

# Year 7 Knowledge Organiser

## Spring 2023

Name: \_\_\_\_\_

Tutor Group: \_\_\_\_\_



ORMISTON  
DENES ACADEMY

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Ormiston Academies Trust  
ACHIEVING MORE TOGETHER

## Your Knowledge Organiser

### **What are Knowledge Organisers?**

A Knowledge Organiser is a set of key facts or information that students need to be able to know and recall in order to master a unit or topic. In order to produce our Knowledge Organisers, our departments have effectively extracted from their curriculum content the key vocabulary, facts and information that it would help students to commit to long-term memory.

### **Why are we using Knowledge Organisers?**

All of us, throughout our lives, will benefit from understanding how best we learn – and what strategies for learning we can employ in order to commit information to long-term memory. At school, we talk a lot about the way that knowledge is accumulated over time – and about the importance of over-learning and consolidation. Knowledge Organisers are designed to provide students with opportunities to over-learn and consolidate recently learned information. They encourage use of active and multi-sensory revision practices, repetition, and spaced retrieval. We believe that Knowledge Organisers are important because they are designed to teach students the metacognitive study skills that they will require throughout their adult learning lives; effectively, what we are using Knowledge Organisers to introduce is a five-year programme of revision aimed at developing the skills required for effective revision and developing the knowledge they will need to be effective adults and further learners.

### **What is Metacognition?**

Metacognition is the awareness and understanding of one's own thought processes. When we talk about developing metacognitive skills in students, we're talking about students developing an understanding of how they learn best. For example, a student who wishes to commit key quotations from a text to long term memory may decide to make flashcards. When making those flashcards, a student may make all sorts of decisions such as 'using the colour yellow will help me to remember that...' The decision regarding which multi-sensory strategy to employ (flashcards) and the decisions that are made during active employment of the strategy...both are examples of metacognition.

## How to Use Your Knowledge Organiser:

CHUNK IT	RE-LEARN IT	WRITE IT	SPEAK IT
<p>Split the knowledge organiser into manageable chunks.</p> <p>Choose a chunk at a time to memorise.</p> <p>Start with the most important or the most difficult.</p>	<p>Re-read your notes on the chosen topic.</p> <p>Do some wider research on the internet until you understand it.</p>	<p>Write a detailed description or an explanation about everything that you know about this topic.</p> <p>Try to do this without your notes.</p> <p>Write key facts you need to memorise over and over until you have memorised them.</p>	<p>Give a verbal explanation about this topic as if you were teaching it.</p> <p>Repeat the facts you need to remember 20 times.</p> <p>Record key facts from the knowledge organiser into your phone.</p>

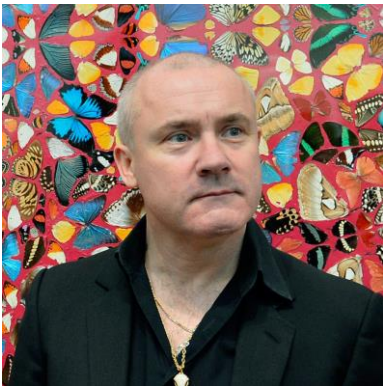
## How to Use Your Knowledge Organiser:

TRANSFORM IT	REDUCE IT	SORT IT	LINK IT
<p>Transform key facts into a series of images.</p> <p>Transform what you have learned into a diagram.</p> <p>Transform your learning into a poem or a story.</p>	<p>Reduce what you have learned to five key bullet points or prompts.</p> <p>Reduce the three most important facts linked to a topic into 10 words.</p>	<p>Rank the most important pieces of information from your knowledge organiser.</p> <p>Categorise your key facts into groups, you choose the group headings.</p>	<p>Find three links between this topic and others you have studied.</p> <p>Link the key points together.</p>

# Art - Insects

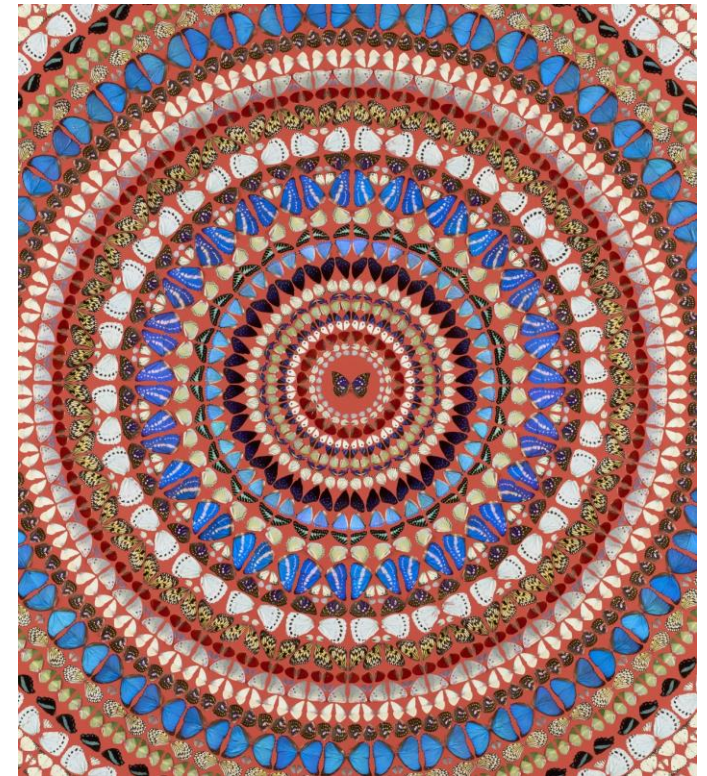
## Damien Hirst b.1965

- Damien Steven Brennan 7 June 1965 Bristol, England
- Hirst grew up in Leeds and moved to London in the early 1980s.
- British conceptual artist, painter, and creator of art installations.
- He was a key figure in the Young British Artists movement.
- His controversial works have made him one of the world's wealthiest living artists.
- Hirst created a work called '*The Physical Impossibility of Death in the Mind of Someone Living*'. It consisted of a preserved tiger shark in a tank of formaldehyde. The work sold for £50,000.
- In 1993, Damien Hirst produced a work called '*Away from the Flock*'. It was a sheep in a tank of formaldehyde.
- In 2007, Damien Hirst's '*Lullaby Spring*', a work consisting of a steel cabinet filled with pills, sold for \$19.2 million dollars, a record price for the work of a living artist at the time.
- His work '*For the Love of God*' was a human skull encrusted with more than 8500 real diamonds (at a cost of more than £15,000,000). The asking price for the work was around \$100 million. It was sold in 2008.
- In 2010, Hirst's personal wealth was valued at more than £230 million, making him Britain's wealthiest artist.
- It is estimated by artnet that Hirst's artwork has used the bodies of more than 30 farm animals, 600 sea creatures, and hundreds of thousands of insects.
- The butterfly symbolizes the circle of life, growth, and change.



I don't believe in genius. I believe in freedom. I think anyone can do it. Anyone can be like Rembrandt.

Damien Hirst, 2009



## Task 1

**Read through the information on Damien Hirst.**

Highlight any points you think are important.

- Create an information sheet about him.
- Use the information you highlighted.
- Include an image of his work.

# Art - Insects

## Keywords

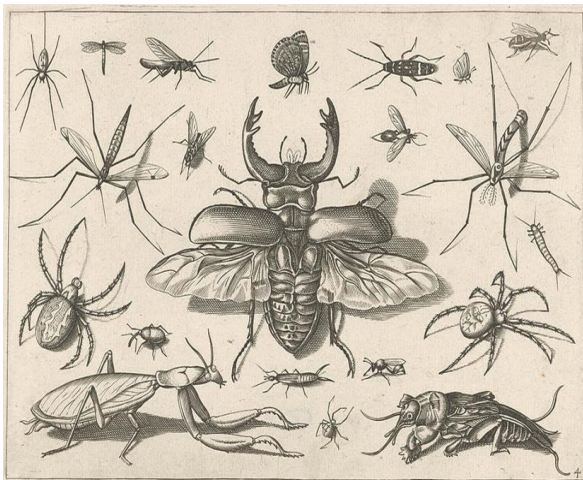
Tone	Line
Shape	Form
Scale	Composition
Relief	Observation
Detail	Accuracy
Texture	Refine

## Task 2

**Develop your observational drawing skills.**

Complete the bug

- In pencil use the grid to help you with your drawing to make the bug symmetrical.
- Include detail using line.
- Add tone to make it look realistic.



## Joris Hoefnagel

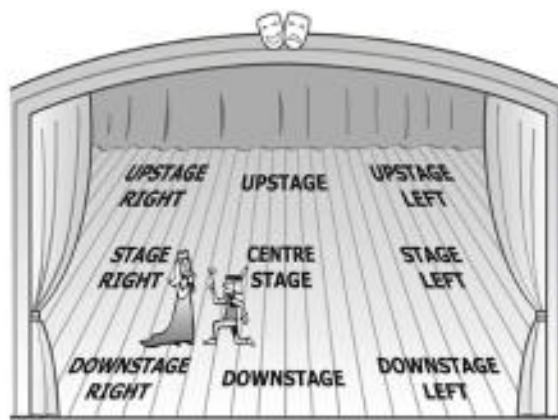
**b.1542 - d.1601**

- A Flemish painter, printmaker, miniaturist, draftsman and merchant.
- He is noted for his illustrations of natural history subjects.
- He created the first illustrated book devoted to the study of insects.
- Documenting his observations with the naked eye, he meticulously painted hundreds of insects with watercolour and gouache.



## Key Vocabulary

<b>Neutral position</b>	Stand with feet shoulder width apart, hands at sides, knees relaxed and actor is silent.
<b>Warm ups</b>	Gentle exercises to prevent injury to muscles or voice.
<b>Posture</b>	How you hold your body.
<b>Projection</b>	Strength of voice across a space.
<b>Technique</b>	The way of carrying out a task.
<b>Pronunciation</b>	Making your words very clear.
<b>Communication</b>	Exchange information by speaking or using some other form.
<b>Levels</b>	Using different heights on stage to create visual interest.
<b>Facial Expression</b>	A look that conveys an emotion.
<b>Body Language</b>	Communication through gestures and position/posture.
<b>Rehearsal</b>	The practice time of a play or other work.
<b>Annotate</b>	Comment or add notes to a text.
<b>Review</b>	A critical appraisal of a performance.



Stage Directions



Neutral Position



It is important to warm up before rehearsals to prevent injury to muscles and your voice.



## Year 7 - Matilda

Actor	Professional Person
An actor's primary duty is to effectively communicate the character that they are playing to an audience, using their voice, body, actions and reactions.	'Acting like a professional' means working and behaving in such a way that others think of them as competent, reliable and respectful.

### Levels



### Learning to Communicate



## Matilda - Synopsis - (Brief Summary)

Based on the Roald Dahl children's book, Matilda is a young girl with astonishing wit, intelligence and telekinetic powers. She's unloved by her cruel parents but impresses her schoolteacher, the highly loveable Miss Honey.

Over the course of her first term at school, Matilda and Miss Honey have a profound effect on each other's lives, as Miss Honey begins not only to recognise but also appreciate Matilda's extraordinary personality.

Matilda's school life isn't completely smooth sailing, however – the school's mean headmistress, Miss Trunchbull, hates children and just loves thinking up new punishments for those who don't abide by her rules, but Matilda has courage and cleverness in equal amounts, and could be the school pupils' saving grace!



## Main Character List

### Matilda

A girl who is clever and wise beyond her years. Likable, honest and charismatic, not annoying or pretentious.

### Miss Honey

Matilda's kind hearted teacher. Honest, caring, and intelligent, Miss Honey is timid but becomes brave and stands up to bullies to protect her students.

### Miss Trunchbull

The tyrannical headmistress at Matilda's school who despises children. A cruel and sadistic person, sly and cunning.

### Bruce

Matilda's classmate. He is subject to punishment by Miss Trunchbull. Bruce is a genuine, kind boy with a fondness for sweets; his spirit is broken by the Trunchbull but he bounces back stronger than ever.

### Mr Wormwood

Matilda's uncaring father. A slimy, greedy, used-car salesman, unintentionally funny.

### Mrs Wormwood

Matilda's self-absorbed, negligent mother and an amateur ballroom dancer.

### Lavender

Matilda's classmate and best friend. Lavender is squeaky and super-adorable, and what she lacks in intelligence she makes up for in enthusiasm and friendliness.

### Entertainer

A sort of magical narrator for the story, playing a variety of roles throughout the show

### Other characters:

**Michael Wormwood** - Matilda's brother

**Tommy, Eric, Nigel, Amanda, Alice and Hortensia** - More classmates with some lines as well as Mums and Dads of the children.



## Ancient Origins Vocabulary

**Xenia** - guest friendship.

**Protagonist** - the central character.

**Hubris** - excessive pride.

**Cosmogony** - the theory of the origins of the universe.

**Myth** - a traditional story involving gods and supernatural events that often explains events and ideas.

**In Media Res** - starts in the middle.

**Deus Ex Machina** - a story that ends suddenly with the intervention of gods.

**Diminutive** - small.

**Plummeting** - falling fast.

**Clamour** - noise.

**Parry** - turn aside the thrust of a sword.

**Concord** - peace and harmony.

## Aristotle and the elements of epic.

The ancient Greek philosopher, Aristotle, said that the six elements of both epic and tragedy are, from most to least important:

1. **Plot**- the 'arrangement of the incidents'- what happens in what order.
2. **Character**- men and women who are part of the plot.
3. **Thought**- how the thoughts and feelings of the characters develop as plot unfolds (Expressing in speeches and dialogues).
4. **Diction**- the language through which characters reveal their thoughts.
5. **Song**- a means of embellishing diction.
6. **Spectacle**- the way the plot is staged.

## Subject Terminology

**Epithet**- an adjective phrase describing the quality of a person or thing e.g. the wine-dark sea.

**Ground**- in a metaphor this is the link between tenor and the vehicle.

**Structure**- the structural framework that underlies the order and manner in which a narrative is presented to a reader, listener, or viewer. The narrative text structures are the plot and the setting.

**Denouement**- the final part of a play, film, narrative in which the strands of the plot are drawn together, and matters are explained or resolved.

**Allusions**- calling something to mind without mentioning it explicitly.

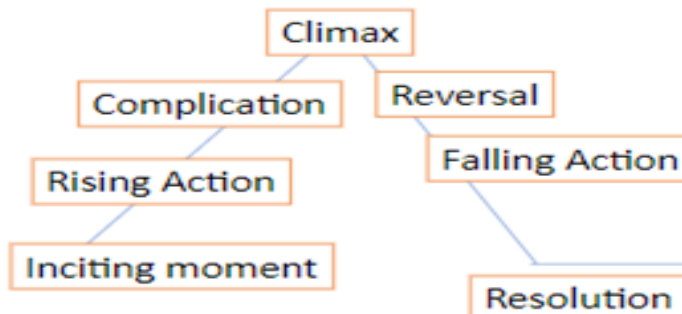
**Exposition**- the opening of a story, introducing characters, setting and plot.

**Epic**- a long ancient poem, narrating the deeds and adventures of heroes and legendary figures from long ago.

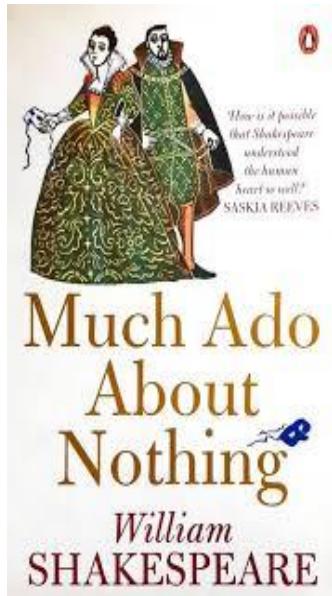
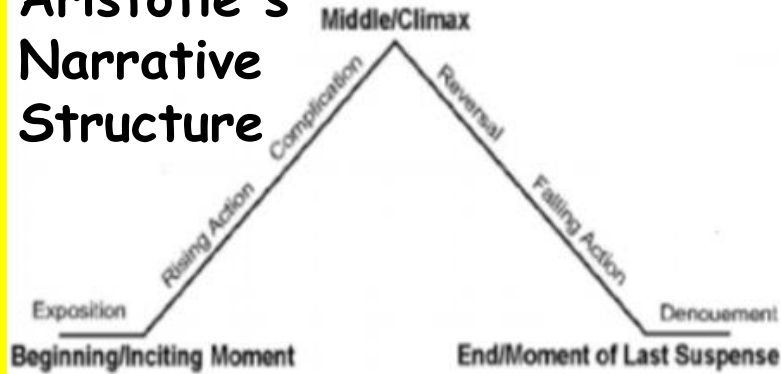
**Context**- circumstances forming a background of an event. Context may be something cultural, historical, social, or political.

**In media res**- a Latin phrase which means a story that starts 'in the middle' of the action.

### Story structure



# Aristotle's Narrative Structure



## Character Analysis

**Claudio**- a young nobleman who is honoured for his conduct in fighting who is still naive in judgement.

**Benedick**- a young man who has adopted a pose of woman-hater and swears he will never marry.

**Hero**- a young modest lady and daughter of the Governor. Her name may have been derived from the poem 'Hero and Leander' (1598) about two tragic lovers.

**Beatrice**- although her guardian is the Governor, her place within the household is unclear as she behaves more freely. Beatrice is also sworn never to marry.

## Comedy Timeline

Greek Mythology



Medieval period



The Enlightenment



The Victorian era



Contemporary



Norse mythology & Viking raids



The Renaissance



Romanticism



Modernism



## Content

### Much ado about nothing

Claudio falls in love with Hero and their marriage is agreed upon. Beatrice and Benedick despise love and engage in comic banter. The others plot to make them fall in love with each other, by a trick in which Benedick will overhear his friends talking of Beatrice's supposed secret love for him, and vice versa.

### Comedy

A play characterised by its humorous or satirical tone and its depiction of amusing people or incidents, in which the characters ultimately triumph over adversity.



## Story

### Themes

- Nothingness
- Love
- Appearance
- Reality

### Structure

- Blank verse
- Parallels
- Dramatic irony

## Subject Terminology

**Allegory-** a story containing another symbolic story or hidden meaning, typically a moral, religious or political meaning.

**Oide-** the phrase “comedy” consists of two Greek words “Komos” and “ode” the tune. Therefore, comedy is the “tune of the Komos”.

**Parody-** for the ancient Greeks, parody was a comic imitation of a serious poem. It is a composition that imitates the style of another composition (e.g the Rape of the Lock).

**Parabasis-** A point in Greek comedy when all of the actors leave the stage and the chorus is left to address the audience directly.

**Archaia-** old comedy (archaia) is the first period of the ancient Greek comedy, the most important old comic playwright is Aristophanes.

**Komos / Comos-** Greek: ancient Greek and Roman god of drinking and revelry. The Komos was a drunken procession performed by revellers in ancient Greece.

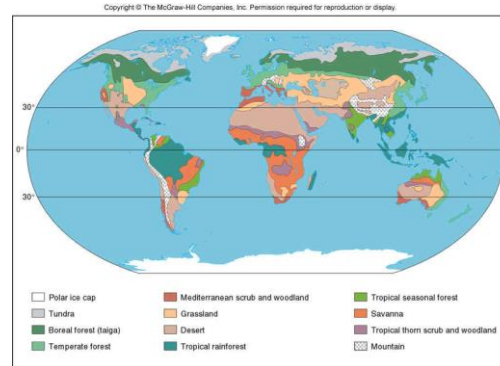
## Knowledge Organiser Year 7 SPR 1

### Topic: Ecosystems and Tropical Rainforests (TRF)

#### Challenges and Concepts

You will learn that in an ecosystem living things depend on each other and their non-living environment. The Earth has some very large ecosystems (biomes) with different climates and vegetation. You will learn how humans have spread through the Earth's ecosystems and the damage we have done.

#### World biomes



The climate is the main driving force in an ecosystem – if affects the soil, vegetation and animals.

#### Changes affecting ecosystems

Ecosystems take hundreds of years to develop. Ecosystems need to be in balance. If there is a change to one of the components, it may well affect the rest of the ecosystem.

##### Causes of change

Global scale changes, such as climate change.

Local scale change, such as changes to a habitat – e.g. when a hedge is removed.

##### Natural changes

Extreme weather events such as droughts can be devastating to ponds and lakes. Plants will dry out and die.

Fish starved of oxygen might not survive.

##### Human changes

Changing one component can have serious knock-on effects on the ecosystem:

- agricultural fertilisers can lead to eutrophication.
- ponds may be drained to use for farming.

**Did you know?** The most adaptable species on the planet are humans – they can be found in every ecosystem in the world.

<b>Vocabulary</b>	
<b>Key terms and definitions</b>	
<b>Abiotic</b>	Related to non-living things
<b>Biome</b>	Very large ecological areas on the earth's surface, with fauna and flora (animals and plants) adapting to their environment.
<b>Biotic</b>	Related to living things.
<b>Consumer</b>	A living thing in an ecosystem that gets its energy and the raw materials it needs by eating plants or other animals that have eaten plants.
<b>Decomposer</b>	An organism or plant, e.g., a soil bacterium, microbes, fungus, or invertebrate, which decomposes organic material in an ecosystem.
<b>Ecosystem</b>	An environment containing a community of interdependent plants and animals. It is made up of two parts - living (biotic) factors and non-living (abiotic) factors.
<b>Food chain</b>	A chain with three or four links between plants and animals in an ecosystem that rely upon one another as their source of food.
<b>Food web</b>	A complex web of different food chains between plants and animals in an ecosystem.
<b>Nutrient</b>	A substance that provides nourishment essential for the maintenance of life and for growth.
<b>Producer</b>	A plant in an ecosystem that converts energy from the sun in a process called photosynthesis to produce sugars (glucose).

**Did you know?** 99% of a giant panda's diet is comprised of the leaves, shoots, and stems of bamboo. Bamboo doesn't have a lot of nutritional value, so pandas must eat 26 to 83 pounds of the tough, fibrous plant a day.

#### Ecosystems

An ecosystem is a natural system made up of plants, animals and the environment. There are often complex interrelationships between the living and non-living components of an ecosystem. Ecosystems can be identified at different scales:



A local small-scale ecosystem – a pond, hedge or woodland.



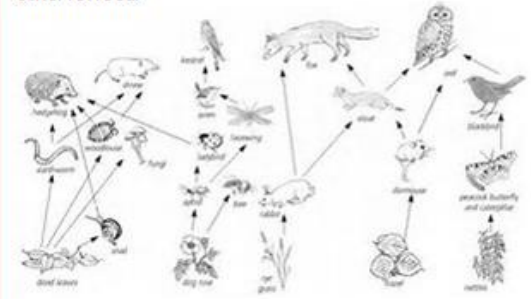
A global scale ecosystem can be a tropical rainforest or deciduous forest. The global ecosystems are called biomes.

#### Food Chains and Webs.

A food chain shows the connections between different organisms (plants and animals) they rely on one another as their source of food.



A food web is a complex hierarchy of plants and animals relying on each other for food.



Further research:

<https://tinyurl.com/EcosystemReviseIt>

## Vocabulary Key terms and definitions

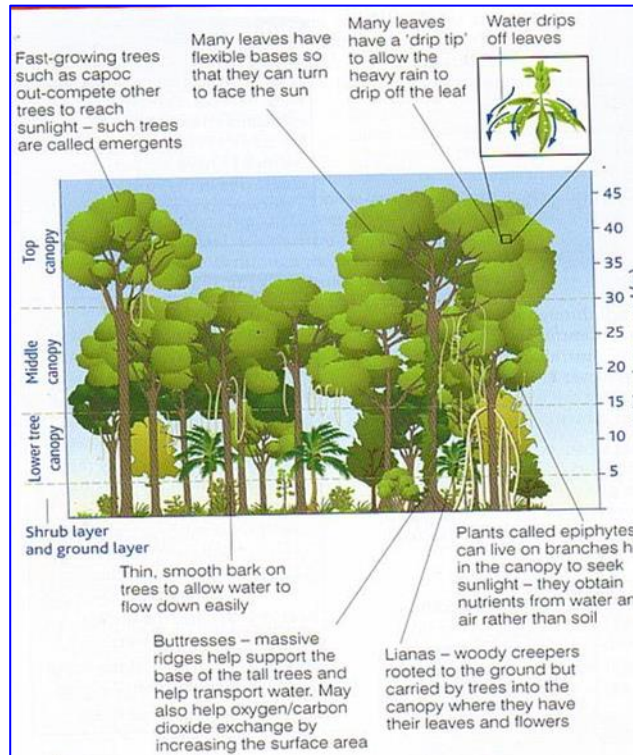
Biodiversity	The variety of life in the world or a particular habitat.
Buttress roots	Large roots that grow above the ground to support tall trees.
Canopy	Where the upper parts of most of the trees are found. The canopy is typically about 65 to 130 feet (20 to 40 metres) tall. This leafy environment is home to insects, arachnids, birds and some mammals.
Emergents	The tops of the tallest trees in the rainforest. These are much higher, and so are able to get more light than the average trees in the forest canopy.
Epiphytes	An organism that grows on the surface of a plant and derives its moisture and nutrients from the air, rain, water or from debris accumulating around it.
Lianas	Thick vines that have their roots in the ground and loop around trees to reach sunlight.
Shrub layer	The bottom layer of the rainforest. It is dark and gloomy with very little vegetation between the trees. During heavy rainfall this area can flood.
Tropics	The part of the Earth that lies between the Tropic of Cancer (23.5°N) and the Tropic of Capricorn (23.5°S).
Under canopy	The second level up. There is limited sunlight. Saplings wait here for larger plants and trees to die, leaving a gap in the canopy which they can grow into.

*Did you know?* TRFs are home to more than half of the world's plant and animal species.

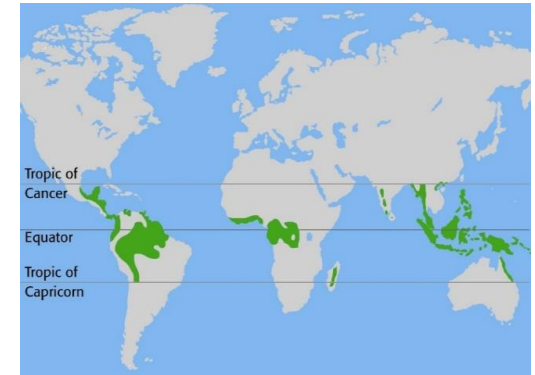
## Knowledge Organiser Year 7 SPR 1 Topic: Ecosystems and Tropical Rainforests (TRF)

### Challenges and Concepts

You will learn about the range of distinctive physical characteristics of tropical rainforest ecosystems and the interdependence of climate, water, soils, plants, animals and people. You will learn where they are located in the world. You will also learn how plants and animals adapt to the physical conditions.



Distribution of TRFs



A thousand years ago, tropical rainforests covered as much as 14% of the earth's surface. Today they cover less than 6%. TRFs are an invaluable source of freshwater - responsible for 20% of the world's rainfall

### Rainforest water and nutrient cycles

Rainforest ecosystems are characterised by heavy convectional rainfall, high humidity, lushness of vegetation and nutrient-rich but shallow soil. These factors give rise to a unique water and nutrient cycle.

#### Rainforest water cycle

The roots of plants take up water from the ground and the rain is intercepted as it falls - much of it at the canopy level. As the rainforest heats up, the water evaporates into the atmosphere and forms clouds to make the next day's rain. This is convectional rainfall.

#### Rainforest nutrient cycle

The rainforest nutrient cycling is rapid. The hot, damp conditions on the forest floor allow for the rapid decomposition of dead plant material. This provides plentiful nutrients that are easily absorbed by plant roots. However, as these nutrients are in high demand from the rainforest's many fast-growing plants, they do not remain in the soil for long and stay close to the surface of the soil. If vegetation is removed, the soils quickly become infertile and vulnerable to erosion.

If the rainforest is cleared for agriculture, it will not make very good farmland, as the soil will not be rich in nutrients.

*Did you know?* On average, 130 species of plants and animals become extinct each day.

## Vocabulary Key terms and definitions

<b>Tourist</b>	A person who stays for more than a day in a place that is not their usual environment, for any purpose.
<b>Tourism</b>	Everything to do with tourists, including the activities they take part in and the services that support them.
<b>Seasonal employment</b>	Jobs that last just for a season. For example, selling ice cream at the seaside over the summer.
<b>Package holiday</b>	Where you pay in advance for travel and accommodation.
<b>Domestic holiday</b>	Taking a holiday in the country you live in.
<b>International tourist</b>	A tourist from another country.
<b>Multiplier effect</b>	Money spent by a tourist which then circulates through a country's economy.
<b>Sustainable tourism</b>	Where the local people have a say, gain economic and social benefits, and the environment is not harmed.
<b>Natural attraction</b>	An attraction that has been created by nature.
<b>Man Made attraction</b>	An attraction that is manufactured, created, or constructed by human beings.

***Did you know*** Tourism is the fastest growing industry on the planet.

## Knowledge Organiser Year 7 SP2 Topic: TOURISM

### Challenges and Concepts

You will learn about the world's largest industry and like any industry how it will change a place, for better or worse. It can exploit people and damage environments. You will learn about the importance of sustainable tourism. You will consider why more people in the UK are going abroad for their holidays, and study the issues associated with tourism by looking at case studies in HICs and LICs.

### The three essentials for being a tourist

**Time**



**Money**



**Inclination**

**Sustainable tourism** means:

- The place, its people, and their culture, are respected.
- The local people have a say in the decisions about tourism.
- They gain a fair share of the benefits from it, including money.
- There is as little damage to the environment as possible.

Further Research:

<https://tinyurl.com/GeogGuide1>

<https://tinyurl.com/GeogGuide2>

### Why has tourism increased?

- People have greater **disposable income**. This is money left over once they have paid for essentials.
- People have **more paid holidays**. In the UK, the number of weeks we have off work has increased from about two weeks in the 1950s to four to six weeks now.
- Travel has become **easier and cheaper**. More people have cars and our roads and motorways are better quality, making it easier to travel further in less time. Also, flights are cheaper and the internet makes it easy to plan and book a holiday.
- People are visiting a **wider range of places** - partly because they have a better knowledge and understanding of places. As well as learning about different places at school, we watch television programmes and browse the internet. This awareness increases people's expectations.
- There is a **greater variety** of holidays to choose from. All-inclusive package holidays have become very popular.
- People have more leisure time.
- Many countries have **invested** money in facilities and infrastructure that make it easier for tourists, such as roads, airports and hotels.
- **Ageing populations** - people are able to travel in the **free time** that they have when they retire.

### The three essential ingredients for tourism

An attraction / Accommodation and Catering / Transport



Vocabulary Key terms and definitions	
<b>Ageing population</b>	When the average age of a population is rising.
<b>Disposable income</b>	Income available for spending after taxes and other essential expenditure.
<b>Conservation</b>	Keeping the environment healthy and productive by careful use of its resources.
<b>Honeypot site</b>	A popular visitor attraction or area, where large numbers of people visit.
<b>Mass tourism</b>	Tourism on a large scale with many people visiting.
<b>National park</b>	An area that is protected by law to ensure its conservation.
<b>Quality of life</b>	The wellbeing of a person or a group of people.
<b>Tertiary</b>	Providing services - includes retail, tourism, education, health and banking.



**St Ives** is in Cornwall, in the extreme southwest of England. It is on the northern coast of the county, almost at the point of the tip that juts out into the ocean.

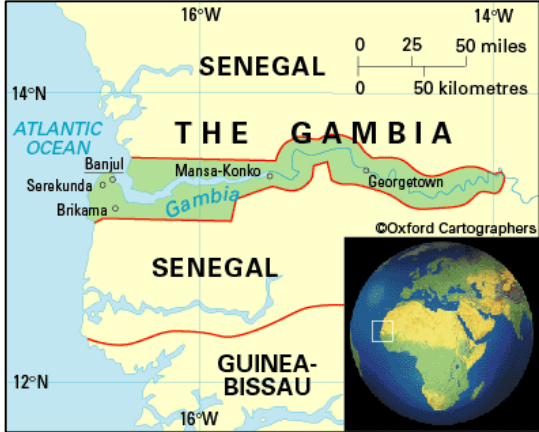
## Knowledge Organiser Year 7 SP2 Topic: TOURISM

**Challenges and Concepts**

You will learn about the world's largest industry and like any industry how it will change a place, for better or worse. It can exploit people and damage environments. You will learn about the importance of sustainable tourism. You will consider why more people in the UK are going abroad for their holidays, and study the issues associated with tourism by looking at case studies in HICs and LICs.

IMPACT OF TOURISM	
Positive	Negative
<ul style="list-style-type: none"> <li>Jobs created.</li> </ul>	<ul style="list-style-type: none"> <li>Jobs are often seasonal (based on the time of year) and are poorly paid.</li> </ul>
<ul style="list-style-type: none"> <li>More money for the country.</li> </ul>	<ul style="list-style-type: none"> <li>Most money goes out of the area to big companies, not locals.</li> </ul>
<ul style="list-style-type: none"> <li>Local traditions and customs are kept alive because tourists enjoy traditional shows, e.g. Flamenco dancing.</li> </ul>	<ul style="list-style-type: none"> <li>Culture and traditions change as outsiders arrive.</li> </ul>
<ul style="list-style-type: none"> <li>Money from tourists can be used to protect the natural landscape.</li> </ul>	<ul style="list-style-type: none"> <li>Damage to the natural environment, e.g. footpath erosion (the wearing away of footpaths), litter, habitats destroyed to build hotels.</li> </ul>
<ul style="list-style-type: none"> <li>New facilities for the tourists also benefit locals, e.g. new roads.</li> </ul>	<ul style="list-style-type: none"> <li>Overcrowding and traffic jams.</li> </ul>
<ul style="list-style-type: none"> <li>Greater demand for local food and crafts.</li> </ul>	<ul style="list-style-type: none"> <li>Prices increase in local shops as tourists are often wealthier than the local population.</li> </ul>

**Did you know?** The UK has over 6000 tourist attractions



**Gambia** is in West Africa, north of the equator. It is a long thin country running east from the Atlantic Ocean through Senegal. It has a short coastline with sandy beaches. It is about 350km long at its longest point, and only 50 km wide at its widest. The country generally follows the shape of the River Gambia. Its capital city, Banjul, is at the mouth of the river, and most of its main towns and villages lie along the river. Its population is 1.5 million (about one-fifth of the population of London). Its main tourist area is on the coast, along the beaches.

**Did you know?** Around 195 million jobs around the world are connected to tourism. That's about 8% of all jobs.

Further Research:  
<https://tinyurl.com/GlobalTourismInfo>

Key terms	
<b>Byzantine Empire</b>	The eastern section of the Roman Empire after it split in the 3 <sup>rd</sup> century ad.
<b>Caliph</b>	The rule of an Islamic empire.
<b>Crusader</b>	A person who has promised to help capture Jerusalem.
<b>Dynasty</b>	Rulers who come from the same family(e.g. Umayyads).
<b>Holy Land</b>	A part of the Middle East that is holy to Christians, Jews and Muslims.
<b>Mercenary</b>	A soldier who is paid to fight for a foreign army.
<b>Seljuk Turks</b>	A powerful Muslim army led by Seljuk in the 11 <sup>th</sup> century.

# The Crusades



The Holy Land

Key events and dates	
<b>661 AD</b>	The first Islamic dynasty is founded.
<b>756</b>	Islamic empire stretches from Spain to Persia (Iran).
<b>1071</b>	Normans capture southern Italy from the Byzantine Empire.
<b>1090</b>	Seljuk Turks control Jerusalem.
<b>1095</b>	Pope Urban II launches the first Crusade.

Crusade	Dates of Crusade	Crusades Timeline of Events
First Crusade	1096 - 1099	The People's Crusade - Freeing the Holy Lands. 1st Crusade led by Count Raymond IV of Toulouse and proclaimed by many wandering preachers, notably Peter the Hermit
Second Crusade	1144 - 1155	Crusaders prepared to attack Damascus. 2nd crusade led by Holy Roman Emperor Conrad III and by King Louis VII of France
Third Crusade	1187 - 1192	3rd Crusade led by Richard the Lionheart of England, Philip II of France, and Holy Roman Emperor Frederick I. Richard I made a truce with Saladin
Fourth Crusade	1202 - 1204	4th Crusade led by Fulk of Neuil French/Flemish advanced on Constantinople
The Children's Crusade	1212	The Children's Crusade led by a French peasant boy, Stephen of Cloyes
Fifth Crusade	1217 - 1221	The 5th Crusade led by King Andrew II of Hungary, Duke Leopold VI of Austria, John of Brienne
Sixth Crusade	1228 - 1229	The 6th Crusade led by Holy Roman Emperor Frederick II
Seventh Crusade	1248 - 1254	The 7th Crusade led by Louis IX of France
Eighth Crusade	1270	The 8th Crusade led by Louis IX
Ninth Crusade	1271 - 1272	The 9th Crusade led by Prince Edward (later Edward I of England)



# MULTIPLICATION & DIVISION

## Multiplication Grid

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

## Commutativity, Associativity & Distributivity

**Commutative Law** - the Law that says you can swap numbers around and still get the same answer when you add. Or when you multiply.

**Associative Law** - It doesn't matter how we group the numbers (i.e. which we calculate first)

**Distributive Law** – the Law says that multiplying a number by a group of numbers added together is the same as doing each multiplication separately.

## Column Method of Multiplication

Numbers can be multiplied together using the column method which involves writing one number underneath the other in a similar way to column addition and subtraction.

Calculate  $46 \times 35$ .

1. First, multiply  $6 \times 5$  and carry the 30 to the tens column.

$$\begin{array}{r} 35 \\ \times 46 \\ \hline 210 \\ 300 \\ \hline \end{array}$$

2. Then multiply  $6 \times 3 (= 18)$  and add the carried 3

$$\begin{array}{r} 35 \\ \times 46 \\ \hline 210 \\ 230 \\ \hline \end{array}$$

3. Next, place a zero in the ones column since the next step is to multiply  $35 \times 40$

$$\begin{array}{r} 35 \\ \times 46 \\ \hline 210 \\ 230 \\ 1400 \\ \hline \end{array}$$

4. Then multiply  $4 \times 5$ , carry 200 into the hundreds column

$$\begin{array}{r} 35 \\ \times 46 \\ \hline 210 \\ 230 \\ 1400 \\ 1800 \\ \hline \end{array}$$

5. Then multiply  $4 \times 3 (= 12)$  and add the carried 2

$$\begin{array}{r} 35 \\ \times 46 \\ \hline 210 \\ 230 \\ 1400 \\ 1600 \\ \hline \end{array}$$

6. Finally, add the results together

$$\begin{array}{r} 35 \\ \times 46 \\ \hline 210 \\ 230 \\ 1400 \\ 1600 \\ \hline 1610 \end{array}$$

## Multiplication of Decimals

Multiplying decimals works the same way as multiplying whole numbers. So, if the question includes one decimal place in total,  $3.2 \times 6$ , then the answer must include one decimal place, 19.2. If the question has two decimal places in total,  $4.2 \times 2.8$ , then the answer must have two decimal places, 11.76.

What is  $3.72 \times 2.3$ ?

First, do the calculation with whole numbers, so work out  $372 \times 23$ .

$$\begin{array}{r} 372 \\ \times 23 \\ \hline 1116 \\ 7440 \\ \hline 8556 \end{array}$$

Note that there are three decimal places in the calculation ( $3.72, 2.3$ ), so there needs to be three decimal places in the answer. The answer is therefore 8.556.

We can also multiply decimals by decomposing the decimal into numbers that are easier to deal with.

Example

$$\begin{aligned} 8 \times 0.3 &= 8 \times 0.1 \times 3 \\ &= 24 \times 0.1 \\ &= 2.4 \end{aligned}$$

## Representations of Division

	Inline	Fraction	Sharing	Grouping	Repeated subtraction
e.g.	$8 \div 2$	$\frac{8}{2}$	8 shared between 2 	8 split into groups of 2 	



# YEAR 7 SPRING 1



# MULTIPLICATION & DIVISION

## Short Division

### How to complete a short division calculation

1. Set out the division. Write the question in bus stop form.
2. Starting with the first digit, divide each digit of the dividend by the divisor. Write the answers above the line.
3. A zero at the start is used as a place holder in the working out to keep it lined up - it is **not** written in the answer.
4. If there is a remainder when dividing a digit, carry the remainder to the next digit.

### Calculate $3052 \div 4$

Write the question in bus stop form. The 4 is the divisor and goes outside the bus stop. The 3,052 is the dividend and goes inside the bus stop. The quotient will be written on the top of the bus stop.

Start with  $3 \div 4$ .  $3 \div 4$  is 0 remainder 3. Write 0 above 3 and carry the remainder 3 to the next digit to give 30

$30 \div 4$  is 7 remainder 2. Write the 7 above the 0 and carry the remainder 2 to the next digit to give 25

$25 \div 4$  is 6 remainder 1. Write the 6 above the 5 and carry the remainder 1 to the next digit to give 12

$12 \div 4$  is 3. Write the 3 above the 2. There is no remainder so the calculation is complete. The first digit of the answer is 7. Write out the answer clearly.  $3052 \div 4 = 763$

$$\begin{array}{r}
 \text{3052} \div 4 \\
 \hline
 \text{0} \\
 4 \overline{) 3052} \\
 \underline{0} \phantom{00} \\
 30 \phantom{00} \\
 \underline{28} \phantom{00} \\
 25 \phantom{00} \\
 \underline{20} \phantom{00} \\
 52 \\
 \underline{48} \\
 4
 \end{array}$$

$$3052 \div 4 = 763$$

## Inverse Operations

Inverse operations 'undo' each other. Notice that if you start on 5, then multiply by 3, you get 15.

$$5 \times 3 = 15$$

Now if you start from 15 and divide by 3, you get back to 5, where you started.

$$15 \div 3 = 5$$

## Decomposition

To decompose a number means breaking something into parts, that together are the same as the original.

$$\begin{aligned}
 198 \div 6 \\
 = 198 \div 2 \div 3 \\
 = 99 \div 3 \\
 = 33
 \end{aligned}$$

$$\begin{aligned}
 248 \div 4 \\
 = 248 \div 2 \div 2 \\
 = 124 \div 2 \\
 = 62
 \end{aligned}$$

$$\begin{aligned}
 264 \div 11 \\
 = 132 \times 2 \div 11 \\
 = 132 \div 11 \times 2 \\
 = 12 \times 2 \\
 = 24
 \end{aligned}$$

## Multiples and Factors

### Multiples

The multiples of a number are the values in that number's times table. For example, the multiples of 5 are 5, 10, 15, 20, 25 and so on.

There are an infinite amount of multiples of any given number.

### Factors

A factor is an integer that will divide exactly into another number. For example, 8 is a factor of 24 because 8 will divide into 24 exactly 3 times with no remainder.

### Factor pairs

Factor pairs are two integers which multiply together to make a particular number. For example, the factor pairs of 12 are 1 and 12; 2 and 6; 3 and 4. This means that the factors of 12 (in order) are 1, 2, 3, 4, 6 and 12. Writing factors in pairs helps to avoid missing any out.



YEAR 7 SPRING 1



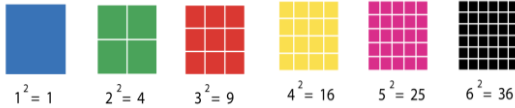
# POWERS, ROOTS & PRIMES

## Square and Cube Numbers

Square and cube numbers are special sequences of numbers that are linked to the property of the shape they are named after.  
 A **square** number relates to the **area** of a square.  
 A **cube** number relates to the **volume** of a cube.

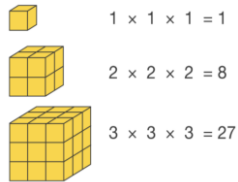
### Square numbers

The area of a square is calculated by length  $\times$  length.  
 The area of a 1 unit by 1 unit square is  $1 \times 1 = 1$   
 The area of a 4 unit by 4 unit square is  $4 \times 4 = 16$   
 The first six square numbers are:  $1 \times 1 = 1$   
 $2 \times 2 = 4$   
 $3 \times 3 = 9$   
 $4 \times 4 = 16$   
 $5 \times 5 = 25$   
 $6 \times 6 = 36$



### Cube numbers

The volume of a cube is calculated by length  $\times$  length  $\times$  length.  
 The volume of a 1 unit by 1 unit by 1 unit cube is  $1 \times 1 \times 1 = 1$   
 The volume of a 4 unit by 4 unit by 4 unit cube is  $4 \times 4 \times 4 = 64$   
 The first six cube numbers are:  
 $1 \times 1 \times 1 = 1$   
 $2 \times 2 \times 2 = 8$   
 $3 \times 3 \times 3 = 27$   
 $4 \times 4 \times 4 = 64$   
 $5 \times 5 \times 5 = 125$   
 $6 \times 6 \times 6 = 216$



### Prime Numbers

A prime number is a number which is only divisible by 1 and itself. The first ten prime numbers are 2, 3, 5, 7, 11, 13, 17, 19, 23 and 29.

## Prime Factorisation

Prime factors are factors of a number that are, themselves, prime numbers.

There are many methods to find the prime factors of a number, but one of the most common is to use a prime factor tree.

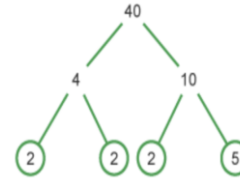
### Example

Write 40 as a product of its prime factors.

Firstly, find two numbers that will multiply together to give 40. For example  $4 \times 10 = 40$  would be one way of doing this calculation. Every integer has a unique prime factorisation, so it doesn't matter which factors are chosen to start the factor tree as you will end up with the same answer.

Neither 4 nor 10 is a prime number, and this question is looking for prime factors, so each number must be broken down again into factor pairs. Continue breaking down the factors into factor pairs until you are only left with prime numbers. Then circle these prime numbers.

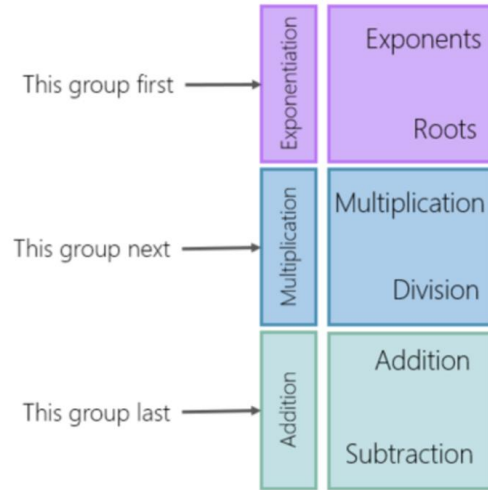
The question has asked for a **product of prime factors**. Write all of the circled prime numbers (found in the prime factor tree) as a product.



This gives  $2 \times 2 \times 2 \times 5$ . This can be written in index form as  $2^3 \times 5$ . This answer can be checked by making sure  $2 \times 2 \times 2 \times 5$  is equal to 40.  $2 \times 2 \times 2 \times 5 = 40$ , so this answer is correct. The final answer is  $2^3 \times 5$ .

# ORDER OF OPERATIONS

## Order of Operations



### Example

$$\begin{aligned}
 & 2(2 \times 3^2 - 4) - 3 \times 2^3 \\
 &= 2(2 \times 9 - 4) - 3 \times 2^3 \\
 &= 2 \times 14 - 3 \times 2^3 \\
 &= 2 \times 14 - 3 \times 8 \\
 &= 28 - 24 \\
 &= 4
 \end{aligned}$$



YEAR 7 SPRING 2



Qu'est-ce que tu aimes étudier? What do you like to study?

French

Opinion	Infinitive	Subject	Connective	Opinion 2		Qualifier	Adjective	
<b>J'aime</b>	<b>étudier</b> to study	<b>les SVT</b> science	<b>car</b> because			<b>très</b>	<b>facile</b> easy	
<b>J'aime beaucoup</b> I like a lot		<b>les arts plastiques / le dessin</b> art	<b>parce que / qu'</b> because	<b>je pense que</b> I think that		<b>ce n'est pas</b> it is not	<b>vraiment</b> really	<b>super</b> great
<b>J'aime surtout</b> I particularly like		<b>les maths</b> maths		<b>À mon avis</b> In my view			<b>un peu</b> a bit	<b>génial</b> great
<b>J'adore</b>		<b>la géographie</b> geography	<b>mais</b> but	<b>Je dirais que</b> I would say that			<b>plutôt</b> rather	<b>intéressant</b> interesting
<b>Je préfère</b> I prefer		<b>la technologie</b> technology	<b>cependant</b> however				<b>assez</b> quite	<b>amusant</b> fun
<b>Je n'aime pas</b>		<b>la musique</b> music						<b>utile</b> useful
<b>Je n'aime pas tellement</b> I don't really like		<b>la religion</b> RE						<b>créatif</b> creative
<b>Je n'aime pas beaucoup</b> I don't like a lot		<b>le français</b> French						<b>difficile</b> difficult
		<b>l'EPS</b> PE						<b>nul</b> rubbish
		<b>l'histoire</b> history						<b>barbant</b> boring
	<b>l'espagnol</b> Spanish					<b>ennuyeux</b> boring		
	<b>l'anglais</b> English					<b>fatigant</b> tiring		
<b>Je déteste</b>		<b>l'informatique</b> computing					<b>inutile</b> useless	
		<b>l'art dramatique</b> drama						
<b>Je voudrais</b> I would like								
						<b>ça serait</b> it would be		
						<b>ça ne serait pas</b> it would not be		

Comment est ton collège ? What is your school like?

		Qualifier	Adjective 1		Nouns	Opinion		Qualifier	Adjective 2	French
<b>Mon collège</b> My school	est is	très vraiment un peu a bit plutôt rather assez quite	grand. big petit. small modern. modern vieux. old	Il y a There is / are Il n'y a pas de There isn't / aren't *remove un / une / des / du	des salles de classe. classrooms des vestiaires. changing rooms des ordinateurs. computers un laboratoire de sciences. a science lab un théâtre. a drama studio un terrain de sport. a sport field une cantine. a canteen une salle d'informatique. an IT room	Je l'aime I like it Je l'adore I love it Je ne l'aime pas I don't like it Je le déteste I hate it	parce que c'est je dirais que c'est à mon avis c'est	très vraiment t un peu plutôt assez	modern. intéressant. fantastique. génial. propre. clean ennuyeux. boring sale. dirty moche. ugly	
	n'est pas is not									

Qu'est-ce que tu portes? What do you wear?											
Verb	Clothing	Colour		Shade	Aspiration	Clothing 2	Colour 2		Opinion	Qualifier	Adjective
<b>Je porte</b> I wear  <b>Je ne porte pas de</b> I don't wear <i>(remove un / une / des)</i>	<b>un sweat</b> a jumper <b>un jean</b> jeans <b>un pantalon</b> trousers <b>un collant</b> tights	<b>rose</b>  <b>jaune</b> <b>marron</b>  <b>vert</b> <b>gris</b> <b>violet</b>	<b>orange</b> <b>rouge</b> <b>bleu</b> <b>noir</b> <b>blanc</b> <b>bordeaux</b>	<b>clair</b> light  <b>foncé</b> dark	<b>mais je voudrais porter</b> but I would like to wear  <b>mais j'aimerais porter</b> but I would like to wear  <b>mais je rêve de porter</b> but I dream of wearing  <b>mais j'ai envie de porter</b> but I want to wear	<b>un sweat</b> <b>un jean</b> <b>un pantalon</b> <b>un collant</b>	<b>rose</b> <b>jaune</b> <b>marron</b>  <b>vert</b> <b>gris</b> <b>violet</b>	<b>orange</b> <b>rouge</b> <b>bleu</b> <b>noir</b> <b>blanc</b> <b>bordeaux</b>	<b>parce que c'est</b> because it is  <b>je dirais que c'est</b>  <b>à mon avis c'est</b>  <b>parce que ce n'est pas</b> because it is not	<b>très</b>  <b>vraiment</b>  <b>un peu</b> a bit  <b>plutôt</b> rather	<b>confortable</b> comfortable  <b>joli</b> pretty  <b>à la mode</b> fashionable  <b>pratique</b> practical  <b>moche</b>  <b>démodé</b>  <b>pratique</b> practical  <b>chic</b> smart
	<b>une jupe</b> a skirt <b>une robe</b> a dress <b>une chemise</b> a shirt <b>une cravate</b> a tie <b>une veste</b> a jacket	<b>rose</b> <b>jaune</b> <b>marron</b>  <b>verte</b>  <b>grise</b>  <b>violette</b>	<b>orange</b> <b>rouge</b> <b>bleue</b> <b>noire</b> <b>blanche</b> <b>bordeaux</b>	<b>claire</b> light  <b>foncée</b> dark		<b>une jupe</b> <b>une robe</b> <b>une chemise</b> <b>une cravate</b> <b>une veste</b>	<b>rose</b> <b>jaune</b> <b>marron</b> <b>verte</b> <b>grise</b> <b>violette</b>	<b>orange</b> <b>rouge</b> <b>bleue</b> <b>noire</b> <b>blanche</b> <b>bordeaux</b>			
	<b>des chaussettes</b> socks <b>des chaussures</b> shoes <b>des baskets</b> trainers	<b>roses</b>  <b>jaunes</b>  <b>marron</b>  <b>vertes</b>  <b>grises</b>  <b>violettes</b>	<b>orange</b> <b>rouges</b> <b>bleues</b> <b>noires</b> <b>blanches</b> <b>bordeaux</b>	<b>claires</b> light  <b>foncées</b> dark		<b>des chaussettes</b> <b>des chaussures</b> <b>des baskets</b>	<b>roses</b>  <b>jaunes</b>  <b>marron</b>  <b>vertes</b>  <b>grises</b>  <b>violettes</b>	<b>orange</b> <b>rouges</b> <b>bleues</b> <b>noires</b> <b>blanches</b> <b>bordeaux</b>			<b>je dirais que ce n'est pas</b>  <b>à mon avis ce n'est pas</b>

<b>J'aime</b> <b>J'adore etc</b>	<b>mon uniforme parce qu'il est joli / chic / confortable / pratique / à la mode</b> my uniforme because it's pretty / elegant / comfortable/ practical / fashionable
<b>Je n'aime pas</b> <b>Je déteste etc</b>	<b>mon uniforme parce qu'il est ennuyeux / moche / peu confortable</b> my uniforme because it's boring / ugly / uncomfortable



Was lernst du gern? <i>What do you like to study?</i>							
Verb	Opinion	Subject	Connective	Opinion 2		Qualifier	Adjective
<b>Ich lerne</b> I study  <b>Wir lernen</b> We study	<b>gern</b> gladly  <b>sehr gern</b> very gladly  <b>nicht gern</b> not gladly  <b>gar nicht gern</b> not at all gladly	<b>Kunst</b> art  <b>Französisch</b> French  <b>Sport</b> PE  <b>Spanisch</b> Spanish  <b>Englisch</b> English  <b>Theater</b> drama  <b>Erdkunde</b> geography  <b>Technik</b> technology	<b>und</b> and  <b>auch</b> also  <b>aber</b> but  <b>jedoch</b> however  <b>außerdem</b> furthermore	<b>Meiner Meinung nach ist es</b> In my opinion it is  <b>Ich denke es ist</b> I think that it is  <b>Ich würde sagen, es ist</b> I would say that it is  <b>Aus meiner Sicht ist es</b> From my point of view it is		<b>extrem</b> extremely  <b>sehr</b> very  <b>ziemlich</b> quite  <b>ein bisschen</b> a bit	<b>einfach</b> easy  <b>toll</b> great  <b>interessant</b> interesting  <b>nutzlos</b> useless  <b>nützlich</b> useful  <b>schwierig</b> difficult  <b>langweilig</b> boring  <b>kreativ</b> creative  <b>praktisch</b> practical  <b>komisch</b> strange  <b>lustig</b> funny  <b>anstrengend</b> tiring
		<b>Musik</b> music  <b>Religion</b> RE  <b>Geschichte</b> history  <b>Informatik</b> computing  <b>Naturwissenschaften</b> science  <b>Mathematik (Mathe)</b> maths	<b>lernen.</b> to learn.	<b>Meiner Meinung nach wäre es</b> In my opinion it is  <b>Aus meiner Sicht wäre es</b> From my point of view it is  <b>Ich denke, es wäre</b> I think that it is  <b>Ich würde sagen, es wäre</b> I would say that it is			



**Wie ist deine Schule? What is your school like?**

		Qualifier	Adjective 1		Nouns	Opinion		Qualifier	Adjective 2
<b>Meine Schule</b> My school	<b>ist</b> is	<b>extrem</b>  <b>sehr</b>  <b>ziemlich</b>  <b>ein bisschen</b>  <b>besonders</b> especially	<b>groß.</b> big  <b>klein.</b> small  <b>modern.</b> modern  <b>alt.</b> old	<b>Es gibt</b> There is / are	<b>(k)einen Sportplatz.</b> (no) / a sport field  <b>(k)einen Computerraum.</b> (no) / an IT room  <b>(k)einen Schulhof.</b> (no) / a playground  <b>(k)eine Bibliothek.</b> (no) / a library <b>(k)eine Küche.</b> (no) / a kitchen <b>(k)eine Sporthalle.</b> (no) / a gym <b>(k)eine Kantine.</b> (no) / a canteen <b>(k)ein Lehrerzimmer.</b> (no) / a staff room <b>(k)ein Labor</b> a science lab <b>(k)ein Theater.</b> a drama studio	<b>Ich mag es,</b> I like it  <b>Ich liebe es,</b> I love it  <b>Ich mag es nicht,</b> I don't like it  <b>Ich hasse es,</b> I hate it	<b>, denn es ist</b> as it is  <b>ich würde sagen es ist</b>  <b>meiner Meinung nach ist es</b>	<b>extrem</b>  <b>sehr</b>  <b>ziemlich</b>  <b>ein bisschen</b>  <b>besonders</b>	<b>modern.</b>  <b>interessant.</b>  <b>fantastisch.</b>  <b>toll.</b>  <b>langweilig.</b> boring  <b>hässlich.</b> ugly  <b>sauber.</b> clean  <b>schmutzig.</b> dirty
	<b>ist nicht</b> is not								
<b>Meine Grundschule</b> My primary school	<b>war</b> was  <b>war nicht</b> was not								

**jedoch** however  
**auch** also  
**aber** but  
**und** and

Was trägst du? What do you wear?														
Verb	Indefinite article	Shade	Colour		Clothing item 1	Aspiration	Indefinite article	Colour		Clothing item 2	Opinion	Qualifier	Adjective	
Ich trage I wear	einen a / an	dunkel - dark  hell- light	rosa gelben braunen grünen grauen lila	orangen roten blauen schwarzen weißen burgunderroten	Pullover a jumper  Rock a skirt	, aber ich möchte * tragen but I would like to wear  , aber ich würde lieber * tragen but I would prefer to wear  , aber es ist mein Traum * zu tragen but I dream of wearing	einen a / an	rosa gelben braunen grünen grauen lila	orangen roten blauen schwarzen weißen burgunderroten	Pullover a jumper  Rock a skirt	, denn es ist (nicht) as it is (not)		bequem comfortable  unbequem uncomfortable	
	eine a/an	dunkel - dark  hell- light	rosa gelbe braune grüne graue lila	orange rote blaue schwarze weiße burgunderrote	Krawatte a tie Jacke a jacket Hose trousers Jeanshose jeans Strumpfhose tights		eine a/an	rosa gelbe braune grüne graue lila	orange rote blaue schwarze weiße burgunderrote	Krawatte a tie Jacke a jacket Hose trousers Jeanshose jeans Strumpfhose tights	ich würde sagen, es ist (nicht) I would say it is (not)	extrem  sehr  ziemlich	hubsch pretty  modisch fashionable  praktisch practical	
	ein a/an	dunkel - dark  hell- light	rosa gelbes braunes grünes grauges lila	oranges rotes blaues schwarzes weißes burgunderrotes	Kleid a dress  Hemd a shirt			ein a/an	rosa gelbes braunes grünes grauges lila	oranges rotes blaues schwarzes weißes burgunderrotes	Kleid a dress  ein Hemd a shirt	meiner Meinung nach ist es (nicht) in my opinion it is (not)	ein bisschen  besonders	hässlich  elegant
			dunkel - dark  hell- light	rosa gelbe braune grüne graue lila	orange rote blaue schwarze weiße burgunderrote	Socken socks  Schuhe shoes  Sportschuhe trainers	Where the * is you need to add the correct article, colour and clothing item.		rosa gelbe braune grüne graue lila	orange rote blaue schwarze weiße burgunderrote	Socken socks  Schuhe shoes  Sportschuhe trainers			

Ich mag Ich liebe etc	meine Schuluniform, denn es ist <b>hubsch / elegant / bequem / praktisch / modisch.</b> my uniform as it's pretty / elegant / comfortable/ practical / fashionable
Ich hasse etc	meine Schuluniform, denn es ist <b>langweilig / hässlich / unbequem.</b> my uniform as it's boring / ugly / uncomfortable

**Wie ist dein Schultag? What is your school day like?**

<b>Ich gehe I go</b>	<b>um acht Uhr</b> at 8 o'clock <b>mit dem Auto</b> by car <b>mit dem Bus</b> by bus <b>mit dem Zug</b> by train <b>zu Fuß</b> on foot	<b>zur Schule</b> at/to school
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1.00: um ein Uhr
2.00: um zwei Uhr
2.05: um zwei Uhr fünf
2.10: um zwei Uhr zehn
2.15: um Viertel nach zwei
2.20: um zwei Uhr zwanzig
2.25: um zwei Uhr fünfundzwanzig
2.30: um halb drei / um zwei Uhr dreißig
2.35: um fünfundzwanzig vor drei
2.40: um zwanzig vor drei
2.45: um Viertel vor drei
2.50: um zehn vor drei
2.55: um fünf vor drei

1 – eins
2 – zwei
3 – drei
4 – vier
5 - fünf
6 – sechs
7 – sieben
8 – acht
9 – neun
10 – zehn
11 - elf
12 - zwölf

Time phrase	Present tense	Opinion	Qualifier	Adjective	
<b>In der Pause</b> At break	<b>treffe ich mit Freunden</b> I meet up with my friends	, weil es (nicht) because it (not)	extrem	<b>interessant</b>	ist. is
<b>In den Stunden</b> During lessons	<b>spiele ich mit Freunden</b> I play with my friends			<b>toll</b>	
<b>Mittags</b> At noon	<b>esse ich in der Kantine</b> I eat in the canteen	, denn es ist (nicht)	sehr	<b>lehrreich</b> educational	
<b>Nach der Schule</b> After school	<b>höre ich dem Lehrer/der Lehrerin zu</b> I listen to the teacher			<b>langweilig</b> boring	
<b>am Morgen</b> In the morning	<b>höre ich Musik</b> to listen to music			<b>schwierig</b> difficult	
<b>am Nachmittag</b> In the afternoon	<b>arbeite ich an dem Computer</b> I work on the computer	, ich würde sagen, es ist (nicht)	ziemlich	<b>nutzlos</b> useless	
<b>am Abend</b> In the evening	<b>mache ich meine Hausaufgaben</b> I do my homework			<b>besonders</b>	
	<b>gehe ich nach Hause</b> I go home	, meiner Meinung nach ist es (nicht)	ein bisschen	<b>laut</b> noisy	
	<b>sehe ich fern</b> I watch TV				
	<b>lade ich Fotos in Instagram hoch</b> I upload photos on Instagram				
	<b>filme ich ein Video für TikTok</b> I film a video for TikTok				
	<b>gehe ich ins Bett</b> to go to bed				

## ¿Qué te gusta estudiar? What do you like to study?

Opinion	Infinitive	Subject	Connective	Opinion 2		Qualifier	Adjective																	
<b>Me gusta</b>	<b>estudiar</b> to study	<b>el dibujo</b> art	<b>y</b> and	<b>En mi opinión</b> In my opinion	<b>es/son</b> it is	<b>sumamente</b> extremely	<b>fácil(es)</b> easy																	
<b>Me gusta mucho</b> I like a lot		<b>el francés</b> French						<b>también</b> also	<b>pienso que</b> I think that	<b>no es/son</b> it is not	<b>muy</b> very	<b>genial(es)</b> great												
<b>Me chifla</b> I love		<b>el deporte</b> PE	<b>pero</b> but	<b>diría que</b> I would say that									<b>bastante</b> quite	<b>interesante(s)</b> interesting										
<b>Me mola</b> I love		<b>el español</b> Spanish						<b>sin embargo</b> however	<b>desde mi punto de vista</b> from my point of view						<b>un poco</b> a bit	<b>inútil(es)</b> useless								
<b>Me encanta</b> I love		<b>el inglés</b> English	<b>además</b> furthermore														<b>difícil(es)</b> difficult	<b>aburrido/a/as</b> boring						
<b>Prefiero</b> I prefer		<b>el teatro</b> drama																	<b>creativo/a/as</b> creative	<b>práctico/a/as</b> practical				
<b>No me gusta</b> I don't like		<b>la geografía</b> geography																			<b>raro/a/as</b> strange	<b>divertido/a/as</b> fun		
<b>No me gusta nada</b> I don't like at all		<b>la tecnología</b> technology																					<b>sería</b> it would be	<b>no sería</b> it would not be
<b>Odio</b> Odio		<b>la música</b> music																						
<b>Me gustaría</b> I would like		<b>la religión</b> RE																						
	<b>la historia</b> history			<b>sería</b> it would be	<b>no sería</b> it would not be																			
	<b>la informática</b> computing							<b>sería</b> it would be	<b>no sería</b> it would not be															
	<b>las ciencias</b> science									<b>sería</b> it would be	<b>no sería</b> it would not be													
	<b>las matemáticas</b> maths											<b>sería</b> it would be	<b>no sería</b> it would not be											

¿Cómo es tu insti? *What is your school like?*

		Qualifier	Adjective 1		Nouns	Opinion		Qualifier	Adjective 2
<b>Mi insti</b> My school	<b>es</b> is	<b>muy</b>  <b>sumamente</b>	<b>grande.</b> big	<b>Hay</b> There is / are	<b>unos aulas</b> classrooms <b>unos vestuarios.</b> changing rooms	<b>Me gusta</b> I like it	<b>porque es</b>  <b>diría que es</b>	<b>muy</b>  <b>sumamente</b>  <b>un poco</b>  <b>un poquito</b>	<b>moderno.</b> <b>interesante.</b> <b>fantástico.</b> <b>genial.</b> <b>aburrido.</b> boring <b>feo.</b> ugly
	<b>no es</b> is not	<b>un poco</b> a bit  <b>un poquito</b> a tiny bit  <b>bastante</b> quite	<b>pequeño.</b> small  <b>moderno.</b> modern  <b>viejo.</b> old	<b>No hay</b> There isn't / aren't <i>*remove un / una / unos / unas</i>	<b>unos ordenadores.</b> computers  <b>un laboratorio</b> a science lab  <b>un teatro.</b> a drama studio  <b>una pista polideportiva.</b> a sport field  <b>un comedor.</b> a canteen  <b>una clase de informática.</b> an IT room	<b>Me encanta</b> I love it  <b>No me gusta</b> I don't like it  <b>Odio</b> I hate it	<b>desde mi punto de vista es</b>  <b>porque está</b>  <b>diría que está</b>  <b>desde mi punto de vista está</b>		<b>limpio.</b> clean <b>sucio.</b> dirty
<b>Mi escuela primaria</b> My primary school	<b>era</b> was		<b>grande.</b> big	<b>Había</b> there was	<b>un patio.</b> a playground  <b>una biblioteca.</b> a library  <b>una sala de profesores.</b> a staff room  <b>una cocina.</b> a kitchen  <b>un gimnasio.</b> a gym  <b>el acoso escolar.</b> bullying	<b>era</b> it was		<b>bastante</b>	<b>moderna.</b> <b>interesante.</b> <b>fantástica.</b> <b>genial.</b> <b>aburrida.</b> boring
	<b>no era</b> was not		<b>pequeña.</b> small  <b>moderna.</b> modern  <b>vieja.</b> old	<b>No había</b> There wasn't <i>*remove un / una / unos / unas</i>	<b>estaba</b> It was	<b>fea.</b> ugly  <b>limpia.</b> clean <b>sucia.</b> dirty			

**sin embargo** however  
**también** also  
**pero** but  
**y** and

¿Qué llevas? *What do you wear?*

Verb	Clothing	Colour	Shade	Aspiration	Clothing 2	Colour 2	Opinion	Qualifier	Adjective		
<b>Llevo</b> I wear  <b>No llevo</b> I don't wear	<b>un jersey</b> a jumper <b>un vestido</b> a dress	<b>rosa</b> <b>amarillo</b> <b>marrón</b> <b>verde</b> gris morado	<b>naranja</b> <b>rojo</b> <b>azul</b> <b>negro</b> blanco <b>borgoña</b>	<b>claro</b> light  <b>oscuro</b> dark	<b>pero me gustaría llevar</b> but I would like to wear  <b>pero me encantaría llevar</b> but I would love to wear  <b>pero sueño llevar</b> but I dream of wearing	<b>un jersey</b> <b>un vestido</b>	<b>rosa</b> <b>amarillo</b> <b>marrón</b> <b>verde</b> gris morado	<b>naranja</b> <b>rojo</b> <b>azul</b> <b>negro</b> blanco <b>borgoña</b>	<b>porque es</b>  <b>diría que es</b>	<b>cómodo</b> comfortable  <b>incómodo</b> uncomfortable	
	<b>Llevamos</b> We wear  <b>No llevamos</b> We don't wear	<b>una falda</b> a skirt <b>una camisa</b> a shirt <b>una corbata</b> a tie <b>una chaqueta</b> a jacket	<b>rosa</b> <b>amarilla</b> <b>marrón</b> <b>verde</b> gris morada	<b>naranja</b> <b>roja</b> <b>azul</b> <b>negra</b> blanca <b>borgoña</b>		<b>clara</b> light  <b>oscura</b> dark	<b>una falda</b> <b>una camisa</b> <b>una corbata</b> <b>una chaqueta</b>	<b>rosa</b> <b>amarilla</b> <b>marrón</b> <b>verde</b> gris morada	<b>naranja</b> <b>roja</b> <b>azul</b> <b>negra</b> blanca <b>borgoña</b>		<b>desde mi punto de vista es</b>  <b>porque no es</b> because it is not
	<b>unos calcetines</b> socks <b>unos zapatos</b> shoes <b>unos pantalones</b> trousers <b>unos vaqueros</b> jeans	<b>rosas</b> <b>amarillas</b> <b>marrones</b> <b>verdes</b> grises morados	<b>naranjas</b> <b>rojos</b> <b>azules</b> <b>negros</b> blancos <b>borgoña</b>	<b>claros</b> light  <b>oscuros</b> dark	<b>pero quiero llevar</b> but I want to wear	<b>unos calcetines</b> <b>unos zapatos</b> <b>unos vaqueros</b>	<b>rosas</b> <b>amarillas</b> <b>marrones</b> <b>verdes</b> grises morados	<b>naranjas</b> <b>rojos</b> <b>azules</b> <b>negros</b> blancos <b>borgoña</b>	<b>diría que no es</b> I would say it is not  <b>desde mi punto de vista a no es</b> From my point of view it is not	<b>un poquito</b> a tiny bit  <b>bastante</b> quite	<b>feo</b>  <b>elegante</b> elegant
	<b>unas zapatillas de deporte</b> tr ainers <b>unas medias</b> tights	<b>rosas</b> <b>amarillas</b> <b>marrones</b> <b>verdes</b> grises moradas	<b>naranjas</b> <b>rojas</b> <b>azules</b> <b>negras</b> blancas <b>borgoña</b>	<b>claras</b> light  <b>oscuras</b> dark		<b>unas zapatillas de deporte</b> <b>unas medias</b>	<b>rosas</b> <b>amarillas</b> <b>marrones</b> <b>verdes</b> grises moradas	<b>naranjas</b> <b>rojas</b> <b>azules</b> <b>negras</b> blancas <b>borgoña</b>			

<b>Me gusta</b> <b>Me encanta</b> etc	<b>mi uniforme porque es bonito / elegante / cómodo / práctico / de moda</b> my uniforme because it's pretty / elegant / comfortable/ practical / fashionable
<b>No me gusta</b> <b>Odio</b> etc	<b>mi uniforme porque es aburrido / feo / incómodo</b> my uniforme because it's boring / ugly / uncomfortable

**¿Cómo es tu día escolar? What is your school day like?**

Spanish

<b>Llego</b> I arrive	<b>al insti</b> at/to school	<b>a las ocho</b> at 8 o'clock
<b>Voy</b> I go		<b>en coche</b> by car
		<b>en autobús</b> by bus
		<b>en tren</b> by train
		<b>a pie</b> on foot

Time phrase	Present tense	Opinion		Qualifier	Adjective
<b>Durante el recreo</b> During break	<b>me reúno con mis amigos</b> I meet up with my friends				<b>interesante.</b>
<b>Durante las clases</b> During lessons	<b>juego con mis amigos</b> I play with my friends				<b>divertido.</b>
<b>Al mediodía</b> At noon	<b>como en el comedor</b> I eat in the canteen				<b>genial.</b>
<b>Después del insti</b> After school	<b>escucho el profesor/la profesora</b> I listen to the teacher	<b>porque</b>	<b>es</b> it is	<b>muy</b>	<b>educativo.</b> educational
<b>Por la mañana</b> In the morning	<b>escucho música</b> to listen to music	<b>diría que</b>	<b>no es</b> it isn't	<b>sumamente</b>	<b>aburrido.</b> boring
<b>Por la tarde</b> In the afternoon	<b>trabajo en el ordenador</b> I work on the computer	<b>desde mi punto de vista</b>		<b>un poco</b>	<b>difícil.</b> difficult
<b>Por la noche</b> In the evening	<b>hago mis deberes</b> I do my homework			<b>un poquito</b>	<b>inútil.</b> useless
	<b>regreso a casa</b> I go home			<b>bastante</b>	<b>relajante.</b> relaxing
	<b>veo la televisión</b> I watch TV				<b>ruidoso.</b> noisy
	<b>subo fotos a Instagram</b> I upload photos on Instagram				
	<b>grabo un video en TikTok</b> I film a video on TikTok				
	<b>me acuesto</b> to go to bed				

- 1.00: a la una
- 2.00: a las dos
- 2.05: a las dos y cinco
- 2.10: a las dos y diez
- 2.15: a las dos y cuarto
- 2.20: a las dos y veinte
- 2.25: a las dos y veinticinco
- 2.30: a las dos y media
- 2.35: a las tres menos veinticinco
- 2.40: a las tres menos veinte
- 2.45: a las tres menos cuarto
- 2.50: a las tres menos diez
- 2.55: a las tres menos cinco

## Glossary of key terms for this unit

**Rally**– Where two players continuously hit the shuttle back and forth to each other.

**Racket**– The implement used to hit the shuttlecock when playing badminton.

**Shuttlecock**– Is a small light weight object with a covered end used in badminton.

**Forehand**– A shot played where the palm of the hand is facing the direction of the stroke.

**Backhand**– A shot played where the back of the hand is facing the direction of the stroke.

# Badminton Year 7

## Basic Badminton Rules

- The game starts with a diagonal serve.
- The serve must land on or across the service line.
- Play to 21 - You must win by 2 clear points.
- When the score is odd you serve from the left and when the score is even you serve from the right.
- The court is long and thin for singles and short and wide for doubles when serving.
- You cannot hit the net with your racket.



## Basic badminton skills and shots for Year 7

**Ready position** – Balanced position, side on, racket up and ready, on toes.

**Grip** - Shake hands with the racket sideways on. Wrap fingers around the tape.

**Backhand Serve** – A backhand serve should land close to the service line on your opponent's side of the net.

**Underarm Clear** – This shot is played high to the back of your opponent's court. Start sideways on and use a whip action with the wrist to create power.

**Overhead Clear** – Played to the back of your opponent's' court and is a defensive shot. Start sideways on, racket up and behind you, focus on making contact with the shuttle in front of you.





# Knowledge Organiser

## Year 7 Badminton

**Reduce** the information on the basic badminton shots down to 3 key pieces of knowledge.

**Transform** the skills for backhand serving, underarm and overarm clear into simple drills (create simple diagrams.)

Backhand serve

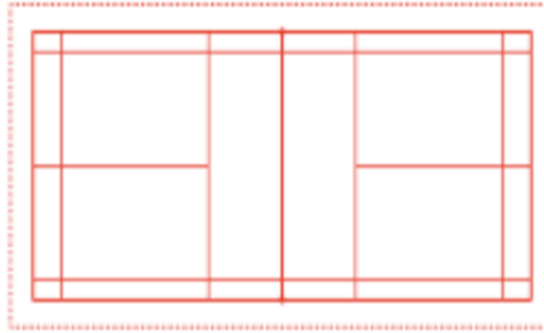
Underarm Clear

Overhead Clear

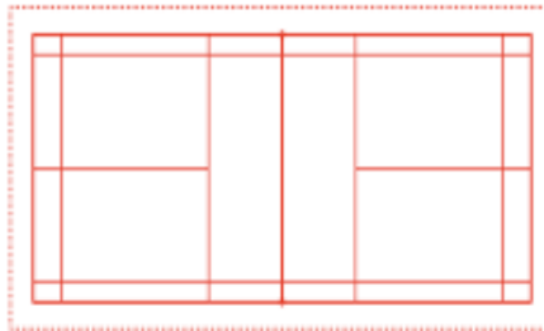
What are three teaching points when performing a backhand serve. Explain why these aspects are important.

- 1.
- 2.
- 3.

**Identify** on the diagram below where the shuttlecock is allowed to land during a singles game of badminton.



**Identify** on the diagram below where the shuttlecock is allowed to land during a doubles game of badminton.



Map out and make connections between 4 rules you know from badminton..

## Glossary of key terms for this unit

**Passing** – The action of the ball being passed from one team member to another.

**Dribbling** – The action of moving the ball with your feet in a given direction.

**Shooting** – Where the ball is shot towards the goal to try and score.

**Attack** – Where a team moves the ball forward to try and create a scoring opportunity.

**Defence** – Where a team tries to stop the opposing team from scoring.

## Football Year 7

### Basic football rules

- The game of football is started by a centre kick in the middle of the centre circle.
- Each team consist of eleven players on the pitch and can make up to three substitutions.
- If the ball goes off the side of the pitch it will be a throw in for the team which that did not touch the ball last.
- If the ball goes off the end of the pitch it will be a corner or a goal kick depending on which team touched the ball last.
- Depending on where the incident takes place, a free kick or penalty is awarded if the player in possession of the ball is illegally infringed.
- The goalkeeper is the only player allowed to touch the ball with their hands inside their penalty area.
- To score a goal, the ball must fully cross the opposition's goal line.
- The team with the most goals at the end will win the game.



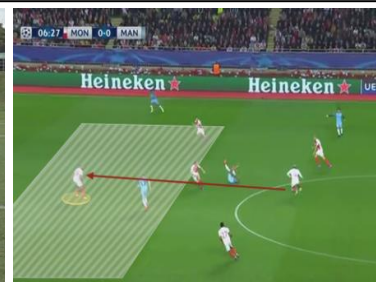
Dribbling allows you to move the ball around the field without losing possession. Keep the ball close to your feet at all times when running with it.



Non-kicking foot is closest to the ball. Kicking foot needs to be at the right angle to the ball. Body over the ball. Eyes should be focused on the ball.



Non kicking foot next to the ball/ keep body balanced/ head slightly over the top of the ball/ use side foot for placement or top of the foot for increased power.



Attack defender with pace/ keep ball in close control away from the defender/ move the ball to make it more difficult for the defender to tackle you.



Man to man marking – sideways on/ close to player/ try to slow attacking player down/ on toes/ show attacker to their weaker foot/ time tackle.

# Knowledge Organiser Year 7 Football

**Reduce** the information on fundamental skills in football down to 3 key piece of knowledge.

**Transform** the skills that were important in this unit into simple drills (create simple diagrams.)

Pass

Dribble

Shoot

What are three teaching points when performing a basic side foot pass. Explain why these aspect are important.

- 1.
- 2.
- 3.

List in order of **priority** the key skill features of attack in football **and note why**.

- 1.
- 2.
- 3.
- 4.

List in order of **priority** the key skill features of defence in football **and note why**.

- 1.
- 2.
- 3.
- 4.

**Map out and make connections between 4 rules you know from football..**

## Glossary of key terms for this unit

**Body Tension** - The tensing or stiffening of the muscles when performing gymnastic skill to show control, extension and strength.

**Centre of Mass** - The weight of an object may be thought of as acting at a single point called its centre of mass. Depending on the object's shape, its centre of mass can be inside or outside it. To perform successfully your centre of mass must be over your base of support.

**Extension** - The lengthening of limbs (arms and legs) when performing a gymnastic skill.

**Aesthetic** - Something that looks good, pleasing on the eye.

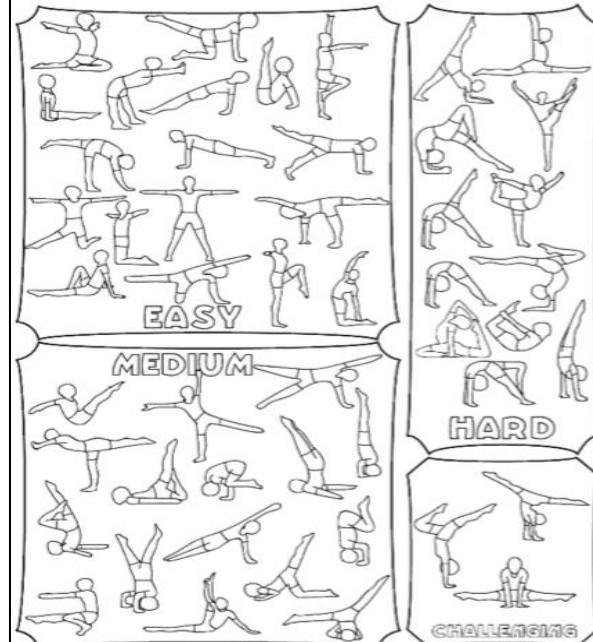
**Routine** - A linked sequence of gymnastic skills with a start and finish position.

## Gymnastics Year 7

**Balances: Warm up first and start easy.**

**Task 1** - Practice the individual balances and decide which 5 are your best. Balances should all be held for 3 seconds with good body tension and extension.

**Task 2** - Choose 1 balance you can perform well. Change the shape of your legs or arms to create 3 different variations of the balance.



Straight Jump



Straight Roll



Forwards Roll



Tuck Jump



Teddy Roll

Backwards Roll



Straddle Jump



Side Roll



## Knowledge Organiser Year 7 Gymnastics

**Reduce** the information you know about performing a gymnastic balance into 3 key pieces of knowledge.

- 1.
- 2.
- 3.

**Name and draw 3 gymnastic shapes (use simple stickman diagrams) that can be performed during flight.**

- 1.
- 2.
- 3.

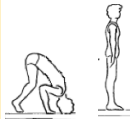
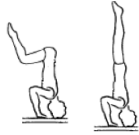
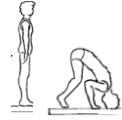
**Pick a roll and explain how to perform it following three sections: (use simple diagrams.)**

**Start -**

**Middle -**

**Finish -**

**Explain the sequence of the following skills being performed: Headstand (terms to use - (Triangle, Walk, High Hips, Step Up, Extend, Lower & Control))**



**Cartwheel (Terms to use - Step, Extend, Place, Swing, Body Tension, Strong & Still)**



Plan a paired gymnastic routine including: 3 individual balances, 2 paired balances, 2 elements of flight, 2 elements of flight and 2 elements of rotation. Include start and finish positions. Use diagrams and give brief explanation of your work.

Key word	Definition
Philosophy	The love of wisdom
Eudaimonia	To grow, or flourish
Logical	Follows rules of logic
Stoic	Endure hardships without showing
Ascetic	Live without luxuries
Self-Discipline	Ability to control oneself

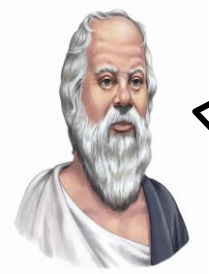
We call this structure of argument a **syllogism**.

The premises both also have to have a word in common...what is it?

Premise: All humans will die one day.  
 Premise: All men are humans.  
 Conclusion: All men will die one day.

This syllogism is **valid**, because if the premises are true, then you have to reach that conclusion.

Some syllogisms aren't **valid** though! We can say an argument is 'weak' if the premises make an assumption or the conclusion doesn't follow.



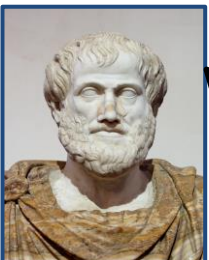
**Socrates**  
c.470-399 BCE

"The unexamined life is not worth living."  
*Socrates, Apology*



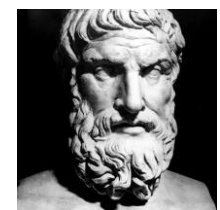
**Plato**  
c.428-347 BCE

"True love is admiration"  
*The Symposium*



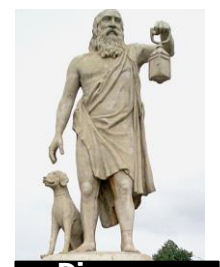
**Aristotle**  
c.382-322 BCE

"It is the mark of an educated mind to be able to entertain a thought without accepting it"  
*Aristotle*



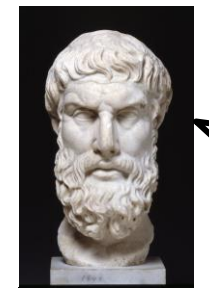
**Epictetus**  
c.55 - 135 CE

"It's not what happens to you, but how you react to it that matters."  
*Epictetus*



**Diogenes**  
c.412-323 BCE

"He has the most who is most content with the least"  
*Diogenes*



**Epicurus**  
c.341-270 BCE

"To make someone happy, don't add to what they have, stop them wanting more."  
*Epicurus*

Write out the definition of the key terms. (try not to look at your knowledge organiser)

1. Philosophy
2. Eudaimonia
3. Logical
4. Stoic
5. Ascetic
6. Self-Discipline

Write your own example of a syllogism that is:  
Valid

P:.....  
P:.....  
C:.....

Invalid (weak)

P:.....  
P:.....  
C:.....

Name the philosopher who:

Was nicknamed the gadfly.	Lived in a commune with all his friends.	Was concerned with eudaimonia.	Hated artists.
"If evil be spoken of you and it be true, correct yourself, if it be a lie, laugh at it."	Was born a slave.	Was concerned with stoicism.	Asked to be buried with a stick.
Chose to live an ascetic life.	Thought that relationships caused unhappiness.	Was sentenced to death for corrupting the youth.	You think is the most interesting.

Ask someone one of the following questions and discuss their answer in the same way Socrates would have.

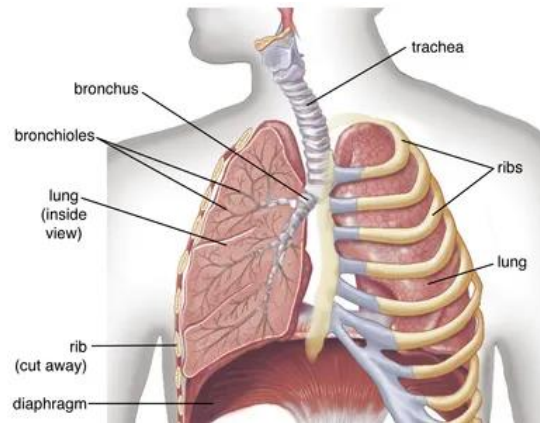
If you got in a time machine and went back in time, would you get out of it before or after you got into it?	What am I for?	Am I real?
How do we decide the right and wrong thing to do?	Is it OK to do something bad, if it leads to something good?	Would life be easier without any rules?

### Key words

- **Lungs** the organ where gas exchange occurs.
- **Respiratory system** the system where gas exchange occurs e.g. the mouth, trachea and lungs.
- **Inhale** when we breathe in to take in oxygen.
- **Exhale** when we breathe out to remove carbon dioxide from the body.
- **Respiration** when oxygen is used to transfer energy.
- **Diaphragm** the muscle, separating the lungs for the other internal organs, that allows us to breathe.

### Key Words

- **Pure** a substance that contains only one type of substance.
- **Mixture** contains two or more substances that are not chemically joined.
- **Solvent** a substance that dissolves another substance.
- **Solute** a solid or gas that dissolves in a liquid (solvent).
- **Solution** a mixture of a solute dissolved in a solvent.
- **Solubility** the maximum mass of solute that will dissolve in a certain volume of solvent.
- **Filtering** separating solids that have not dissolved using filter paper.
- **Evaporating** can be used to separate a solid dissolved in a liquid.
- **Distillation** using evaporation and condensation to separate a solvent from a solution.
- **Chromatography** to separate a mixture of liquids from a solvent.



## Year 7 Spring 1

### Key Words

- **Friction** a slowing force between 2 surfaces.
- **Newtons** the unit forces are measured in (N).
- **Resultant forces** a single force which can replace all the forces acting on an object and have the same effect.
- **Compression** force squashing or pushing together which changes the shape of an object.
- **Pivot** the point about which a lever or see-saw balances or rotates.
- **Moment** a measure of the ability of a force to rotate an object.

### Key words

- **Drugs** any chemical substance that effect the way the body works.
- **Addiction** when somebody becomes dependent on the effects of a drug.
- **Alcohol** a drink (containing ethanol) that acts as a depressant – slows the body down.
- **Stimulant** a drug that speeds up your heartbeat and narrows the blood vessels.
- **Tar** contains chemicals that cause cancer.
- **Nicotine** addictive and makes the heartbeat faster.
- **Carbon monoxide** reduces the amount of oxygen the blood can carry.

### Key Words

- **Chemical energy** stores include fuels, the energy is transferred during a chemical reaction.
- **Kinetic energy** stores describe the energy an object has because it is moving.
- **Gravitational potential energy** stores describe the energy stored in an object because of its position above the ground.
- **Elastic potential energy** stores describe the energy stored in a springy object when you stretch or squash it.
- **Thermal energy** stores describe the energy a substance has because of its temperature.
- **Dissipated** when the energy transfer is wasted.

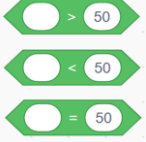

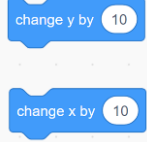
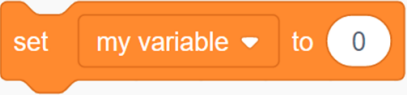
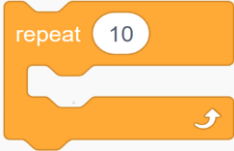

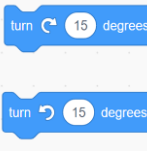
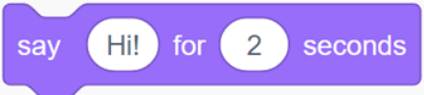


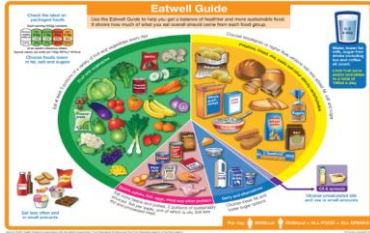
# Computing

<b>Sequence</b>	One of the three basic programming constructs. Instructions that are carried one after the other in order.
<b>Selection</b>	One of the three basic programming constructs. Instructions that can evaluate a Boolean expression and branch off to one or more alternative paths.
<b>Iteration</b>	One of the three basic programming constructs. A selection of code that can be repeated either a set number of times (count-controlled) or a variable number of times based on the evaluation of a Boolean expression (condition-controlled).
<b>Variable</b>	A value that can change depending on conditions or information passed to the program.

<b>Boolean expression</b>	An algebraic expression which has a Boolean value.
<b>Comparison operator</b>	Used to compare two expressions.
<b>Computer bug</b>	Code that causes your computer to behave in an unexpected way.
<b>Resilience</b>	The capacity to recover quickly from difficulties.
<b>Subroutine</b>	A block of code within a program that is given a unique, identifiable name. Supports code reuse and good programming technique.

## Computing

			
<p>Comparison operators. Used to make a comparison between two values or variables.</p>	<p>Runs the code in the block if the condition is true.</p>	<p>Used to move the sprite by a certain distance along the x or y axis.</p>	<p>Used to set the value of a variable.</p>
			
<p>Count-controlled iteration - code inside the block repeats a set number of times.</p>	<p>Infinite iteration - repeats the code inside the block until the program is stopped by the user.</p>	<p>Rotates the sprite clockwise or anti-clockwise by a certain distance.</p>	<p>Causes the sprite to say a message for a certain amount of time.</p>



### The Eatwell Guide

Comprises 5 main food groups.  
 Is suitable for most people over 2 years of age.  
 Shows the proportions in which different groups of foods are needed in order to have a well-balanced and healthy diet.  
 Shows proportions representative of food eaten over a day or more.

#### Fruit and vegetables

- This group should make up just over a third of the food eaten each day.
- Aim to eat at least five portions of a variety each day.
- Choose from fresh, frozen, canned, dried or juiced.
- A portion is around 80g (3 heaped tbs).
- 30g of dried fruit or 150ml glass of fruit juice or smoothie count as a max of 1 portion each day.

#### Potatoes, bread, rice, pasta or other starchy carbohydrates

- Base meals around starchy carbohydrate food.
- This group should make up just over a third of the diet.
- Choose higher-fibre, wholegrain varieties.

#### Dairy and alternatives

Good sources of protein and vitamins.  
 An important source of calcium, which helps to keep bones strong.

Should go for lower fat and lower sugar products where possible.

#### Beans, pulses, fish, eggs, meat and other protein

Sources of protein, vitamins and minerals.  
 Recommendations include to aim for at least two portions of fish a week, one oily, and people who eat more than 90g/day of red or processed meat, should cut down to no more than 70g/day.

#### Oil and spreads

Unsaturated fats are healthier fats that are usually from plant sources and in liquid form as oil, e.g. olive oil.

Generally, people are eating too much saturated fat and need to reduce consumption.

#### Foods high fat, salt and sugar

- Includes products such as chocolate, cakes, biscuits, full-sugar soft drinks, butter and ice cream.
- Are high in fat, sugar and energy and are not needed in the diet.
- If included, should be had infrequently and in small amounts.

### 8 tips for healthier eating

These eight practical tips cover the basics of healthy eating and can help you make healthier choices.

1. Base your meals on starchy carbohydrates.
2. Eat lots of fruit and veg.
3. Eat more fish – including a portion of oily fish.
4. Cut down on saturated fat and sugar.
5. Eat less salt (max. 6g a day for adults).
6. Get active and be a healthy weight.
7. Don't get thirsty.
8. Don't skip breakfast.

#### Hydration

Aim to drink 6-8 glasses of fluid every day.

Water, lower fat milk and sugar-free drinks including tea and coffee all count.

Fruit juice and smoothies also count but should be limited to no more than a combined total of 150ml per day.

#### Fibre

- Dietary fibre is a type of carbohydrate found in plant foods.
- Food examples include wholegrain cereals and cereal products; oats; beans; lentils; fruit; vegetables; nuts; and seeds.
- Dietary fibre helps to reduce the risk of heart disease, diabetes and some cancers; help weight control; bulk up stools; prevent constipation; improve gut health.
- The recommended average intake for dietary fibre is 30g per day for adults.

### Composite/combination food

Much of the food people eat is in the form of dishes or meals with more than one kind of food component in them. For example, pizzas, casseroles, spaghetti Bolognese and sandwiches are all made with ingredients from more than one food group. These are often called 'combination' or 'composite' foods.



#### Key terms

**The Eatwell Guide:** A healthy eating model showing the types and proportions of foods needed in the diet.

**Hydration:** The process of replacing water in the body.

**Dietary fibre:** A type of carbohydrate found in plant foods.

**Composite/combination food:** Food made with ingredients from more than one food group.

