marmalade
- Known as simple or double sugars

Starch:

- Potatoes, rice, pasta, bread
- Known as complex carbohydrates. Made up of lots of simple sugars joined together

Fibre:

- Found in cell walls of fruit, vegetables and cereals
- Also, a complex carbohydrate

There are 2 other types of sugar that we need to be aware of in our diets. These are:

- Free sugars = sugars that are added to foods e.g. sugar, honey and syrup. Can be more harmful to our health if we eat too much.
- Fruit sugars = natural sugars found in fruits and vegetables e.g. apples. Better for us.

We should be getting 50% of our energy from carbohydrate foods

- 45% of our energy should come from starchy foods
- 5% should come from sugars

If the diet contains too much carbohydrate than we need then it will be turned into fat and stored in the body. This could lead to obesity.

Fibre is needed to keep the digestive system healthy. If you don't eat enough fibre, you could become constipated.

The recommended amount of fibre for adults is 30g per day.

Questions:

1. What is the main function of carbohydrate in the body?
2. What are the 3 main groups of carbohydrate?
3. What percentage of our energy should come from carbohydrates?
4. What problems do you think eating too many free sugars could cause in the body?

Drama Knowledge 3

Thrust Stage

The **audience** is on **three** sides of the stage as if the stage has been 'thrust' forward. This can be very apparent, like a catwalk, or more like an extended apron stage. A thrust has the benefit of greater **intimacy** between performers and the audience than a **proscenium**,

Entrances onto a thrust are most readily made from **backstage**, although some theatres have performers enter through the **auditorium**.

Stage Directions

Instructions in a script, **directing** the movements of the actors, vocal delivery, the arrangement of **scenery**, **costume** suggestions, **props** and even **technical effects**. Stage directions are easy to identify as they are usually ***(inside brackets, bold and in italic font).***

Thought Tunnel — a **rehearsal technique** that is also known as **'Conscience Corridor'** or **'Conscience Alley'**. Two straight lines are formed and they face each other with a gap (or corridor, or alley, or tunnel). A person in a role which the whole group has prior knowledge of, walks through the corridor and hears **thoughts or questions** from each person either side of them as they move from one end to the other. The exercise is useful for **character** building and development.

Vocal Skills

Pitch - How high or low a voice sounds. ***Example—when a person is excited or nervous their pitch may become higher. If a person is trying to control emotion or expressing something serious or confidential they might use a low pitched voice.***

Physical Skills

Gestures — Gesture covers the use of our arms (and sometimes legs) to communicate ideas to the audience. ***Example— when the damsel pleads for her life by clasping her hands up towards the villain.***

Colour Symbolism

Colour can be used in **costumes, set, props and lighting** to communicate a deeper meaning to the audience.

Example:

ENERGY GREEN **GREED**

NATURE **JEALOUSY**

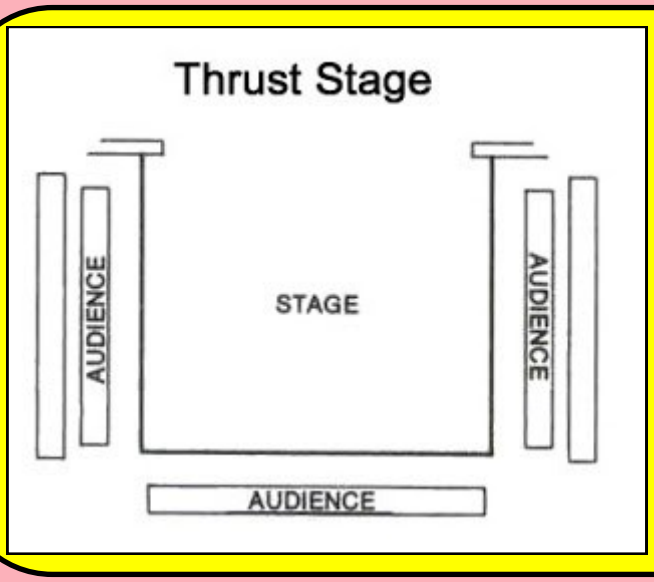
Drama Techniques and Terminology

Alter ego – 'ego' means 'about self', therefore to alter one's ego is to have a second self, or opposite **character**. This is a technique sometimes referred to as **'devil and angel'**.

Its most common form is where, as someone acts out a character, another person speaks their thoughts out loud. The purpose of the technique is to demonstrate how a character can be saying something quite different to what they are thinking. It is a useful exercise to explore **subtext.**

Subtext—In terms of acting and character analysis, it refers to the idea that there are other meanings below the surface of what is actually being said and done.

Drama Knowledge 4



Thrust Stage

The diagram is a **ground plan** of a **Thrust Stage**. A ground plan is an overhead view of the theatre stage area or of a **set design.**

Pros of a Thrust Stage—The audience feel included and an **intimate atmosphere** is created. Having one end which is visible to all provides a 'back' to the stage where **backdrops** and large scenery can be used.

Cons of a Thrust Stage— **Sight lines** can be tricky as the **actors** move further **downstage.**

Tension

Tension is a growing sense of **expectation** within the drama, a feeling that the story is building up towards something exciting happening. Without tension in a scene it is hard to keep the **audience engaged** with what is happening.

Role on the Wall — a **research rehearsal technique** using just an outline of a person with information written on it about the character you are exploring.

Inside you write down **everything you know** (or can assume) about your character. **Outside** the outline you write down **how your character would look, move and sound.**

Vocal Skills

Tone — A quality in the voice that expresses the speaker's **feelings or thoughts.** ***Example — A mother may speak to an upset young child in a soothing tone, but if the child is misbehaving, the mother might use a stern tone of voice to ensure she's obeyed. The child recognises the tone as much as the words themselves.***

Physical Skills

Posture — This is the **position** of a person's body when standing or sitting. ***Example — a soldier would stand upright but a drunk person would slump.***

Colour Symbolism

Colour can be used in **costumes, set, props and lighting** to communicate a deeper meaning to the audience.

Example:

DEATH **BLACK** **GRIEF**

MYSTERY **SOPHISTICATION**

Drama Techniques and Terminology

Split screen – A technique where two or more scenes take place in a performance space **simultaneously** or **alternating** between each. Your teacher may refer to a **split stage**.

Flashback—A flashback is a scene that takes the play back in time from the current point in the story. Flashbacks are often used to recount events that happened before the story's primary **sequence** of events to fill in crucial **backstory**.

Y7 English Cycle 2 - Context

The Woman in Black was written by **Susan Hill** in **1983.**

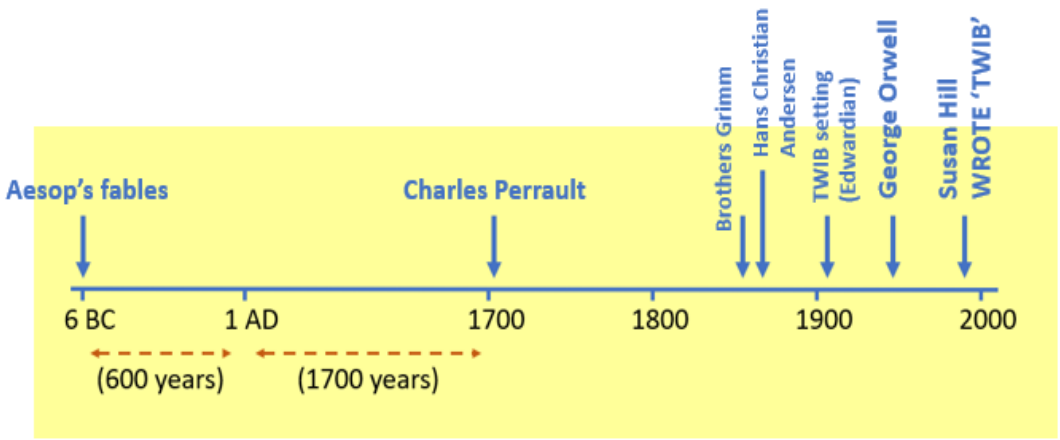
Although the novel was written in 1983, **the narrative is set in the Edwardian era of 1901-1910**.

Hill set the novel in the Edwardian era due to their superstitions around ghosts. It was commonplace to tell ghost stories at Christmas Eve!

Throughout Edwardian times, wearing black at a funeral was a typical convention. The black clothes symbolise the grief of those left behind.

In Edwardian times, cars were rare and only owned by the wealthy. Pony and traps were the typical mode of transport.

Below is the **timeline of all the authors** we have encountered in Year 7 so far.



Y7 English Cycle 2 - Gothic Conventions

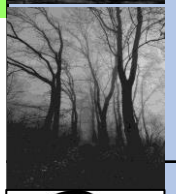
Hints of the Supernatural – Things that can't be explained in the normal world.

Feelings of Tension or Fear – Scary or nightmarish situations.

Aspects of the Past – Set in the past or a place with an interesting history.

Sense of being Isolated or Trapped – Feeling alone or a feeling of being unable to escape.

Spooky, uninhabited setting – may be a castle or an abandoned house!



Gloomy, Dark Atmosphere – Set at night, underground or in a storm.

Sense of Mystery – Unknown elements to the story.

Remember – A gothic text does not need every convention!

Perfect Sentences

Main Clause – A full, complete idea which has a subject and a verb e.g. 'The trees stood still'.

Fragment – Not a complete idea and **does not make sense by itself** e.g. 'called John'. A subordinate clause is a type of fragment e.g. 'because it was raining'. These need to be attached to a main clause to create a complete idea.

Using Commas to List – e.g. 'The tall, broad, bare trees stood still'.

Using Commas to ADD Information – Placing a fragment or subordinate clause between a main clause to add more information e.g.
'The trees, whose long branches were bare, stood still'.

Swapping the Subordinate and Main Clause – When used with a subordinating conjunction, the two parts of the sentence can be switched. e.g.

1. Kit grabbed his umbrella because it was raining.
2. Because it was raining, Kit grabbed his umbrella.

Remember – you must add a comma if the subordinate clause comes first!

TiPToP Paragraphs

TIME – A change in time i.e. The next morning or the previous day

PLACE – A change in location

TOPIC – A change of focus in the story

PERSON – A change of perspective or someone else speaking

Coordinating Conjunctions

To be used when combining two main clauses together!

For

And

Nor

But

Or

Yet

So

Remember – Main clauses can be combined using a conjunction or semi colon but NOT a comma.

Key Vocabulary

Context – The wider situation in which something is happening

Atmosphere – The feeling or mood of a place

Intertextuality – A text referencing another text within the narrative

Conventions – The way something is typically (normally) done or the typical *ingredients* of a text

Annotation – To make notes around the text

Key Prefixes

inter – Between e.g. ***intertextuality***

sub – Under/Beneath e.g. ***submerge***

un – Not e.g. ***untouchable*** = not touchable

mal – Bad e.g. ***malevolent***

Different Word Classes

VERB – An action or doing word 'stood', 'stand', 'standing'

NOUN – An object, person or place

ADJECTIVE – A describing word i.e. 'gloomy'

ADVERB – A word which describe the verb i.e. 'lazily'

CONJUNCTION – connects two clauses i.e. 'and', 'because'

PRONOUN – Used instead of a noun i.e. 'I', You'

Geography Knowledge Organiser

Year	7	Cycle	2	Topic	Development and Population

Ready to test your key term knowledge? Scan this QR code to access **Quizlet**

https://quizlet.com/gb/834892383

Subject vocabulary

Development	People reaching an acceptable standard of living or quality of life
Quality of life	The general well being of people which includes income, health, education, employment and the environment
Standard of Living	The level of goods, services and comfort available to people in a country, based on their income.
Gross National Income (GNI)	All the money in a country, divided up by its population, to give an idea of a country's wealth. Often per capita (per person).
The Brandt Line	The North-South divide draws a line through the world, with the more developed countries in the North and the less developed countries in the South. It is also known as **The Brandt Line**.
HIC / LIC / NEE	High income country – Low income country – Newly emerging economy
Export / import	**Export**: send (goods or services) to another country for sale. **Import**: bring (goods or services) into a country from abroad for sale
Transnational corporation (TNC)	A global company; often having its headquarters in HICs and factories in LICs and NEEs
Fairtrade	Trade between companies in developed countries and producers in developing countries in which fair prices are paid to the producers
Safari	An organised tour to see wildlife
Ecotourism	Tourism directed towards exotic, often threatened, natural environments, intended to support conservation efforts and observe wildlife

Population	All the inhabitants (people that live there) in a particular place
Migration	Movement from one place to another
Sparse/ densely Populated	**Dense**: Lots of people per km2 **Sparse**: Very few people per km2
Natural increase	Birth rates are higher than death rates so the population grows
Infant mortality	The number children dying under 1 year old, per 1000
Exponential	(of an increase) becoming more and more rapid
Population pyramid	Shows how the population is divided up between males and females of different age groups.
Famine	Widespread scarcity (lack of) food.
Economically active	Are between 18 - 65 years old, have a part-time or full time job and pay taxes to the government.
Dependent	Dependents are young and old people. They are not economically active and need schools, pensions etc. They DEPEND on the money raised by the tax payers.
Push / pull factors	Push: make people want to leave an area. Pull: make people want to move to an area.
Refugee	A person unable or unwilling to return to his or her homeland for fear of persecution based on reasons of race, religion, ethnicity etc…
Migrant	A person who moves from one place to another. They are called immigrants in their destination country, and emigrants in their source (home)9 country.

Lesson content

(If you cannot access the QR code, ask your teacher to share the folder with your school email)

Lessons:

1. What is development ?	This lesson starts by defining what is meant by development, and linking to the key concept of inequality by looking at basic living items worldwide. Four income levels are then explored using the same 'Dollar Street' website information. The Brandt line is then explored as a way of classifying countries' development. But created in the 1980s- is it out of date? The development gap is then explored.
2. What limits development ?	This lesson explores barriers to development. Barriers to development can be classified into human and physical categories. Physical barriers can be: climate, landlocked, hazards and lacking natural resources. Whereas human barriers are: large populations, corruption, war, lack of education and unfair trade. Four different families in Africa then tell their stories, for us to assess the similarities and differences between their lives in the African continent.
3. Introduction to Kenya	Kenya is an equatorial country in Africa. Climate, human and physical characteristics are then explored. We then look at some statistics to compare our lives in the UK to peoples' lives in Kenya. This is where the concept of place and inequality are returned to.
4. Barriers to development in Kenya	In this lesson we look specifically at Kenya's barriers to development: lack of investment in education, healthcare and transport, recent droughts, low value exports, poor government decisions, lack of jobs and terrorist attacks. Lastly, we look at a TNC in Kenya, Coca Cola. We look at the impacts and consider whether TNCs promote or hinder development.
5. Fairtrade in Kenya	This lesson starts with an introduction of how coffee is made. We then consider the various people (farmers, exporters, shipping companies, roasters and retailers) involved in the coffee chain, and whether they get a fair share for the work they do. Lastly, we look at fairtrade as a sustainable solution to the development gap in Kenya.
6. Tourism in Kenya	Tourism is an important part of the Kenyan economy, which is approximately 8% of the county's GDP. Safari tourism is an important part of attracting tourists globally; we consider the positive and negative impacts of safaris. After unveiling tourism's negative environmental impact, we consider a more sustainable form of tourism- ecotourism.
7. The Tana River	The Tana River is an important river system in Kenya. We start by describing the characteristics and relief of the Tana river before explaining its importance. We then consider the resulting conflicts over the use of the Tana River, and highlight the advantages and disadvantages resulting from its use.
8. The Tana River DME	This lesson is a decision making exercise (DME). The DME is about whether the High Grand Falls Dam should be constructed on The Tana River. We look at various stakeholders: tourists, Kenyan government, businesses, local fishermen, farmers and environmental groups. We finish this lesson by considering individually, with the evidence available, whether or not the High Grand Falls Dam should go ahead.

Where does your £1 go?

	£	%
Farmers	2p	2
Exporters	3p	3
Shippers	6p	6
Roasters	64p	64
Retailers	25p	25

Key concepts

These are '**big ideas**' in Geography. They help us link different areas of the subject together through a common thread.

Place

A space or location with meaning. Different cultures and people have different perspectives on place.

Inequality

The 'zoom lens' that enables us to view places from global to local levels.

Causality

The relationship between cause and effect. Think of the domino effect; how toppling one domino leads to a chain reaction of them all falling over.

Sustainability

Meeting our needs today without compromising future generations to meet their own needs. It is all about being caring and considerate of the present and the future.

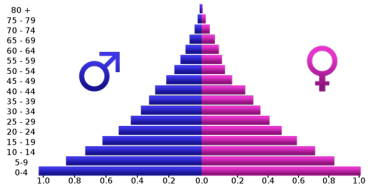
9. Mid cycle knowledge quiz	
10. Global population growth	We begin this lesson by defining some key vocabulary: population and migration. World population is then plotted on a line graph and described before we look at trends and patterns over the last 200 years. Lastly, we consider the various impacts of growing populations, both negatives and positives.
11. Population distribution	The lesson begins with defining the terms distribution (spread), dense and sparse. We describe global population distribution or a choropleth map, which leads us into explaining why these patterns exist. Physical and human factors are referred to in order to explain sparse and densely populated areas globally.
12. Natural increase	This lesson looks into why populations change over time. Key terms such as birth rate, death rate, infant mortality, natural increase and decrease are defined under our first progression step. We then analyse five different countries' population statistics and suggest reasons for the patterns we observe. Lastly, knowledge is brought to life through the eyes of jelly babies…
13. Population growth in HICs and LICs	This lesson builds upon lesson 12, but we specifically look at explaining differences in populations between HICs and LICs. We begin by looking at how populations in each country classification has increased over time. LICs/ NEEs populations have grown exponentially. We then consider the reasons why family sizes vary between countries at different stages of development.
14. Population pyramids	Population pyramids are a type of data presentation that shows the proportion of a country's population which are of a certain age and gender. The shape of a country's population pyramid can help us identify its level of development. We construct a population pyramid of the UK and begin to interpret and analyse when we compare to a LIC country, Bangladesh.
15. One child policy	This lesson goes back in time to explore the reasons behind China introducing the 'One Child Policy' - exponential growth in China's population and famine due to lack of food. We identify the effects on the population of China, and the consequences, such as gender imbalance and an ageing population.
16. Migration	This lesson introduces various classifications of migrants and their reasons for moving (push and pull factors). Migration flows are plotted on a world map using a technique called 'desire lines'. We then consider the costs and benefits of migration to source and host countries.
17. Effects and responses to migration	This lesson explores mass migration over time. Forced migration has occurred throughout history; the slave trade, world wars, colonialisation (another country owning another) partition of countries and people considered 'stateless' are reasons behind these flows of people. Effects of migration is revisited; considering the inventions and people who may have not affected our lives without migration. Laws protecting migrants and our commitment to RRS (Rights Respecting Schools) framework work to secure human rights globally. Four potential solutions are presented to solve the EU migrant crisis: International intervention, taking on child refugees, distribution of migrants across Europe and rescue and patrol missions.
18. End of cycle knowledge quiz	

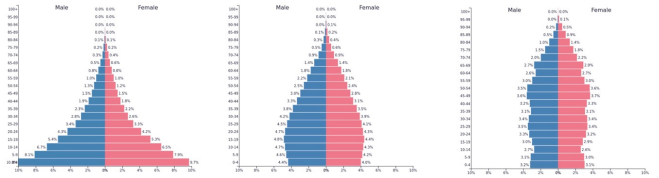
Kahoot!

If you cannot scan the QR code, head to the Kahoot website and type in the names of the quizzes (below)

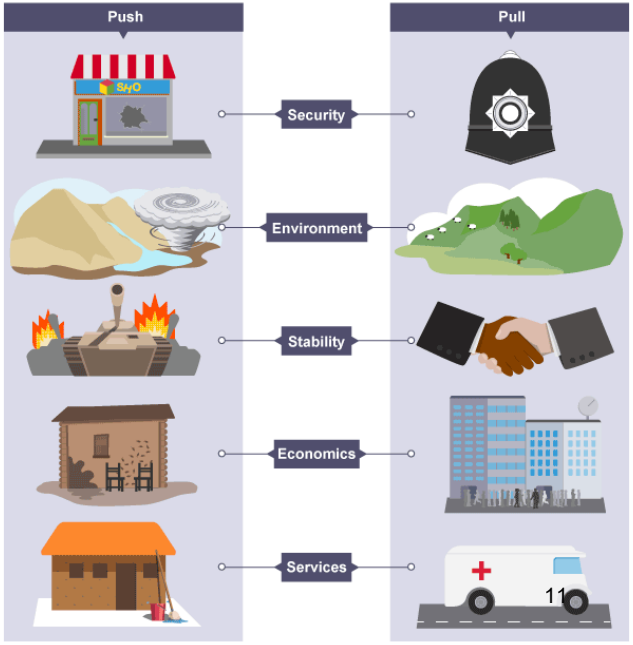
Teign School Year 7 Cycle 2 - Mid cycle revision

Teign School Year 7 Cycle 2 – End of cycle revision





LIC **NEE** **HIC**



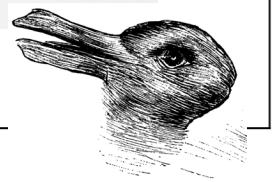
Year 7 History Cycle 2: What kind of things mattered to medieval people?					
1	In this unit we are going to be looking at the medieval period. The medieval period is also referred to as the **Middle Ages.** It is usually considered to go from about **400 AD – 1450 AD.**		Key Words		
			13	**purgatory**	A place the souls of dead people went to before going to Heaven. A kind of waiting room for souls to be punished for their sins.
Medieval Life					
2	**religion**	Almost everybody believed in the God and that Heaven and Hell were real places. The main **Christian** Church was the Roman **Catholic Church**. The **pope** was the leader of the **Catholic Church.**	14	**Christian**	A person who believes in the teachings of Jesus Christ.
3	**medicine**	Doctors did not understand what caused people to be sick and often believed it was a punishment sent by God and evil spirits. This meant their cures were often not very effective. E.g. **trepanning** and praying.	15	**Catholic Church**	The **Catholic Church**, also known as the Roman **Catholic Church**, is the largest **Christian** church. It was the main **Christian** church of the **Middle Ages**.
4	**law and order**	There was no police force in medieval England. A lack of scientific understanding made it hard to catch criminals. Trials were used to test guilt or innocence. They believed God would punish the guilty.	16	**doom painting**	Is the term used to describe paintings that can be found the walls of churches and other religious building that show judgment day and souls either going to Heaven or Hell.
5	**fun & games**	Ordinary people did not have holidays. Instead, they had 'holy days' off - our word holiday comes from this. After attending church peasants were free to play games: Football, shin hacking, archery.	17	the **pope**	The head of the **Catholic Church**
			18	**disease**	A **disease** is something that affects the normal functioning of an organism. In humans this can make them very sick.
6	**medieval society**	Medieval society was still based on the feudal system that William the Conqueror had introduced. The king sat at the top of society. The Barons, wealthy and important individuals, came next. Then it was the knights followed by the largest group in society, the peasants or villeins.	19	**miasma**	**Miasma** is an unpleasant or unhealthy smell or vapor. In the **Middle Ages** people believed this could make you sick.
			20	**Crusades**	A series of religious wars made by Europeans to recover the **Holy Lands** from the **Muslim**s in the 11th, 12th, and 13th centuries.
7	**women**	More is known about upper and middleclass women from the **Middle Ages** as we have sources containing information about them. On the other hand, it is very difficult to find information on working class women as they produced very little information about themselves and others were more interested in documenting the lives of the rich and powerful. We do know they lived hard lives.	21	**sanctuary**	A safe place. In the **Middle Ages** this could be a religious building.
			22	**trepanning**	**Trepanning** was used by ancient doctors as a cure to illnesses that affected the head, e.g. migraines. It involved making a hole in a person's skull to release the evil spirits they believed were causing the problem.
8	**Crusades**	The **Crusades** were a series of religious wars fought in the **Middle Ages** between the **Christian**s and **Muslim**. The First Crusade like many was fought over control of the Holy lands.	23	**Jerusalem**	Was the main city of the **Holy Lands**. It is an important religious centre for **Christian**s, Jews and **Muslim**s and was the Crusaders' capital city.
9	**The Black Death**	The Black Death or Bubonic **Plague** arrived in Europe in 1347. The first recorded victims in England were in 1348. People at the time had not idea what was causing the **plague**. Many believed it was sent by God as a punishment for their sins or thought it was a result of movement of the planets. Others looked for more rational causes like bad smells (**miasma**).	24	**Holy Lands**	The lands that are mentioned in the Bible as being the places where Jesus lived his life and carried out his many deeds.
			25	**bleeding**	**Bleeding** or bloodletting was the process of removing blood from a patient. This could be done by cutting or using leeches to suck blood.
Key People			26	**Muslim**	a follower of the religion of Islam
10	**Pope Urban II**	Called for the first Crusade in 1096. He promised people that all their sins would be forgiven if they went on crusade to the **Holy Lands** and the city of **Jerusalem**.	27	**clergy**	A person who is ordained into the church. E.g priest, bishop, **pope**
			28	**midwives**	Women in the **Middle Ages** who helped with childbirth
11	**Edward I**	King of England from 1272 to 1307. He was responsible for introducing the foundations of the modern legal system in England.	29	**plague**	a contagious bacterial **disease** characterized by fever and delirium, typically with the formation of **buboes**.
12	**Galen**	A Greek physician / surgeon in the Roman Empire. His understanding of the body was based on the dissection of animals. His ideas were used by doctors in the **Middle Ages**	30	**buboes**	a swollen inflamed lymph node (swelling) in the armpit or groin

Year 7 Cycle 2 HISTORY: PRE-COLUMBIAN CIVILIZATIONS

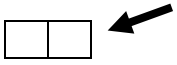
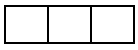
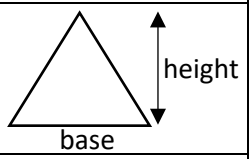
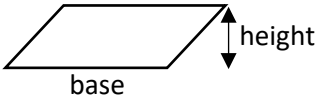
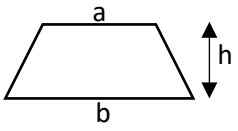
KEY DATES:	
1200BCE	**Olmec** civilization begins in Mesoamerica.
250 – 950CE	**Classical Maya period** with the emergence of the great Maya cities.
1100CE	Maya cities such as Chichen Itza go into decline.
1325CE	**Aztec** capital of Tenochtitlan founded.
1400CE	**Inca** empire emerges in South America.
1492CE	Genoese explorer, **Christopher Columbus** discovers the Caribbean.

KEY VOCABULARY:	
civilization	**Civilization** is an advanced stage of human society, where people live with a reasonable degree of organization and comfort, and can think about things like art and education.
conquistador	Spanish explorers and conquerors of the **Aztecs** and **Inca**.
indigenous	A person or group who originally inhabit a particular area.
Mesoamerica	The historical and cultural area of Central America (modern Mexico, Belize, and Honduras, Nicaragua,).
pre-Columbian	**Civilizations** of American which existed before the arrival of Columbus in 1492.
mother culture	A civilization or culture which is so dominant that it either influences those societies around it, or subsequent civilizations after its fall.

KEY QUESTIONS:	
Who were the mother culture?	The **Olmec** have the claim to be the mother culture, on the basis of their inventions and discoveries. The **Maya** also have claim on the fact their civilization spread widely in Mesoamerica.
Key similarities between the civilizations?	• **Ball-game**: the Olmec, Maya, and Aztecs all play variations of the Mesoamerican ball-game. • **Food**: basic staples such as corn, cocoa, tomatoes, potatoes are shared by all civilizations. • **Farming**: use of slash-and-burn techniques to clear jungle land for farming. • **Architecture**: use of pyramids and colossal groups of statues with religious significance. • **Religion**: use of human sacrifice, blood-letting in order to appease the gods (keep them happy).
Historical legacy?	Spanish conquest of Mesoamerica led to the destruction of **indigenous** societies at social, political, and economic levels. Indigenous technological advances in medicine were brought to Europe, along with staple crops of corn and cotton
What is an historical interpretation?	An historian's **view or opinion** of an event, person or group. Interpretations can be written or pictures. Interpretations are **based on facts** but they will **differ from person to person**.



Y7C2 Key knowledge

Item	Description
Perimeter	The total length of all the sides of a 2D shape.
Area	A measurement of the space inside a 2D shape. Measured in squares. Often confused with perimeter.
Circumference	The outline of a circle.
Circumference	$Circumference\ of a\ circle = \pi \times diameter$ or $Circumference\ of a\ circle = 2 \times \pi \times radius$
Arc	A section of the circumference of a circle.
Chord	A straight line joining two points on the circle.
Diameter	A chord that passes through the centre of a circle.
Radius	A line from the centre to the circumference of a circle.
Ratio	A way of writing down how something is shared. The ratio $2:3$ can be drawn as a bar model with 5 parts in total:  This is $\frac{2}{5}$ of the whole  This is $\frac{3}{5}$ of the whole
Area of a triangle	$Area\ of\ triangle = \frac{1}{2} base \times height$ 
Area of a parallelogram	$Area\ of\ parallelogram = base \times height$ 
Area of a trapezium	$Area\ of\ trapezium = \frac{1}{2}(a+b) \times h$ 

Y7 French LC2 Sentence Builder 1 – Where I live: Où habites-tu?

Verb	noun	location	country	preposition	noun
J'habit**e** **Tu** habit**es** **Il/elle/on** habit**e** **Nous** habit**ons** **Vous** habit**ez** **Ils/elles** habit**ent** **I** live **You** live **He/she/one** lives **We** live **You** live **They** live	**dans une** maison (**in a** house)  **dans un** appartement (**in a** flat) 	**dans le** sud (**in the** south) **dans le** nord (**in the** north) **dans l'**ouest (**in the** west) **dans l'**est (**in the** east) 	**du** pays **de** Gal**les** (of Wales) **de la** France (**of** France) **de l'**Espagne (**of** Spain) **de l'**Angleterre (**of** England) **de l'**Australie (**of** Australia) **de l'**Allemagne (**of** Germany) **des** États-Unis (**of the** USA)	près **de** (near **to**) loin **de** (far **from**)	**la** plage (**the** beach) **la** campagne (**the** countryside) l**a** lande (**the** moor) **la** ville (**the** town) **la** grande ville (**the** city) **la** rivière **the** river) **la** montagne (**the** mountains)

Y7 French LC2 Sentence Builder 2: My town: Ta ville est comment?

Opinion phrase	no**un** & verb	adverb	comparative	adjective	conjunction	noun
 **Je** pense **que** (I think that) **À mon** avis (**in my** opinión) **Je** dirais **que** (**I'**d say **that**)	**ma** région **est** (**my** region is) **mon** pays **est** (**my** country is) **ma** ville **est** (**my** town is)	**beaucoup** **(much)** **un peu** **(a bit)**	**plus** **(more)** **moins** **(les)**	grand(e) (big) petit(e) (small) intéressant(e) (interesting) animé(e) (lively) bruyant(e) (noisy) tranquille (peaceful) historique (historical) industriel(le) (industrial) joli(e) (pretty) moche (ugly) barbant(e) (boring)	**que** **(than)**	Londres (London) Cornouailles (Cornwall) **la** France (France) **la** Belgique (Belgium) **la** Suisse (Switzerland) Paris **la** grande ville (**the** city) **la** campagne (**the** country)

Y7 French LC2 Sentence Builder 3: places: Qu'est-ce qu'il y a dans ta ville ?

<table>
<tr><th>Noun phrase</th><th></th><th>verb</th><th>indirect object pronoun</th><th>noun</th><th>connective</th><th>verb</th><th>infinitive</th></tr>
<tr>
<td rowspan="3">J'aime
Tu aimes
Il/elle/on aime
Nous aimons
Vous aimez
Ils/elles aiment

I like
You like
He/she/one likes
We like
You like
They like

  </td>
<td rowspan="3">la ville car</td>
<td rowspan="2">il y a
(there is/are)</td>
<td>un
(a)</td>
<td>parc (park)
centre commercial (shopping centre)
centre sportif (sport centre)
musée (museum)
théâtre (theatre)
cinéma (cinema)</td>
<td rowspan="3">où
(where)</td>
<td rowspan="3">je peux
(I can)

on peut
(we can)</td>
<td rowspan="3">jouer (play)

traîner (hang out)

passer un bon moment (have a good time)</td>
</tr>
<tr>
<td>une
(a)</td>
<td>mairie (town hall)
piscine (swimming pool)
plage (beach)
bibliothèque (library)
place (town square)
patinoire (ice rink)</td>
</tr>
<tr>
<td>il n'y a pas
(there isn't/aren't)</td>
<td>de</td>
<td>parc (park)
centre commercial (shopping centre)
centre sportif (sport centre)
musée (museum)
théâtre (theatre)
cinéma (cinema)
mairie (town hall)
piscine (swimming pool)
plage (beach)
bibliothèque (library)
place (town square)
patinoire (ice rink)</td>
</tr>
</table>

Y7 French LC2 Sentence Builder 4 – Hobbies & Weather : Que fais-tu quand il fait beau ?

Adverb	verb	present tense ER verb	connective	noun
Quand (when) **Si / s' (if)**	**il fait** beau (it does nice weather) **il fait** mauvais (it does bad weather) **il** pleut (it rains) **il y a** du soleil (**there is** sun) **il fait** chaud (**it does** hot) **il fait** froid (**it does** cold) **il** neige (**it** snows) 	**je** chante (**I**sing) **on** chante (**we** sing) **je** danse (**I** dance) **on** danse (**we** dance) **j'**écoute **de la** musique (**I** listen **to** music) **on** écoute **de la** musique (**we** listen **to** music) **je** joue **au** foot (**I** play football) **on** joue **au** foot (**we** play football) **je** joue **aux** jeux **en** ligne (**I** play games online) **on** joue **aux** jeux **en** ligne (**we** play games online) **je** joue **de la** guitare (**I** play **the** guitar) **on** joue **de la** guitare (**we** play **the** guitar) **je** surfe **sur** internet (**I** surf **the** internet) **on** surfe **sur** internet (**we** surf **the** internet) **je** regarde **la** télé (**I** watch **the** TV) **on** regarde **la** télé (**we** watch **the** TV) **j'**étudie **pour le** college (**I** study **for** school) **on** étudie **pour le** collège (we study **for** school)	**avec (with)**	**mes** copains/amis (**my** friends) **ma** famille (**my** family) **ma** copine/ mon amie (**my** friend – female) **mon** copain/ mon ami (**my** friend – male)

Y7 French LC2 Sentence Builder 5: Building sentences – Tu aimes ta région? Pourquoi?

Opinion verb	noun	connective	verb	adjective	connective	verb	adjective
J'adore **(I love)** **J'aime bien** **(I really like)** **J'aime** **(I like)** **Je n'aime pas** **(I don't like)** **Je n'aime pas du tout** **(I don't like at all)** **Je déteste** **(I hate)**	**mon** pays (**my** country) **ma** région (**my** region) **ma** ville (**my** town) **où j**'habite (**where I** live)	**parce que/qu'** **(because**)	**c'est** **(it's)**	intéressant (interesting) animé (lively) tranquille (quiet) historique (historic) industriel (industrial) beau (beautiful) moche (ugly)	**et** **(and)** **mais** **(but)** **cependant** **(however)** **aussi** **(also)**	**c'est** **(it's)**	intéressant (interesting) animé (lively) tranquille (quiet) historique (historic) industriel (industrial) beau (beautiful) moche (ugly)
			il y a **(there is)**	**beaucoup à faire** **(lots to do)** **une** plage (**a** beach) **une** piscine (**a** pool) **un** cinéma (**a** cinema)		**il y a** **(there is)**	**beaucoup à faire** **(lots to do)** **une** plage (**a** beach) **une** piscine (**a** pool) **un** cinéma (**a** cinema)
			il n'y a **(there is - negative)**	**rien à faire** **(nothing to do)** **pas de** plage (**not a** beach) **pas de** piscine (**not a** pool) **pas de** cinéma (**not a** cinema)		**il n'y a** **(there is - negative)**	**rien à faire** **(nothing to do**) **pas de** plage (**not a** beach) **pas de** piscine (**not a** pool) **pas de** cinéma (**not a** cinema)

Year 7 Spanish Learning Cycle 2 Sentence Builder 1:

¿Quién es tu profesor favorito? – Who is your favourite teacher?

Noun	Noun	Verb	Adjective	Connective	Indirect Object Pronoun	Verb
Mi profesor **de** Mi profesora **de** = **my** teacher **of**	inglés = English matemáticas = maths ciencias = science geografía = geography historia = history religión = BVC español = Spanish francés = French deporte = PE dibujo = art música = music teatro = drama tecnología = technology informática = IT	**es = is**	 sincer@ = sincere tímid@ = shy tranquil@ = calm divertid@ = fun gracios@ = funny seri@ = serious simpátic@ = kind tont@ = silly list@ = smart loc@ = crazy rar@ = weird interesante = interesting aburrid@ = boring simpátic@ = kind antipátic@ = unkind	**y = and** **pero = but**	**me = (to) me** **te = (to) you** **le = (to) him/her** **nos = (to) us** **os (to) you** **les = (to) them**	ayuda = helps apoya = supports grita = shouts da miedo = scares

Year 7 Spanish Learning Cycle 2 Sentence Builder 2:

¿Qué opinas de tus clases? – What is your opinion on your lessons?

<table>
<tr><th>Verb</th><th>Noun</th><th>Connective</th><th>Verb</th><th>Modifier</th><th>Adjective</th></tr>
<tr><td rowspan="2">Me encanta… =
… is loveable to me
Me gusta… =
…is likeable to me</td><td rowspan="2">el inglés = English
la geografía = geography
la historia = history
la religión = BVC
el español = Spanish
el francés = French
el deporte = PE
el dibujo = art
la música = music
el teatro = drama
la tecnología = technology
la informática = IT</td><td rowspan="3">porque
=because</td><td>es =
it is</td><td rowspan="3">demasiado = too
tan = so
muy = very
bastante = quite
un poco = a bit</td><td rowspan="2">divertid@ = fun
interesante = interesting
fascinante = fascinating
guay = cool
práctic@ = practical
creativ@ = creative
aburrid@ = boring
tedios@ = tedious
repetitiv@ = repetitive
difícil = difficult
fácil = easy</td></tr>
<tr><td>Me encantan… =
… are loveable to me
Me gustan… =
…are likeable to me</td><td>las matemáticas = maths
las ciencias = sciences</td><td>son =
they
are</td></tr>
<tr><td colspan="3"> 
</td><td>divertid@s = fun
interesantes = interesting
fascinantes = fascinating
guay = cool
práctic@s = practical
creativ@s = creative
aburrid@s= boring
tedios@s = tedious
repetitiv@s = repetitive
difíciles = difficult
fáciles = easy</td></tr>
</table>

Year 7 Spanish Learning Cycle 2 Sentence Builder 3:

¿Qué haces en tus clases? – What do you do in your lessons?

	Noun	Auxiliary Verb	Infinitive phrase	Time marker
En mi clase **de** = **In my** … class **of**	inglés = English matemáticas = maths ciencias = science geografía = geography historia = history religión = BVC español = Spanish francés = French deporte = PE dibujo = art música = music teatro = drama tecnología = technology informática = IT	**Me encanta =… is loveable to me** **Me gusta = …is likeable to me** **puedo = I can/am able to** **debo = I must** **quiero = I want** 	escribir = to write escuchar **al** profesor = to listen **to the** teacher tocar **un** instrumento = to play **an** instrument **hacer** experimentos = **to do** experiments **estar en una** obra = **to be in a** play jugar **a** los deportes = to play **at** sports crear **algo** = to create **something** hablar = to talk **usar** los ordenadores = **to use** the computers **ser** activ@ = to be active trabajar **en** equipo = to work **in** team trabajar **en** silencio = to work **in** silence	**siempre = always** a menudo = often **a veces = sometimes** **mucho = lots** **poco= little**

Year 7 Spanish Learning Cycle 2 Sentence Builder 4:

¿Qué vas a estudiar en el futuro? – What are you going to study in the future?

Time Phrase	Auxiliary Verb	Infinitive	Noun	Connective	Verb	Adjective
en el futuro = **in the** future	**voy a = I am going to** 	estudiar = to study **hacer = to do**	inglés = English matemáticas = maths ciencias = science geografía = geography historia = history religión = BVC español = Spanish francés = French deporte = PE dibujo = art música = music teatro = drama tecnología = technology informática = IT biología = biology química = chemistry física = physics cocina = cooking negocios = business studies	**porque**	**(no) es**	divertid@ = fun interesante = interesting aburrid@ = boring tedios@ = tedious repetitiv@ = repetitive exigente = demanding difícil = difficult fácil = easy útil = useful importante = important

TEIGN SCHOOL MUSIC
Y7 Cycle 2 Knowledge Organiser: SONORITY & TONALITY

Sonority & Tonality

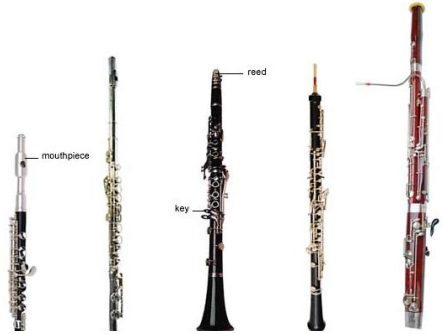
Exploring Instruments of the Orchestra & how tonality and sonority effect the mood of a piece of music

Strings Section/Family

Made from wood and have strings. They are usually played with a **BOW** (**ARCO**) –but can also be **PLUCKED** (**PIZZICATO**). The smaller the instrument, the **HIGHER PITCHED** it is. The Harp is always plucked, it has many more strings so can play both high- and low-pitched notes.

Woodwind Section/Family

FLUTES (create a sound by air passing over a small hole and include the Flute and Piccolo) The oboe, Clarinet & bassoon have a **REED.** The Saxophone is not traditionally used in an orchestra. However, some modern composers have included it.



Brass Section/Family

There are 4 main brass instruments used in the orchestra. They are made of metal and the sound is made by blowing into the mouthpiece by buzzing the lips in a similar way to blowing a raspberry! The bigger the instrument, the lower the pitch. The Trumpet is the highest.

Percussion Section/Family

A vast range of instruments which produce sound when ***hit, struck, scraped or shaken***. These fall into two groups : **TUNED PERCUSSION** (able to play different pitches) and **UNTUNED PERCUSSION** (*e.g. drums)*

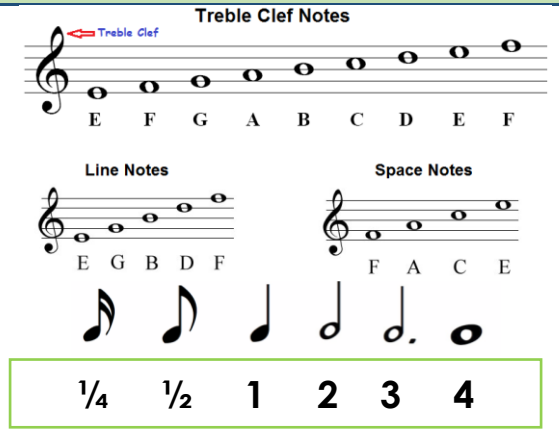
TUNED PERCUSSION

UNTUNED PERCUSSION

Key Words that you will need to learn!

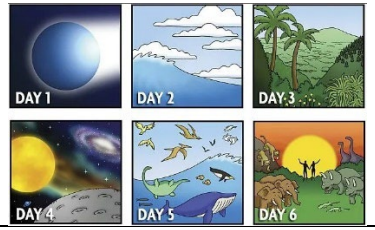
ORCHESTRA – A large ENSEMBLE divided into four SECTIONS or FAMILIES of musical instruments
SONORITY (**TIMBRE**) – unique sound of an instruments Sonority can be described in different ways – *velvety, screechy, throaty, rattling, mellow, chirpy, brassy, sharp, heavy, buzzing, crisp, metallic, wooden etc.*
PITCH – How HIGH or LOW a note is (high/low, getting higher/lower, step/leap).
ARTICULATION – smooth/spikey– legato/staccato – bowed/plucked
TONE – whole step
SEMITONE – Half a step
MAJOR – Happy sounding tonality
MINOR – Sad sounding tonality
SCALE – A series of notes arranged in pitch order within an octave (2 notes of the same name 8 notes apart)
OSTINATO – short repeating musical phrase (eg DA, DA, DA)
CHORD – 3 or more notes played together

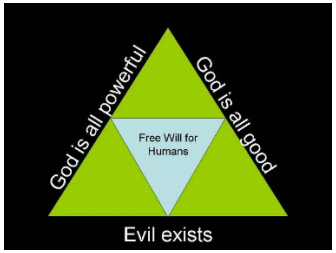
MUSIC READING

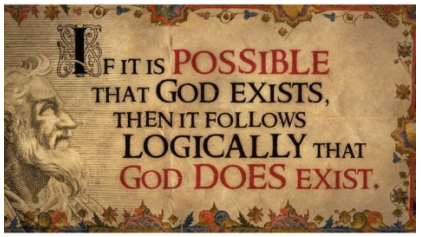


Year 7 Cycle 2 – PE – Immediate, Short- and Long-Term Effects of Exercise

Week 1 and 2	Week 3 and 4	Week 5 and 6	Week 7 and 8	Week 9 and 10	Week 11 and 12
Immediate Effects	Short Term Effects	Long Term Effects	Physical health & well-being	Mental (emotional) health & well-being	Social health & well-being
The immediate effects of exercise begin as soon as you start to exercise. **Immediate effect 1** – Heart rate increases. Your heart begins to work harder as it needs to deliver oxygen to the working muscles. **Immediate effect 2** – Temperature increases. As you begin to exercise you will begin to feel hotter. **Immediate effect 3** – Your breathing rate increases deepens. This is because you need to get more oxygen to the working muscles. **Immediate effect 4** – Sweating and red skin. These 2 things happen because it's how the body deals with temperature control. 	The short-term effects of exercise can occur any time between 24-36 hours after you finish exercising. - **Muscle cramps** - **Fatigue** - **Light headed** - **Nauseous** - **Muscle aches**  **DOMS:** if your exercise with high intensity. DOMS stands for Delayed onset Muscle Soreness. Some of the **negative short-term effects** – such as feeling fatigued, light headed and nauseous – are quite common until you establish a regular exercising routine. **Once you have this routine they are likely to disappear**.	**Change 1 – Improved body shape.** This can be in lower body weight or improved muscle tone. **Change 2 – Improved components of fitness.** Increase your strength, muscular endurance, flexibility and cardiovascular fitness. . **Change 3 – Your cardiovascular endurance will improve.** This means you will be able to exercise for longer. **Change 4 – Your muscles will increase in size and produce greater strength.** When muscles are trained small tears are created. As these tears heal, they become thicker. This process is called hypertrophy. **Change 5 – Your heart will increase in size.** This is called cardiac hypertrophy. This will enable the heart to deliver more oxygen to the working muscles. **Change 6 – Your resting heart rate will be lower**. Bradycardia is the name given to a low resting heart rate. A resting heart rate below 60 BPM is bradycardic	To have good **physical health & well-being** means: •All your body systems are working well •You are free from illness & injury •You are able to carry out every-day tasks  Regular exercise can make improvements to your **physical health & wellbeing** in the following ways: 1.**Improves heart function** –reduces chances of a heart attack. 2.**Reduces the risk of some illness** –reduces chances of heart disease & strokes. 3.**Avoidance of obesity** – reduces the chances of diabetes linked by being obese.	The World health organisation (WHO) defines mental health & well-being as: **a state of well-being where individuals:** 1.Realise their own potential 2.Cope with the stresses of life 3.Can work productively & fruitfully **The benefits of exercise to mental health & well-being are:** 1.Reduce stress/tension –help prevent illnesses such as depression. 2.Increase in serotonin –when release makes you feel good. 3.Greater ability to control emotions – increase confidence & self-esteem.	**Social health & well-being** is when: •Basic human needs are met (food, shelter & clothing) •Individuals have friendships, support & some value in society •Is socially active & has little stress in social circumstances.  **Regular exercise** or joining a team or club is a great way to achieve the **social benefits** as: •Meeting new friends or existing friends •Improves cooperation skills •Increases social activities therefore reducing engaging in anti-social behaviour. 

RPE Week 1	RPE Week 2	RPE Week 3	RPE Week 4
Lesson 1 – Does God Exist?	**Lesson 2 – How Do We Prove Something?**	**Lesson 3 – Creation Myths**	**Lesson 4 – What Is The Design Argument?**
Key Terms: **Theist:** A person who believes in God **Atheist:** A person who disbelieves or lacks belief in the existence of God or gods. **Agnostic:** A person who is not sure if God exists or not.	**Key Terms:** **Proof:** Evidence or argument establishing a fact or the truth of a statement.  	**Key Terms:** **Creation:** The action or process of bringing something into existence. **Creationism:** The belief that God created the world.  	**Key Terms:** **Design:** A plan or drawing produced to show the look and function or workings of a building or other object before it is made. **Teleological:** The explanation of something in terms of the purpose it serves rather than of the cause by which it arises.
Content: There are different reasons that people give for either believing in God or not. For example, a theist may believe in God because they believe in the idea of the world being created by a powerful being. Yet, an atheist who does not believe in God may say that some creations are dangerous – for example, lightning.	**Content:** There are different ways of trying to prove something. Many people say that they need proof to believe in someone's existence – for example, to see that person or speak to them. The three main arguments that attempt to prove God's existence are the Cosmological argument, the Teleological argument and the Ontological argument.	**Content:** Many Jews and Christians believe in the concept of creationism: that God created the world according to the story in Genesis. For many Jews and Christians, the Creation story is one example of proof of how God exists.	**Content:** The Design Argument claims that the Universe is too ordered and complicated to have come about by random chance; therefore, it must have been designed. For example, trees take in carbon dioxide and give out oxygen. William Paley used the Design Argument to explain the existence of God. Things that are designed need a Designer – ie. God!
Questions: 1. What is a theist, atheist and agnostic? 2. What reasons might someone give for believing in God or not believing in Him?	**Questions:** 1. How do we prove something? 2. What different types of evidence have philosophers used to try to prove God exists?	**Questions:** 1. What is Creationism? 2. How might a Jew or Christian use the Genesis story of Creation as proof that God exists?	**Questions:** 1. What is the Design Argument? 2. How does William Paley use the Design Argument to prove the existence of God?

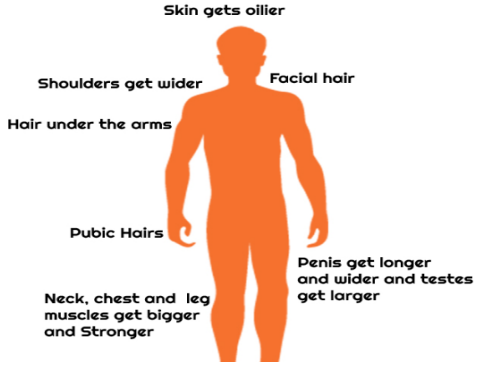
RPE Week 5	RPE Week 6	RPE Week 7	RPE Week 8
Lesson 5 – Big Bang Theory & Evolution	**Lesson 6 – The Cosmological Argument**	**Lesson 7 – The Moral Argument**	**Lesson 8 – The Problem of Evil**
Key Terms: **Big Bang Theory:** How the universe expanded from an initial state of high density and temperature. **Evolution:** The process by which different kinds of living organism are believed to have developed from earlier forms during the history of the earth.	**Key Terms:** **Cause:** A person or thing that acts or exists in such a way that some specific thing happens as a result. **Effect:** An event, condition, or state of affairs that is produced by a cause. **Cosmological:** Relating to the origin and development of the universe.	**Key Terms:** **Moral:** Standards of behaviour; principles of right and wrong. **Lawgiver:** A person who draws up, introduces, or enacts a code of laws for a nation or people. 	**Key Terms:** **Evil:** Morally bad and cruel. **Suffering:** Undergoing pain, distress or hardship. 
Content: The Big Bang Theory was proposed in the 1920's by Alexander Friedman. There is still evidence today to support the Big Bang Theory as the Universe is still expanding and we can monitor for cosmic radiation. Charles Darwin proposed that species changed in order to survive (Evolution).	**Content:** Everything has a cause and a consequence. If this is the case, there must have been something that caused everything to happen. Thomas Aquinas used this idea to suggest that this First Cause is God which proves that God exists. A major problem with this theory is that we have no answer to the question, 'Who caused God?'	**Content:** Immanuel Kant formed the Moral Argument. He argued that humans have a sense of what is right and wrong. Kant's argument was that there must be someone who made these moral laws: a lawgiver. This lawgiver is God. Therefore, God exists.	**Content:** The Greek philosopher, Epicurus claimed that the existence of evil proves that there is no God. He claimed that if God cannot stop evil, then He is not all powerful. He then argued that if God can prevent evil, but does not, then God is not good. If God is all powerful and good, then evil would not exist. Evil does exist, therefore God must not exist!
Questions: 1. What is the Big Bang theory? 2. What evidence is there to support the Big Bang Theory? 3. What is Evolution?	**Questions:** 1. Does everything have a cause? 2. Does there have to be a First Cause? 3. Could this First Cause be God?	**Questions:** 1. What is the Moral Argument? 2. Where do we get our sense of right and wrong from? 3. Are there any problems with the Moral Argument?	**Questions:** 1. What is the problem of evil? 2. What is the inconsistent triad? 3. How is the problem of evil a criticism of the Moral Argument?

RPE Week 9	RPE Week 10	RPE Week 11	RPE Week 12
Lesson 9 – The Ontological Argument	**Lesson 10 – Assessment Preparation**	**Lesson 11 – End of Cycle Assessment**	**Lesson 12 – Assessment Repair Work**
Key Terms: **Ontology:** The philosophical study of being.  			
Content: The philosopher and theologian, Anselm formed the Ontological Argument, stating that the definition of God is 'The greatest thing that can be thought of.' It is not possible to think of anything greater than God. Something that exists is better than something that does not exist. Therefore, God exists!			
Questions: 1. What is the Ontological Argument? 2. How can the Ontological Argument prove the existence of God? 3. What problems are there with the Ontological Argument?			

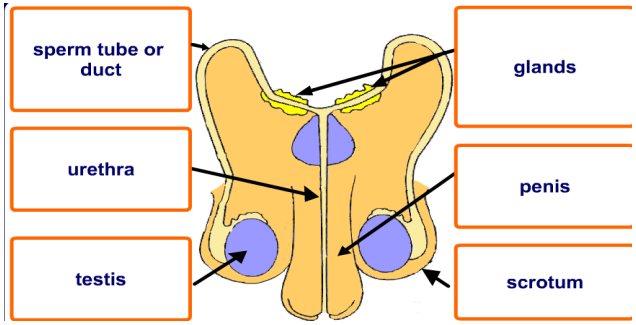
Biology Lesson 1
Puberty

Adolescence is the time in your life when both physical and emotional changes occur

Puberty is the physical changes that occur during adolescence

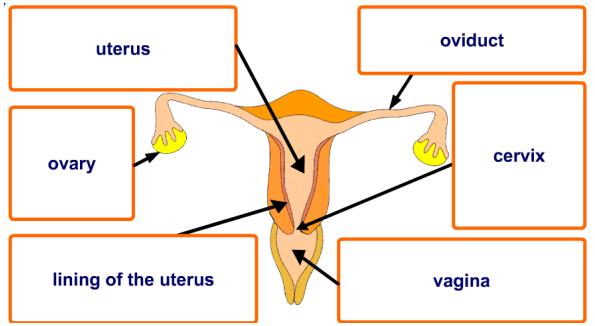


Biology Lesson 2
Male Reproductive System

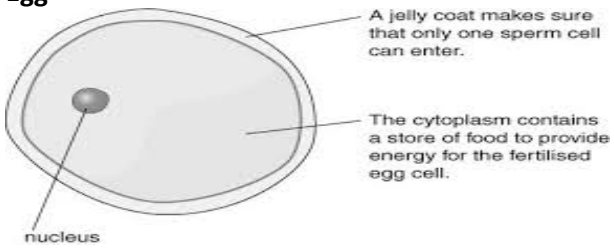
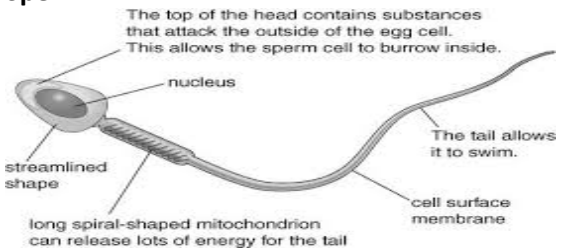
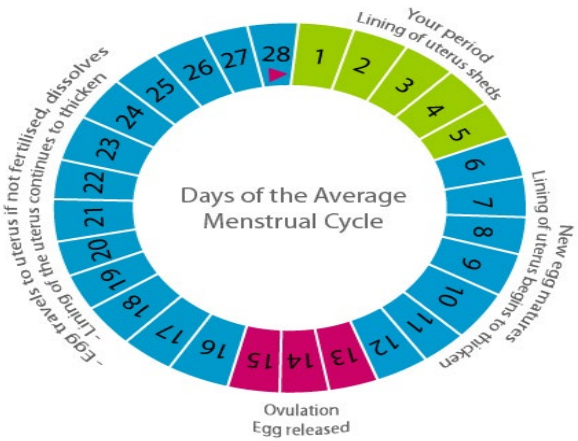


Part	Function
Testis	Produce sperm and male hormone testosterone
Scrotum	Sac of skin outside body that contains the testes
Glands	Produce fluids to nourish the sperm
Sperm duct	Tube that carries sperm and fluids (semen) form testes to urethra
Urethra	Tube inside the penis that can carry urine or semen.
Penis	Allows a man to pee or to place semen into vagina of women during sex.

Biology Lesson 2
Female Reproductive System

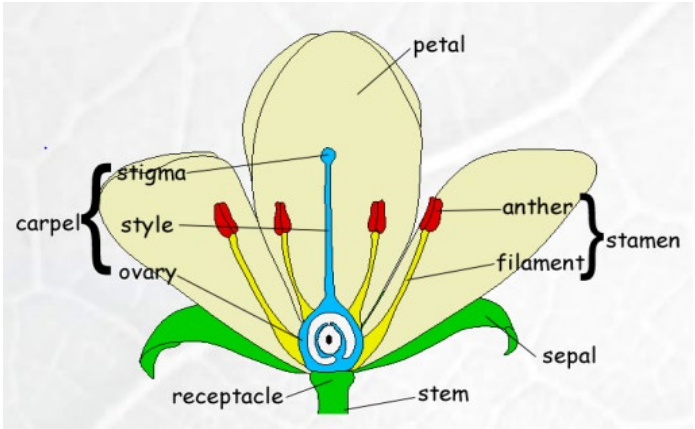


Part	Function
Ovaries	Produce eggs (ova)and female hormones oestrogen and progesterone
Oviduct	Tubes that connect ovary to uterus. Where sperm fertilises the egg. Contain cilia which waft to move the egg along.
Uterus	Muscular bag, where baby develops. Lining thickens every month.
Cervix	Ring of muscle at entrance of uterus
Vagina	Where sperm are placed during sex.

Biology Lesson 3 Fertilization & Implantation	Biology Lesson 4 Foetal Development	Biology Lesson 5 The Menstrual Cycle
Ovulation: Once a month one of the ovaries releases a mature egg (ovum) into the oviduct. **Fertilisation**: When a sperm and egg join together and the genes from the mother and father combine to form a new life. It occurs in the Oviduct. The sperm has to dissolve the membrane of the egg. The nucleus of the sperm then fuses with the nucleus of the egg. **Implantation**: The fertilised egg sinks into the soft lining of the uterus. It develops a placenta and develops into a fetus. **Egg**  **Sperm**  	**Embryo** – One week after fertilisation the ball of cells is called an embryo. **Placenta** - Attached to the uterus wall, takes oxygen and nutrients from the mother's blood for the foetus and puts waste material in to the mother blood from foetus **Umbilical Cord**- Connects developing baby to its placenta. Carries food, oxygen, and waste between the placenta and growing foetus **Amniotic Fluid** - Liquid surrounding the embryo protecting it inside a sac called the **Amnion.** **Foetus** - After 10 weeks an embryo has grown all of its organs so it is called a foetus Other substances can also pass through the placenta. **Drugs** can affect the fetus - slowing the growth of the fetus, reducing the amount of oxygen and causing bleeding - which can be life threatening. **Drinking alcohol or smoking** while pregnant are also dangerous and can increase the risk of stillbirth, premature birth and long-term health conditions.	**The Menstrual Cycle** starts at puberty in girls. Each cycle lasts about 28 days. The uterus lining thickens so that it is able to receive a fertilized egg. If an egg is fertilized, it can implant itself in the prepared uterus lining. If it is not fertilized, the lining of the uterus breaks down and is lost from the body. This is called **menstruation** or a period. 

Biology Lesson 6
Flower structure and Pollination

Parts of a Flower



Petal	Coloured, flag-like structures which attract insects
Stamen	The male sex organ – made of the filament and the anther
Anther	Part of the male sex organ – makes pollen
Filament	A thin stalk that supports the anther
Carpel	The female sex organs – made of the stigma, the style and the ovary
Stigma	Collects pollen
Style	Connects the stigma to the ovary
Ovary	Found inside the ovary; contains the egg cell

Pollination is the act of transferring pollen grains from the male anther of a flower to the female stigma. There are two types of pollination:

Self-pollination: The pollen grain lands on the same flower it originated from

Cross-pollination: The pollen grain lands on a different flower to the one it originated from

Bees, butterflies, beetles, moths and flies are all pollinators. Without them, food security would be threatened and there would be a worldwide shortage of fruit; especially apples, plums and pears.

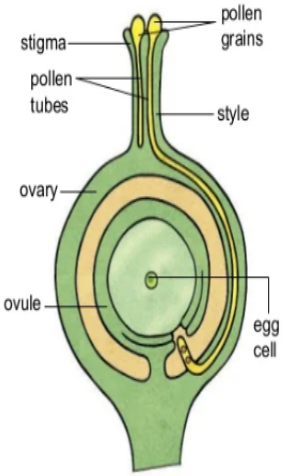
Many plant species could also decline or become extinct along with the organisms that directly or indirectly depend on them. Bees are facing many threats globally. These include habitat loss, climate change, toxic pesticides and disease.

Biology Lesson 7
Fertilisation and Germination

Fertilisation is the joining of gametes.

Pollen is the male sex cell in a plant.

- When a pollen grain lands on the surface of a stigma, it produces a tube.
- The inside of the tip of the tube contains the **male cells** of the flower.
- These tubes grow down the style to reach the ovules in the ovary.
- Inside each ovule is an **egg cell**.



The nucleus from the male sex cell (pollen) then moves down the tube to join with a female sex cell (an ovule) in the ovary.

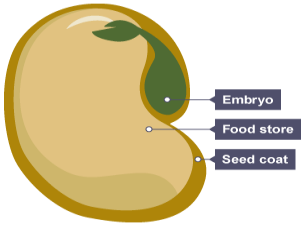
Fertilisation is when the two nuclei join

Biology Lesson 8
Seeds and Fruit

Most fruits have seeds, which make them capable of developing into new plants. The ovary develops into a fruit. Each fertilised ovule forms a seed.

A seed has three main parts:

An embryo: the young root and shoot that will become the adult plant
Food store: starch for the young plant to use until it is able to carry out photosynthesis
Seed coat: a tough protective outer covering



A cross-section of a seed

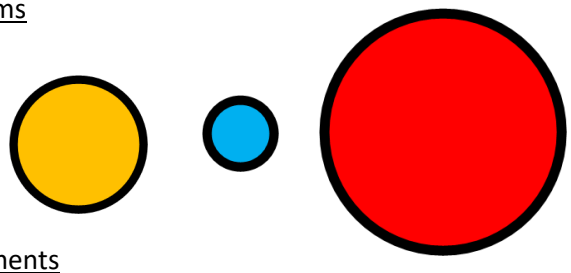
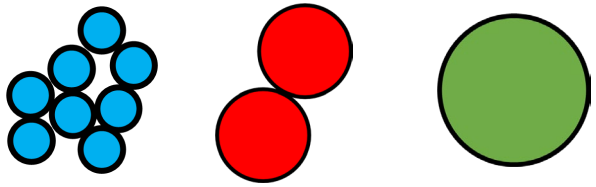
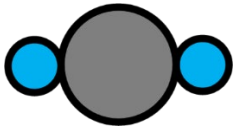
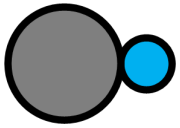
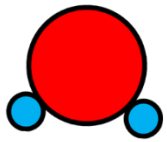
Seeds will often lie dormant until the conditions around it are just right for germination. Factors such as temperature, concentration of oxygen in the air and water will affect germination

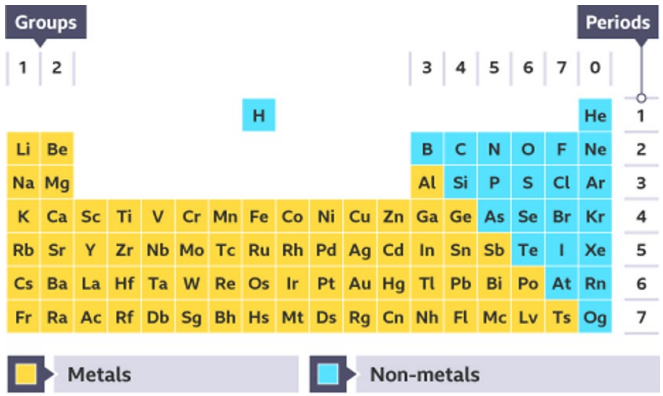
Biology Lesson 9
Seed Dispersal

Seed dispersal is the transport of seeds from the plant to another area in order to grow. These are the main ways in which seeds can be dispersed: Animals, Explosion, Wind and Water

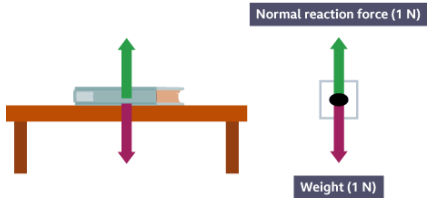
Seeds must be dispersed or spread away from each other and from their parent plant. This is to reduce competition between one another and increase their chances of survival

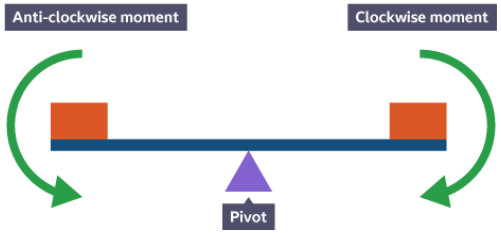
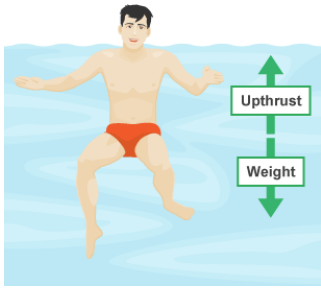
Dispersal method	Description	Example
Animal	Some plants use hooks on their fruits. These attach themselves to the fur of mammals or feathers of birds and get carried from one place to another.	Cocklebur, goose grass, burdock
Animal	Fleshy fruits are eaten by animals. The seeds are then dispersed after passing through the digestive system of animals that have eaten the fleshy fruits.	Tomato, raspberry, grape
Animal	Animals such as squirrels may store nuts to eat later and forget to go back to get them, giving them a chance to germinate.	Acorns
Explosion/self-propelled	Have a pod that bursts open when ripe, throwing the seeds away	Pea pod
Wind	Some plants have seeds that act as parachutes, which are carried away by the wind	Dandelions
Wind (spinning)	Some seeds are winged. They spin like helicopters as they fall from the tree, providing a longer time for dispersal by wind.	Maple fruits, sycamore
Water	Some plants grow near rivers, lakes, streams or oceans. Their fruits or seeds fall from the plant and are carried away by the water.	Coconut, silver birch, willow

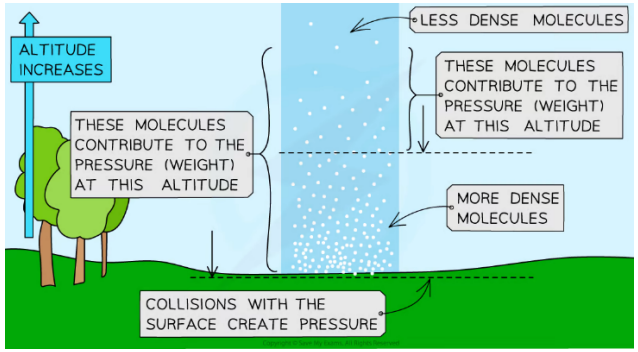
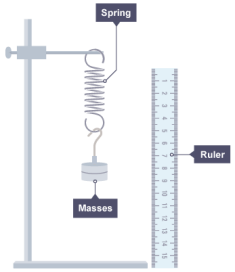
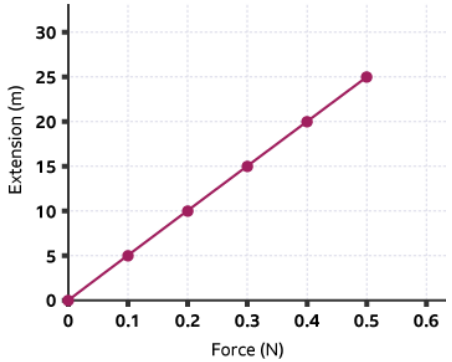
Chemistry Lesson 1 **Atoms & Elements**	**Chemistry Lesson 2** **Compounds & Making Compounds**	**Chemistry Lesson 3** **Formula**
An atom is the smallest particle of an element. An element is a pure substance made from just one type of atom. <u>Atoms</u>  <u>Elements</u>  <u>Element symbols</u> Oxygen = O Sodium = Na Chlorine = Cl Carbon = C Sulfur = S Hydrogen = H Iron = Fe	A compound is a pure substance that is made from more than one element. In a compound, elements are chemically bonded together, which makes it very difficult to separate them. Compounds are not found on the periodic table. For example, water isn't on the periodic table because it is a compound, not an element. Elements in a compound have different properties to the pure elements on their own. Carbon Dioxide CO_2  Carbon Monoxide CO  Water H_2O 	sodium + chlorine → sodium chlor***ide*** copper + sulfur → copper sulf***ide*** RULE: If two elements combine the product will end in ***'ide'*** copper + sulfur + oxygen → copper sulf***ate*** RULE: If there are more than two elements and one is oxygen, the product will end in ***'ate'*** When a compound is made, the atoms of the elements bond together in a fixed ratio. This means that each compound can be represented by a chemical formula. For example, the formula of water is H_2O and the formula of carbon dioxide is CO_2. CO_2 1 atom of carbon bonds to 2 atoms of oxygen CO 1 atom of carbon bonds to 1 atom of oxygen NaCl 1 atom of sodium bonds to 1 atoms of chlorine $CaCO_3$ 1 atom of calcium bonds to 1 atoms of carbon and 3 atoms of oxygen

Chemistry Lessons 4 Periodic Table & Development	Chemistry Lesson 5 Group 1	Chemistry Lesson 6 Group 7
There are 118 chemical elements. They are listed on the periodic table in a specific order.  Elements in vertical columns are known as **groups**. Horizontal rows are called **periods**. Our modern Periodic Table was developed by a Russian scientist called Dimitri Mendeleev	**Group 1** are very reactive metals. They are called the **Alkali metals**. lithium - Li sodium - Na potassium - K rubidium - Rb caesium - Cs francium - Fr **Physical properties** are the features of a substance which can be observed without changing the substance itself. Examples: • Melting point • Boiling point • Electrical conductivity Going down the group melting and boiling point of the Alkali Metals decreases. **Chemical properties** are the features of the way a substance reacts with other substances. Elements in the same group have similar chemical properties. Going down the group the **Alkali Metals** become **more reactive**.	**Group 7** are reactive non-metals. They are called the **Halogens**. fluorine - F chlorine - Cl bromine - Br iodine - I astatine – At Going down the group melting and boiling point of the Halogens increases. **Displacement** reaction - The more reactive element will displace a less reactive element from its compounds. **fluorine + potassium chloride → potassium fluoride + chlorine** chlorine is displaced because it is less reactive than fluorine Going down the group the **Halogens** become **less reactive**.

Chemistry Lesson 7 Group 0	Chemistry Lesson 8 Metals & Non-Metals	Chemistry Lesson 9 Properties of Metals
Group 0 are unreactive gases. They are called the **Noble gases**. helium – He neon – Ne argon – Ar krypton – Kr xenon – Xe radon – Rn Going down the group melting and boiling point of the **Noble gases increases.** **Noble gases** are unreactive because they have a full outer shell of electrons. helium is used in balloons as it is **less dense** than air. neon is used in advertising lights. argon and krypton are used in double glazed windows.	The majority of elements are metals and they are found on the left and in the middle of the periodic table. Most metals share a lot of properties: • They have high melting and boiling points meaning they are solid at room temperature • They are good conductors of heat and electricity • They are shiny in their appearance • They are malleable Other common properties of metals are: • They are hard and strong • Have a high density • They are sonorous **Conductor**: A material which allows heat or electricity to move easily through it. **Malleable**: Capable of being hammered or pressed into a new shape without breaking **Sonorous:** Able to make a ringing sound when hit. Non-metals have properties in common with each other. • Poor conductors of heat and electricity • Dull in their appearance • Weak and brittle Some other common properties of non-metals are: • Generally low melting and boiling points, meaning they are gases and liquids at room temperature • Not sonorous **Brittle**: Something which is brittle is easily broken or shattered. An element doesn't have to have every property of metals for you to classify it as a metal! As long as it has most metal properties, you can be confident that it is a metal.	

Physics Lesson 1 Contact and non-contact forces	Physics Lesson 2 Mass and weight	Physics Lesson 3 Balanced and unbalanced forces
A force is a push or a pull that acts on an object. We cannot see forces, but we can see their effects. **Contact forces** act between objects that are touching and **non-contact** forces act between objects that are not touching. Contact forces include • tension, • friction, • air resistance, • upthrust, • thrust • and normal reaction force. Non-contact forces include • magnetic forces, • electrostatic forces • and gravitational forces. Forces have a size (**magnitude**) and a **direction**. The unit of force is the newton (N) A device for measuring forces is called a force meter or newton meter.	**Mass** is the amount of matter and is measured in kilograms (kg) and is the same everywhere in the Universe. There are 1000 grams in 1 kilogram. To covert grams to kilograms, divide by 1000. Mass is measured using a **top-pan balance**  **Weight** is the force due to gravity. It is measured in Newtons (N) and changes throughout the Universe. $$\text{weight} = \text{mass} \times \text{gravitational field strength}$$ The gravitational field strength on Earth is approximately 10 N/kg. Weight can be measured with a newton meter. 	Multiple forces can act on an object. The forces acting on an object can be shown with a free body diagram.  The **resultant force** is the overall force acting on an object. When forces act in the same direction, the resultant force is equal to the forces added together. When forces act in opposite directions, the resultant force is equal to the difference between the forces. When the forces are balanced (equal to each other) the resultant force is 0 N. The object will not change speed or direction. If the resultant force is not zero, the forces are unbalanced and the object could speed up, slow down or change direction.

Physics Lessons 4 and 5 Moments and the principle of moments	Physics Lesson 6 Pressure on a solid surface	Physics Lesson 7 Pressure in liquids
A **moment** is the turning effect of a force around a pivot. The pivot is the point around which an object can turn. Moment of a force = force × perpendicular distance from the pivot The units for moment are newton metres (Nm). The **principle of moments** states that for an object to be **balanced** the total clockwise moment must be equal to the total anti-clockwise moment.  Levers act as **force multipliers**. A spanner with a long handle increases the distance from the pivot and so a smaller force is needed to undo a nut from a bolt. The handle of a door is far from the hinges so that a smaller force is needed to open or close the door.	**Pressure** is a measure of how concentrated a force is. It depends on the size of the force and the surface area it is spread over. pressure = force ÷ area The units for pressure are pascals (Pa). One pascal is equal to one newton per square metre (1 N/m^2). Pressure can also be measured in N/cm^2. It is easier to cut things with a sharp knife than with a blunt knife because the sharp knife has a smaller surface area and will exert a larger pressure on the object being cut. A snowboard has a large surface area which spreads the snowboarder's weight out and reduces the pressure exerted on the snow. This will stop them sinking into soft snow.	Pressure in a liquid increases with depth due to the increased mass of liquid above that point. The pressure will also depend on the density of the liquid. A partially (or totally) submerged object experiences a greater pressure on the bottom surface than on the top surface. This creates a resultant force upwards. This force is called the upthrust. An object floats when its weight is equal to the upthrust. 

Physics Lesson 8 Atmospheric pressure	Physics Lesson 9 Forces and stretching	Physics Lesson 10 Force-extension graphs
The atmosphere is a thin layer of air round the Earth. The atmosphere gets less dense with increasing altitude (height above sea level). Atmospheric pressure decreases as the height of a surface above ground level increases. This is because, as the altitude increases: • the number of air molecules decreases • the weight of the air decreases • there is less air above a surface  	When a force is applied to an object it can change its size or shape. We call this **deformation**. Deformation can either **stretch** (increase the length of) or **compress** (decrease the length of) objects. **Elastic** materials will return to their original shape when the force is removed. **Inelastic** materials will change shape permanently. This is called **plastic deformation**. When you apply a force to a material it can extend. The **extension** is the amount the length has increased by.  The **independent variable** is the weight applied to the spring. The **dependent variable** is the extension. **Control variables** include using the same spring for all the measurements.	A graph of force against extension can be used to show if an object has undergone elastic or inelastic deformation.  Most elastic objects follow **Hooke's Law** which states that the extension is **directly proportional** to the force applied. This means a graph of force against extension is a straight line through the origin. Some materials will reach their **elastic limit** which is the point at which so much force is applied that the material will not return to its original shape and is **permanently deformed**.