FRAMWELLGATE
SCHOOL DURHAM

# KNOWLEDGE ORGANISER

## YEAR 8 - 2025/26

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## YEAR 8

YEAR 8

# ART & DESIGN

# YEAR EIGHT ART & DESIGN

Knowledge Organiser

It's impossible for us to include every **skill, technique or artist** that we will look at on this sheet - instead we have set up a website for you with all the information you need.

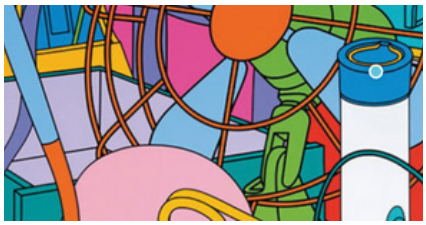
**Scan the QR codes with a phone to access the pages**

SCAN ME

## UNIT 1

artists record their observations

We will **work from observation** to produce drawings of objects before **developing these into colourful pieces** of work using **painting techniques**.



SCAN ME

## UNIT 2

artists try to change the world

We will look at the work of **artists who use text** and then create work **inspired by a cause or issue we feel strongly about**.


SCAN ME

## UNIT 4

artists develop ideas

We will learn how to create **realistic self portraits** before developing these into mixed media pieces that **show our personality** in the style of **Frida Kahlo**.

SCAN ME

## READING LIST

Providing opportunities for you to read, both in and out of the classroom, is vital to **develop your literacy skills.**

We will do lots of work in class **developing your literacy through reading a range of texts** and have included these here, as well as **some extra books we think you may find interesting**.

SCAN ME

## ART HISTORY

**Scan the QR code** for access to our **Art History Sheets**; quick guides to a range of **major art movements** and the **artists, craftspeople and designers who created them**.

Each half term you will be asked to **research an art movement, choose an artist to study and to create your own artwork inspired by their style.**

SCAN ME

## NO PHONE? NO PROBLEM...

The quickest and easiest way to access the information you need is by **scanning the QR codes.** If you don't have a phone then you can access the Art Department website **via the link sent to you on Teams** or by **typing the address below into your web browser.**

**Talk to your teacher or STEP tutor if you need to use the school computers to access the website after school.**

**thisisfsdartanddesign.weebly.com/year-seven**

# EVALUATING YOUR WORK

| | |
|---|---|
| **WHAT?** | **WHAT IS IT?** Explain your work.<br>**Example:** This is a drawing I made of a... This is a series of photos I took of... This an experiment using... This is a section of a piece of work by... Here I have used... On this page I have tried....<br>This is a collection of.... |
| **WHY?** | **WHY DID YOU MAKE IT?** How does it help?<br>**Example:** ...to get ideas about... to show what I have learned about... to explore the idea of... to examine the shape/form/texture/colour/pattern of... to analyse the style of... to try out the technique of... to practice... to develop my skills... |
| **HOW?** | **HOW DID YOU MAKE IT?** Explain the process.<br>**Example:** I drew it using... I painted it with...I constructed it from...I built it up by collaging...I photographed/drew it from life...I worked from a photograph...I experimented with... I photocopied... I cut up and rearranged... |
| **QUALITY?** | **HOW GOOD IS IT?** What works/what doesn't?<br>**Example:** I am pleased with...one good thing is...the best part of this piece is...I'm not happy with...one part I could improve is...the least successful part is. I wish I could... If I had chance I would... I could improve this by... |
| **LEARNING?** | **WHAT DID YOU LEARN?** What's next?<br>**Example:** I improved my skills in...I got better working in the style of...I have a better understanding of... I feel more confident about...Next I will try...To follow this up I will...To move my ideas on I could... Next I should... To make progress I must... |

**USE THE HEADINGS TO EXPLAIN EACH PIECE OF WORK YOU HAVE COMPLETED IN YOUR SKETCHBOOK**

**@thisisfsdartanddesign & @thisisfsdphotography**

YEAR 8

# COMPUTER SCIENCE

# Computer Science – Part 1 – Inside Your Computer

## Binary

Computers use electrical signals that are on or off, so they have to see everything as a series of binary numbers. This data is represented as a sequence of 1s and 0s (on and off).

All data that we want a computer to process needs to be converted into this binary format.

To convert to binary:

- put your binary digit in the place holders.
- Any placeholder with a 1 in add it up (shown below)

| | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
|---|---|---|---|---|---|---|---|---|
| 8 bit binary digit | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| | 128 + 32 + 16 + 1 = 177 | | | | | | | |

## Hardware and Software

Hardware are the physical parts of your computer (the pieces you can touch)

Software are the virtual parts of your computer that you use, such as applications.

The **CPU** is the central processing Unit. It is like the brain of the computer and controls all of the actions that you do on your computer.

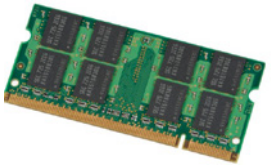
The **motherboard** holds, and allows, communication between many of the crucial electronic components of a system, such as the central processing unit (CPU) and memory (RAM).

## Storage

A **hard disk drive** (HDD) is a storage device that uses magnetic material to store and retrieve digital information.

**ROM** stand for Read Only Memory and is a type of memory that cannot be changed. ROM is only used to boot or start-up a computer.

**RAM** stands for Random Access Memory and allows information to be stored and retrieved on a computer.



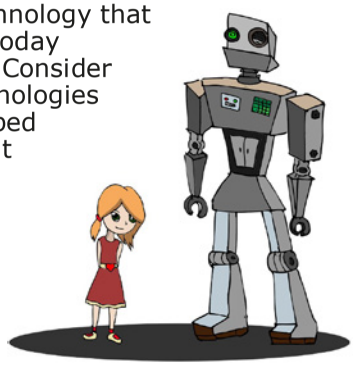
If the computer is turned off, all data contained in RAM is lost.

## UI versus UX

UI stands for User interface - this includes how something looks such as the fonts and colours that it uses to make it look attractive.

UX stands for User Experience - how easy is it to use something and well does it meet a need.

Think about the technology that we have available today and Its limitations. Consider possible future technologies that may be developed and how these might improve the user experience.

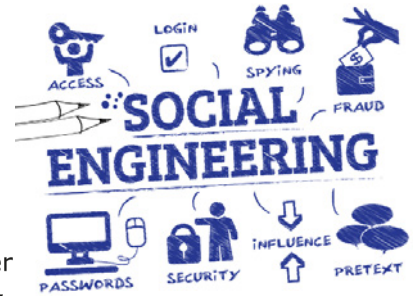


## Cyber Security and Social Engineering

**Blagging** is trying to invent a scenario to convince someone that you are a person you are not.

**Shoulder Surfing** is when a crook is looking over your shoulder looking at passwords or sensitive personal information.

A **Phishing** email is one that tricks you into handing over sensitive Information, such as bank details.




**Pharming** is a cyber-attack to redirect you to a fake site in order to steal user data, like passwords.

## Careers in IT and Computer Science

There are so many job that you can do once you have studied IT or computer science. Spend some time looking at some of the jobs and seeing if any are things you might like to do in the future

But remember that many Computer Science jobs of the future haven't even been invented yet! Could you be the next technology inventor?

A small sample of possible careers include:

- Data Analyst
- Project Manager
- Agile Programmer
- Web Developer
- Games Designer
- Database Manager
- Systems Architect
- Ethical Hacker

# Computer Science – Part 2 – Data Analysis and Programming

## Data and Information

Information combines 4 elements:

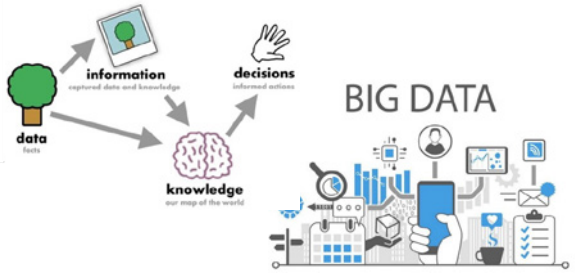
| | |
|---|---|
| Data | Raw facts or figures without meaning. |
| Structure | How the data is organised or encoded. |
| Context | Prior understanding and the structure are used to make sense of the data. |
| Meaning | Data, structure and context are put together to provide meaning. |

Example - turning data into information:

| | |
|---|---|
| Data | 122520 |
| Structure | 12/25/20 |
| Context | US date format - month/day/year |
| Meaning | Christmas Day 2020 |

## Knowledge and Big Data

When information is used to answer a particular question or to solve a problem then that is applying knowledge.




Big Data systems use extremely large data sets to reveal patterns, trends and associations; especially relating to human behaviour and interactions. Social media, online shopping, music streaming, navigation systems and personal assistants such as Alexa and Siri all increasingly make use of Big Data.

## Algorithms and Boolean Logic

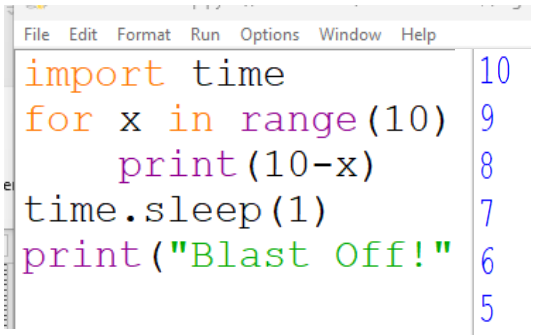
| | |
|---|---|
| Algorithm | A step-by-step process to solve a problem or complete a task. |
| Sequence | One step after another (think of a sequence like 1, 2, 3 or a, b, c) |
| Selection | Make a choice or select a path (IF True then do something) - aka branching |
| Iteration | Repeat something a fixed number of times (FOR) or WHILE True - aka loop |

Boolean Logic with AND, OR and NOT in conditions is used to control selection and iteration in programs based upon data values in variables and is also used in database queries.

AND - all parts of a condition must be true.

OR - only one part of a condition needs to be true.

NOT - a condition needs to be not right to be true!




A for loop is a type of iteration and will run for a set amount of times. It is also know as a count controlled loop

```
guess=""
password="Fram1234567"
while guess !=password:
    guess=input("Enter password")
print("Welcome to your account")
Enter passwordFram1
Enter passwordFram12
Enter passwordFram123
Enter passwordFram1234
Enter passwordFram12345
Enter passwordFram123456
Enter passwordFram1234567
Welcome to your account
```

A while loop is a type of iteration that is condition controlled. In this example it will keep asking for a password until it matches the stored password.

## Data Types

Variables in computer programs and fields in database tables store different types of data. The type chosen affects how the data can be processed - for example, whether a calculation can be performed on it or how database records are sorted.

Common data types include the following:

| Data Type | Description and Usage |
|---|---|
| String or Char | Text such as "Hello World!" |
| Integer | Whole numbers like -3 or 42 |
| Real or Float | Decimal numbers like 3.142 |
| Date | Date values such as 25/12/2020 |
| Boolean | Can only be True or False |

YEAR 8

# ENGLISH

# TB4 (Y8) Gothic – Reading (Poetry)

**Year 8: Genre and Poetic Conventions - Gothic**

| POEM | SUMMARY | KEY CONCEPTS | SYMBOLS | VOCABULARY (Words already explored) | METHODS |
|---|---|---|---|---|---|
| **The Lady of Shalott - Tennyson** | A lady is isolated and secluded from Camelot, being cursed to never look directly outside. Instead, she uses a mirror to look through the window. One day, Sir Lancelot, a knight, passes her window and the lady looks outside. She sets out on a boat to voyage to Camelot, but she dies in gaining freedom and breaking the curse. | Tennyson **reveals** the destructive nature of being secluded and isolated from others. Additionally, he **criticises** unequal societies – particularly patriarchal societies which treat women as inferior. | **Locked doors**<br>Throughout literature, locked doors are a symbol of mystery and secrecy – as we should question what is on the other side of the door. Upon closer inspection, perhaps Tennyson uses the locked door to represent the Lady's imprisonment and restriction – which reflects the confining nature of a patriarchal society.<br>  | **Damsel in distress** – A weak and vulnerable female character who needs a male hero.<br>**Imprisoned** – Restricted or trapped.<br>**Ominous** – A worrying impression that something bad is going to happen.<br>**Desolate** – Empty or abandoned, feeling deeply unhappy or lonely. | **Setting**<br>The place where the poem is set.<br>• "The silent isle embowers [traps] the Lady of Shalott"<br>• "Four gray walls, four gray towers" |
| **The Laboratory – Browning** | A vengeful woman goes to a laboratory with a malevolent plot to poison her rival. She seeks revenge on a previous lover who she feels has betrayed her and enjoys watching the poison being made. | Browning **reveals** a darker side of love, which causes obsession, betrayal and destruction. | **Poison**<br>Like in *Romeo and Juliet*, poison symbolises death and destruction. The poison represents the hostile and vengeful attitude of the speaker, as she enjoys the prospect of causing intense pain and suffering to others.<br>  | **Vengeful** – Seeking revenge.<br>**Malevolent** – Evil, wanting to cause pain to others.<br>**Unreliable narrator** – A speaker in a poem who cannot be trusted. | **Dramatic monologue**<br>A poem in which we have only one speaker, which makes them an unreliable narrator.<br>• "Which is the poison to poison her, prithee?"<br>• "Not that I bid you spare her the pain!" |
| **Annabel Lee - Poe** | The speaker is Annabel Lee's lover, who mourns her death. He claims that even the angels were jealous of their love. Despite her death, the speaker believes their love transcends and continues. | Poe **reveals** how love is powerful and can transcend death, but **warns** that it can actually destroy those who experience it. | **Sepulchre (tomb)**<br>This imagery of death and decay may represent that the speaker is emotionally imprisoned within his own grief or sense of loss. Perhaps, it represents the transcending nature of their love as he remains completely devoted to Annabel Lee.<br>  | **Imprisoned** – Restricted, trapped, cannot escape<br>**Transcends** – To go beyond.<br>**Melancholy** – Sadness and gloom. | **Cyclical structure**<br>A structure where the beginning and the end are linked.<br>• "In this kingdom by the sea... In her sepulchre there by the sea"<br>• "... Can ever dissever my soul from the soul of... Annabel Lee" |

# TB4 (Y8) Gothic – Writing (short story)

**Year 8: Gothic Descriptive Writing – short story opening**

| | |
|---|---|
| **Adjectives**<br>Describes a noun | pallid, gaunt, ominous, desolate, helpless, malevolent, melancholy |
| **Verbs**<br>Doing words | crept, evaded, gripped, howled, whispered, shuddered, pursued, encroached upon |
| **Adverbs**<br>Describes a verb | cautiously, furtively, eerily, ominously, tentatively, silently, morosely, violently |
| **Repetition**<br>Using the same word or phrase more than once | Ominously, ravens hovered overhead: never satisfied, never still. |
| **Personification**<br>Giving human characteristics to an object | Silence reigned there.<br>Darkness engulfed everything.<br>The moon peered behind obsidian clouds. |
| **Metaphor**<br>Saying something is something else | Dense and suffocating, the fog was a blanket of dread; it threatened to smother all. |
| **Simile**<br>Comparing two things using 'like' or 'as' | The candle flickered like a dying breath, casting trembling shadows across the stone walls. |
| **Pathetic fallacy**<br>Giving human emotions to something in the natural world. | The storm raged, as if the sky itself were mourning.<br>Melancholy and desolate, the rain wept against the windows. |
| **Foreshadowing**<br>Giving the reader a hint of something yet to happen. | The piercing cry of a raven shattered the silence that entombed the land. |

| CONVENTIONS OF GOTHIC WRITING | |
|---|---|
| **Purpose** | Gothic texts explores the darker side of human nature: fear, the unknown, death and the supernatural. Gothic texts were written to explore common anxieties at the time of writing. |
| **Settings** | Settings are often dark and secluded, creating a sense of foreboding. Examples include: haunted castles, desolate moors and shadowy labyrinthine streets of Victorian London. Readers can expect claustrophobic settings with hidden doors, secret passageways and spiralling stairs. |
| **Characters** | The central character is often flawed and isolated from society. They are often tormented by their past. Villains often wear facades and have deceptive appearances, initially looking captivating. Female characters are often vulnerable and weak, such as a damsel in distress. |
| **Plot** | Common plots within Gothic texts include: the supernatural, vengeful characters, familial secrets and curses. |
| **Objects** | Objects within Gothic texts are often symbols. For example, candles often foreshadow death whilst locks can represent secrecy and mystery. |

| SENTENCE OPENERS | |
|---|---|
| **Adjective start** | **Bleak and barren**, the moor shuddered in the wind. |
| **Verb start** | **Twisting and turning**, the vines encroached upon the castle. |
| **-ly Adverb start** | **Silently**, the shadow crept along the crumbling walls. |
| **Preposition start** | **Beneath the watchful moon**, her timid footsteps echoed as she |
| **More, more, more** | **The more** she wandered through the endless maze of corridors, **the more** the walls seemed to close in, **the more** she realised she was not alone. |

| PUNCTUATION | | |
|---|---|---|
| **Semi-colon**<br>; | Replaces a connective in a sentence.<br>Both sides of the semi-colon must make sense on their own. | The cobwebbed clock struck midnight; its mournful chimes echoed through the labyrinthine corridors. |
| **Colon**<br>: | Emphasises a key piece of information.<br>Can be used to introduce a list. | Creaking ominously, the door opened: a dark, suffocating silence spilled out. |
| **Comma**<br>, | Adds extra information into a sentence. | The spires of the castle, ancient and decaying, loomed over the village. |

# TB5 (Y8) Conflict – Reading (The Door of No Return, Kwame Alexander)

**Year 8: Conflict - *The Door of No Return* - Alexander**

| KEY CONCEPTS – Alexander wrote *The Door of No Return* to… | |
|---|---|
| **reveal** the brutal realities of colonialism and the resilience of the African people. | **teach** readers about African heritage, ensuring their stories are remembered. |

| PLOT | SYMBOLS |
|---|---|
| **Ch1:** Kofi Offin enjoys swimming in the Offin river with his best friend, Ebo, and is captivated by a girl named Ama. Mr Goodluck Phillip teaches Kofi British culture, prioritising this over Asante traditions. | **The river Offin** represents life, freedom and Kofi's connection to his heritage. |
| **Ch2:** There is a tense relationship between Upper and Lower Kwanta, two regions within the Asante kingdom. Kofi and his antagonistic cousin fight when his cousin kisses Ama. Kofi is overpowered. | **Storytelling** represents legacy, belonging and continuity. Through telling stories, characters maintain a connection to their history and identity. |
| **Ch3:** Kofi challenges his cousin to a swimming match. At the annual Kings Festival, Kofi's brother, Kwasi, represents Upper Kwanta in a wrestling match. Kwasi kills Prince Yaw. | **Names** represent personal and cultural identity. The loss of names could represent the loss of identity, especially in the context of slavery and colonialism. |
| **Ch4:** The Council of Elders decide to spare Kwasi from exceution, but Kwasi decides to isolate himself. Kofi continues to practice swimming ready for his match against his cousin. | **The drum** represents communication and cultural identity. Additionally, it represents the traditions of the Asante people. |
| **Ch5:** Kwasi emerges from solitude, leading Kofi on a race towards the river. As they are running through the woods, Kwasi disappears. Gunshots are heard. As Kofi tries to escape, he is caught in a trap – becoming shackled. | **The rope trap** represents the dangers that Kofi and his community face, being enslaved and shackled – with the rise of colonialism and their freedom being threatened. |
| **Ch6:** Strangers cut Kofi down and imprison him in Lower Kwanta. Kofi discovers Kwasi is there and is being forced to fight the giant Bonsu. Kofi's captors trade him as a slave. | **Afua** is used by Alexander as a symbol of feminine power and strength, serving as a source of hope and inspiration for Kofi. |
| **Ch7:** Kofi is unloaded onto a ship, being labelled number 77. Kofi witnesses death and despair around him. Afua plans a revolution, but a storm causes the ship to begin sinking. The ending is ambiguous. | **The vast ocean** represents the unknown – reflecting the ambiguous nature of the ending. |

**CONTEXT**

*The Door of No Return* is a historical novel, inspired by the lives of the Asante people. They were native to a region of West Africa, now known as Ghana.

The novel is set in 1860: the height of the transatlantic slave trade. At this time, millions of Africans were forcibly taken from their homeland and transported to America.

Alexander captures the rich cultural and social fabric of African societies, before the disruption caused by European colonisation and the slave trade.

**VOCABULARY** Words already explored

| | |
|---|---|
| **Culture** | The customs, beliefs and way of life of a group. |
| **Colonialism** | When one country takes control of another. |
| **Captivated** | Completely fascinated by something. |
| **Antagonistic** | Someone who shows hostility or anger to someone else. |
| **Resilience** | The ability to recover from challenges. |
| **Endurance** | The ability to continue with an unpleasant experience. |
| **Enslaved** | To be treated as inferior, like a slave. |
| **Shackled** | Trapped, restricted, limited. |
| **Dehumanising** | Treating someone as inferior or less than human. |
| **Resistance** | Fighting against something, standing up for what is right. |
| **Ambiguous** | Uncertain, vague. |

# TB5 (Y8) Conflict – Writing (The Door of No Return, Kwame Alexander)

**Year 8: Conflict – *The Door of No Return* - Persuasive Writing**

| | |
|---|---|
| I | **Imperatives**<br>A commanding or forceful verb. |
| N | **Negative disproven**<br>Putting forward a counter argument and proving it wrong. |
| A | **Address the reader**<br>Speaking directly to the reader, using inclusive pronouns. |
| F | **Facts**<br>Something that is true and proven. |
| O | **Opinions as facts**<br>Presenting a personal viewpoint as factual. |
| R | **Rhetorical questions**<br>A question which does not require an answer, but provokes thought.<br><br>**Repetition**<br>Using a word, phrase or sentence more than once. |
| E | **Emotive language**<br>Language which creates a strong emotional response in the reader. |
| S | **Statistics**<br>Using a percentage or a number to support a point. |
| T | **Triple**<br>A list of three. |

| RHETORICAL METHODS | |
|---|---|
| **Abstract nouns**<br>Nouns that cannot be touched (emotions, concepts) | **Injustice** and **exploitation** continue to fuel modern-day slavery, eroding human **dignity** and extinguishing the **hope** for **freedom**. |
| **Anaphora**<br>Repetition at the start of a sentence or clause. | **Injustice** denies freedom. **Injustice** destroys dignity. **Injustice** catalyses suffering. It is our responsibility to fight it. |
| **Hyperbole**<br>Exaggeration | Modern-day slavery is a **voracious storm of injustice and oppression**, decimating any hope that lies in its path. |
| **Superlative** | Modern-day slavery is the **greatest** violation of human rights in our time; it is the **most urgent** crisis of our generation. |

| ARGUMENTATIVE LANGUAGE | |
|---|---|
| **Nouns** | **Verbs** |
| • advocates<br>• adversaries<br>• activists<br>• challengers<br>• critics<br>• opponents<br>• supporters<br>• researchers | • advocate<br>• argue<br>• believe<br>• claim<br>• criticise<br>• defend<br>• propose<br>• suggest<br>• strive<br>• expose<br>• reveal |

| STRUCTURE | | |
|---|---|---|
| | **Opening:**<br>Introduce your topic in an attention-grabbing way. | Everyday, millions suffer in silence. Millions are shackled without hope. Millions deserve freedom. |
| X | **First main point:**<br>Remember to include reasons.<br>Use INAFOREST techniques. | Firstly, and most importantly, |
| X | **Second main point:**<br>Remember to include reasons.<br>Use INAFOREST techniques. | Additionally,<br>Furthermore, |
| O<br>X | **Counter-argument:**<br>Present the other side of the argument, explaining why it is wrong and use a negative disproven. | Whilst some may claim that... , actually the reality is... |
| | **Conclusion:**<br>Call your reader to action. | Millions are still enslaved.<br>Millions are still voiceless.<br>Millions are still waiting for you. |

| PUNCTUATION | | |
|---|---|---|
| **Semi-colon**<br>; | Replaces a connective in a sentence.<br><br>Both sides of the semi-colon must make sense on their own. | Modern-day slavery hides in plain sight; it thrives in the shadows of society, demanding urgent action and awareness. |
| **Colon**<br>: | Emphasises a key piece of information.<br><br>Can be used to introduce a list. | We stand witness to history's darkest chapter: the forced displacement and suffering endured by countless souls. |
| **Dash**<br>- | Emphasises a key piece of information.<br><br>Can add extra information into a sentence. | *The Door of No Return* is more than a monument – it is a haunting reminder of lives torn apart and the fight against slavery that must continue today. |

# TB6 (Y8) Tragedy – Shakespeare (Othello)

**Year 8: Tragedy – *Othello* - Shakespeare**

| KEY CONCEPTS – Shakespeare wrote *Othello* to... | |
|---|---|
| **warn** the audience that people can wear facades | **reveal** the all-consuming and overwhelming nature of jealousy |

| PLOT | | | | |
|---|---|---|---|---|
| **Act 1:** Vengeful Iago reveals he secretly hates Othello, as Othello promoted Cassio instead of him. Iago informs Desdemona's father of her secret marriage to Othello in attempt to ruin it, but the marriage is allowed. Othello is sent to Cyprus to stop an invasion. | **Act 2:** A storm stops any risk of invasion. Cassio arrives in Cyprus, followed by Iago and Desdemona. Iago is determined to cause mischief. He manipulates Cassio, getting him drunk so he gets into a fight. Othello strips Cassio of his rank. Iago advises Cassio to go to Desdemona for help. | **Act 3:** Desdemona speaks up for Cassio. Iago sows seeds of suspicion in Othello's mind, suggesting she is having an affair with Cassio. Desdemona drops her handkerchief. Iago places it in Cassio's bedroom as "proof" of her infidelity. Iago tells Othello, who orders him to kill Cassio. | **Act 4:** Iago manipulates the situation by arranging to meet Cassio whilst Othello is hiding. Cassio and Iago speak about a woman. Iago tricks Othello into believing Cassio was speaking about Desdemona. Iago continues plotting, setting up Roderigo to try to kill Cassio. | **Act 5:** Iago leads Roderigo to a place to kill Cassio, where both men are injured. Iago kills Roderigo in a different place, so there is no evidence of his manipulation. Othello accuses Desdemona of infidelity, before smothering her. Iago flees. Othello stabs himself. Iago is arrested. |

| TRAGIC CONVENTIONS | | KEY QUOTATIONS |
|---|---|---|
| **Tragic hero**  | Shakespeare presents Othello as the tragic hero. He has noble origins, being a well-respected soldier – despite being an outsider due to his race. However, he has a hamartia (a fatal flaw); he is prone to jealousy. This leads to his downfall, which results in his inevitable death. | • "The Moor is of a free and open nature"<br>• "[He] will as tenderly be led by the nose as asses are"<br>• "O beware, my Lord, of jealousy... it is the green-eyed monster which doth mock the meat it feeds on"<br>• "I'll tear her into pieces" |
| **Machiavellian villain**  | Shakespeare presents Iago as a Machiavellian villain. He is a duplicitous character who wears a façade in order to weave a web of deceit and manipulate others into believing him to be "honest Iago". Iago reveals his malevolent and sinister schemes to the audience through asides and soliloquies. | • "I am not what I am"<br>• "Hell and night must bring this monstrous birth to the world's light"<br>• "Divinity of hell!"<br>• "I'll pour this pestilence into his ear" |

| METHODS | |
|---|---|
| **Soliloquy** | A character speaks to themselves, no one onstage hears |
| **Aside** | A character speaks to the audience, but is unheard by others onstage |
| **Dramatic irony** | Audience knows more than characters |

| VOCABULARY | Words already explored |
|---|---|
| **Noble** | High ranking, superior, brave. |
| **Hamartia** | A fatal flaw. |
| **Duplicitous** | Two-faced, deceitful. |
| **Machiavellian** | Sly, cunning. |
| **Manipulate** | To control or influence in a way that is unfair. |
| **Infidelity** | Being unfaithful, having an affair. |
| **Façade** | A deceptive appearance, like wearing a mask. |
| **Sinister** | Giving the impression that something harmful will happen. |

YEAR 8

# FOOD

# Knowledge Organiser 1

## Carbohydrates

**Carbohydrates:** function is energy.

**Carbohydrate Source:** Found in pasta, rice, bread, fruits and milk.


## Protein

**Protein:** function is growth, repair and as a secondary source of energy.

**Protein Source:** meat, beans, tofu, soya and lentils.

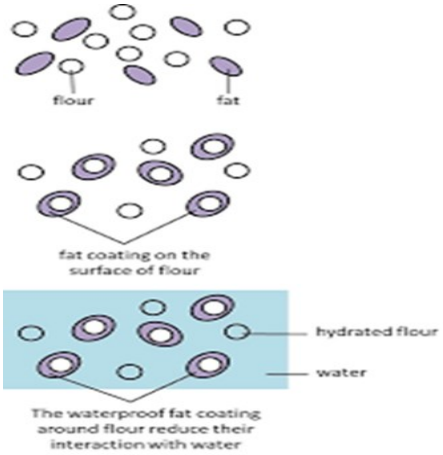
## Fat

**Fats:** function is to provide energy, protect organs and acts as an insulating layer under skin.

**Fat Source:** Animal fats; butter, lard, suet, cream, hard cheese. Vegetable fat; sunflow-

## Shortening

When fat particles coat flour particles so that gluten is not formed this gives products a crumbly texture.

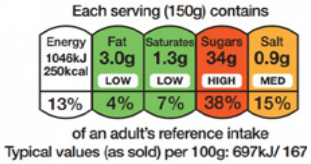



## Intolerances

- More common than food allergies.
- Lactose intolerance - not able to digest lactose.
- Coeliac disease - reaction to gluten, which is found in wheat, rye and barley.
- Symptoms include bloating and diarrhoea

## Nutritional analysis

- Finds out the nutrients in a recipe.
- Can be carried out by using computer software or using food tables.
- To do nutritional analysis you will need a list of ingredients and the amounts.




## To make it easy when planning meals people are classified into target groups

- Babies - all vital but especially foods in iron and vitamin C
- Children - protein, calcium and vitamin, iron and vitamin C and B
- Teenagers - protein, calcium and vitamin D, iron and vitamin C
- Adults - calcium and vitamin D, iron and vitamin C
- Pregnant and lactating women - folic acid (at start of pregnancy, calcium and vitamin D, iron and vitamin C, protein
- Older adults - fibre, calcium and vitamin D, iron and vitamin C

## Allergies

- An allergen may cause an allergic reaction.
- An allergic reaction may be mild or very serious.
- Anaphylactic shock is a severe reaction which may cause death.
- Common allergens include:- peanuts, nuts, soya, eggs.
- Symptoms include runny nose, itchy eyes and in

# Knowledge Organiser 2

## Sensory analysis

Judge food on four properties

**appearance, taste, smell (aroma) and texture (mouthfeel).** It is important as all foods need to be acceptable to a wide range of people.


**Sensory descriptors—** words you can use to describe the characteristics of food products.

## Aeration

When air is added to products to make them light and fluffy. Air can be added by sieving and folding.

## Factors affecting food choice

- **Celebration/occasion -** e.g. birthday, religious event such as Christmas or Eid.
- **Cost** - the foods we choose and where we buy it.
- **Fashions, trends, peer pressure** - trends emerging and choosing foods to fit in with friends.
- **Food availability and seasonality** - food only available at certain times of year.
- **Healthy eating** - people are more aware of healthy eating.
- **Lifestyle -** may not have time to eat together or sometimes make an ethical choice e.g. vegans

£

| Vitamin | Sources (where it is found) | Function (what it does) | Deficiency ( too little) |
|---|---|---|---|
| A | Liver, eggs, carrots | Helps you to see in dark | Dry eyes and dry skin |
| B | Meat, cereals and milk | Helps to release energy<br>Reduces risk of birth defects | Birth defects |
| C | Citrus fruit such as oranges. | Helps to fight infection | Slow healing of wounds can lead to a disease called scurvy |
| D | Sunlight<br>Fatty fish and eggs | Helps absorption of calcium | Rickets in children<br>Osteoporosis in adults |

| Minerals | Sources (where it is found) | Function (what it does) | Deficiency ( too little) |
|---|---|---|---|
| Calcium | Yoghurt, milk, cheese, tofu | Builds strong bones and teeth | Weak bones and teeth |
| Iron | Dark green leafy vegetables, beans, fish, egg yolk, red meat | Keeps red blood cells healthy | Anaemia, tiredness |
| Sodium (Salt) | Cheese, ready meals, salted nuts, bacon | Keeps the correct balance of water in the body | Muscle cramps, nausea, vomiting. |

## Labelling

The following pieces of information are required by law on a food label:-

- Name of food
- Ingredients list
- Allergens
- Weight
- Use by or best before date
- Storage conditions
- Name and address of manufacturer
- Country of origin
- Instructions for use
- Nutrition declaration

## British Cuisine

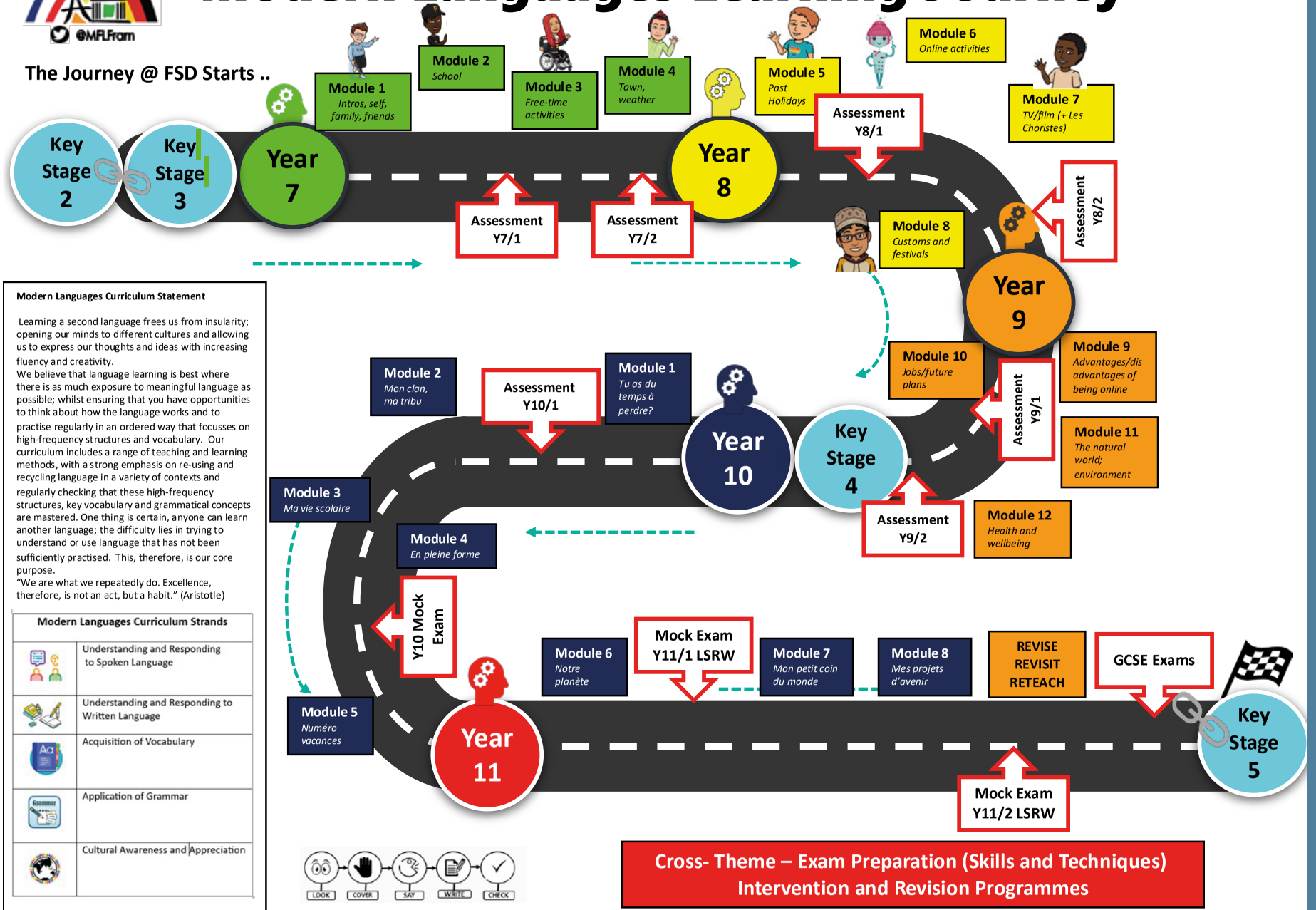

**Eating patterns**:- Breakfast, elevenses, lunch, tea, dinner.

**Popular foods**:- beef, lamb, chicken, potato, carrot, leek, Cheddar cheese, Double Gloucester,

YEAR 8

# FRENCH

# Modern Languages Learning Journey




**Modern Languages Curriculum Statement**

Learning a second language frees us from insularity; opening our minds to different cultures and allowing us to express our thoughts and ideas with increasing fluency and creativity.
We believe that language learning is best where there is as much exposure to meaningful language as possible; whilst ensuring that you have opportunities to think about how the language works and to practise regularly in an ordered way that focusses on high-frequency structures and vocabulary. Our curriculum includes a range of teaching and learning methods, with a strong emphasis on re-using and recycling language in a variety of contexts and regularly checking that these high-frequency structures, key vocabulary and grammatical concepts are mastered. One thing is certain, anyone can learn another language; the difficulty lies in trying to understand or use language that has not been sufficiently practised. This, therefore, is our core purpose.
"We are what we repeatedly do. Excellence, therefore, is not an act, but a habit." (Aristotle)

| Modern Languages Curriculum Strands | |
|---|---|
| | Understanding and Responding to Spoken Language |
| | Understanding and Responding to Written Language |
| | Acquisition of Vocabulary |
| | Application of Grammar |
| | Cultural Awareness and Appreciation |

# KS3 French Core Classroom Language

| | |
|---|---|
| **Ça va?** *(how are you ?)* | **Asseyez-vous** *(sit down)* |
| **Merci** *(thank you)* | **Silence, s'il vous plaît** *(silence please)* |
| **Pardon, Madame / Monsieur** *(excuse me, Miss/Sir)* | **Ecoutez** *(listen)* |
| **J'ai fini** *(I've finished)* | **Regardez** *(look)* |
| **Je ne sais pas** *(I don't know)* | **Ecrivez** *(write)* |
| **J'ai besoin d'aide** *(I need some help)* | **Levez-vous (***stand up***)** |
| **Je ne comprends pas** *(I don't understand)* | **Travaillez en équipe** *(work in a team)* |
| **Répétez, s'il vous plaît** *(repeat, please)* | **Travaillez avec un partenaire** *(work with a partner)* |
| **Comment dit-on _____ en français?** *(How do you say _____ in French?)* | **C'est quoi en anglais?** *(what is it in English?)* |
| **Je peux… ?** *(can I… ?)* | **Qui peut expliquer en anglais?** *(who can explain in English ?)* |
| **Pouvez-vous… ?** *(Can you… ?)* | **J'ai besoin d'un volontaire** *(I need a volunteer)* |

## Days, months and birthdays

*No capital letters for days of the week or months in French (unless it's the start of a sentence)

**Days**

| | |
|---|---|
| Monday | lundi |
| Tuesday | mardi |
| Wednesday | mercredi |
| Thursday | jeudi |
| Friday | vendredi |
| Saturday | samedi |
| Sunday | dimanche |

**Seasons**

| | |
|---|---|
| Spring | le printemps |
| Summer | l'été |
| Autumn | l'automne |
| Winter | l'hiver |

**Months**

janvier
février
mars
avril
mai
juin
juillet
août
septembre
octobre
novembre
décembre

Saying the date in French

Le + number+ month

e.g. le deux avril = the 2nd April
le vingt juin = the 20th June

EXCEPTION
the 1st = le premier
e.g. le premier mai = the 1st May

**Numbers**

| | | | |
|---|---|---|---|
| 1 | un | 16 | seize |
| 2 | deux | 17 | dix-sept |
| 3 | trois | 18 | dix-huit |
| 4 | quatre | 19 | dix-neuf |
| 5 | cinq | 20 | vingt |
| 6 | six | 21 | vingt-et-un |
| 7 | sept | 22 | vingt-deux |
| 8 | huit | 23 | vingt-trois |
| 9 | neuf | 24 | vingt-quatre |
| 10 | dix | 25 | vingt-cinq |
| 11 | onze | 26 | vingt-six |
| 12 | douze | 27 | vingt-sept |
| 13 | treize | 28 | vingt-huit |
| 14 | quatorze | 29 | vingt-neuf |
| 15 | quinze | 30 | trente |

| | | | |
|---|---|---|---|
| 40 | quarante | 80 | quatre-vingts |
| | | | |
| 50 | cinquante | 90 | quatre-vingts-dix |
| 60 | soixante | 100 | cent |

**Colours**

| | | | |
|---|---|---|---|
| blanc | white | noir | black |
| rouge | red | bleu | blue |
| vert | green | jaune | yellow |
| rose | pink | violet | purple |
| gris | grey | brun | brown |

# KS3 French Core Vocabulary – High Frequency Words and Phrases

## Connectives & other little words

| | |
|---|---|
| et | and |
| mais | but |
| pourtant | however |
| cependant | however |
| si | if |
| avec | with |
| sans | without |
| sauf | except |
| aussi | also |
| parce que | because |
| car | because |
| à cause **de** | because **of** |
| grace à | thanks to |
| pour *(+ infinitive)* | in order to |
| afin de *(+ inf.)* | in order to |
| avant de *(+ inf.)* | before ___ing |
| bien que ce soit | although it is |
| comme | as/such as |
| puisque | since/seeing as |
| par exemple | for example |
| y compris | including |
| en plus | in addition |
| donc / alors | so/therefore |
| par consequent | as a result |
| quand | when |
| pendant que | while/whilst |
| en bref | in short |
| peut-être | perhaps/maybe |
| malgré | in spite of |
| heureusement | fortunately |
| malheureusement | unfortunately |
| sauf | except |
| même si | even if |
| c'est-à-dire | that is to say |
| d'un côté | on the one hand |
| de l'autre côté | on the other hand |
| par contre | on the other hand |

## Time markers

| | |
|---|---|
| pour commencer | to start with |
| tout d'abord | first of all |
| au début | at the start |
| puis | then |
| ensuite | next |
| après (ça) | after (that) |
| plus tard | later |
| mais maintenant | but now |
| tout de suite | immediately |
| inmédiatement | immediately |
| soudainement | suddenly |
| enfin / finalement | finally |
| aujourd'hui | today |
| bientôt | soon |
| un jour | one day |
| vers ___ heures | at about ___ o'clock |
| au bout de 5 minutes/ après 5 minutes | after 5 minutes |

## Intensifiers and Adverbs

| | |
|---|---|
| assez | quite |
| très | very |
| un peu (de) | a bit (of) |
| peu de | few/not many |
| trop | too *(+ adj)* |
| trop de | too many/much |
| assez **de** | enough |
| beaucoup (de) | a lot (of) |
| bien de | a lot of |
| plein de | loads of |
| pas mal de | quite a lot of |
| pas grand chose | not a lot |
| plusieurs | several |
| quelques | some/a few |
| vraiment | really |
| complètement | completely |
| extrêmement | extremely |
| absolument | absolutely |
| tout à fait | totally |
| surtout | especially |
| actuellement | currently (**not** 'actually'!!) |

## Comparisons

| | |
|---|---|
| que | than |
| plus *(+ adj)* | more *(+ adj)* |
| moins *(+ adj)* | less *(+ adj)* |
| plus de *(+ noun)* | more *(+ noun)* |
| moins de *(+ noun)* | less/fewer *(+ noun)* |
| le plus*(+ adj)* | the most *(+ adj)* |
| le moins *(+ adj)* | the least *(+ adj)* |
| meilleur | better *(adjective)* |
| mieux | better *(adverb)* |
| pire | worse |

## Negatives

To use these in a sentence, the *verb* goes between **ne** and the **second word**

| | |
|---|---|
| ne___pas | not/don't |
| ne___jamais | never/not ever |
| ne___plus | not any more |
| ne___que | only |
| ne___rien | nothing/not anything |
| ne__ni__ni | neither ___ nor ___ |
| ne___personne | nobody / no-one / not anybody |

## Opinion phrases

| | |
|---|---|
| j'aime/je n'aime pas | I like/I don't like |
| j'adore | I love |
| je déteste | I hate |
| selon moi | according to me |
| personnellement | personally |
| à mon avis | in my opinion |
| je pense que | I think that |
| je crois que | I believe that |
| il me semble que | it seems to me that |
| je suis d'accord | I agree |
| je pense le contraire | I think the opposite |
| ça peut être | it can be |
| certains disent que | some people say that |

## Possessives, a & the

| | Masc | Fem | Vowel | Plural |
|---|---|---|---|---|
| **a/some** | un | une | un/une | des |
| **the** | le | la | l' | les |
| **my** | mon | ma | mon | mes |
| **your** (friendly/singular) | ton | ta | ton | tes |
| **his/her** | son | sa | son | ses |
| **your** (polite/plural) | votre | votre | votre | vos |
| **our** | notre | notre | notre | nos |
| **their** | leur | leur | leur | leurs |

# KS3 French Core Vocabulary – Narrating Events

## Referring to the Past

| | |
|---|---|
| récemment | recently |
| ce jour-là | (on) that day |
| hier | yesterday |
| hier matin | yesterday morning |
| hier après-midi | yesterday afternoon |
| hier soir | yesterday evening |
| samedi dernier | last Saturday |
| le weekend dernier | last weekend |
| la semaine dernière | last week |
| le mois dernier | last month |
| octobre dernier | last October |
| l'été dernier | last summer |
| l'année dernière | last year |
| il y a deux ans | two years ago |
| avant | before |
| dans le passé | in the past |
| quand j'avais huit ans | when I was 8 years old |

## Useful Verbs

c'était = it was
j'étais = I was
ils/elles étaient = they were

il y avait = there was/were

je suis allé(e) = I went
j'**y** suis allé(e) = I went **there**
j'ai fait = I did
je **l'**ai fait = I did **it**
je **l'**ai aimé = I liked/enjoyed **it**

## Talking about regular or current activity

| | |
|---|---|
| aujourd'hui | today |
| le matin | in the morning |
| l'après-midi | in the afternoon |
| le soir | in the evening |
| le weekend | at weekends |
| le vendredi | on Fridays |
| en hiver | in winter |
| à Noël | at Christmas |
| Pendant la semaine | during the week |
| pendant la journée | during the day |
| pendant les vacances | in the holidays |
| après le college | after school |
| avant le college | before school |
| tous les soirs | every evening |
| tous les jours | every day |
| rarement | rarely |
| quelquefois | sometimes |
| parfois | sometimes |
| normalement | normally |
| d'habitude | usually |
| régulièrement | regularly |
| souvent | often |
| fréquemment | frequently |
| toujours | always |

## Useful Verbs

c'est = it is
je suis = I am
il y a = there is/are
je **le** fais = I do **it**
je **le** faisais = I used to do **it**
j'**y** vais = I go **there**
j'**y** allais = I used to go **there**

## Expressing Future plans

| | |
|---|---|
| demain | tomorrow |
| demain matin | tomorrow morning |
| demain après-midi | tomorrow afternoon |
| demain soir | tomorrow evening |
| après-demain | the day after tomorrow |
| le lendemain | the next day |
| plus tard | later |
| à l'avenir | in the future |
| la semaine prochaine | next week |
| le mois prochain | next month |
| l'année prochaine | next year |
| le weekend prochain | next weekend |
| en octobre prochain | next October |
| dans quelques jours | in a few days |
| dans ___ heure(s) | in ___ hour(s) |
| dans ___ jour(s) | in ___ day(s) |
| dans ___ semaine(s) | in ___ week(s) |
| dans ___ mois | in ___ month(s) |
| dans ___ an(s) | in ___ year(s) |

## Useful Verbs

ce sera = it will be
je serai = I will be
ils seront = they will be

il y aura = there will be

j'irai = I will go
j'**y** irai = I will go **there**
je vais **y** aller = I'm going to go **there**
je ferai = I will do
je **le** ferai = I will do **it**
je **l'**aimerai = I will enjoy **it**

# Y8 French Knowledge Organiser : Module 5: C'est L'Europe


| A | Français | Anglais |
|---|---|---|
| 1 | je suis allée | i went |
| 2 | j'ai visité | i visited |
| 3 | en Espagne | to Spain |
| 4 | en France | to France |
| 5 | en Italie | to Italy |
| 6 | en Allemagne | to Germany |
| 7 | en Écosse | to Scotland |
| 8 | en Suisse | to Switzerland |
| 9 | au Portugal | to Portugal |
| 10 | aux Etats-unis | to the United States |
| 11 | l'année dernière | last year |
| 12 | pendant les vacances | during the holidays |
| 13 | en juillet | in July |
| 14 | en août | in August |
| 15 | en avion | by plane |
| 16 | en car | by coach |
| 17 | en train | by train |
| 18 | avec ma famille | with my family |
| 19 | pour deux semaines | for two weeks |
| 20 | dans un hôtel | in a hotel |

| B | Français | Anglais |
|---|---|---|
| 1 | J'ai fait | I did |
| 2 | J'ai visité | I visited |
| 3 | Je me suis relaxé | I relaxed |
| 4 | J'ai mangé | I ate |
| 5 | J'ai nagé | I swam |
| 6 | des promenades | walks |
| 7 | du canoë | canoeing |
| 8 | de la planche à voile | wind-surfing |
| 9 | du tourisme | tourism |
| 10 | des monuments | monuments |
| 11 | sur la plage | on the beach |
| 12 | dans la piscine | in the swimming pool |
| 13 | avec mes amis | with my friends |
| 14 | dans la mer | in the sea |
| 15 | c'était fabuleux | it was fabulous |
| 16 | c'était barbant | it was boring |
| 17 | c'était amusant | it was fun |
| 18 | il faisait chaud | it was hot |
| 19 | il faisait beau | it was fine |
| 20 | il faisait mauvais | it was bad weather |


Je m'appelle Lou et je viens de Luxembourg. J'adore voyager et je pars souvent en vacances avec ma famille. Normalenent on passe des vacances en Europe et j'ai visité beaucoup de pays différents, par exemple, L'Espagne, La Suisse et L'Allemagne. L'année dernière, je suis allé.e au Portugal et c'était incroyable, mais il faisait tellement chaud. J'ai fait du tourisme et je me suis relaxé.e sur la plage. Cette année, je vais partir avec ma classe et on va découvrir un nouveau pays. On va en Italie, à la montagne et on va faire du ski. Ce sera la première fois pour moi et on va aussi visiter Pise pour voir des monuments

er | é | au | S muet

| C | Français | Anglais |
|---|---|---|
| 1 | Je vais | I am going |
| 2 | On va | we are going |
| 3 | aller | to go |
| 4 | visiter | to visit |
| 5 | voir | to see |
| 6 | passer | to spend (time) |
| 7 | rester | to stay |
| 8 | faire | to do |
| 9 | dans un hôtel | in a hotel |
| 10 | dans un camping | on a campsite |
| 11 | dans un gîte | in a cottage |
| 12 | dans un appartement | in an apartment |
| 13 | avec ma famille | with my family |
| 14 | avec mes amis | with my friends |
| 15 | les musées | museums |
| 16 | des randonnées | walks |
| 17 | des monuments | monuments |
| 18 | la plage | the beach |
| 19 | de la voile | sailing |
| 20 | en vacances | on holiday |

| D | Français | Anglais |
|---|---|---|
| 1 | L'année prochaine | Next year |
| 2 | Cette année | This year |
| 3 | En été | In summer |
| 4 | Je veux | I want |
| 5 | Je voudrais | I would like |
| 6 | Je vais | I am going |
| 7 | Me relaxer | To Relax |
| 8 | Me baginer | To swim/bathe |
| 9 | nager | To swim |
| 10 | acheter | To buy |
| 11 | voir | To see |
| 12 | découvrir | To discover |
| 13 | voyager | To travel |
| 14 | La campagne | The countryside |
| 15 | La ville | The town |
| 16 | Ce sera | It will be |
| 17 | top | Great |
| 18 | génial | Great |
| 19 | Il y aura | There will be |
| 20 | Une salle de jeux | A games room |

# Y8 French Sentence Builders: Module 5: C'est L'Europe


Use Sentence Builders to help you answer the question. Use this method to help learn the phrases https://youtu.be/cMKo65jKVhU

**SB1 : Où es-tu allé en vacances? – Where did you go on holiday?**

| Subject | Auxiliary | Past Participle | Place |
|---|---|---|---|
| **Je/J' (I)**<br>**Tu (You)**<br>**Il/Elle/Iel (He/She/They)** | ai<br>as<br>a | visité | Edimbourg<br>Londres<br>l'Espagne<br>l'Italie<br>la France |
| **Je**<br>**Tu**<br>**Il/Elle/iel** | suis<br>es<br>est | allé (e) | À Edimbourg<br>À Londes<br>En France<br>En Espagne<br>Au Portugal<br>Aux Etats-Unis |

**SB2 : Qu'est-ce que tu as fait pendant les vacances? – What did you do on holiday?**

| Subject | Auxiliary | Past participle | object | Opinion (Past Tense) |
|---|---|---|---|---|
| **Je/J' (I)** | ai | visité (visited) | des monuments | C'était chouette! |
| **Tu (You)** | | vu (saw) | la plage (the beach) | (It was great) |
| **Il (He)** | as | mangé (ate) | de beaux paysages | C'était ennuyeux |
| **Iel (They)** | | fait (did) | (beautiful landscapes) | (It was boring) |
| **Elle (She)** | | acheté | dans les restaurants | Je l'aimais bien |
| | a | | de la voile (sailing) | (I liked it |
| | | | des souvenirs | |

**SB3 : Où vas-tu en vacances l'année prochaine? Where are you going on holiday next year?**

| Subject | Present Tense of aller | Infinitive | Place |
|---|---|---|---|
| **Je** | vais | visiter | Edimbourg |
| **Tu** | vas | | Londres |
| **Il** | va | | L'Espagne |
| **Elle** | va | aller | En Italie |
| **Iel** | va | passer deux semaines | Au Canada |
| **On** | va | rester dans un hôtel/sur un camping | Aux Pays de Galle (Wales) |

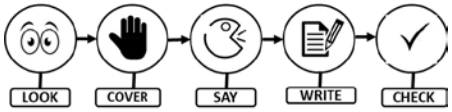
**SB4 : Qu'est ce que tu vas faire en vacances? What are you going to do on holiday?**

| Subject | Present Tense of aller | Infinitive | Detail |
|---|---|---|---|
| **Je** | vais | faire | du tourisme |
| **Tu** | vas | visiter | des musées (museums) |
| **Il** | va | me relaxer | sur la plage (on the beach) |
| **Elle** | va | me bronzer | avec mes amis (with my friends) |
| **Iel** | va | manger | dans les restaurants (in restaurants) |
| **On** | va | acheter | des souvenirs (souvenirs) |
| **On peut (We can)** | | nager avec les dauphins (swim with dolphins) | |
| | | rencontrer de nouveaux amis (meet new friends) | |
| **Je veux (I want)** | | découvrir des cultures différentes (discover different cultures) | |

# Y8 French Knowledge Organiser : Module 6: L'Ère Numérique

| A | Français | Anglais |
|---|---|---|
| 1 | les émissions de sport | sports programmes |
| 2 | les émissions musicales | music programmes |
| 3 | les films | films |
| 4 | les infos | news |
| 5 | la météo | weather forecast |
| 6 | les documentaires | documentaries |
| 7 | les jeux télévisés | tv game shows |
| 8 | les feuilletons | soap operas |
| 9 | les variétés | variety shows |
| 10 | les émissions de sport | sports programmes |
| 11 | ce sont | they are |
| 12 | effrayant | frightening |
| 13 | passionnant | exciting |
| 14 | formidable | fabulous |
| 15 | incroyable | incredible |
| 16 | ludique | funny |
| 17 | fascinant | fascinating |
| 18 | intéressant | interesting |
| 19 | je les trouve | i find them ... |
| 20 | je les regarde | i watch them |

| B | Français | Anglais |
|---|---|---|
| 1 | j'ai vu | i saw |
| 2 | un film d'action | an action film |
| 3 | un film d'horreur | a horror film |
| 4 | un film fantastique | a fantasy film |
| 5 | un film d'aventure | an adventure film |
| 6 | un film d'amour | a love film |
| 7 | un film historique | a historical film |
| 8 | un film de science-fiction | a science fiction film |
| 9 | un dessin animé | an animated flm |
| 10 | un film de guerre | a war film |
| 11 | c'était | it was |
| 12 | impressionant | impressive |
| 13 | j'ai téléchargé | i downloaded |
| 14 | j'ai regardé | i watched |
| 15 | nul | rubbish |
| 16 | à ne pas manquer | unmissable |
| 17 | à recommender | highly recommended |
| 18 | on a vu | we saw |
| 19 | je suis allé (e) | i went |
| 20 | au cinéma | to the cinema |




Je suis Véronique et je suis assistante virtuelle. Je tchatte en ligne et je surfe sur Internet pour trouver des renseignments. Je passe beaucoup de temps en ligne, c'est très utile.
Je regarde des infos et la météo et je peux recommender des émissions de télévision ou de bons films. Par exemple, hier j'ai regardé un film d'action et c'était génial avec des effets spéciaux formidables. À Noel je vais regarder des films comiques et je vais t'envoyer un liste de mes films préférés. Je peux trouver des chansons aussi si tu aimes la musique!

gn ais ou ion

| C | Français | Anglais |
|---|---|---|
| 1 | je poste | i post |
| 2 | je télécharge | i download |
| 3 | je passe | i spend (time) |
| 4 | je joue | i play |
| 5 | je fais | i do |
| 6 | je tchatte | i chat |
| 7 | j'envoie | i send |
| 8 | je partage | i share |
| 9 | des textos | texts |
| 10 | de la musique | music |
| 11 | des photos | photos |
| 12 | des histoires | stories |
| 13 | des jeux | games |
| 14 | souvent | often |
| 15 | rarement | rarely |
| 16 | de temps en temps | from time to time |
| 17 | tous les jours | every day |
| 18 | une fois par semaine | once a week |
| 19 | tous les jeudis | every thursday |
| 20 | tous les soirs | every evening |

| D | Français | Anglais |
|---|---|---|
| 1 | fêter | To celebrate |
| 2 | décorer | To decorate |
| 3 | offrir | To give |
| 4 | acheter | To buy |
| 5 | recevoir | To get/receive |
| 6 | manger | To eat |
| 7 | boire | To drink |
| 8 | Des cadeaux | Presents |
| 9 | Un repas | A meal |
| 10 | De la dinde | Turkey |
| 11 | Une bûche de Noel | A Christmas log |
| 12 | Un sapin | A chrismas tree |
| 13 | Une renne | A reindeer |
| 14 | Un ange | An angel |
| 15 | Des bougies | Candles |
| 16 | La messe | Mass |
| 17 | Le houx | Holly |
| 18 | Le Père Noel | Father Christmas |
| 19 | Les lutins | Elves |
| 20 | Joyeux Noel | Merry Christmas! |

# Y8 French Sentence Builders: Module 6: L'Ère Numérique


Use Sentence Builders to help you answer the question. Use this method to help learn the phrases https://youtu.be/cMKo65jKVhU

**SB1 : Qu'est ce que tu aimes regarder? - What do you like to watch?**

| First Verb | Infinitive | Object | Reason |
|---|---|---|---|
| **J'aime**<br>**(I like)**<br>**Je n'aime pas**<br>**( I don't like)**<br>**J'adore**<br>**( I love)**<br>**Je préfère (I prefer)** | regarder<br>(to watch /watching) | les émissons de télé-réalité (reality tv shows)<br>les films d'horreur (horror films)<br>les bandes-desinées (cartoons) | parce qu'ils me font rire (because they make me laugh<br>parce qu'ils sont divertissants (because they are entertaining)<br>Car je les trouves amusant(es) (because I find them fun)<br>Car je m'y intéresse (because I am interested in them) |

**SB2 : Qu'est-ce que tu as vu récemment? - What have you seen recently?**

| Subject | Auxiliary | Past participle | Object | Opinion (Past Tense) |
|---|---|---|---|---|
| **Je/J'**<br>**Tu**<br>**Il/elle/iel**<br>**On** | ai<br>as<br>a<br>a | regardé (watched)<br>vu (seen)<br>téléchargé (downloaded) | un film d'amour<br>un film d'action<br>un film de guerre<br>un film fantastique<br>une comédie<br>un film d'horreur<br>"Batman" | c'était genial (it was great)<br>c'était nul (it was rubbish)<br>cela m'a plu (i liked it)<br>cela m'a fait rire (it made me laugh) |

**SB3 : Qu'Est-ce que tu fais en ligne? What do you do online?**

| Subject | Verb | Object | Adverb of Frequency |
|---|---|---|---|
| **Je (I)**<br>**Il/elle/iel**<br>**He/she/they**<br>**On (we)** | poste (poste)<br>télécharge (download)<br>passe (spend)<br>surfe (browse)<br>tchatte (chat)<br>fais/fait(do)<br>joue (play) | du temps avec mes amis(*time with my friends*)<br>des heures (hours)<br>des films (films)<br>des clips vidéo (video clips)<br>de la musique<br>des jeux (games)<br>avec mes amis (with my friends)<br>des photos<br>des textos (texts)<br>sur mon xbox/ps | Souvent (*often)*<br>Tous les jours ( *every day)*<br>De temps en temps *(from time to time)*<br>Rarement (*rarely)*<br>Le weekend ( at the weekend)<br>Le soir (on an evening)<br>Tous les soirs (every evening)<br>Tous les jeudis (every Thursday) |

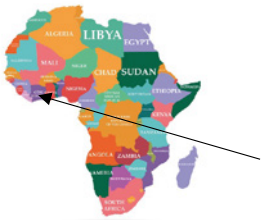
**SB4 : Qu'Est-ce que tu vas faire à Noel? What are you going to do at Christmas?**

| Subject +Verb | Infinitive | Object |
|---|---|---|
| **Je vais (I am going)**<br>**On va (we are going)** | décorer (decorate)<br>Choisir (to choose)<br>manger (eat)<br>offrir (give)<br>aller (go) | la maison (the house<br>le sapin (the christmas tree)<br>un repas special (a special meal)<br>des cadeaux (presents)<br>chez mes grands-parents (to my grandparents)<br>à l'église (to church) |
| **Vas-tu (Are you going)** | fêter noel (to celebrate christmas)?<br>avoir un repas special (to have a special meal?)<br>acheter des cadeaux (to buy presents)? | |

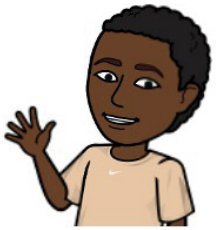
# Y8 French Knowledge Organiser: Module 7: C'est le monde francophone!


| A | Français | Anglais |
|---|---|---|
| 1 | La France | France |
| 2 | La Suisse | Switzerland |
| 3 | La Belgique | Belgium |
| 4 | La Martinique | Martinique |
| 5 | La Côte d'Ivoire | Ivory Coast |
| 6 | Le Canada | Canada |
| 7 | Le Maroc | Morocco |
| 8 | Le Sénégal | Senegal |
| 9 | Le Mali | Mali |
| 10 | Le Guadeloupe | Guadeloupe |
| 11 | Paris | Paris |
| 12 | Bruxelles | Brussels |
| 13 | Genève | Geneva |
| 14 | Québec | Quebec |
| 15 | l'Europe | Europe |
| 16 | l'Afrique | Africa |
| 17 | l'Asie | Asia |
| 18 | l'Amérique du Nord | North America |
| 19 | l'Océanie | Oceania |
| 20 | Les Caraïbes | The Caribbean |

| B | Français | Anglais |
|---|---|---|
| 1 | Le rock | Rock |
| 2 | Le jazz | Jazz |
| 3 | Le punk | Punk |
| 4 | La musique pop | Pop music |
| 5 | La musique classique | Classical music |
| 6 | La musique traditionnelle | Traditional music |
| 7 | La musique rap | Rap music |
| 8 | La techno | Techno |
| 9 | Écouter de la musique | To listen to music |
| 10 | Je (ne) suis (pas) fan de... | I am (not) a fan of... |
| 11 | Je m'intéresse à | I am interested in... |
| 12 | Je le/la trouve... | I find it... |
| 13 | Passionnant(e) | Exciting |
| 14 | Varié(e) | Varied |
| 15 | Expressif/expressive | Expressive |
| 16 | Talentueux/talentueuse | Talented |
| 17 | Cool | Cool |
| 18 | Attrayant(e) | Attractive |
| 19 | Barbant(e) | Boring |
| 20 | Démodé(e) | Old-fashioned |




*Le Sénégal*



Salut!

Je m'appelle Seydou et je viens du Sénégal. Il y a beaucoup de pays dans le monde qui parlent français. Cet ensemble de pays s'appelle la Francophonie et on les trouve en Europe, en Afrique, en Amérique du Nord, dans les Caraïbes, en Asie et même en Océanie. La Francophonie est célèbre pour sa gastronomie, comme les moules-frites, les croissants, le fromage, et le vin. C'est la meilleure ! En plus, la musique francophone est aussi fantastique que partout ailleurs dans le monde entier. C'est très variée et vraiment expressive. L'année dernière, j'ai visité le festival du film de Cannes et c'était génial. Il y avait beaucoup d'acteurs et d'actrices et c'était plus passionnant qu'un tapis rouge à Hollywood !

**-ent** **-ait** **-eill** **-ou**

| C | Français | Anglais |
|---|---|---|
| 1 | Manger | To eat |
| 2 | Boire | To drink |
| 3 | Des fruits | Fruit |
| 4 | Des légumes | Vegetables |
| 5 | Les entrées | Starters |
| 6 | Les plats principaux | Main courses/dishes |
| 7 | Les desserts | Desserts |
| 8 | Les frites | Chips/fries |
| 9 | Le fromage | Cheese |
| 10 | Le poisson | Fish |
| 11 | La viande | Meat |
| 12 | Le chocolat | Chocolate |
| 13 | Le vin | Wine |
| 14 | Le coca | Coca-Cola |
| 15 | Le limonade | Lemonade |
| 16 | Plus... que | More... than |
| 17 | Moins... que | Less... than |
| 18 | Aussi... que | As... as |
| 19 | Meilleur(e) | Better/the best |
| 20 | Pire | Worse/the worst |

| D | Français | Anglais |
|---|---|---|
| 1 | Les comédies | Comedies |
| 2 | Les films d'action | Action films |
| 3 | Les films d'aventure | Adventure films |
| 4 | Les films fantastiques | Fantasy films |
| 5 | Les films d'horreur | Horror films |
| 6 | Les films d'amour | Romantic films |
| 7 | Les films de science fiction | Sci-fi films |
| 8 | Au grand écran | On the big screen |
| 9 | Amusant(e) / drôle / marrant | Funny |
| 10 | Effrayant(e) | Scary |
| 11 | Émouvant(e) | Moving |
| 12 | Triste | Sad |
| 13 | Captivant(e) | Captivating/gripping |
| 14 | Violent(e) | Violent |
| 15 | Je pense que | I think that |
| 16 | À mon avis | In my opinion |
| 17 | C'était | It was |
| 18 | Il y avait | There was/were |
| 19 | J'ai regardé | I watched |
| 20 | J'ai vu | I saw |

# Y8 French Sentence Builders: Module 7: C'est le monde francophone!


Use Sentence Builders to help you answer the question. Use this method to help learn the phrases https://youtu.be/cMKo65jKVhU

**SB1 : C'est quoi la Francophonie ? – What is la Francophonie?**

| Place | Verb phrase | Object |
|---|---|---|
| En France *(in France)* | ils/elles parlent *(they speak)* | français *(French)* |
| En Suisse *(In Switzerland)* | ils/elles ont *(they have)* | quatres langues officielles *(four official languages)* |
| Au Canada *(in Canada)* | ils/elles fêtent *(they celebrate)* | le Carnaval de Québec *(the Quebec Carnival)* |
| Au Sénégal *(In Senegal)* | ils/elles vont *(they go)* | à la mosquée *(to mosque)* |
| En Europe *(in Europe)* | il y a *(there is/are)* | beaucoup de francophones *(lots of French speakers)* |
| En Afrique *(in Africa)* | | |

**SB2 : La culture francophone - la musique – Francophone culture - music**

| Subject and verb | Comparative | Adjective | Than | Object |
|---|---|---|---|---|
| Le rock est *(rock is)* | plus *(more)* | expressif(-ve) *(expressive)* | que *(than)* | le jazz *(jazz)* |
| Le punk est *(punk is)* | moins *(less)* | varié(e) *(varied)* | | la musique classique *(classical music)* |
| La musique pop est *(pop music is)* | aussi *(as)* | passionnant(e) *(exciting)* | | la musique traditionnelle *(traditional music)* |
| La musique rap est *(rap music is)* | | cool *(cool)* | | |
| | | barbant(e) *(boring)* | | |

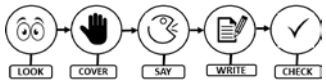
**SB3 : La culture francophone - la gastronomie – Francophone culture - food**

| Opinion | Subject and verb | Verb phrase |
|---|---|---|
| Je pense que *(I think that)* | la gastronomie française est *(French food is)* | la meilleure *(the best)* |
| Je trouve que *(I find that)* | la cuisine française est *(French cuisine is)* | la pire *(the worst)* |
| À mon avis *(In my opinion)* | la cuisine française est meilleure que *(French cuisine is better than)* | la cuisine anglaise *(English cuisine)* |
| Je dirais que *(I would say that)* | en France on mange *(in France they eat)* | du fromage *(cheese)* |
| Il me semble *(It seems to me that)* | en France on boit *(in France they drink)* | du vin *(wine)* |

**SB4 : La culture francophone - le cinéma – Francophone culture – cinema**

| Opinion verb | Film genres | Connective | Reason |
|---|---|---|---|
| J'aime (I like) | les comédies (comedies) | | elles sont amusantes (they are funny) |
| J'adore (I love) | les films d'action (action films) | parce que (because) | ils sont passionnants (they are exciting) |
| Je suis fan de (I am a fan of) | les films d'horreur (horror films) | car (because) | je les trouve effrayants (I find them scary) |
| Je n'aime pas (I don't like) | les films d'amour (romantic films) | et (and) | ils me donnent envie de pleurer (they make me want to cry) |
| Je déteste (I hate) | les films d'aventure (adventure films) | | ils sont vraiment cools (they are really cool) |
| Je ne suis pas fan de (I am not a fan of) | les films de science fiction (sci-fi films) | | ils sont intéressants (they are interesting) |

# Y8 Sentence Builder: Module 8: C'est le futur!




| A | Français | Anglais |
|---|---|---|
| 1 | Normalement | Normally |
| 2 | De temps en temps | From time to time |
| 3 | Généralement | Generally |
| 4 | D'habitude | usually |
| 5 | Je peux | I can |
| 6 | Barbant/e | Boring |
| 7 | Énervant/e | Annoying |
| 8 | Désagréable | Unpleasant |
| 9 | Grincheux/se | Grumpy |
| 10 | Méchant/e | Mean |
| 11 | Sournois/e | Sneaky |
| 12 | Sympa | Nice |
| 13 | Sportif/ve | Sporty |
| 14 | Aimable | Nice |
| 15 | Gentil/le | Kind |
| 16 | Sociable | Sociable |
| 17 | Souriant/e | Smiley |
| 18 | Poli/e | Polite |
| 19 | Marrant/e | Funny |
| 20 | timide | shy |

| B | Français | Anglais |
|---|---|---|
| 1 | L'année prochaine | Next year |
| 2 | À l'avenir | In the future |
| 3 | Dans le futur | In the future |
| 4 | Plus tard | Later |
| 5 | Je voudrais | I would like |
| 6 | J'aimerais | I would like |
| 7 | Étudier | To study |
| 8 | Apprendre | To learn |
| 9 | L'anglais | English |
| 10 | Le français | French |
| 11 | L'espagnol | Spanish |
| 12 | L' allemand | German |
| 13 | L' E.P.S | PE |
| 14 | La chimie | Chemistry |
| 15 | Les sciences | Science |
| 16 | La biologie | Biology |
| 17 | La géographie | Geography |
| 18 | L'histoire | History |
| 19 | La technologie | D.T. |
| 20 | Le dessin | Art |


Assalamu alaikum!

Je m'appelle Mohammed et j'habite à Marrakech au Maroc, en Afrique du nord. J'adore mon pays! Je suis très sociable et marrant. Ma soeur pense que je suis énervant mais c'est elle qui m'embète!
Aussi, je ne suis pas vraiment sportif mais j'adore aller à l'école. J'étudie le français, l'anglais, la chimie, l'histoire et la géographie, c'est ma matière préférée.
Dans le futur, je voudrais aller à l'université pour être avocat, ça me fascine! Mon meilleur ami voudrait devenir médecin et c'est génial.
J'aimerais aussi acheter une belle voiture, voyager autour du monde et avoir beaucoup d'argent, ce serait idéal.

j | a | ç soft c | e muet

| C | Français | Anglais |
|---|---|---|
| 1 | J'aimerais | I would like |
| 2 | Je voudrais | I would like |
| 3 | Être | To be |
| 4 | Devenir | To become |
| 5 | Danseur/se | Dancer |
| 6 | Chanteur/se | Singer |
| 7 | Footballeur professionnel | Professional football player |
| 8 | Web designer | Web designer |
| 9 | Responsable de magasin | Store manager |
| 10 | Mécanicien/ne | Mecanic |
| 11 | Comptable | Accountant |
| 12 | Avocat/e | Lawyer |
| 13 | Coiffeur/se | Hairdresser |
| 14 | Professeur | Secondary school teacher |
| 15 | Maître/ maîtresse | Primary school teacher |
| 16 | Fleuriste | Florist |
| 17 | Policier/ère | Police officer |
| 18 | Pompier | Fire officer |
| 19 | Maçon | Bericklayer |
| 20 | Cammionneur/se | Truck driver |

| D | Français | Anglais |
|---|---|---|
| 1 | Quand je serais plus âgé(e) | When I will be older |
| 2 | Je devrais | I should |
| 3 | Je pourrais | I could |
| 4 | Avoir | to have |
| 5 | Être | to be |
| 6 | Faire | to do |
| 7 | Voyager | To travel |
| 8 | Rencontrer | To meet |
| 9 | Habiter | To live |
| 10 | Aller | To go |
| 11 | Manger | To eat |
| 12 | Connu | Well-known |
| 13 | Le monde entier | The entire world |
| 14 | Beaucoup d'argent | Lot of money |
| 15 | Un travail bien payé | A well-paid job |
| 16 | Une voiture très cool | A very cool car |
| 17 | Un apprentissage | An apprenticeship |
| 18 | Dans une grande maison | In a big house |
| 19 | Dans un château | In a castle |
| 20 | À l'étranger | Abroad |

# Y8 French Knowledge Organiser : Module 8: C'est le futur!


Use Sentence Builders to help you answer the question. Use this method to help learn the phrases https://youtu.be/cMKo65jKVhU

| Frequency expressions | subject+ verb | adjective |
|---|---|---|
| Normalement *(normally)* | je peux être *(I can be)* | barbant/e *(boring)*<br>énervant/e *(annoying)*<br>désagréable *(unpleasant)* |
| De temps en temps *(from time to time)* | je suis *(I am)* | grincheux/se *(grumpy)*<br>méchant/e *(mean)*<br>sournoi/se *(sneaky)* |
| Généralement *(generally)* | | sympa *(nice)*<br>sportif/ve *(sporty)*<br>aimable *(nice)* |
| D'habitude *(usually)* | je ne suis pas *(I am not)* | gentil/le *(kind)*<br>sociable *(sociable)* |
| | je ne veux pas être *(I do not want to be)* | souriant/e *(smiley)*<br>poli/e *(polite)*<br>marrant/e *(funny)*<br>timide *(shy)* |

| Time expression | subject+ verb | infinitive | school subjects |
|---|---|---|---|
| L'année prochaine *(next year)* | j'aimerais *(I would like)* | étudier (to study) | l'anglais *(English)*<br>le français *(French)*<br>l'espagnol *(Spanigh)*<br>l'allemand *(German)*<br>l'E.P.S *(PE)*<br>la chimie *(Chemistry)*<br>les sciences *(Sciences)*<br>la biologie *(Biology)*<br>la géographie *(Geography)*<br>l'histoire *(History)*<br>la technologie *(D.T.)*<br>le dessin *(Art)*<br>la musique *(Music)*<br>les mathématiques *(Maths)* |
| A l'avenir *(in the future)* | je voudrais *(I would like)* | | |
| Dans le futur *(in the future)* | | | |
| Plus tard *(later)* | | apprendre (to learn) | |

| | | |
|---|---|---|
| J'aimerais *(I would like)*<br>Je voudrais *(I would like)* | être (to be) | danseur/se *(dancer)*<br>chanteur/se *(singer)*<br>footballeur/se professionnel/le *(professional football player)*<br>web designer *(webdesigner)*<br>responsable de magasin *(store manager)*<br>mécanicien/ne *(mecanic)*<br>comptable *(accountant)*<br>avocat/e *(lawyer)*<br>coiffeur/se *(hairdresser)*<br>professeur *(secondary school teacher)* |
| | devenir (to become) | maître/ maîtresse d'école *(primary school teacher)*<br>fleuriste *(florist)*<br>policier/ière *(police officer)*<br>pompier *(fire officer)*<br>maçon *(bricklayer)*<br>camionneur/se *(truck driver)* |

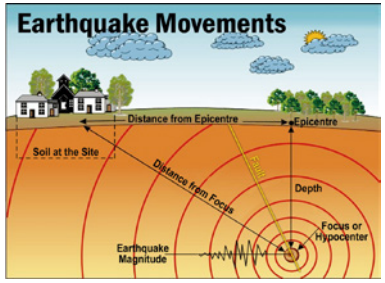
| | | | |
|---|---|---|---|
| A l'avenir *(in the futur)* | je voudrais *(I would like)* | être *(to be)* | connu dans le monde entier *(well-known around the world)*<br>un artiste talentueux *(a talented artist)* |
| | | manger *(to eat)* | dans un restaurant 3 étoiles *(in a 3-star restaurant)* |
| Dans le futur *(in the futur)* | | avoir *(to have)* | beaucoup d'argent *(a lot of money)*<br>un travail bien payé *(a well-paid job)*<br>une voiture très cool *(a very cool car)* |
| Plus tard *(later)* | je devrais *(I should)* | voyager *(to travel)* | le monde *(the world)* |
| Quand je serais plus âgé(e) *(when I will be older)* | | faire *(to do)* | un apprentissage *(an apprenticeship)* |
| Quand j'aurais vingt ans *(when I will be twenty years old)* | je pourrais *(I could)* | rencontrer *(to meet)* | mon acteur/rice préféré/e *(my favourite actor/ actress)*<br>mon idole *(my idol)* |
| | | habiter *(to live)* | dans une grande maison *(in a big house)*<br>dans un château *(in a castle)*<br>à l'étranger *(abroad)* |
| | | aller *(to go)* | en Australie *(in Australia)*<br>aux Etats-Unis *(in the States)* |

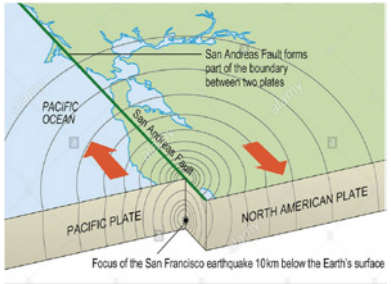
YEAR 8

# GEOGRAPHY

# Geography TB4: North America

***Explain how earthquakes impact upon the environment and people***




Fault-line extends over 810miles along Californian coastline, the most severe section is only 35km from Los Angeles. 1989 Loma Prieta earthquake 6.9 killed 63 people. It looks like a valley where the Pacific plate and North America plate meet. Most of the population in California live on the west side of the San Andreas Fault. Parkfield has become the centre for earthquake research. In 2004 work began to drill a hole two miles deep into the San Andreas Fault. This drilling revealed that slippery clay may be the reason for some of the activity.

**Generic impacts on the environment and people:**

Short-term effects: The impacts within days or weeks of the earthquake.

Long term effects: The impacts in the months and years following an earthquake.

Injuries, loss of life, bereavement.

Destruction of property—buildings / material goods.

Businesses closed for sustained periods of time, loss on income and harm to economy.

Increased regulations needed for building work and maintenance.

Zoning of areas to identify safe land uses.

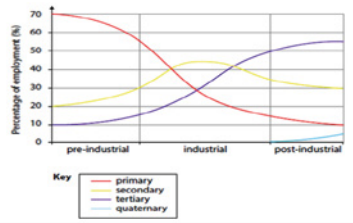
Pollution of water supplies.

***Evaluate the statement that globalisation is a positive process.***

Globalisation: the process by which the world is becoming increasingly interconnected as a result of massively increased trade and cultural exchange. **Globalisation** increased the production of goods and services.

MNCs: Multinational companies which operate across national borders; e.g. Nike, McDonalds, Apple.

Superpower: Country which exerts a huge amount of power / influence over the world; e.g. the USA.




**Impacts of globalisation:**

**Advantages**

**Disadvantages**

TNCs create newjobs& skills for local people.

TNCs help local economies when they buy local resources, products and services, can be spent on education, health and infrastructure.

Globalisation tends to benefit richest countries most.

Working conditions may vary depending on regulations of host country.

No guarantees that money benefits local area.

Maybe seen as threat to cultural identities of countries.

**Primary industries:** These extract raw materials from the earth; mining, oil drilling.

**Secondary industries:** These process the raw materials into products, e.g.

**Tertiary industries:** These provide services.

**Quaternary industries:** These are very hi-tech companies who research advanced products, e.g. Apple / pharmaceutical companies.

**Clark-Fisher model** shows how employment trends change as a country develops.

***Suggest how the weather can be measured***

**Key words and Definitions**

**Climate:** The average, long-term weather of a place.

**Dewpoint:** The temperature to which air must be cooled in order for it to become saturated with water vapour.

**Global warming:** The idea that the continual build up of greenhouse gases in the atmosphere is leading to warming of temperatures that could alter climate patterns and seriously disrupt societies.

**Precipitation:** Water vapour that condenses in the atmosphere, falling to the surface as rain, snow, or ice.

**Temperature** is measured in Celsius (°C) using a.

**Precipitation** is measured using a gauge. This is a funnel inside a container. The depth of the rain in millimetres can be read from the side of the container.

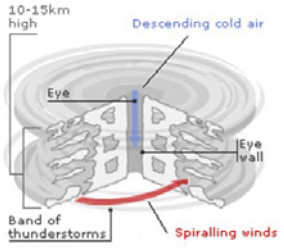
**Wind direction** is reported by the direction it is blowing, according to the compass. Wind blowing from the west is travelling eastwards so is called a westerly wind, not an easterly wind.

**Wind speed** can be measured using an, with the scale.

**Convectional rainfall:** When the land warms up, it heats the air above it, air expands, cools condenses and forms rain.

**Relief rainfall:** Formed when air is forced to cool when it rises over/ mountains, cools, condenses and forms rain.

**Frontal rainfall:** The UK lies in an area where warm tropical air meets cold polar air. When two air masses meet, they do not mix but form rain.




**Tropical cyclones** depend upon a supply of warm moist air more than 27°C.

Warm air is lighter than cold; It expands and rises causing air pressure to fall.

Lowest air pressure of a tropical cyclone is always found at its centre – eye – calm clear air. Tropical cyclones have much lower air pressure than the air surrounding them. The bigger the difference in pressure, the stronger the winds.

Hurricane Katrina is case study.

# Geography TB5: South America

## *Explain how vegetation and people have adapted to the Tropical Rainforest climate.*

**Rainforest Structure**

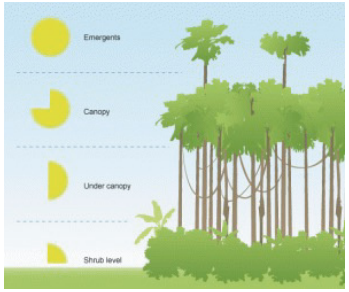
**Emergents Layer**- or forest giants, 50 metres or taller. These trees are ususlly supported by buttress roots.

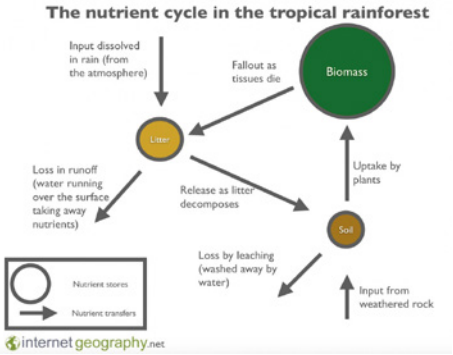
**Canopy Layer** - This is adense layer forming almost complete cover. Trees 20 - 30 metres tall include many hardwoods such as mahogony.

**Understory Layer** - This dark and humid area contains saplings between the trunks of larger trees.

**Shrub Layer** - This contains small trees and shrubs especially near rivers.

**Forest Floor** - This is covered with ferns and a deep litter of fallen leaves & branches.




The tropical rainforest is a very **humid climate,** with **heavy rainfall** and **high temperatures** everyday. As the world's oldest ecosystem, the tropical rainforest has adapted to this extreme environment:
Evergreen trees, they grow all year round & come into bud & shed their leaves at any time.
Thick leathery leaves which protect trees from sunlight & rain.
Drip-tips on leaves funnel rain away.
Tall trees with few branches as they grow towards sunlight.
Buttress roots grow along the ground to support thin, infertile soils.
Lianas climb up trees and gain nutrients from trees.

***How does the climate affect the people:***
***Yanomani tribespeople:*** Indigenous people to Amazon rainforest and have lived in the rainforests for centuries.
***Yanos:*** large communal style homes, which are shared by 20 other families and divided into small huts per family. Simple life with few possessions with ***subsistence farming:*** food is hunted & gathered or grown by themselves. Nomadic lifestyle, they move every 5-10 years when the soil becomes infertile.
***Nomadic lilfestyle:*** every 5-10 years they move onto a new area in the rainforest, clear the land and build a new yano. This is done when their land loses fertility and when their yanos become infested with cockroaches and insects.

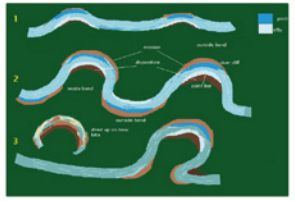
## *Evaluate which process is the most important in the formation of a meander.*

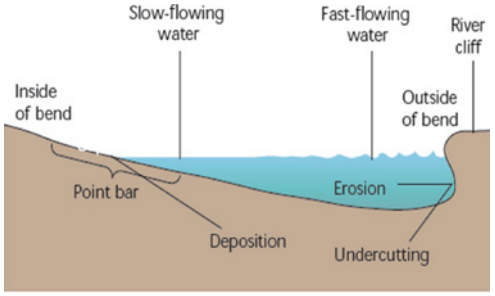
**Why is the Amazon important?**
The Amazon River is used directly or indirectly for daily needs; including the protein from the 1500 species of fishes.
As a source of hydro-energy.
Provision of minerals such as bauxite & iron; creating jobs and income.
The river provides silt for local farmers together with irrigation for the soya beans crops.
The rain forest and some of the plants that grow along the Amazon River for medicine. This is a practice that is still observed by the natives who live along the river banks.


***Fluvial processes:***
***Erosion:*** Wearing away of material by the river.
Abrasion: River's load erodes to bed and banks of the river.
***Corrosion:*** Chemical wearing away of material carried by the river, the bed & river banks.
***Hydraulic action:*** Sheer force of the river water pushing into cracks and enlarging them over time.
***Attrition:*** rocks carried by the river colliding with each other and becoming smaller & smoother.

***Deposition:*** Dropping of a rivers load.

***Transportation:*** Movement of material from different parts of a river.
***Saltation:*** Small particles bouncing along the river bed.
***Traction:*** Large boulders rolling along the river bed.
***Suspension:*** Small particles floating along in the river.
***Solution:*** Materials dissolved int the river.






***meanders:*** River landforms from middle and lower course of the river which create an ***asymmetrical cross section*** of the river.
***Formation of meanders:*** Meanders form when there is a weakness in the outside bend of a river, such as an animal burrow. On the outside of the river, the river is at its deepest, meaning velocity of the river is high, so **lateral erosion** occurs; creating a river cliff and pushing the meander sideways. On the inside of the bend, the river is shallow with lots of friction. Therefore the river flows slowly, with little energy, so **deposition** occurs. **Transportation** occurs throughout the meander bend as the deeper, energy rich water picks up material from nearer the source and transports it before depositing on the inside of the meander bend.

# Geography TB6

## Explain how the geology of Durham affects the landscape.

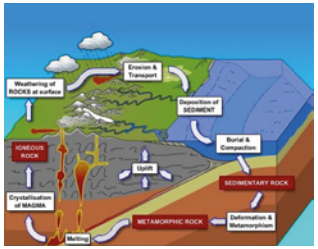
### *Types of rocks*

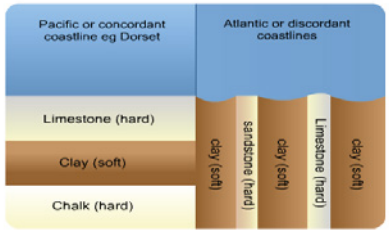
**Igneous:** Igneousrocks are formed from molten rock that has cooled and solidified.
**Metamorphic:** Metamorphicare formed from other rocks that are changed because of heat or pressure.
**Sedimentary:** Formed from the broken remains rocks that become joined together.

Rocks are continually changing due to processes such as weathering, erosion and large earth movements. The rocks are gradually recycled over millions of years, changing between the different rock types. This recycling of rocks is a process called the rock cycle.

### *Forms of coastal erosion*

***Marine erosion:*** Wearing away of the sea bed, cliffs and particles carried by the sea due to the **action of the sea.**
***Aerial weathering:*** The wearing away of material due to the atmosphere.
***Attrition:*** Two or more particles colliding into each other, causing erosion. The particles get smaller & smoother over time. No changes to the coastal landscape.
***Corrasion:*** The rocks / particles carried by the sea erode the cliffs and sea bed.
***Corrosion:*** Chemical wearing away of the rocks at the coast.
***Hydraulic action:*** The sheer force of the water erodes the seabed and cliffs.



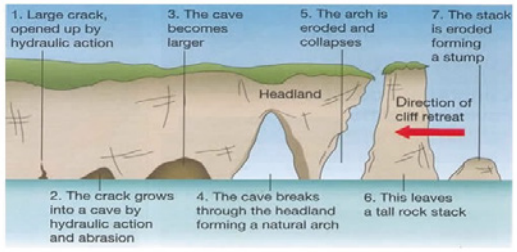




Concordant coastlines have parallel bands of the same rock type. Discordant coastlines have perpendicular bands of hard and soft rock. This creates headlands and bays.

Caves, arches, stacks and stumps are erosional features that are commonly found on a headland.

**1.Cracks** are formed in the headland through the erosional processes of hydraulic action and abrasion.
2.As the waves continue to grind away at the crack, it begins to open up to form a **cave**.
3.The cave becomes larger and eventually breaks through the headland to form an **arch**.
4.The base of the arch continually becomes wider through further erosion, until its roof becomes too heavy and collapses into the sea. This leaves a **stack** (an isolated column of rock).
5.The stack is undercut at the base until it collapses to form a **stump**.

Bands of soft rock such as clay and sand are weaker therefore can be eroded quickly. This process forms bays. A bay is an inlet of the sea where the land curves inwards, usually with a beach. Hard rock such as chalk is more resistant to the processes of erosion. When the softer rock is eroded inwards, the hard rock sticks out into the sea, forming a headland




## Evaluate the positives and negatives of the impact of coal mining on Durham's development.

***Fossil fuels:***
**Crude oil, coal and gas arefuels. They were formed over millions of years, from the remains of dead organisms:**
**- coal was formed from dead trees and other plant material**
**- crude oil and gas were formed from dead marine organisms**
**Millions of years ago, huge numbers of microscopic animals and plants - plankton - died and fell to the bottom of the sea. Their remains were covered by mud.**
**As the mud sediment was buried by more sediment, it started to change into rock as the temperature and pressure increased. The plant and animal remains were altered chemically by this process, and slowly changed into crude oil and natural gas.**
**Durham established itself as a settlement as a result of its huge accessibility of coal.**

| Advantages of renewable energy resources | Disadvantages of renewable energy resources |
|---|---|
| Cheaper to capture the source of energy.<br>Do not produce $CO^2$.<br>Can be sustainably used.<br>Can provide a profit for the household e.g. solar energy can be sold back to the energy grid. | Technology is often expensive to develop.<br>People are reluctant to change energy supply from tradition fossil fuels.<br>Not all areas are suited to certain types of energy e.g. solar energy would not work as well in Durham as it would in Kenya. |

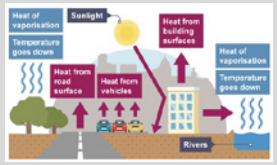
**Renewable energy resources:** These are sources of energy which can be used over and over again, e.g. solar, wind.
**Non-renewable energy resources:** These sources of energy can only be used once before they run out, e.g. coal, oil, natural gas.

## Explain how microclimates vary around the school site.

***Microclimates:*** small areas of environment which has its own localised climate and vegetation.
***Ecosystem:*** Anecosystema community of living organisms in conjunction with the non-living components of their environment, interacting as a system.
***Abiotic:*** Non living things in an ecosystem e.g. soil.
***Biotic:*** Living organisms within an ecosystem e.g. trees.

Physical features such as water areas can have a cooling effect on the land. Trees can shade the land, also making it cooler. Human features such as walls and buildings will shelter against the wind, making it warmer. Buildings which are heated may also give out heat (radiate), which again makes it warmer than the surrounding landscape. Due to human activity, the temperature in an urban microclimate is higher than that of the surrounding areas. Urban areas are said to be urban heat islands as under calm conditions, temperatures are highest in the built-up city centre and decrease towards the suburbs and countryside.

**Temperature** s measured in Celsius (°C) using a.
**Precipitation is** measured using a gauge. This is a funnel inside a container, with scale on side.
**Wind direction** is reported by the direction it is blowing, according to the compass. Wind blowing from the west is travelling eastwards so is called a westerly wind, not an easterly wind.
**Wind speed** can be measured using an, with the scale.



YEAR 8

# HISTORY

# Year 8, Unit 1: The Industrial Revolution c1760 - 1901; Knowledge Organiser

**1760 - 1900**

| 1900 - 1918 | 1918 - 1939 | 1939 - 1945 | 1933 - 1945 |
|---|---|---|---|

| Key Topic 1: Industrialisation | | |
|---|---|---|
| **1.** | **Thomas Newcomen** | Inventor of the first steam engine (1712). |
| **2.** | **Richard Arkwright** | English inventor who developed the spinning frame (1771) making the production of textiles faster. |
| **3.** | **George Stephenson** | An engineer credited with building the first railway line. Known as the "Father of the Railways". |
| **4.** | **Industrial revolution** | A change in manufacturing that led to goods made using machines in large scale factories. |
| **5.** | **Spinning Frame** | A machine for spinning with more than one spindle at a time. |
| **6.** | **Locomotive** | A powered vehicle for pulling trains. |
| **7.** | **Canal**  | A man-made waterway used for travel and transportation |
| **8.** | **Stockton /Darlington Railway** | The first passenger steam engine railway line in England opened in 1825 |

| Key Topic 2: Working Conditions | | |
|---|---|---|
| **1.** | **Domestic system** | Producing items using machines in the home. |
| **2.** | **Mass production** | The efficient production of a large number of products. |
| **3.** | **Robert Owen** | Owner of the New Lanark mills. He ***improved*** working conditions. |
| **4.** | **Colliery** | A coal mine and the buildings and equipment associated with it. |
| **5.** | **Factory** | A building where machinery was placed to speed up the manufacture of goods. |
| **6.** | **The Davy Lamp**  | A safety lamp invented for use by miners in 1815. |
| **7.** | **The Factory Act of 1833** | Children under 9 could not now work in factories. However, children aged 9 – 13 could still work a maximum of 48 hours a week. |
| **8.** | **12 – 14 hours per day** | Working class adults typically worked these long hours – 6 days a week - with extra time required during busy periods. |

| Key Topic 3: Living Conditions | | |
|---|---|---|
| 1. | **Urbanisation**  | The increase in the proportion of people living in towns and cities. 75% of British people lived in towns and cities by 1900. The population of London was 7 million! |
| 2. | **Overcrowding** | A feature of life in towns during the 1800's. Often families of up to 10 would live in one single room. |
| 3. | **Sanitation** | Conditions relating to public health, especially the provision of drinking water and sewage disposal. |
| 4. | **Cholera**  | An infectious and often fatal bacterial disease, typically from infected water supplies. |
| 5. | **1831** | First outbreak of cholera in Britain kills 55,000 people. |
| 6. | **Dr. John Snow** | Proved that cholera is a waterborne disease in 1854. |
| 7. | **Public Health Act** | This act in 1875, made it compulsory for all local councils to provide sanitation in all towns and cities. |
| 8. | **Queen Victoria** | Reigned from 1837 – 1901. |

# Year 8, Unit 1: The Industrial Revolution c1760 – 1901; Retrieval Questions

| Knowledge Check 1 |
| --- |
| 1. What did Thomas Newcomen invent in 1712? |
| 2. Who invented a spinning frame in 1771 which led to the faster production of textiles? |
| 3. Who is known as 'the Father of the Railways'? |
| 4. What is the two-word term used to describe the "change in manufacturing that led to goods made using machines in large scale factories"? |
| 5. What name is given to the man-made waterway used for travel and transportation during the Industrial Revolution? |
| 6. What was the route of the first ever passenger steam engine? |
| 7. In what year did this railway line open? |

| Knowledge Check 2 |
| --- |
| 1. What term is given to describe the process of "producing items using machines in the home"? |
| 2. Who improved working conditions in his mills at New Lanark? |
| 3.What is the name given to a coal mine and the buildings and equipment associated with it? |
| 4. What name is given to a building where machinery was placed to speed up the manufacture of goods? |
| 5. In what year was the Davy Lamp invented, that improved safety for coal miners? |
| 6. What year was the Factory Act, that banned under-9s working, passed? |
| 7. How long was a typical working day for working class adults during the Industrial Revolution? |

| Knowledge Check 3 |
| --- |
| 1. What % of the British population lived in towns by 1900? |
| 2. What was the population of London in 1900? |
| 3. What is the term used to describe "conditions relating to public health, especially the provision of drinking water and sewage disposal"? |
| 5. In what year did the first cholera epidemic hit Britain? |
| 6. How many people died in that cholera epidemic? |
| 6. Who proved the link between dirty water and cholera in 1854? |
| 7. In what year was the Public Health Act which improved sanitation? |
| 8. What were the years of Queen Victoria's reign? |

# Year 8 Unit 2, The era of the First World War c1900 – 1918; Knowledge Organiser

| 1760 - 1900 | **1900 - 1918** | 1918 - 1939 | 1939 - 1945 | 1933 - 1945 |
|---|---|---|---|---|

| Key Topic 4: Causes of War | | |
|---|---|---|
| **1.** | **Imperialism** | When one country seeks to conquer and / or control others. |
| **2.** | **Alliance** | An agreement between countries to protect each other in the event war. |
| **3.** | **Triple Entente** | This alliance included Britain, Russia and France. It was agreed in 1907. |
| **4.** | **Triple Alliance** | This alliance included Germany, Austria-Hungary and Italy. It was agreed in 1882. |
| **5.** | **Arms Race** | When two or more nations compete in building up their armed forces. |
| **6.** | **Gavrilo Princip** | Bosnian Serb who assassinated Archduke Franz Ferdinand. |
| **7.** | **Nationalism** | A strong attachment to a particular country or nation. |
| **8.** | **Franz Ferdinand** | Heir to the Austro-Hungarian throne, assassinated in Sarajevo, Bosnia in June 1914. |

| Key Topic 5. The Outbreak of War | | |
|---|---|---|
| **1.** | **August 1914** | Britain declares war on Germany. |
| **2.** | **Conscription** | From 1916 it was compulsory for all men between 18 – 40 to fight. |
| **3.** | **Trenches** | Long, deep ditches dug as protective defences. They stretched for about 475 miles. |
| **4.** | **David Lloyd George** | Prime Minister of Britain, 1916 - 1922. |
| **5.** | **Kaiser Wilhelm II** | Emperor of Germany, 1888 – 1918. |
| **6.** | **Western Front** | The area of fighting in western Europe – mainly France and Belgium. |
| **7.** | **Stalemate** | A deadlock in war, where no side is able to make progress to win. |
| **8.** | **No man's land** | Area separating opposing armies in trench warfare. |

| Key Topic 6. Fighting on the Western Front | | |
|---|---|---|
| **1.** | **The Somme** | One of the largest and bloodiest battles of WWI fought in 1916. There were 57,000 British casualties in the first day alone. |
| **2.** | **General Haig** | Commander of the British Army on the Western Front. |
| **3.** | **Artillery** | Large guns that fire explosive shells over long distances. |
| **4.** | **Attrition** | Reducing an enemy's ability to fight (usually by causing as many casualties as possible) |
| **5.** | **Shellshock** | Symptoms included fatigue, terror, nightmares and impaired sight and hearing. |
| **6.** | **Trench Foot** | Caused by exposure to cold and damp conditions. Could lead to amputations. |
| **7.** | **11 November 1918** | An armistice (ceasefire) is signed, Germany surrenders, and WWI ends on the Western Front. |

# Year 8 Unit 2, The era of the First World War c1900 – 1918; Retrieval Questions

| Knowledge Check 4 |
| --- |
| 1. What term describes "when one country seeks to conquer and / or control others"? |
| 2. What term is given to an agreement between countries to "protect each other in the event of war"? |
| 3. Which three countries were part of the Triple Entente? |
| 4.Which three countries were part of the Triple Alliance? |
| 5. What term describes "when two or more nations compete in building up their armed forces"? |
| 8. Who was the heir to the Austro-Hungarian throne assassinated in Sarajevo? |
| 9. Who was the Bosnian Serb who carried out the assassination? |
| 10. In what month and year did this event happen? |

| Knowledge Check 5 |
| --- |
| 1. In which month and year did Britain declare war on Germany? |
| 2.Who was forced to join the war from 1916 onwards? |
| 3. Who took over as Prime Minister of Britain in 1916? |
| 4. Who was the Emperor of Germany during the First World War? |
| 5. How long did the trenches stretch for on the Western Front? |
| 6. What were the two main countries where fighting took place on the Western Front? |
| 7. What term do we use the describe "deadlock in war"? |
| 8. What name was given to the area separating opposing armies in trench warfare? |

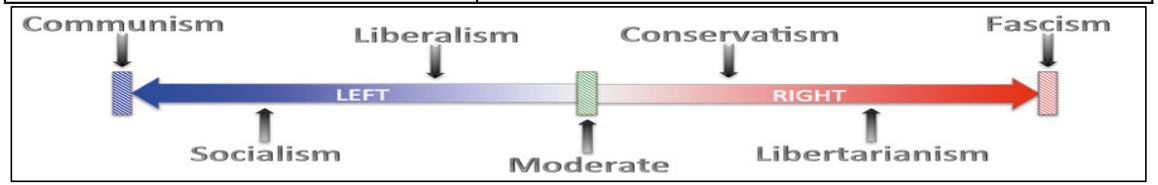
| Knowledge Check 6 |
| --- |
| 1. Give two facts about the Somme. |
| 2. Who was the Commander of the British Army on the Western Front? |
| 3. What name is given to the large guns that fired explosive shells over long distances? |
| 4. Give two symptoms of shellshock? |
| 5. What could trench foot sometimes lead to? |
| 6. What is meant by the term attrition? |
| 7. On which precise date did the First World War end on the Western Front? |

# Year 8 Unit 3, The Consequences of the First World War; Knowledge Organiser

| 1760 - 1900 | **1900 - 1919** | 1919 - 1939 | 1939 - 1945 | 1933 - 1945 |
|---|---|---|---|---|

| Key Topic 7: The Russian Revolution | |
|---|---|
| **1. Romanovs** | The name of the royal family who ruled Russia until February 1917. |
| **2. St Petersburg** | Major Russian city and centre of the Russian Revolutions of 1917. |
|  **3. Lenin** | A Russian Communist who led the Bolshevik Party in the October Revolution. |
| **4. Provisional Government** | The name given to the government that ruled Russia between the two revolutions of 1917. |
| **5. Bolsheviks** | The official name of Lenin's communist party. |
| **6. Communism**  | A type of government in which the state owns the property and wealth is meant to be shared equally. Russia became communist in October 1917 and stayed this way until 1990. |
| **7. Feb Revolution 1917** | First revolution in Russia. It overthrew the Romanov royal family, replacing it with a "Provisional Government" |
| **8. October Revolution 1917** | Second revolution in Russia. Led by Lenin and the Bolsheviks, it overthrew the Provisional Government, replacing it with Communist rule. |

| Key Topic 8: Post-war Germany | |
|---|---|
| **1. Kaiser** | The German Emperor, the Emperor of Austria, or the head of the Holy Roman Empire |
| **2. Democracy**  | A system of rule by the people. In democracy, people have rights e.g., the right to vote & freedom of speech. |
|  **3. Dictatorship** | A system of rule where one leader or one party has complete power. |
| **4. Spartacists** | a revolutionary communist political group who organised an uprising in Germany in January 1919. |
| **5. Weimar Republic** | The democratic government of Germany that governed Germany from 1918 – 1933. |
| **6. Socialism** | The goal of socialism is to spread wealth more evenly and to treat all people fairly. Less extreme than communism. |
| **7. Abdication** | To give up a responsibility or position of power (for example – Kaiser Wilhelm II gave up his throne). |
| **8. Uprising** | An act of resistance or rebellion; a revolt. |



# Year 8 Unit 3, The Consequences of the First World War; Retrieval Questions

| Knowledge Check 7 |
| --- |
| 1. What was the name of the royal family who ruled Russia until February 1917? |
| 2. Which major Russian city was the centre of the Russian Revolutions in 1917? |
| 3. Which revolution (February or October) led to the overthrow of the royal family? |
| 4. Who or what ruled Russia in 1917 ***between*** the two revolutions? |
| 5. Who was the leader of the Bolsheviks in the October Revolution? |
| 6. What is the term for a type of government in which the state owns the property and wealth is meant to be shared equally? |

| Knowledge Check 8 |
| --- |
| 1. Who was the German Emperor during the First World War? |
| 2. In which type of political system will people have rights e.g. to vote? |
| 3. What do we call "a system of rule where one leader or one party has complete power"? |
| 4. What was the name of the revolutionary communist political group who organised an uprising in Germany in January 1919? |
| 5. The goal of which political system is "to spread wealth more evenly and to treat all people fairly"? |
| 6. What word means to "give up a responsibility or position of power"? |
| 7. What was the name of the democratic government of Germany that governed Germany from 1918 – 1933? |

# Year 8 Unit 4, The Inter-war Years; Knowledge Organiser

| 1760 - 1900 | 1900 - 1919 | | **1919 - 1939** | | 1939 - 1945 | 1933 - 1945 |
|---|---|---|---|---|---|---|

| Key Topic 9: The Treaty of Versailles | |
|---|---|
| **1. Treaty of Versailles** | A treaty (agreement) signed at the Palace of Versailles that decided on the terms of peace after World War I. |
| **2. "The Big Three"** | The victors of World War I: Clemenceau (the French President), Lloyd George (the British Prime Minister) and Wilson (the US President). |
| **3. Territory** | Germany lost some of its land under the terms of the treaty including Alsace and Lorraine and some of its colonies in Africa. |
| **4. Reparations** | Germany was forced to pay for the damage suffered during the war. This figure was fixed at £6.6 billion. |
| **5. Armaments** | Germany was stripped of its military under the treaty. It was not allowed to have an army of more than 100,000 men, it was not allowed any aircraft or submarines. |
| **6. Rhineland** | An area of Germany close to the French border. Under the terms of the treaty, Germany were not allowed to put any troops in this area. |
| **7. War guilt** | This clause of the treaty stated that Germany had to accept that they were solely responsible for WWI. |
| **8. League of Nations** | An organisation set up where countries could work together to ensure peace lasted. Germany were not allowed to join. |

| Key Topic 10: The Rise of the Nazis | |
|---|---|
| **1. Fascist** | An extreme right-wing politician who believes in strong government and is very nationalistic. |
| **2. Wall Street Crash, Oct. 1929** | The greatest stock market crash in US history. It led to the worldwide Great Depression of the 1930's. |
| **3. Great Depression** | The period of worldwide economic decline that followed the Wall Street Crash. It lasted from 1929 – 1939. |
| **4. Nazi** | The German fascists who were also extremely racist. |
| **5. Mein Kampf** | Hitler's autobiography written during his months in prison. In it he expressed his hatred of Jews, other races and communists. He also expressed his plans for Germany expansion. |
| **6. Adolf Hitler** | The Fascist Dictator of Germany from 1933 – 1945. |
| **7. The Munich Putsch, 1923** | The Nazis launch their first attempt at taking power in Germany using force. It fails and Adolf Hitler is jailed. |
| **8. 'November Criminals'** | The insult Hitler and the Nazis used towards the Weimar Republic after they signed the armistice. |

| Key Topic 11: Appeasement | |
|---|---|
| **1. Appeasement** | Negotiating and offering deals to avoid conflict. |
| **2. Chamberlain** | The British Prime Minister at the outbreak of WWII. |
| **3. Rearmament (1935 onwards)** | Building up the armed forces / military strength of a country. |
| **4. 1936: The Rhineland** | Nazi soldiers were moved into this area of Germany despite this being outlawed by the Treaty of Versailles. |
| **5. 1938: The Anschluss** | The joining together of Germany and Austria. |
| **6. 1939: Nazi-Soviet Pact** | An agreement between Hitler and Stalin. They promised not to attack and made a secret plan to divide Eastern Europe between them. |
| **7. 1939 Munich Conference** | Britain and France agreed that Hitler could take the Sudetenland in Czechoslovakia, if he promised not to invade the rest of the country. |
| **8. September, 1939 Invasion of Poland** | This action forced Britain to declare war on Germany and sparked WWII. |

# Year 8 Unit 4, The Inter-war Years; Knowledge Retrieval

| Knowledge Check 9 |
| --- |
| 1. Which Treaty decided the terms of peace after the First World War? |
| 2. Who were the 'big three'? |
| 3. Give an example of the territory lost by Germany after WWI? |
| 4. What was the total reparations damage Germany had to pay? |
| 5. What was the limit placed on the size of the German army? |
| 6. What were Germany not allowed to have in the Rhineland? |
| 7. What organisation was established after the war to try and ensure a lasting peace? |

| Knowledge Check 10 |
| --- |
| 1. What do we call "an extreme right-wing politician who believes in strong government and is very nationalistic"? |
| 2. In what month and year was the Wall Street Crash? |
| 3. What period of economic decline followed the Wall Street Crash? |
| 4. What was the title of Hitler's autobiography? |
| 5. Who tried to take power in the Munich Putsch? |
| 6. Who was sent to prison for their role in the Munich Putsch? |

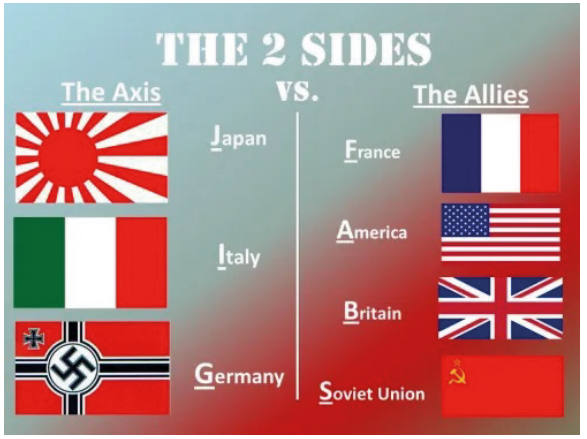
| Knowledge Check 11 |
| --- |
| 1. What is the term we use " to negotiate and offer deals to avoid conflict"? |
| 2. Who was the British Prime Minister at the **outbreak** of WWII? |
| 3. What area did Hitler order Germany troops into in 1936? |
| 4. Which two countries joined together in the Anschluss? |
| 5. What two things were agreed in the Nazi Soviet Pact of 1939? |
| What was the name of the conference where it was agreed that Germany could take a part of Czechoslovakia? |
| 6. Which country was invaded in September 1939 that sparked the outbreak of war between Germany and Britain? |

# Year 8 Unit 5, The Second World War; Knowledge Organiser

| 1760 - 1840 | 1837 - 1901 | 1900 - 1918 | 1918 - 1939 | **1939 - 1945** | 1933 - 1945 |
|---|---|---|---|---|---|

| Key Topic 12: World Leaders of WWII | | |
|---|---|---|
| 1. | **Winston Churchill** | British Prime Minister from 1940-1945. |
| 2. | **Adolf Hitler** | Nazi dictator of Germany from 1921 to 1945. |
| 3. | **Joseph Stalin** | Communist dictator of the Soviet Union from 1924 to 1953. |
| 4. | **Benito Mussolini** | Fascist dictator of Italy from 1922 to 1945. |
| 5. | **Franklin Roosevelt** | President of the USA from 1933 to April 1945 |
| 6. | **Harry Truman** | President of the USA from April 1945 to 1953 |
| 7. | **Hirohito** | Emperor of Japan (1901 – 1989) |

| | Key Topic 13: Major Turning Points WWII |
|---|---|
| **1. Dunkirk** | Mass evacuation of allied forces from France (May – June 1940). |
| **2. Battle of Britain** | Germany's attempts to gain air supremacy in preparation for an invasion of Britain (July – October 1940). |
| **3. Operation Barbarossa** | Germany's surprise invasion of the Soviet Union ( July 1941). |
| **4. Pearl Harbour** | The Japanese attack of this US Naval Base prompted the USA to join the war ( December 1941). |
| **5. Stalingrad, Soviet Union** | One of the most decisive battles on the Eastern Front in the Second World War. It was the start of a campaign to push back German forces in Eastern Europe (1942). |
| **6. El Alamein, Egypt** | The Axis army of Italy and Germany suffered a decisive defeat by the British forces (1942). |
| **7. D- Day Landings** | Also called Operation Overlord, this was the **Allied invasion of western Europe** with US and British troops landing in Normandy (1944). |
| **8. Dropping of the Atomic Bomb** | In August 1945, war in the Pacific ended after the dropping of atomic bombs on the Japanese cities of Hiroshima and Nagasaki. |

# Year 8 Unit 5, The Second World War; Retrieval Questions

| Knowledge Check 12 |
| --- |
| 1. Who took over as the British Prime Minster in 1940? |
| 2. When did Hitler become dictator of Germany? |
| 3. Who took over from Lenin and became the dictator of the Soviet Union until his death in 1953? |
| 4. Who was the fascist dictator of Italy until 1945? |
| 5. Who was Hirohito? |
| 6. Which US President led the USA during the majority of the Second World War? |
| 7. Who took over from Roosevelt as president of the USA in 1945? |
| 8. Which three countries made up the Axis Powers? |

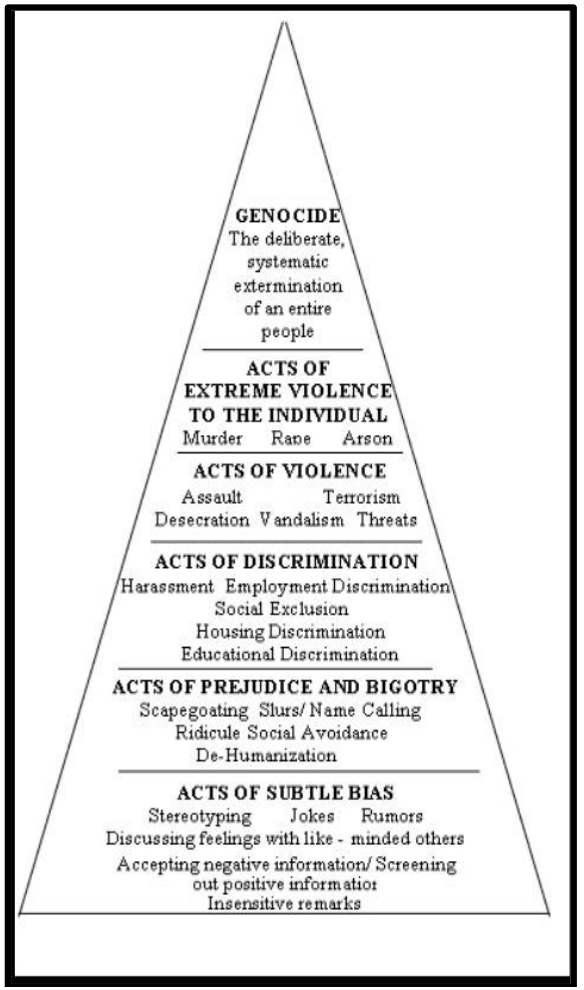
| Knowledge Check 13 |
| --- |
| 1. What name is given to the mass evacuation of allied troops from France in 1940? |
| 2. When was the Battle of Britain? |
| 3. What name was given to the surprise German attack on the Soviet Union in 1941? |
| 4. Which country attacked the US naval base at Pearl Harbour? |
| 5. Who won the battle of Stalingrad in 1942? |
| 6. At which battle in Africa did the axis army of Italy and Germany suffer a huge defeat in 1942? |
| 7. What was the code name given to the D-Day Landings in 1944? |
| 8. What were the names of the two Japanese cities where atomic bombs were dropped in 1945? |

# Year 8 Unit 6 The Jewish Experience and the Holocaust; Knowledge Organiser

| 1760 - 1840 | 1837 - 1901 | 1900 - 1918 | 1918 - 1939 | **1939 - 1945** | **1933 - 1945** |
|---|---|---|---|---|---|

| Key Topic 14: The Persecution of the Jews | |
|---|---|
| **1. Anti-Semitism** | Prejudice or discrimination against Jewish people. |
| **2. Boycott** | When people are encouraged not to buy goods or use services from certain businesses.<br>In 1933, the Nazis tried to organise a boycott of Jewish businesses. |
| **3. Nuremberg Laws** | Passed in 1935, these were a wide range of anti-Semitic laws that discriminated against Jews. |
| **4. Prejudice** | A preconceived opinion that is not based on reason or actual experience. |
| **5. Discrimination** | The unfair treatment of different categories of people, especially on the grounds of ethnicity, age, sex, or disability. |
| **6. Persecution** | Poor treatment of a particular group, especially due to racial or political beliefs. |
| **7. Scapegoating** | When a particular person or group is blamed unfairly for an event, for example when Hitler blamed Jews for the German loss of World War I. |
| **8. Aryan** | Term used in Nazi Germany to refer to the "master-race". |

| Key Topic 15: The Persecution of the Jews | |
|---|---|
| **1. Kristallnacht** | An organised violent attack on Jews across Germany in Nov. 1938. Also known as "The Night of the Broken Glass". This marked an escalation in the persecution of the Jews. |
| **2. Holocaust** | The term given to the systematic murder of 6 million Jews by the Nazis. |
| **3. Ghetto** | a part of a city, especially a slum area, occupied by a minority group or groups. The Nazis forced Jews into ghettos in the areas of Europe they controlled during the Second World War. |
| **4. Warsaw Ghetto Uprising** | An act of Jewish resistance in German-occupied Poland in 1943. |
| **5. Auschwitz** | Nazi Germany's largest concentration and extermination camp. |
| **6. Final Solution** | The Nazi plan to destroy all the European Jews. |
| **7. Genocide** | The deliberate and systematic destruction of a racial, political, cultural, or religious group. |
| **8. 27 January 1945** | Auschwitz liberated by the Allies. This date is now remembered as ***International Holocaust Day*** |



# Year 8 Unit 6 The Jewish Experience and the Holocaust; Retrieval Questions

| Knowledge Check 14 |
| --- |
| 1. What term do we use to describe "prejudice or discrimination against Jewish people"? |
| 2. What term do we use to describe "when people are encouraged not buy goods or use services from certain businesses"? |
| 3. In what year did the Nazis organise a boycott of Jewish businesses? |
| 4. What term is given to "a preconceived opinion that is not based on reason or actual experience"? |
| 5. What is the term for when "a particular person or group is blamed unfairly for an event"? |
| 6. What term was used in Nazi Germany to refer to the "master-race"? |
| 7. In what year were the Nuremberg laws? |

| Knowledge Check 15 |
| --- |
| 1. In what month and year was Kristallnacht? |
| 2. What is Kristallnacht also known as? |
| 3. What term was given to the systematic murder of 6 million Jews by the Nazis? |
| 4. When was the Warsaw Ghetto Uprising? |
| 5. What was the name of Nazi Germany's largest concentration and extermination camp? |
| 6. What term was used for the Nazi plan to destroy all the European Jews? |
| 7. On what date is International Holocaust Day? |
| 8. Why is it held on this specific date? |

YEAR 8

# MATHS

# Year 8 Maths Course Content

## Term 1

| Units | Sparx topic codes |
|---|---|
| Percentages of amounts | M437 M905 |
| Percentage change | M476 M533 |
| Calculating with money | M681 |
| Index laws | M608 M150 M120 M568 |
| Solving equations | M509 M554 M957 M387 |
| Term-to-term rules | M381 M241 |
| Position-to-term rules | M166 M991 M866 |
| Ratio | M885 M543 M267 M801 M525 |
| Scale diagrams | M112 |

## Term 2

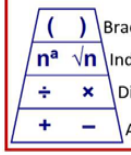
| Units | Sparx topic codes |
|---|---|
| Significant figures | M994 M131 M878 |
| Coordinates and midpoints | M622 M230 |
| Area and units | M291 M705 M728 |
| Area and circumference | M595 M169 M231 |
| Standard form and ordinary numbers | M719 M678 |
| Venn diagrams | M829 M419 |
| Factors, multiples and primes | M365 |
| Nets | M767 M518 |
| Surface area | M884 M534 M661 |
| Volume | M765 M722 M465 |

## Term 3

| Units | Sparx topic codes |
|---|---|
| Plotting graphs and finding equations | M797 M932 M544 |
| Transforming shapes | M139 M290 |
| Finding unknown angles | M679 M319 M606 M393 M653 |
| Drawing and interpreting statistical diagrams | M574 M165 M140 M183 M210 U854 |
| Linear inequalities | M384 M118 |
| Double brackets | M960 |
| Fractions review | M645 |
| Algebraic fractions | M754 M336 |
| Fractions and recurring decimals | M701 M922 |

# Year 8 – Maths


## Order of Operations



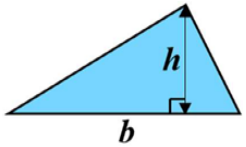

Brackets
Indices
Divide & Multiply
Add & Subtract

## Converting Units of Time

60 seconds = 1 minute
60 minutes = 1 hour
24 hours = 1 day
7 days = 1 week
12 months = 1 year
52 weeks = 1 year
365 days = 1 year
10 years = 1 decade
100 years = 1 century
1000 years = 1 millennium

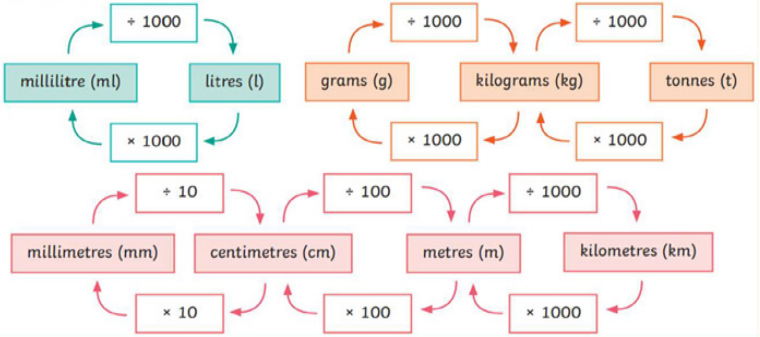
## Area


Area of a rectangle = $l \times w$




Area of a triangle = $\frac{1}{2} b \times h$

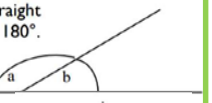
## Metric Conversions




## Angle Facts

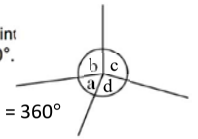
Angles on a straight line add up to 180°.

a + b = 180°

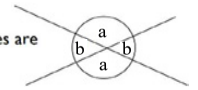



Angles at a point up to 360°.

a + b + c + d = 360°




Opposite angles are equal.




| × | 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 |

## Types of Number

| | |
|---|---|
| **odd** | end in 1, 3, 5, 7, 9 |
| **even** | end in 0, 2, 4, 6, 8 |
| **prime** | has exactly two factors, 1 and itself. E.g. 2, 3, 5, 7, 11... |
| **factor** | a number that divides exactly into another number, e.g. 3 is a factor of 9 |
| **highest common factor** | the largest factor common to two or more numbers. |
| **multiple** | a number in the times table of another, e.g. 10 is a multiple of 5 |
| **lowest common multiple** | the smallest number in two different times tables. |

## Averages

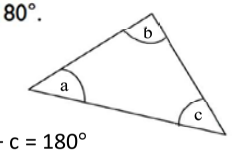
| | |
|---|---|
| **mode/modal** | most common value or values (modal class). |
| **median** | the middle number when they are in ascending order. |
| **mean** | add the numbers up and divide by how many there are. |
| **range** | the difference between the largest and smallest value. |

## Mathematical Symbols

≠ is not equal to
< is less than
≤ is less than or equal to
> Is greater than
≥ is greater than or equal to

## Angles in Triangles

Angles in a triangle add up to 180°.

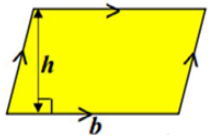



a + b + c = 180°

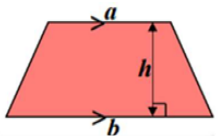
| Name | Sides | Vertices |
|---|---|---|
| triangle | 3 | 3 |
| quadrilateral | 4 | 4 |
| pentagon | 5 | 5 |
| hexagon | 6 | 6 |
| heptagon | 7 | 7 |
| octagon | 8 | 8 |
| nonagon | 9 | 9 |
| decagon | 10 | 10 |

# Year 8 – Maths

## Area

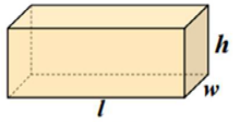



*Area of a parallelogram = b x h*

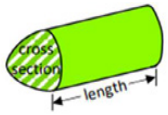



*Area of a trapezium = $\frac{1}{2}(a+b)h$*

## Volume




*Volume of a cuboid = l x w x h*




*Volume of any prism = area of cross section x length*

## Standard Form

**Standard form** is a way of writing very large or very small numbers by using powers of ten. It is also known as scientific notation.

Numbers in standard form are written in this format:

$$a \times 10^n$$

Where **a** is a number **1 ≤ a < 10** and **n** is an **integer**.

## Percentages of amounts

A **percentage of an amount** allows us to calculate a percentage of a given number by either calculating simple percentages such as 10% and 1% and building the percentage up from there, or by using a percentage multiplier.

E.g. Find **21%** of **£500.**

**Using simple percentages**

**100%** is the original amount.
**10%** = £50
**1%** = £5
**21%** of £500 = 2 x £50 + £5
= £105

**Using percentages multipliers**

21% = $\frac{21}{100}$ = 0.21

21% of £500 = 0.21 x 500
= £105

## Money

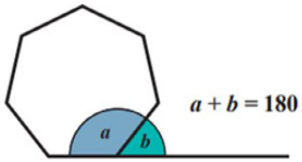
£1 is made of 100 pence (or 100$p$).
Pounds can be written as pence, for example £3.15 can be written as 315$p$.
Pence can be written as pounds, for example 27$p$ can be written as £0.27.

## Angles in Polygons

Interior angle sum of any polygon = $(n-2) \times 180$
where $n$ is the number of sides.

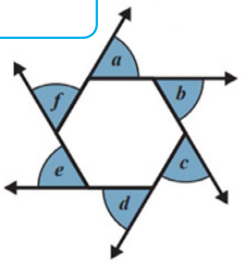

$a+b+c+d=360$

Angles in a quadrilateral add up to 360




$a+b=180$

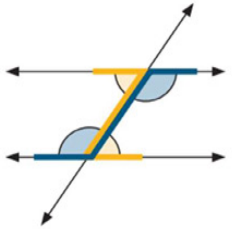
Exterior angles of a polygon add up to 360



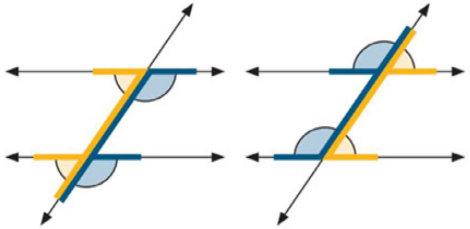

$a+b+c+d+e+f=360$

The interior and exterior angle of any polygon add up to 180

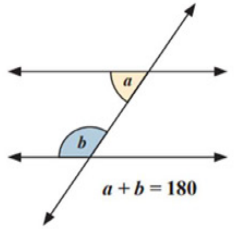
## Angles in Parallel Lines



Alternate angles are equal



Corresponding angles are equal




$a+b=180$

Allied (or co-interior) angles add up to 180

## Laws of Indices

$$a^m \times a^n = a^{m+n}$$

$$a^m \div a^n = a^{m-n}$$

$$a^0 = 1$$

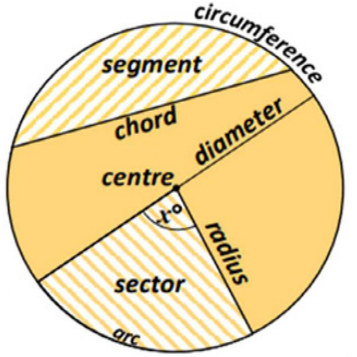
$$a^{-m} = \frac{1}{a^m}$$

$$(a^m)^n = a^{m \times n} = a^{mn}$$

## Circles

*Circumference of a circle = πd = 2πr*

*Area of a circle = πr²*




# Useful websites:

For homework and revision: sparxmaths.uk

For revision: corbettmaths.com

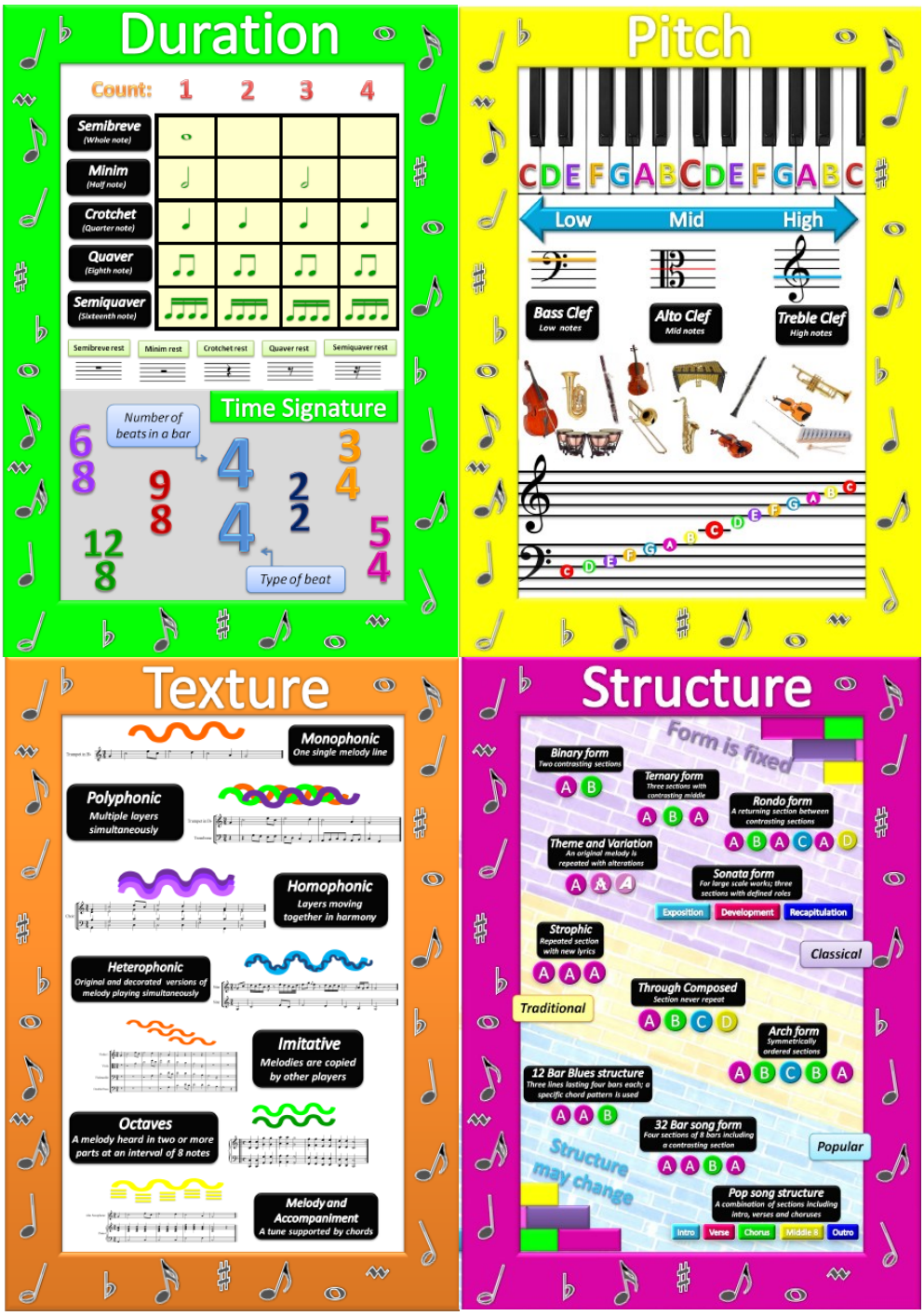
BBC Bitesize Revision

YEAR 8

# MUSIC

# KS3 KNOWLEDGE ORGANISER

Both sides of the back cover of your folder are one big knowledge organiser for years 7 and 8.
Check the information next to each poster for the focus of each class project.
All music K.O.s plus extra resources are also online at: **https://framwellgatemusic.wordpress.com/**

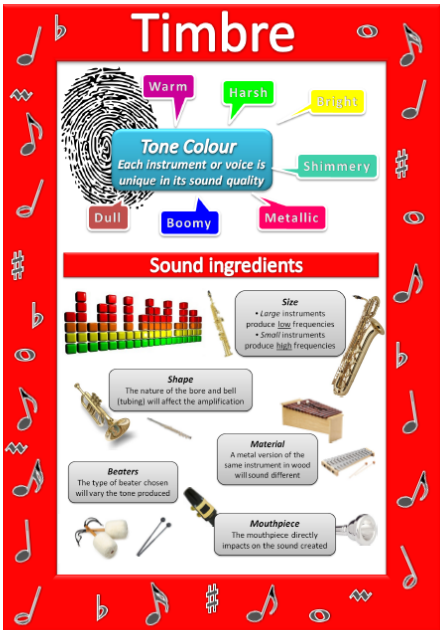


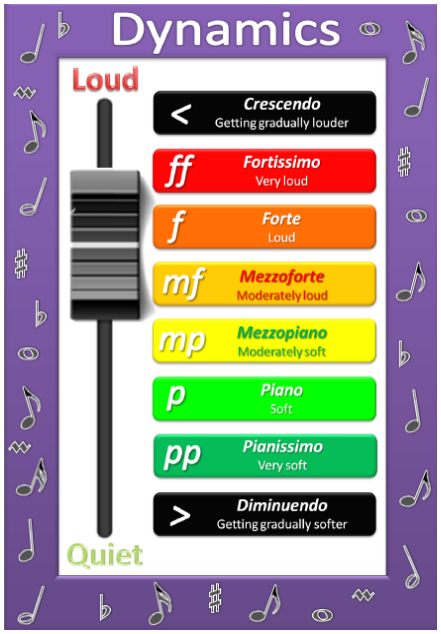

Music is an integral part of the human condition, and is essential to a well-rounded education. Not only is it intellectually satisfying, but as an art form it engenders concentration, teamwork, individual confidence, self-discipline and creativity.

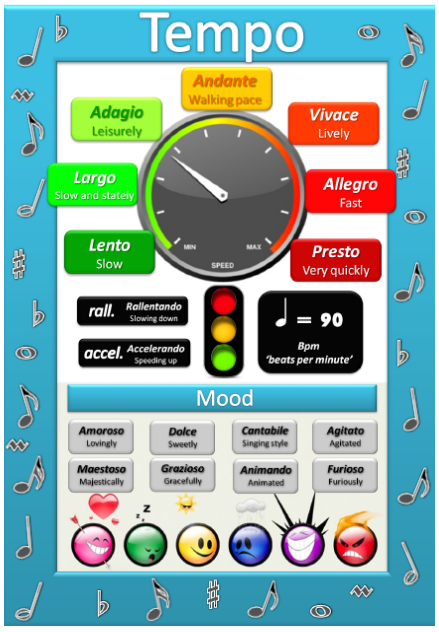
The **aim of the music department is to provide all students with a wide range of music making experiences** in both curricular and extra-curricular activities. **Everything in our curriculum is geared towards taking pupils as far towards becoming a practicing musician as possible**.

Musically, you should be able to confidently read treble clef notation by the time they leave, have experience of singing and playing instruments, be able to aurally recognise musical styles and their features, be able to compose coherently. All students are encouraged regardless of their ability and there are many opportunities available for involvement both in and out of the classroom.

The department is a positive, inclusive environment where students can develop their imagination, self-esteem and teamwork skills.

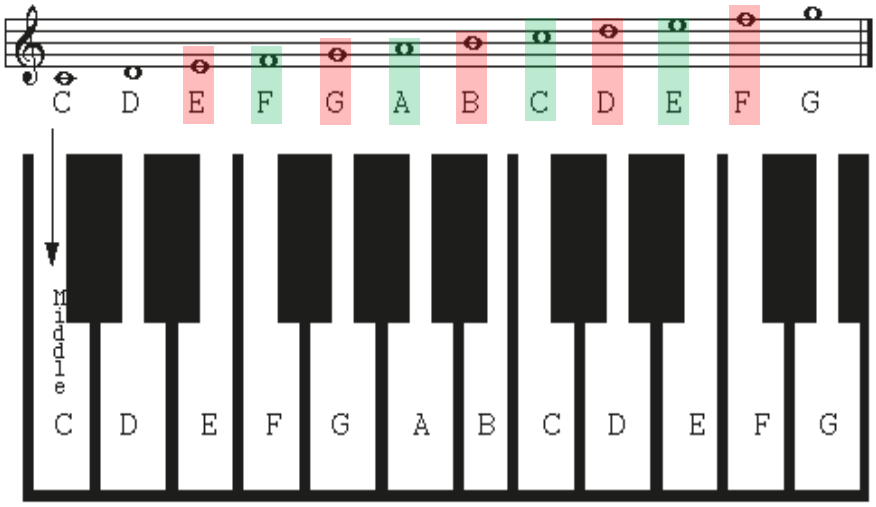


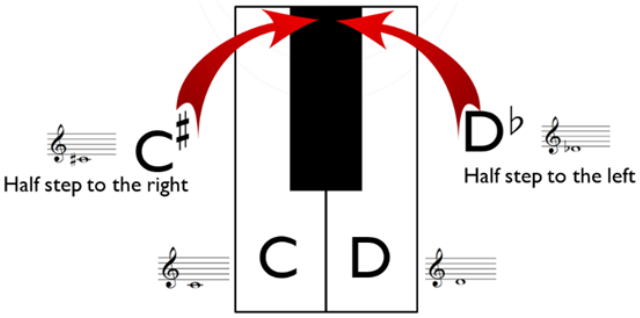




## Every Good Boy Deserves Football

## F A C E




| Sign | Name | Value | Rest |
|---|---|---|---|
| 𝅝 | Semibreve | 4 beats | 𝄻 |
| 𝅗𝅥 | Minim | 2 beats | 𝄼 |
| ♩ | Crotchet | 1 beat | 𝄽 |
| ♪ | Quaver | ½ beat | 𝄾 |
| 𝅘𝅥𝅯 | Semiquaver | ¼ beat | 𝄿 |



YEAR 8

# PE

# Basketball Overview

**Core Skills to learn in this unit**

1. Dribbling – using both hands, change of pace and direction.
2. Passing – chest, javelin, bounce, overhead, use of the fake.
3. Receiving/intercepting – making a target (signaling), one/two handed catch, stationary and on the move, differing speeds and heights, rebounding, stealing.
4. Shooting – lay-up, set shot, jump shot, free shot, use of the fake.
5. Footwork and marking – stopping (jump stop, stride stop), pivoting, getting free, tracking (drop step).

**Local Clubs**

| Club | Distance | Venue | Postcode |
|---|---|---|---|
| Durham Palatinates Basketball Club | 2.33 Miles | Durham University Sports and Wellbeing Park, Maiden Castle | DH1 3SE |
| Durham University | 2.33 Miles | | DH1 3SE |
| Durham Wildcats Basketball Club | 2.33 Miles | Durham University Sports and Wellbeing Park, Maiden Castle | DH13SE |
| Oxclose Basketball Club | 7.06 Miles | Oxclose Community School | NE38 0LN |
| Biddick School Community | 7.07 Miles | Biddick School Sports College | NE38 8AL |
| Norpol | 7.07 Miles | Biddick School Sports College | NE38 8AL |
| Cardinal Vipers | 8.61 Miles | | NE9 7NP |
| East Durham Lions Basketball Club | 9.73 Miles | East Durham College | SR8 2RN |

**Competitive Opportunities**

- School team to practice on a Friday night after school. Bring your PE kit and a bottle of water to rehydrate

**Lesson highlights**

- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

# Cricket Overview

**Core Skills to learn in this unit**

1. Batting (defensive)
2. Batting (attacking)- drive, pull, sweep shot
3. Bowling – bowling for line and length, fast or slow bowling
4. Catching in the field (from close, from distance) or catching as wicket keeper (standing up, standing back).
5. Throwing and ground fielding in the field (from close, from distance) or stumping and recovery work as a wicket keeper, long barrier technique.

**Local Clubs**

ANNFIELD PLAIN CRICKET CLUB
BARNARD CASTLE CRICKET CLUB
BEAMISH AND EAST STANLEY CRICKET CLUB
BILL QUAY ALBION CRICKET CLUB
BLAYDON CRICKET CLUB
BOLDON CRICKET CLUB
BOLDON CA CRICKET CLUB
BRANDON CRICKET CLUB
BURNMOOR CRICKET CLUB
BURNHOPE CRICKET CLUB
BURNOPFIELD CRICKET CLUB
CASTLE EDEN CRICKET CLUB
CHESTER-LE-STREET CRICKET CLUB
CONSETT CRICKET CLUB
CROOK TOWN CRICKET CLUB
DAWDON CW CRICKET CLUB
DURHAM CITY CRICKET CLUB
EASINGTON CW CRICKET CLUB
EAST RAINTON CRICKET CLUB
EPPLETON CRICKET CLUB
ESH WINNING CRICKET CLUB
EVENWOOD CRICKET CLUB
FELLING CRICKET CLUB
GATESHEAD FELL CRICKET CLUB
GREENSIDE CRICKET CLUB
HARTLEPOOL CRICKET CLUB
HETTON LYONS CRICKET CLUB
HORDEN CRICKET CLUB
HUNWICK CRICKET CLUB
HYLTON CRICKET CLUB
LANCHESTER CRICKET CLUB
LANGLEY PARK AND BEARPARK CRICKET CLUB
LEADGATE CRICKET CLUB
LINTZ CRICKET CLUB
LITTLETOWN CRICKET CLUB
MARSDEN CRICKET CLUB
MIDDLETON-IN-TEESDALE CC & RABY CASTLE CC
MURTON CRICKET CLUB
PETERLEE CRICKET CLUB
PHILADELPHIA CRICKET CLUB
RYHOPE CRICKET CLUB
RYTON CRICKET CLUB
SACRISTON CRICKET CLUB
SEAHAM HARBOUR CRICKET CLUB
SEAHAM PARK CRICKET CLUB
SHOTLEY BRIDGE CRICKET CLUB
SILKSWORTH CRICKET CLUB
SOUTH NORTH CRICKET CLUB
SOUTH SHIELDS CRICKET CLUB
STOCKSFIELD CRICKET CLUB
SUNDERLAND CRICKET CLUB
SWALWELL CRICKET CLUB
TANTOBIE CRICKET CLUB
TUDHOE CRICKET CLUB
USHAW MOOR CRICKET CLUB
WASHINGTON CRICKET CLUB
WEARMOUTH YAV CRICKET CLUB
WHICKHAM CRICKET CLUB
WHITBURN CRICKET CLUB
WILLINGTON CRICKET CLUB
LEAGUE CONTACTS

**Follow this link to find all junior cricket clubs in the North East and their contact details:**

https://www.durhamcricket.co.uk/wp-content/uploads/2023/04/DCB-Junior-League-Contacts-V3.pdf

**Competitive Opportunities**

- School teams run throughout the year but particularly in the summer term. There are a lot of opportunities to represent the school at several competitions. Bring your PE kit and a bottle of water to rehydrate

**Lesson highlights**

- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

# Netball Overview






**Core Skills to learn in this unit**

1. Passing and receiving (chest pass, shoulder pass, one/two handed passing).
2. Dodging – single/double/sprint.
3. Marking a player.
4. Shooting (close/distance) or rebounding (attacking or defending) or marking a pass/intercepting (Centre court players).
5. Footwork and movement – landing on one/two feet, pivoting.

**Local Clubs**

U14

| Team Name |
|---|
| Grangetown |
| Oaksway |
| Riverside |
| Headlanders |
| DPNC |
| Great Park |
| Cleveland Classics |
| Novos |

U16

| Team Name |
|---|
| Grangetown |
| Oaksway |
| Riverside |
| DPNC |
| Headlanders |
| Vixens |
| Wildcats |
| Seatonians |

**Competitive Opportunities**

- School teams begin from the start of the year and there are plenty of opportunities to represent the school. Make sure you are attending after-school practices and bring your PE kit and a bottle of water to rehydrate.

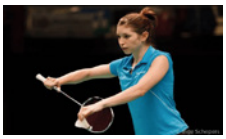
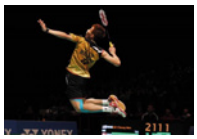
**Lesson highlights**

- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

# Badminton Overview





**Core Skills to learn in this unit**

1. Service – high, low, flick (forehand or backhand).
2. Overhead – clear, drop (forehand and backhand where appropriate).
3. Underarm – clear, drive, drop (forehand and backhand where appropriate).
4. Net play.
5. Smash.

**Local Clubs**

The Phoenix Junior Badminton Club
Badminton

Junior Sessions run on a Friday night 5.45 – 6.45pm
Senior Sessions Mondays 6 – 8pm
contact Steve Durnett 07500627212
steved50_6@live.com

| Address | Contact Details |
|---|---|
| The Phoenix Junior Badminton Club<br>Freemans Place<br>Durham City<br>DH1 1SW | |

Glaxo Badminton Club
Badminton

We are a small and friendly club who welcome players of all ages and standards. We hold club nights on Wednesdays 7-9pm, between September and April, and prospective new members are welcome to come and join a session for free. Just turn up to have a chat. We run teams in the Darlington League for those who wish to compete, but club nights are just for fun!

| Address | Contact Details |
|---|---|
| Glaxo Badminton Club<br>Strathmore road<br>Barnard Castle<br>DL12 8DS | |

Aycliffe Badminton Club
Badminton

| Address | Contact Details |
|---|---|
| Aycliffe Badminton Club<br>Revoridge Way<br>Newton Aycliffe<br>DL5 4EH | https://aycliffebc.wixsite.com/aycliffebc<br>@AycliffeBC |

Durham Swifts Badminron Club
Badminton

| Address | Contact Details |
|---|---|
| Durham Swifts Badminron Club<br>Buckinghamshire Road<br>Belmont<br>Durham<br>DH1 2QP | Https://sites.google<br>Durham Swifts |

Durham County Badminton Association
Badminton

Durham County Badminton Association provides coaching and local tournament opportunities for junior players of all abilities with the aim of developing these players to progress on to represent the junior county teams in regional and national competitions as well as, hopefully, going on to represent the Durham County senior teams in national leagues.

Durham County Badminton Association are also a Deaf Aware Organisation and are keen to welcome members of the deaf community as volunteers, players or coaches.

| Address | Contact Details |
|---|---|
| Durham County Badminton Association<br>Buckinghamshire Road<br>Belmont<br>DH1 2QP | @DCBA0001 |

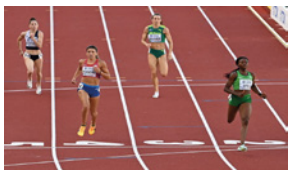
**Competitive Opportunities**

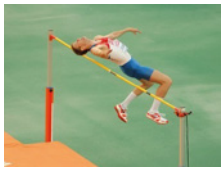
- Make sure you are attending after-school practices and bring your PE kit and a bottle of water to rehydrate.

**Lesson highlights**

- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

# Athletics Overview





**Core Skills to learn in this unit**

**Track**
1.Starts/finishes.
2. Arm action – effectiveness and consistency.
3. Leg action to create appropriate pace – consistency

**Jumps**
1.Run-up/speed.
2. Take-off.
3. Flight and landing.

**Throws**
1. Grip, stance and preparation to throw.
2. Movement into throwing action.
3. Release, follow-through and recovery.

**Local Clubs**

CLS DAC
Jarrow & Hebburn Athletic Club
Heaton Harriers
Birtley Athletics Club
Doxford Athletic FC
Stockton Striders AC
Sunderland Harriers
South Shields Harriers
North Shields Polytechnic Athletics Club based in Whitley Bay

**Competitive Opportunities**
- Make sure you are attending after-school practices and bring your PE kit and a bottle of water to rehydrate. There are a lot of opportunities to compete in competitions against other schools.

**Lesson highlights**
- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

# Hockey Overview

**Core Skills to learn in this unit**

1. Dribbling/moving with the ball – open and reverse stick, change of pace, dodging.
2. Passing – push, hit, slap.
3. Shooting – placement and power.
4. Receiving – stationary, on the move, open and reverse stick.
5. Marking/intercepting/tackling/jockeying – open and reverse stick tackles, jab tackle

**Local Clubs**

**Durham City HC**
3.1 MILES FROM DH15YN
The Graham Sports Centre
University of Durham
Durham,County Durham
DH1 3SE

**Durham University HC**
3.1 MILES FROM DH15YN
Graham Sports Centre Maiden Castle
Sports Ground, Maiden Castle Sports
DURHAM,Durham
DH1 3SE

**Sunderland Broom HC**
15.5 MILES FROM DH15YN
14 Dilston Gardens
Sunderland,Tyne and Wear
SR4 7TD

**Gateshead HC**
17.9 MILES FROM DH15YN
Market Lane
Gateshead,Tyne and Wear
NE11 9NX

**Newcastle Medics HC**
21.1 MILES FROM DH15YN
12 Warton Terrace
Heaton
Newcastle Upon Tyne,Tyne and Wear
NE6 5LR

**Durham Dales HC**
21.9 MILES FROM DH15YN
Lifestyle Fitness
Leazes Ln
Wolsingham,Bishop Auckland
DL13 3DN

**Jesmond Parish Church HC**
22.2 MILES FROM DH15YN
14, Adeline Gardens
Gosforth
Newcastle upon Tyne,Tyne and Wear
NE3 4JQ

**Newcastle HC**
23.0 MILES FROM DH15YN
Newcastle,Tyne and Wear
undefined

**Newcastle University HC**
23.9 MILES FROM DH15YN
Stan Calvert Memorial Pitch
Longbenton Sports Ground
NEWCASTLE UPON TYNE,Tyne and Wear
NE12 8AD

**Whitley Bay and Tynemouth HC**
24.1 MILES FROM DH15YN
NE29 6TL

**Competitive Opportunities**
- Make sure you are attending after-school practices and bring your PE kit and a bottle of water to rehydrate. There are a lot of opportunities to compete in competitions against other schools.

**Lesson highlights**
- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

# Table Tennis Overview





**Core Skills to learn in this unit**

1. Service – forehand and backhand (with and without spin as appropriate).
2. Drives – forehand and backhand (with and without topspin as appropriate).
3. Push – forehand and backhand (with and without backspin as appropriate).
4. Smash – forehand and backhand (with and without spin as appropriate).
5. Lob – forehand and backhand (with and without spin as appropriate).

**Local Clubs**

**Durham City Table Tennis Club**

Premier Club

Premier Club

Address: Freemans Quay Leisure Centre, Durham, County Durham DH1 1SW

More info: https://www.tabletennis365.com/DurhamTTC

**Coxhoe table Tennis Club**

Associate Club Affiliation

**4.96 Miles**

ACTIVE LIFE @ COCHOE Linden Grove DURHAM DH6 4DW

+44 7929716379

**Brandon Table Tennis Club**

Club Membership £10 adults and £5 juniors
£4 per session adult
£2 per session junior

Details of regular meet-ups/sessions:

Monday 6:30 pm to 8:30 pm
Wednesday 10:00 am until noon
Thursday 6:30 pm to 8:30 pm
Saturday 10:00 am until noon
Sunday 10:00 am until noon

Address: Brandon Community Hall, Brandon Lane, Brandon, Durham DH7 8PS

**Competitive Opportunities**

- Make sure you are attending after-school practices and bring your PE kit and a bottle of water to rehydrate. There are a lot of opportunities to compete in competitions against other schools.

**Lesson highlights**

- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

# Volleyball Overview






**Core Skills to learn in this unit**

1. Service – underarm and overarm
2. Dig –two arm (receiving serve and from team mates)
3. Volley – set, straight, sideways, overhead
4. Smash/spike
5. Block – single and double

**Local Clubs**

**Haughton Darlington**

location:
→ Darlington

matches:
Darlington Education Village
DL1 2AN

**Longbenton**

location:
→ Newcastle upon Tyne

teams:
→ Longbenton Black Sheep (Div 1)
→ Longbenton Bitter & Twisted (Div 2)
→ Longbenton Speckled Hens (Women's Div)

matches:
*Friday*
*7-9pm*
Longbenton High School
Hailsham Ave
Longbenton
NE12 8ER

**Newcastle Panthers**

location:
→ Newcastle upon Tyne

teams:
→ Newcastle White Panthers (Div 1)
→ Newcastle Black Panthers (Div 1)
→ Newcastle Panther Cubs (Div 2)
→ Newcastle Pink Panthers (Women's Div)
→ Newcastle Scarlet Panthers (Women's Div)

matches:
*Tuesday*
*6-8pm (Cubs)*
*8-10pm (White, Black, Scarlet, Pink)*
Vertu Motors Arena
Scotswood Road
NE4 7AF

**Competitive Opportunities**

- Make sure you are attending after-school practices and bring your PE kit and a bottle of water to rehydrate. There are a lot of opportunities to compete in competitions against other schools.

**Lesson highlights**

- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

# Fitness Overview

**Core Skills to learn in this unit**

1. Year 7 – Components of Fitness – able to define and demonstrate each component
2. Year 8 – Fitness Testing – able to link tests to relevant component and discuss both benefits and limitations
3. Year 9 – Methods of Training – able to describe the methods before evaluating each one using sporting examples

**Local Clubs**

PureGym Durham Arnison

Unique Health Clubs

Result Fitness

CrossFit DHM Durham

**Competitive Opportunities**

- Make sure you are attending after-school clubs and bring your PE kit and a bottle of water to rehydrate.

**Lesson highlights**

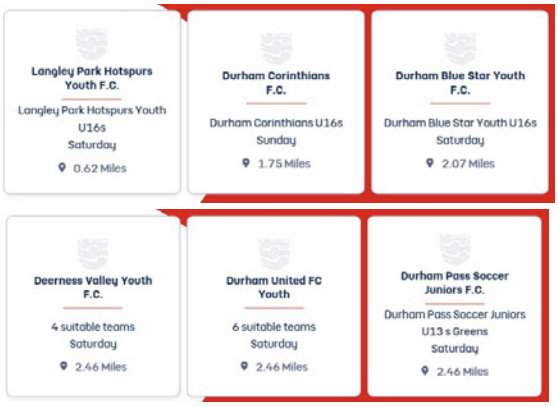
- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

# Football Overview

**Core Skills to learn in this unit**

1. **First Touch** – Consistency in ability to control/trap a football regardless of quality of pass from teammate.
2. **Passing** – Consistently chooses the correct option when passing the ball. Uses a variety of passes with different parts of the foot and consistently finds intended target.
3. **Defending/Tackling** - Can read opponent when they have the ball and can either perform a tackle or stop their opponent from going in the direction or space they want to.
4. **On the ball** – When in possession of the football is the learners head up looking around them? Can they move comfortably with the ball at their feet? Can they dribble and go past opponents when doing so?
5. **Shooting** – Learner should aim for corners of the net and consistently make clean contact on the ball.

**Local Clubs**




**Competitive Opportunities**

- School teams run throughout the year – See the PE department for more information on how to join a school team. Practice also occurs throughout the week, with futsal practice on a lunch time.

**Lesson highlights**

- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

YEAR 8

# R.E

# Year 8 – RE - Problem of Evil

## Key vocabulary

| | |
|---|---|
| The problem of evil | The idea that if God was all loving and all powerful then he should want to stop evil |
| Inconsistent Triad | It doesn't add up how God can be all powerful, all loving and the idea that evil exists |
| Christian Responses | They say suffering exists because they need to understand good and evil, and see how they respond to suffering to be rewarded or punished |
| Cosmological Argument (first cause argument) | Thomas Aquinas idea: everything has a cause for the effect to happen. This means the world must have a cause (God) and this causes the affect which is the creation of the world |
| Mover and the motion | Aristotle's idea that the unmoved (or prime) mover sets in motion the world being created |
| Nietzsche | God is dead and society have killed him as they do not believe |
| Design Argument | William Paley's idea that everything has a designer, something complex like a watch has to be designed and planned. Something even more complex such as the world must have a designer, very powerful, this is God |
| Augustine | Humans have free will and they are the ones that cause suffering. God is innocent! |
| Irenaeus | God does cause suffering but he does this for a reason, he believes it makes them stronger and develops their soul. This is called soul making |
| The fall | The story of Adam and Eve when they have gone against god and caused humanity to FALL into suffering |

God does exist

Cosmological argument- Aquinas

Everything in the world has a cause, and goes back to the original cause of everything which is God. The first cause

Cause- parents effect- humans

Cause- ancestors

Cause- created by God

Design Argument- William Paley

Teleological argument

World is so perfect that it must have been created by someone that is omniscient (all knowing).



Question who designed a watch, as it is complex. World is even more complex so needs to have been designed

Aristotle- Cause and Effect

Mover- the cause Motion- the effect

e.g. pushing a door (mover)

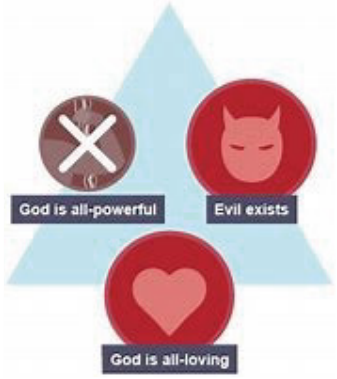
Door opens (motion)

Prime Mover-

Unchanging, cause of everything in the world. Infinite and powerful

God does not exist

Inconsistent triad




If God is all powerful and all loving, then he should be able to stop evil. However, this is inconsistent as evil still occurs

This raises a problem, as atheists say why doesn't he stop these things from occurring

Moral evil- evil caused by humans

e.g. murder, theft, lying

Natural evil- evil caused by 'nature'

e.g. earthquakes, death

God does exist

Irenaeus theodicy(supporting God)

Soul making

God made humans imperfect. To make them perfect would take away their free will.

Suffering helps them to develop and get stronger- their soul is made stronger

Story of Job- God made him suffer as a test, God took everything away from him and Job stayed loyal. God explained that suffering is complex and humans can't understand. He gave everything and more back


God does exist

Augustinian Theodicy (supporting God)

- Humans were created perfect as they have free will
- Free will, humans have chosen to sin
- God is still loving as he sent Jesus to restore the broken relationships

Humans are responsible for causing suffering as they chose to.

Story of Adam and Eve- they had free will and chose to eat the forbidden fruit. This led to evil in the world.

# Year 8 – RE - Jesus

## Key Vocabulary

| Key words | Definition |
|---|---|
| Sermon on the Mount | Speech Jesus did to state the guidance of what he expects from people |
| Beatitudes | Supreme blessing |
| Miracles | God-like characteristics to help people/society |
| Controversial | An issue that may cause dispute |
| Parable | A story with a meaning |
| Lost sheep | Story about Jesus looking after one 'troubled' person |
| Good Samaritan | Story about looking after those who are enemies |
| Temple | Jesus showed anger in a temple |
| "take this cup from me" | Jesus worried because of his crucifixion |
| Modern | Fitting to today's society |
| Last supper | Last meal with disciples |
| Crucifixion | Died on cross |
| Resurrection | Back to life 3 days later- God- like |
| influence | Effects a person's life |

## Sermon on the Mount

Speech that Jesus did on Mount Sinai, talking about how he believes people should behave. This was different to the laws at the time and harder to achieve as their were emotions

Beatitudes- blessings by God for following these expectations

"blessed are the peacemakers"

- -Set new rules -Focused on trying to make society better - Talks about the rewards
- -Made it harder
  - Not a popular leader
  - Changed the norms of society

## Human Divine (God like)

### Controversial

Made friends with sinners

Parable of the lost sheep- explains he helped one person that was 'troubled' as he knew the others would be ok

- Tries to improve people
- equality

- Might not change him
- Ignores the good

### Emotions

Anger- Jesus showed anger in the temple "overturned tables"

Overwhelmed- felt worried about the crucifixion "take this cup from me"

- Showing anger, human
- More relatable

- Wasn't explicitly anger, stand up for religion
- Mission to be fulfilled

## Miracles

Performed miracles to help some people and show his God-like characteristics

e.g. feeding the 5000, healing the blind

- -shows God-like powers omnipotent
  - Uses powers to help
  - Bible stories
  - wouldn't have had technology
- -coincidence -tricked people to believe
  - Not much evidence
  - Not many people have seen

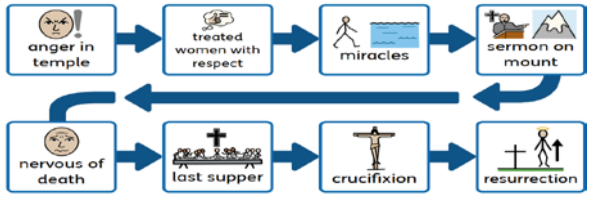
### Modern

Women were treated as unequal and not allowed to speak to men

Jesus spoke to women directly

- Shows he is ok to go against society
- Equality
- All human

Mary Magdalene first one that saw Jesus alive and spread the word- shows respect to women




## Last supper

Last meal that Jesus had with his disciples, bread and win

•invitation to God's kingdom Jesus, the host, welcomes the betrayer, that even those who fall are given a seat.

Not parable? Showing the sacrifice, he is about to make

## Crucifixion

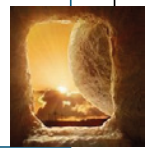
Jesus dying to save people from sins

Influences them to-
Forgive people
Trust in Jesus
Follow God

## Resurrection

Just brought back from the dead.

Influences them to-
Trust in Jesus being the son of God
Follow God
Follow teachings to be rewarded with heaven



YEAR 8

# SCIENCE

# Y8: Ecology - Respiration

## Box 1

**Respiration is the release of energy from glucose.**
We get the glucose needed for this process from our food.
This is why we say food gives us energy.

Aerobic respiration:
Aerobic means "with oxygen" – we get this oxygen from the air when we breathe.

**Oxygen + Glucose → Carbon dioxide + water (+ energy)**

Anaerobic respiration:
Anaerobic means "without oxygen" – we carry out this type of respiration when oxygen is in short supply, like during exercise.

**Glucose → lactic acid (+ some energy)**

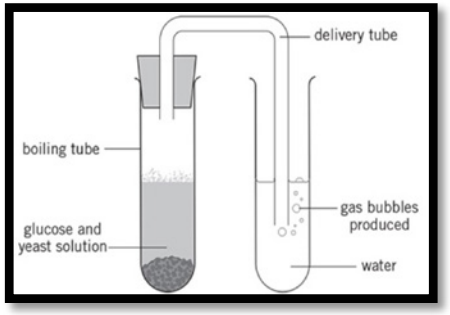
There is nothing for the glucose to react with so it is partially broken down.
Lactic acid builds up in our muscles until we can get enough oxygen to break it down, this is what makes our muscles ache after exercise.

## Box 2

When microorganisms such as bacteria or fungi use anaerobic respiration, they produce ethanol instead of lactic acid. This process is called fermentation.

**Glucose → Ethanol + Carbon dioxide (+ some energy)**
Yeast is a fungus used to make bread and beer.

You can investigate the rate of fermentation by reacting glucose and yeast and counting the number of bubbles produced in a given time. These bubbles contain carbon dioxide (right).



# Y8: Ecology – Photosynthesis

## Box 1

Plants make glucose through the process of **photosynthesis**.
Photo – light
synthesis – making something

**Carbon dioxide + water → glucose + oxygen**

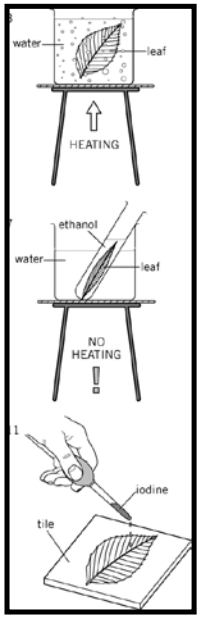
Photosynthesis needs:
- Energy from the sun
- Chlorophyll (a pigment found in the chloroplasts in the leaves)

Photosynthesis takes place in the **chloroplasts** and the glucose is stored in the plant as **starch**.

## Box 2

**Testing leaves for starch:**

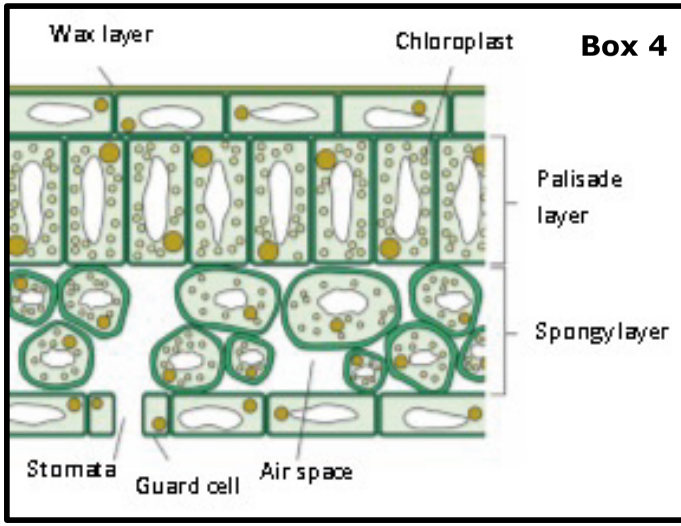
1. Place leaf in boiling water for 2 minutes.
2. Remove leaf from water and add to a boiling tube of ethanol.
3. Place boiling tube in a beaker of hot water.
4. Remove leaf from ethanol after 20 minutes and dip into water for 30 seconds.
5. Spread leaf on a white tile and add a few drops of iodine.
6. The iodine will turn blue/black if starch is present.




## Box 6

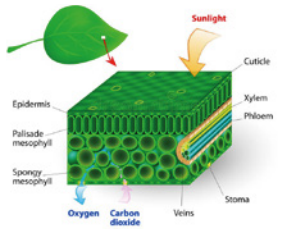
| Plant mineral | Role of mir | |
|---|---|---|
| Nitrates | Healthy growth | Poor growth |
| Phosphates | Healthy roots | Poor root growth, purple leaves |
| Potassium | Healthy leaves and flowers | Yellow leaves with dead patches |
| Magnesium | Making chlorophyll | Yellow leaves |

## Box 4




## Box 3

Features of a leaf:
**Green** – contain chlorophyll.
**Thin** – short diffusion pathway to allow gases to diffuse easily.
**Large surface area** – to absorb as much light as possible.
**Veins** – contain tubes called xylem (to carry water) and phloem (to carry glucose).




## Box 5

**Wax layer** – prevents water loss.
**Chloroplast** – site of photosynthesis.
**Palisade layer** – contains the most chloroplasts as this is where most photosynthesis happens.
**Spongey layer** – contains air spaces to allow carbon dioxide to pass through the leaf to the palisade layer.
**Stomata** – holes in the lower surface of the leaf to let gases such as carbon dioxide, oxygen and water vapour in and out.
**Guard cells** – control the opening and closing of the stomata.

# Y8: Matter

## BOX 1 ATOMS AND ELEMENTS

Every element is made up of one type of atom.
The atoms of one element are different to the atoms of all other elements.

One atom does not have the properties of an element (e.g. gold atoms are NOT shiny or yellow). The properties of an element are the properties of many atoms joined together (together the atoms make gold yellow and shiny).

## B0X2 COMPOUNDS

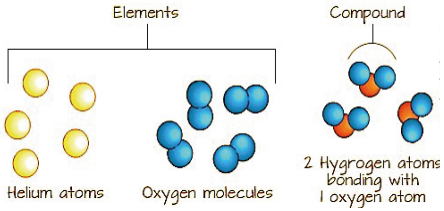
A compound has different properties to the elements in it.

All compounds are molecules, but not all molecules are compounds. Hydrogen($H_2$) is a molecule, but not a compound because it is made of only one element. Water ($H_2O$) can be called a molecule or a compound because it is made of hydrogen (H) and oxygen (O) atoms.
Compounds made up of oxygen and another element have two-word names. The second word is oxide.

(e.g. aluminium + oxygen  aluminium oxide)

In any compound of a metal with a non-metal, the end of the name of the non-metal becomes –ide.
(e.g. sodium + chlorine à sodium chloride)

## BOX 3 DIAGRAMS OF ELEMENTS AND COMPOUNDS





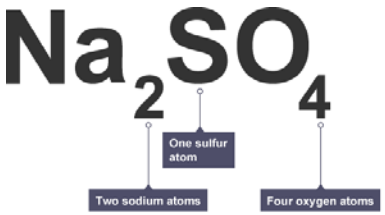
| Number of Atoms | Prefix |
|---|---|
| 1 | mono- |
| 2 | di- |
| 3 | tri- |

## BOX 4 CHEMICAL FORMULAE

Every chemical symbol starts with a capital letter, with the second letter written in lower case.

| Mg | mg | mG | MG |
|---|---|---|---|
| ✓ | ✗ | ✗ | ✗ |

Shows the elements present in a compound.
Shows the number of atoms of each element.
Numbers are written to the right of their chemical symbol
Numbers are smaller than the chemical symbol.

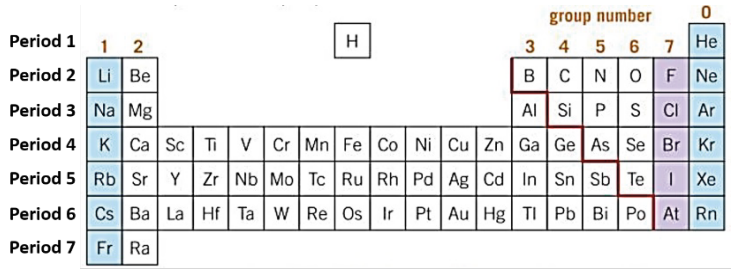



**Number of elements: 3**
**Elements: Na (sodium), S (sulfur), O (oxygen)**
**Number of atoms: 7**

| KEYWORD | DEFINITION |
|---|---|
| **Atom** | The smallest part of an element that can exist. |
| **Carbonate** | A compound that includes carbon and oxygen atoms, as well as a metal element. There are three atoms of oxygen for every one atom of carbon. |
| **Chemical formula** | A formula that shows the elements present in a compound and their relative proportions. |
| **Chemical symbol** | A one- or two-letter code for an element that is used by scientists in all countries. |
| **Compound** | Pure substances made up of atoms of two or more elements, strongly (chemically) joined together. |
| **Elements** | Substances that all other materials are made up of, and which contain only one type of atom. An element cannot be broken down into other substances. |
| **Hydroxide** | A compound that includes hydrogen and oxygen atoms, as well as a metal element. There is one atom of oxygen for every one atom of hydrogen. |
| **Molecules** | A group of two or more (up to 1000s) atoms strongly joined together. Most non-metal elements exist either as small or giant molecules. |
| **Nitrate** | A compound that includes nitrogen and oxygen atoms, as well as a metal element. There are three atoms of oxygen for every one atom of nitrogen. |
| **Sulfate** | A compound that includes sulfur and oxygen atoms. There are four atoms of oxygen for every one atom of sulfur. |

# Y8: Matter

## BOX 1 THE PERIODIC TABLE




Vertical columns = groups
Horizontal rows = periods
Metals = left side of the stepped line
Non-metals = right side of the stepped line

## BOX 2 GROUP 1 (ALKALI METALS)


**Properties of group 1 elements**
Good conductors of electricity and heat
Shiny when freshly cut
Soft (can be cut with a knife)
Very reactive
Relatively low boiling/ melting points
Low densities
Stored under oil (away from air and water)

**Trends**
Melting point decreases as you go down the group.
Reactivity increases (gets more vigorous) as you go down the group.

**Reactions with water**
Produce hydrogen gas and a metal hydroxide.
Make alkaline solutions (universal indicator turns purple)
Sodium + water → sodium hydroxide + hydrogen

**General equations**

Alkali metal + water → alkali metal hydroxide + hydrogen

## BOX 3 GROUP 7 (HALOGENS)


**Properties of group 7 elements**

Non-metals
Low melting points
Exist as simple diatomic molecules ($Cl_2$, $Br_2$…)
Do not conduct electricity

**Trends**

**As you go down the groups:**
Melting and boiling point increases.
Colours of the elements get darker.
Reactivity decreases.
State changes from gas to liquid to solid.

## BOX 4 GROUP 0 (NOBLE GASES)

**Properties of group 0 elements**

Very low melting and boiling poin
Colourless gases at room temperature
Odourless (no smell)
Glow brightly when high-voltage electricity passes through them (used in advertising signs)
Unreactive (inert)
Not flammable

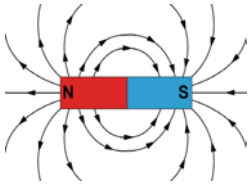

**Trends**

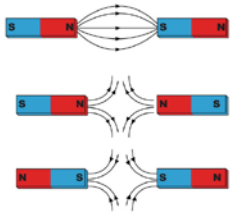
Get *slightly* more reactive as you go down the group.
Boiling point increases going down the group.
Density increases going down the group.

| KEYWORD | DEFINITION |
|---|---|
| **Alkali metals** | The elements in the left column of the Periodic Table, called Group 1. |
| **Chemical properties** | Features of the way a substance reacts with other substances. |
| **Group** | A column of the Periodic Table. The elements in a group have similar properties. |
| **Halogens** | The name for elements in the group that is second from the right of the Periodic Table. Also known as the Group 7 elements. |
| **Noble gases** | The name for elements in the group on the right of the Periodic Table. Also known as the Group 0 elements. |
| **Periodic Table** | A table which shows all the elements arranged in columns and rows. Elements with similar properties are grouped together. |
| **Period** | A row of the Periodic Table. There are trends in the properties of the elements across a period. |
| **Physical properties** | Features of a substance that can be observed without changing the substance itself. |
| **Trends** | A pattern in properties, such as an increase or decrease. |
| **Unreactive** | Elements that take part in few chemical reactions are unreactive. |

# Y8: Electromagnets

- Magnets have a north and a south pole.
- **Like** poles repel; north and north pole.
- **Unlike** poles attract; north and south.
- Magnetic field lines are drawn from north to south.



- Field lines – Remember:
  - **They never cross**
  - **The arrows point from the north pole to the south pole**
  - **The points where they touch the magnet are the poles**
  - **Where they are closer together the magnetic field is stronger**

Box 2 – Permanent and temporary magnets

Permanent and temporary magnets:
- You can turn an electromagnet on and off = temporary magnet.
- A permanent magnet is an object made from a material that is magnetized and creates its own persistent magnetic field.

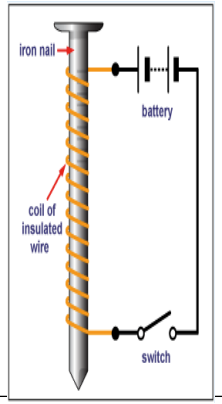
Box 3 – Magnetic materials

Magnetic materials : Iron; Steel; Cobalt; Nickel

I, Can, see, Nick

**Box 4: Electromagnets**

How to make an electromagnet stronger:
- Increase the number of turns, or loops, on the coil. (this increases the current.)
- Increase the current.
- Use a magnetic material as the core of the electromagnet.




| KEYWORD | DEFINITION |
|---|---|
| magnet | an object that creates a magnetic field around itself |
| ferromagnetic material | a material that experiences a magnetic force when placed in a magnetic field. |
| magnetic force | a non-contact force that acts of a magnetic material or a magnet placed in a magnetic field |
| magnetic field | the space around a magnet or a current-carrying wire |
| magnetic field line | line in a magnetic field along which a magnetic compass points - also called a line of force |
| solenoid | a long coil of wire that produces a magnetic field in and around the coil when there is a current in the coil |
| electromagnet | an insulated wire wrapped round an iron bar that becomes magnetic when there is a current in the wire |
| pole | position on a magnet where the magnetic field is strongest |

| Parts of an electromagnet | |
|---|---|
| Solenoid | Carries the current |
| Core | Focuses the magnetic field |
| Current | Creates the magnetic field |

# Y8: Energy

**Box 1: Mechanical work**

**Energy can be transferred from store to store by forces moving.**
**When this happens we say that mechanical work is done.**

**We can work out how much work has been done by using this formula:**

**W = Fs**

**W = Work done (J) - This is also the amount of energy transferred.**
**F = Forces applied (N)**
**S = Displacement of force (m) - This is the distance the force has moved.**

**Remember: Weight (N) = mass (kg) x gravitational field strength.**

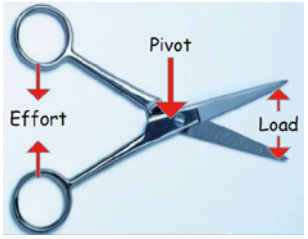
Box 2 – Levers

**Levers are simple machines that allow us to multiply the force applied.**

**The longer the lever, the greater the moment created for the same amount of force applied.**

**A lever can be used to lift heavy objects.**

**The weight of the object is called the load.**
**The force the person applies is called the effort.**
**The point about which the lever turn is called the pivot or the fulcrum.**

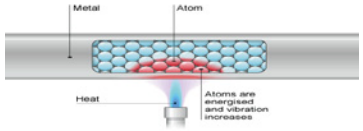



**Box 3 –Heat Transfer**

Thermal energy will always be transferred from hotter objects to cooler objects. You can reduce the amount of thermal energy transferred by insulating the hot object.

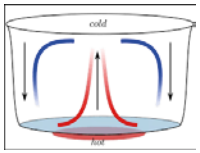
**Conduction**

Heat transfer in solid materials due to the touching of particles.




**Convection**

Convection is a heat transfer that happens in fluids (gas and liquids). Particles with a lot of thermal energy move and take the place of particles with less thermal energy.



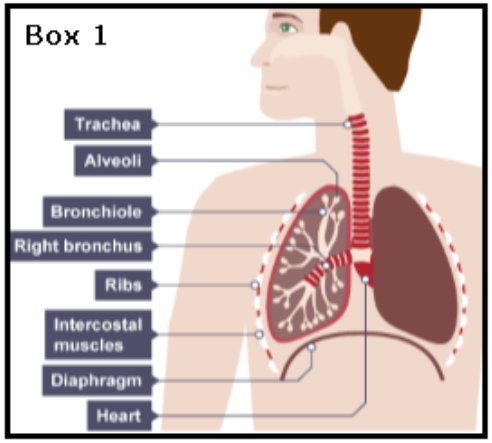

**Radiation**

All objects give out some infrared radiation. The hotter they are the more radiation they give out. Objects that absorb infrared radiation heat up. Radiation can travel through empty space. Objects don't have to be touching and no particles are involved.

| KEYWORD | DEFINITION |
|---|---|
| Work | The transfer of energy when a force moves an object, in joules. |
| Lever | A type of machine which is a rigid bar that pivots about a point. |
| Input force | The force you apply to a machine. |
| Output force | The force that is applied to the object moved by the machine. |
| Displacement | The distance an object moves from its original position. |
| Deformation | When an elastic object is stretched or squashed, which requires work. |
| Thermal conductor | Material that allows heat to move quickly through it. |
| Thermal insulator | Material that only allows heat to travel slowly through it. |
| Temperature | A measure of the motion and energy of the particles. |
| Thermal energy | The quantity of energy stored in a substance due to the vibration of its particles. |
| Conduction | Transfer of thermal energy by the vibration of particles. |
| Convection | Transfer of thermal energy when particles in a heated fluid rise. |
| Radiation | Transfer of thermal energy as a wave. |

# Y8: Organisation – Respiratory System

## Box 1




## Box 2

1. Air enters through either the nose or mouth.
2. It moves down through the trachea.
3. It then moves into either the left or right lung through the bronchi.
4. These bronchi split into smaller tubes called bronchioles.
5. At the ends of the bronchioles there are tiny air sacs called alveoli.
6. The alveoli are surrounded by tiny blood vessels called capillaries.

## Box 3

The lungs are adapted for efficient gas exchange.

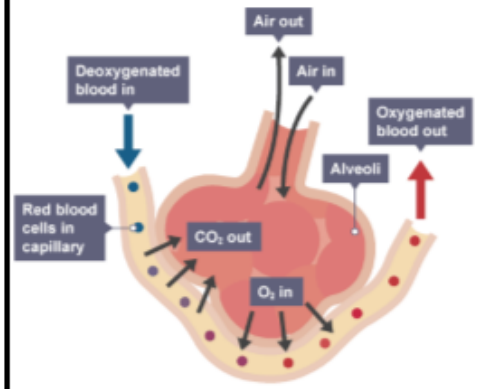
The alveoli have:

- A large surface area
- A moist surface for gases to dissolve
- A large network of capillaries to provide a good blood supply.

## Box 4

Oxygen **diffuses** out of the **alveoli** and into the **blood** (capillaries). It is used all over the body **to release energy. Carbon dioxide** is a **waste product** and **diffuses** from our **blood** into our **alveoli** to be breathed out.

## Box 5

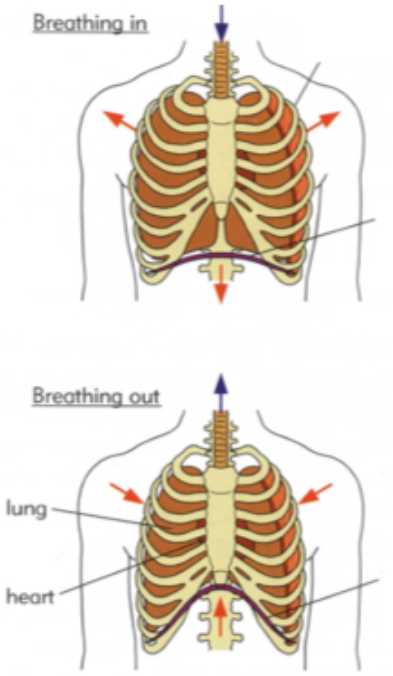



## Box 6

When you breath in, the **diaphragm contracts** and moves **down** and the **ribs** move **up and out**. This **increases** the **volume** of the chest cavity, which **decreases** the **air pressure**. So air **rushes in** to fill the lungs and increase the pressure.

When you breathe out the opposite happens. The diaphragm **relaxes** and **moves up** and the **ribs** move **down and in**. This **decreases** the **volume** of the chest cavity and **increases** the **air pressure.** Air is forced out of the lungs to decrease the pressure.

## Box 7




## Box 8

| | Diaphragm | Ribs | Volume of chest cavity | Air pressure in chest cavity | Result |
|---|---|---|---|---|---|
| **Breathing in (Inhaling)** | Contracts and moves down | Move up and out | Increases | Decreases | Air rushes in |
| **Breathing out (Exhaling)** | Relaxes and moves up | Move down and in | Decreases | Increases | Air is pushed out |

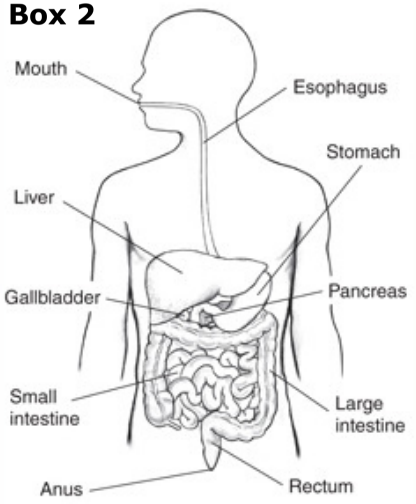
# Y8: Organisation – Digestion and Nutrition

## Box 1

There are 7 essential nutrients in the diet that everybody needs in the **right amount:**

- Carbohydrates - provide energy
- Protein - growth and repair
- Fats/Lipids - provide energy
- Fibre - provide bulk to food (technically not a nutrient but still important)
- Vitamins - keep you healthy in many ways
- Minerals – keep you healthy in many ways
- Water - replace the water your body loses in sweat, tears, urine, faeces and exhaling

## Box 2

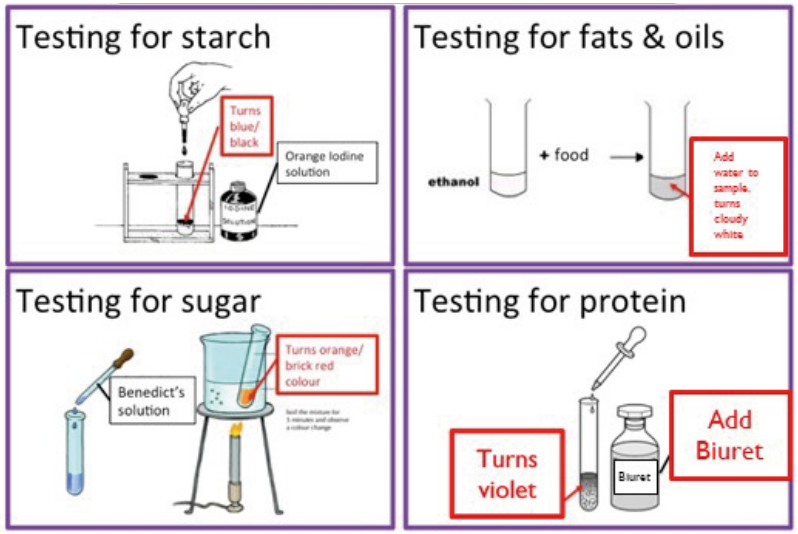



*Oesophagus

## Box 3

**Malnutrition** is when a person does not get the 7 main nutrients in the correct amount. If a person eats too much e.g. fat, carbohydrates, they store the excess and can become overweight, leading to type 2 diabetes, heart disease and other problems. A **deficiency** is when someone does not have enough of these nutrients.

## Box 4




## Box 5

Enzymes are biological catalysts. They speed up reactions by breaking down large molecules into smaller ones so they can be **absorbed** more easily. Enzymes usually end in the suffix –ase**.**

**Carbohydrase** – breaks down carbohydrates into simple sugars such as glucose.

**Protease** – breaks down protein into amino acids.

**Lipase** – breaks down lipids into fatty acids and glycerol.

The first part of the enzyme name gives you a clue as to what kind of molecule is broken down.

## Box 6

| Nutrient | Role of nutrient | Deficiency disorder |
|---|---|---|
| Vitamin A | Good eyesight | Night blindness |
| Vitamin C | Growth, development and repair | Scurvy |
| Vitamin D | Used to absorb calcium | Rickets |
| Calcium | Strong bones and teeth | Osteoporosis |
| Iron | Needed to make haemoglobin | Anaemia |
| Protein | Growth and repair | Kwashiorkor |

# Y8: Forces

## Box 1: Surface Pressure

To calculate pressure, you need to know two things:
•the force or weight exerted
•the **surface area** over which the force or weight is spread
Pressure is calculated using this equation:

$$pressure\ (N/m^2) = \frac{force\ (N)}{area\ (m^2)}$$

Examples of high pressure:
- Nails,
- Studs on football boots
- A sharp knife

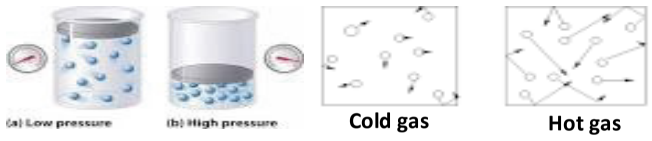
Examples of low pressure:
- Snow shoes
- Caterpillar tracks (on tanks)

## Box 2: Fluid Pressure.

- Gases and liquids contain atoms or molecules that collide with the surface to produce fluid pressure.
- Pressure can be calculated using the formula:

$$fluid\ pressure\ (N/m^2) = \frac{force\ (N)}{area\ (m^2)}$$

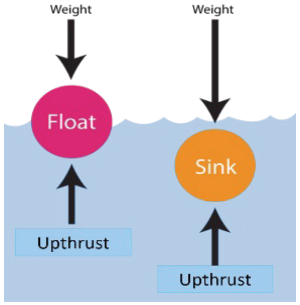
- You increase gas pressure if you squash or heat a gas.
- The same amount of gas in a smaller volume results in more collisions between air molecules and container walls, so the pressure is higher.
- The higher the temperature of the gas, the more kinetic energy of the particles and the more collisions with the side of the container, so pressure is also higher.




## Box 3: Liquid Pressure

- Liquids are incompressible; particles are very close and there is very little space between them.
- The pressure in liquids acts in all directions.
- The pressure increases as you go deeper because the weight of the water above you gets bigger.
- Upthrust acts on any object that is floating or submerged in a liquid.
- Two factors that affect the upthrust on a floating object; area and pressure.

- Objects float if the water pressure is higher than the air pressure. This produces upthrust that keeps the duck afloat if the area is big enough. For example, a rubber duck floats when upthrust is the same as the weight of the duck.

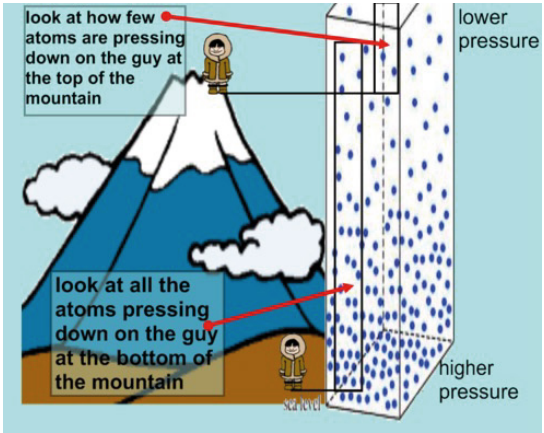



| KEYWORD | DEFINITION |
|---|---|
| Atmospheric pressure | The pressure felt by an object on a planet due to collisions with the atmospheric particles |
| Centre of mass | Where an objects weight seems to act from |
| Fluid | A liquid or a gas |
| Pressure | Force exerted on an object due to collisions of particles |
| Upthrust | The upward force that a liquid or gas exerts on a body floating in it produced by the collisions of particles in the liquid or gas. |
| Volume | The amount of space a 3D object takes up. |
| Weight | The force caused by the pull of gravity |

## Box 4: Atmospheric Pressure

- You do not feel the pressure on your body exerted by air as it is cancelled out by the pressure of gases and liquids in your body pushing out.

- Atmospheric pressure near the ground is higher than pressure higher up. This is why mountaineers often take oxygen tanks when they climb.



# Y8: Genetics

**Box 1**
Animals compete for:
Food
Water
Space
Mates
Plants compete for:
Light
Water
Space
Minerals

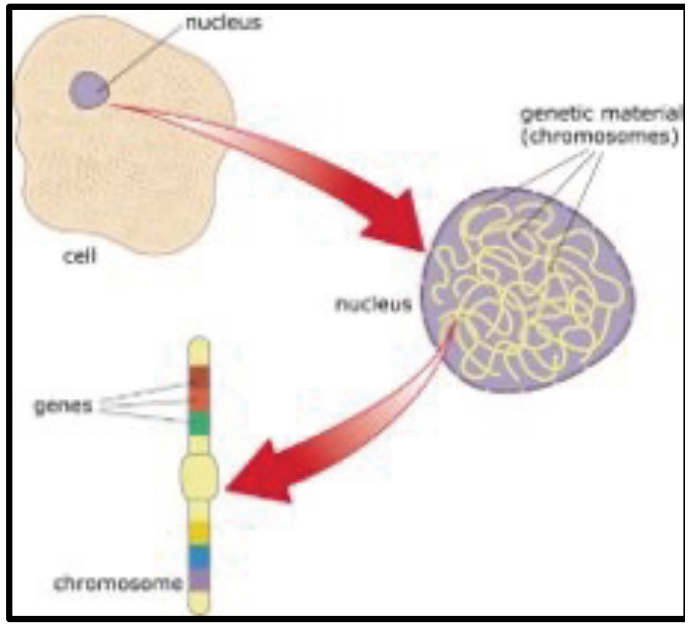
**Box 2**
Adaptations are characteristics that help an organism survive in a particular environment.
These adaptations can be:
Physical e.g. claws, thick fur, big ears etc.
Behavioural e.g. hibernation, nocturnal/diurnal etc.
These characteristics come about through random variation and if the trait is beneficial the organism will survive and pass on these traits to their offspring.

**Box 3**
Variation means the differences between organisms. This variation can stem from two things:
Genetic variation – characteristics that an organism inherits from its parents.
Environmental variation – characteristics that are affected by the environment.
This variation leads to many different traits and characteristics within a population. The most beneficial traits are selected for as they allow for the survival of the organism.

**Box 4**
**Discontinuous variation**
Characteristics that only have **discrete** values show **discontinuous variation**.
Examples include **shoe size** and **eye colour**.
You should display discontinuous data on a **bar graph.**
**Continuous variation**
**Continuous variation** has data with a range of values.
Examples include **height** and **mass**.
You should display continuous data on a **line graph.**

**Box 5**
The characteristics you inherit from your parents are coded for in your DNA. You inherit this DNA from your parents, half from each.
DNA is stored in the nucleus of all of your cells as structures called chromosomes.
Sperm and egg cells have half the number of chromosomes as your normal body cells.
This is because when the sperm fertilises the egg they mix their DNA and you get half of your chromosomes from the female parent and half of your chromosomes from the male parent.

**Box 6**
A small section of a chromosome is called a gene. Genes code for certain characteristics such as eye colour, hair colour etc. There are some characteristics that may be caused by both genetic and environmental variation, but it is important to remember that you cannot change your genes. You can only change the external characteristic e.g. dying your hair.

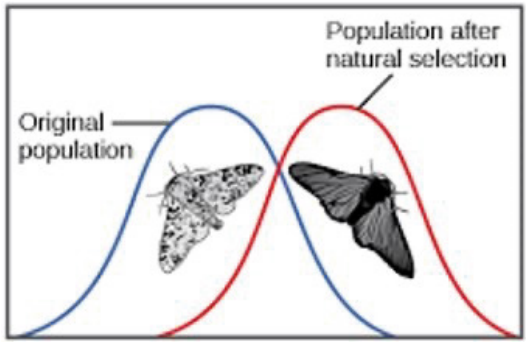


# Y8: Genetics

**Box 1**
Evolution is the gradual change of species over time.
All organisms on Earth today evolved from a single-celled organism, meaning that we all share a common ancestor.
Organisms evolve due to the process of natural selection.

**Box 2**
Natural selection is the process by which variation comes about due to random mutations in the DNA of offspring, and the most beneficial traits are selected for by nature as that organism is more likely to survive and reproduce. This means the same beneficial traits are passed onto future offspring.
The four stages of natural selection are:
1. Variation between individual members of a species e.g. different sizes, colours, ability to do certain things.
2. A change in the environment happens.
3. The individuals that have the best adaptations to the change survive and reproduce
4. More of the individuals have the adaptations that are suited to the environment.

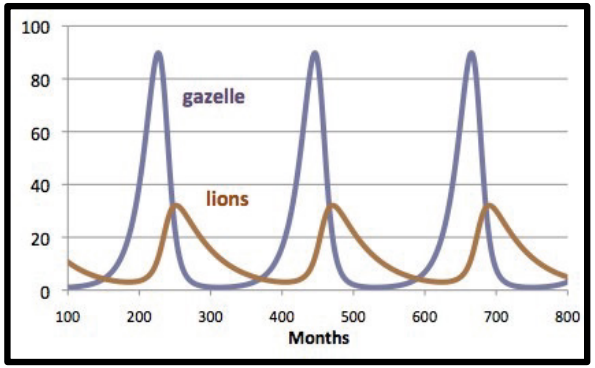
E.g The peppered moth – there were two varieties of peppered moth, one white and speckled and the other totally black. To start with the white speckled moths were more able to camouflage against trees and concrete, however during the industrial revolution factories began to release large clouds of black smoke. This turned the buildings black. Suddenly the black moths were better camouflaged and more likely to survive. This led to a decline in the white speckled moth population and an increase in the number of black moths.




**Box 3**
Variation within a population is a good thing. If all organisms were the same, they would all be susceptible to the same dangers and threats and run the risk of becoming extinct.
Extinction – when all of the organisms within the same species die and therefore have no way of producing more. Extinct organisms are gone forever e.g. the dinosaurs (left), the dodo bird, woolly mammoth etc.
Organisms can become extinct for several reasons:
1. Loss of their natural habitat or food source;
2. Animals eat plants until they are gone, or predators eat them all
3. New diseases that the animal or plant is not resistant to wipes out the population
4. New competition from other living things for the things that they need.

Animals in danger of becoming extinct are said to be **endangered**.

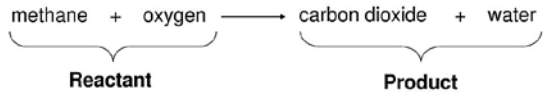
**Box 4**
Predator – an animal that hunts and eats other animals.
Prey – an animal that is hunted by a predator.
Predator-prey cycle – shows the affect that predator and prey have on one another (see graph to the right).



# Y8: Reactions

## BOX 1 CHEMICAL REACTIONS

A word equation shows the names of each substance involved in a reaction, and must not include any chemical symbols or formulae.




The arrow means 'react to make'.
In a chemical reaction, the atoms are rearranged to make new substances. The total number of atoms does NOT change. The number of atoms is conserved, no atoms are created or destroyed.

LAW OF CONSERVATION OF MASS

Mass is conserved in chemical reactions and in physical changes.
Mass of reactants = mass of products

## BOX 2 CHEMICAL EQUATIONS

Word and symbol equations are the formulae of reactants and products; how atoms are arranged and the amounts of reactants & products.

**Balancing symbol equations**
**Do not add or change any little numbers.**
Write the word equation and add formulae.

magnesium + oxygen ⟶ magnesium oxide
***Mg*** + ***$O_2$*** ⟶ ***MgO***

*Left = 1 Mg and 2 O* *Right = 1 Mg and 1 O*
Balance the amount of oxygen.

*Mg* + *$O_2$* ⟶ ***2****MgO*

*Left = 1 Mg and 2 O* *Right = 2 Mg and 2 O*
Now balance the magnesium.
***2****Mg* + *$O_2$* ⟶ *2MgO*

*Left = 2 Mg and 2 O* *Right = 2 Mg and 2 O*

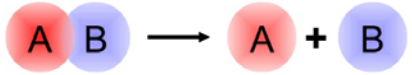
## BOX 3 BURNING FUELS

**COMBUSTION;** exothermic reaction.
The substance reacts with oxygen (from the air) to produce oxides.
*Methane + oxygen ⟶ carbon dioxide + water*
Fossil fuels are non-renewable and will run out one day.

**Future fuels?**
Scientists are finding ways to use cooking oil, chicken faeces and ethanol to fuel homes and vehicles. New cars are being developed to burn hydrogen in their engines, producing only water as the product (as this does not produce carbon dioxide, it will not contribute to global warming).

## BOX 4 THERMAL DECOMPOSITION

Each product of decomposition reactions is simpler than the starting substances.




When you heat copper carbonate (green), the reaction makes copper oxide (black) and carbon dioxide (gas – turns limewater cloudy).

## BOX 5 ENDO AND EXOTHERMIC

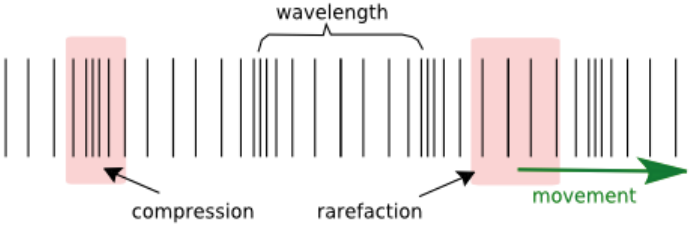
| Exothermic (EXit) | Endothermic (ENtrance) |
|---|---|
| Energy is *transferred to the surroundings* from substances that are reacting. | Energy is *transferred from surroundings* to substances that are reacting. |
| Melting and boiling, combustion, | Freezing and condensing, decomposition |
| Temperature of surroundings increase | Temperature of surroundings decrease |
| hand-warmers | Sports ice pack |

| KEYWORD | DEFINITION |
|---|---|
| **Catalyst** | Substances that speed up chemical reactions but are unchanged at the end. |
| **Chemical bonds** | Force that holds atoms together in molecules. |
| **Chemical reactions** | A change in which a new substance is formed. Atoms are rearranged and joined together differently. |
| **Combustion (burning)** | A chemical reaction in which a substance reacts quickly with oxygen and gives out light and heat. |
| **Conservation of mass** | In a chemical reaction, the total mass of reactants is equal to the total mass of products. Mass is conserved in chemical reactions and physical changes. |
| **Conserved** | When the quantity of something does not change after a process takes place. |
| **Decomposition** | A chemical reaction in which a compound breaks down to form more than one product. |
| **Endothermic reaction** | Takes in energy (usually as heat) / transfers energy from surroundings. |
| **Exothermic reaction** | Gives out energy (usually as heat or light) / transfers energy to the surroundings. |
| **Fossil fuels** | A fuel made from the remains of plants and animals that died millions of years ago. Include coal, oil and natural gas. |
| **Fuel** | A substance that stores energy in a chemical store which it can release as heat (e.g. petrol, diesel, coal…) |
| **Physical change** | One that changes the physical properties of a substance, but no new substance is formed. It is reversible. |
| **Products** | Substances that are formed in a chemical reaction, shown on the right of the arrow in a chemical equation. |
| **Reactants** | Substances that react together, shown on the left of the arrow in a chemical equation. |
| **Thermal decomposition** | A chemical reaction in which a compound breaks down on heating to form more than one product. |

# Y8: Waves

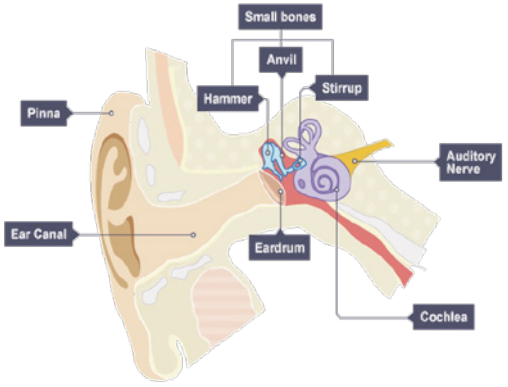
## Box 1: Sound Waves

- Waves transfer energy from one place to another.
- Waves are made by forcing something to vibrate or oscillate.
- There are two types of waves; transverse and longitudinal.
- Sound waves are longitudinal waves. Light and waves on water are transverse waves.



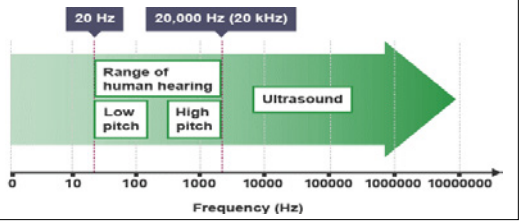

## Box 2: The Ear

1. The vibrations in the air enter the pinna, travel down the ear canal and make the eardrum vibrate.
2. These vibrations are passed through the three small bones (called ossicles) to a spiral structure called the cochlea.
3. Signals are passed from the cochlea to the brain through the auditory nerve.
4. Our brain interprets these signals as sound.




## Box 3: Frequency and Hearing Range

- The frequency of sound waves is measured in hertz, Hz.
- The bigger the number, the greater the frequency and the higher the pitch of the sound.
- Human beings can generally hear sounds as low as 20 Hz and as high as 20,000 Hz (20 kHz).

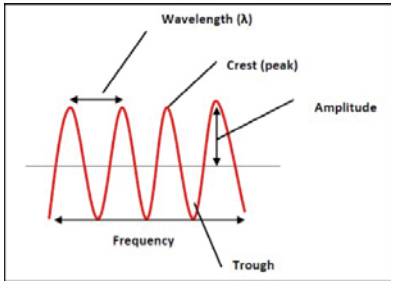


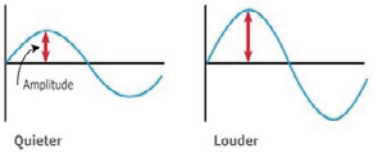

## Box 4: Properties of Sound Waves.

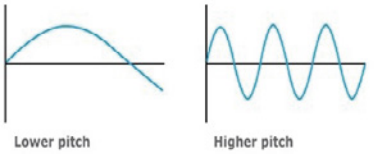
Sound waves can only travel through a solid, liquid or gas. They cannot travel through empty space.

Sound travels faster through liquids and solids than it does through air and other gases. This is because the particles of gases are further apart than liquids and finally solids. Sound waves move more slowly when particles are further apart.

All waves have three important features; an **amplitude**, a **frequency** and a **wavelength**. The top of the wave is called a **peak/crest** and the bottom is called a **trough**.




| KEYWORD | DEFINITION |
|---|---|
| Absorption | When energy is transferred from sound (or other waves) to a material. |
| Amplitude | Maximum amount of vibrations, measured from the middle of the wave, in metres. |
| Auditory range | The lowest – highest frequencies that an animal can hear. |
| Decibel | Unit of sound intensity or loudness (dB) |
| Echo | Reflection of sound waves from a surface back to the listener. Hard, smooth surfaces are particularly good at reflecting sound. |
| Frequency | Number of waves produced in one second, in hertz (unit of frequency). |
| Infrared | Sound below a frequency of 20Hz |
| Longitudinal wave | Where the direction of vibrations is the same as the wave; sound waves are longitudinal. |
| Medium | Material that affects light or sound by slowing it down or transferring the wave. |
| Oscilloscope | Device able to view patterns of sound waves that have been turned to an electrical signal. |
| Ultrasound | Sound at a frequency greater than 20 000Hz, beyond the range of human hearing. |
| Vacuum | A space with no particles of matter in it. |
| Vibration | A back and forth motion that repeats. |
| Volume | How loud or quiet a sound is, in decibels. |
| Wavelength | Distance between two corresponding points on a wave, in metres. |

## Box 5: Speed of Sound

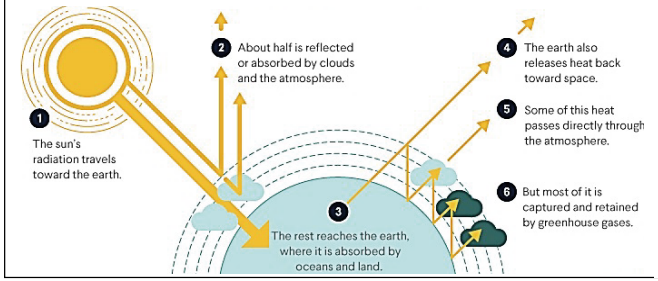
The speed of sound is calculated using:

speed (m/s) = distance (m) / time (s)

The speed of sound in air is around 340 m/s. This means that sound will travel a distance of 340 metres in 1 second.

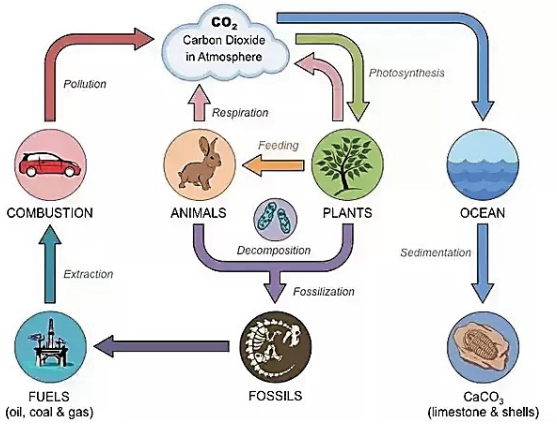
# Y8: Earth

## BOX 1 THE GREENHOUSE EFFECT



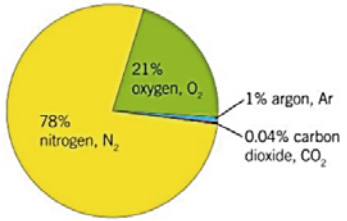

The Sun heats the Earth's surface. The warm surface emits radiation. Some of this radiation goes into space, some absorbed by gases. This keeps the Earth warm (greenhouse effect).
The eventually increase in the Earth's temperature is called global warming.
GLOBAL WARMING AND THE GREENHOUSE EFFECT ARE **NOT** THE SAME THING.

## BOX 3 THE CARBON CYCLE




Carbon is constantly recycled through natural processes in the atmosphere, ecosystems and Earth's crust. Human activities also contribute to carbon recycling.
Respiration and combustion ADD carbon dioxide to the atmosphere.
Photosynthesis and carbon dioxide dissolving in the oceans REMOVE carbon dioxide from the atmosphere.

## BOX 2 EARTH'S ATMOSPHERE




## BOX 4 CLIMATE CHANGE

Human activities that add extra $CO_2$ to the atmosphere include:
Burning fossil fuels and burning or cutting down
forests
Farming animals (cows)
Extra carbon dioxide causes global warming. This can change weather patterns (increase rainfall and flooding, droughts and heatwaves therefore crop failures.

Long term changes are called climate change, this leads to glaciers and polar ice melting making sea
levels rise (flooding). Or lead to extinction of plants and animal species.

**How can we prevent climate change?**
Using solar panels and other renewable resources to generate electricity.
Using cars less.
Buying and wasting less.

## BOX 5 RECYCLING

Resources will last longer.
Uses less energy than using new materials.
Reduces waste and pollution.
Some people think separating rubbish is a nuisance.
Lorries that collect recycling create pollution.
Recycled plastic waste needs to be separated.

| KEYWORD | DEFINITION |
|---|---|
| **Atmosphere** | The mixture of gases surrounding the Earth. |
| **Carbon cycle** | Summarises how carbon and its compounds enter and leave the atmosphere and the carbon sinks. |
| **Carbon sinks** | Areas of vegetation, the ocean or soil, which absorb and store carbon. Carbon and its compounds may remain in carbon sinks for many years. |
| **Climate change** | A long- term change in weather patterns. |
| **Combustion** | A chemical reaction in which a substance reacts quickly with oxygen and gives out light and heat. Also known as burning. |
| **Extraction** | Separation of a metal from a metal compound. |
| **Fossil fuels** | A fuel made from the remains of animals and plants that died millions of years ago. Fossil fuels include coal, oil and natural gas. |
| **Global warming** | The gradual increase in the average surface temperature of the Earth. |
| **Greenhouse effect** | When energy from the Sun is transferred to the thermal energy stores of gases in the atmosphere. |
| **Greenhouses gas** | A gas that contributes to the greenhouse effect, such as carbon dioxide and methane. |
| **Minerals** | Naturally occurring metals and their compounds. |
| **Natural resources** | Materials from the Earth, its atmosphere and the oceans, which act as raw materials for making a variety of products. |
| **Ore** | A naturally occurring rock that contains enough of the mineral to make it worth getting the mineral – and the metal it includes- out of the rock. |
| **Recycling** | Collecting and processing a material so that it can be used again. |

# Y8: Ecology - Retrieval Questions

Part A

Box 1

1. What is respiration?
2. What does aerobic mean?
3. What does anaerobic mean?
4. What is the waste product in aerobic respiration?
5. What is the waste product in anaerobic resporation?

Box 2

1. What do microorganisms produce when they respire anaerobically?
2. What kind of fungus is used to make bread and beer?
3. What is this process called?
4. What can be reacted together to investigate the rate of fermentation?

Part B

Box 1 & 2

1. What 4 things are required for photosynthesis?
2. What are the products of photosynthesis?
3. Where does photosynthesis take place in the leaf?
4. How is glucose stored in the leaf?
5. Which chemical is used to test for starch in the leaf?

Box 3, 4 & 5

1. What are the 4 ways leaves are adapted?
2. What is the job of the wax layer?
3. In which layer does the majority of photosynthesis take place?
4. What are the holes in the lower surface of the leaf called?
5. Which cells open and close these holes?

Box 6 & 7

1. What are the 4 minerals a plant needs?
2. What is the role of magnesium?
3. Which mineral deficiency causes poor growth?

# Y8: Matter - Retrieval Questions

<u>Box 1: Mixtures and pure substances</u>

1. What is an atom?
2. What is an element?
3. How are atoms and elements different?
4. What are the properties of gold?

<u>Box 2: Compounds</u>

1. What is a compound?
2. What elements are found in water?
3. What element is always found in an oxide compound?
4. What compound is formed when aluminium and oxygen react?

<u>Box 3: Elements and compounds</u>

   a. Mono
   b. Di
   c. Tri
2. How many hydrogen atoms are in a water molecule?
3. What elements are found in carbon monoxide?
4. How many atoms in carbon monoxide?

<u>Box 4: Chemical formulae</u>

1. How do you write magnesium using the correct chemical symbols?
2. How many elements are in sodium sulphate?
3. What are the names of the elements in sodium sulphate?
4. How many atoms are there in a molecule of sodium sulphate?

# Y8: Matter - Retrieval Questions

Box 1: The Periodic Table

1. What are the vertical columns called?
2. What are the horizontal rows called?
3. What increases as your move along the rows?
4. Where do you find metals and non-metals?

Box 2: Group 1 elements

1. What is the other name for the Group 1 elements?
2. Give three properties of Group 1 elements.
3. List the Group 1 elements in increasing order of reactivity.
4. What is the general equation for reacting a Group 1 element with water?

Box 3: Group 7 elements

1. What is the other name for the Group 7 elements?
2. Give three properties of Group 7 elements.
3. List the Group 7 elements in increasing order of reactivity.
4. Describe how the melting and boiling points change as you do down the group.

Box 4: Group 0 elements

1. What is the other name for the Group 0 elements?
2. Give three properties of Group 0 elements.
3. List the Group 0 elements in increasing order of reactivity.
4. Describe how the density and boiling points change as you do down the group.

# Y8: Electromagnets - Retrieval Questions

**Box 1**

1. Sketch a diagram showing a simple bar magnet, its poles and magnetic field lines.
2. Which way do magnetic field lines run?
3. What happens if two like poles of a magnet are brought together?
4. What happens if two opposite poles of a magnet are brought together?
5. What is the difference between a temporary magnet and a permanent magnet?

Box 3

Name the 4 magnetic materials

**Box 4**

1. Draw a circuit diagram showing an electromagnet connected to a battery
2. What factors affect the strength of an electromagnet?
3. What are the 3 parts of an electromagnet?

**Keyword Box**

1. What is an electromagnet?
2. What is a solenoid?
3. What is a pole?

# Y8: Energy – Retrieval Questions

**Box 1**

What is the definition of work?

What are the units for work?

What is the equation used to calculate work done?

Box 2

Why might a lever be described as a force multiplier?

**Box 3**

1. What 3 ways can heat be transferred?
2. What can you do to an object to reduce the thermal energy transfer it may experience?
3. Which state of matter does conduction occur in?
4. Which thermal energy transfer does our sun use in order to provide the Earth with heat?
5. What is conduction?

**Keyword Box**

1. What is the difference between a thermal insulator and a thermal conductor?
2. What is a lever?
3. What is the definition for temperature?

# Y8: Organisation – Retrieval Questions

Box 1 & 2

1. What is the name of the tube that carries air into the lungs?
2. What is the name of the smaller tubes that branch off the main tube?
3. What is the name of the tiny tubes that branch off the small tubes.
4. What is the name of the tiny air sacs at the end of these tiny tubes?

Box 3, 4 & 5

1. How are the alveoli adapted for efficient gas exchange?
2. How does oxygen move out of the alveoli?
3. Where does the oxygen move into?
4. Which gas is released as a waste product?
5. Which kind of blood vessel surrounds the alveoli?

Box 6, 7 & 8

1. What is another word for breathing in?
2. What is another word for breathing out?
3. What happens to the diaphragm when you breathe in?
4. What happens to the ribs when you breathe out?
5. What happens to air pressure as volume increases?

# Y8: B5 Infection and Disease- Retrieval Questions

Box 1

1. What are the 7 essential nutrients the body needs?
2. Which nutrient helps with growth and repair?
3. Which 2 nutrients provide you with energy?
4. What is another name for fat?

Box 2

1. Write the order of organs that food passes through from the mouth to the anus.
2. Which 3 organs in the diagram does food not pass through?
3. What is the name of the tube that carries food from the mouth to the stomach?
4. Which organ does food pass through first: the large intestine or the small intestine?

Box 3 & 6

1. What is malnutrition?
2. What is a deficiency?
3. Which deficiency disorder is caused by a lack of vitamin C?
4. Why is calcium important?
5. What is kwashiokor a deficiency in?

Box 4

1. Which chemical is used to test for starch?
2. What colour change would you epxect to see if starch is present?
3. What do you have to do to a solution you are testing for sugar?
4. What colour change would you expect to see?
5. What do you have to add other than ethanol to test for lipids?

Box 5

1. What is an enzyme?
2. What does an enzyme do?
3. What kind of enzyme breaks down carbohydrates?
4. What kind of enzyme breaks down proteins?
5. What kind of enzyme breaks down lipids?

# Y8: Forces - Retrieval Questions

Box 1

1. What are the units of pressure?
2. What equation links pressure (P) with force (F) and area (A)?
3. What happens to the pressure if the area is increased? What if the force is increased?
4. Which shoes would be best to walk in snow: snowshoes or stilettos? Why?

Box 2

1. What causes fluid pressure?
2. What must happen to the volume of a fluid in order to increase pressure?
3. What must happen to the temperature of a fluid in order to increase pressure?
4. What happens to the kinetic energy of a fluid if the temperature is increased?

Box 3

1. Why does pressure increase the further under water you are?
2. What is upthrust?
3. What factors affect upthrust?
4. How do objects float?
5. In which direction does liquid pressure act?

Keyword Box

1. What is an objects weight?
2. What collective term is given to describe a liquid or a gas?
3. What is meant by the volume of an object?

Box 4

1. Why do we not feel a pressure acting on us from the air that surrounds us?
2. What is atmospheric pressure?
3. Where is atmospheric pressure at its greatest?
4. Why do mountaineers need oxygen masks at the top of a mountain?

# Y8: Genetics – Retrieval Questions

Part A

Box 1 & 2

1. What are the 4 things animals compete for?
2. What are the 4 things plants compete for?
3. What is an adaptation?
4. What are the 2 types of adaptation?
5. How do these adaptations come about?

Box 3 & 4

1. What is variation?
2. What are the 2 types of variation?
3. What is continuous variation?
4. What is discontinuous variation?

Box 5 & 6

1. Where is DNA stored in the cell?
2. What is a chromosome?
3. What is a gene?

Part B

Box 1 & 2

1. What is evolution?
2. What do all organisms share?
3. How do organisms evolve?
4. Why are certain traits selected for by natural selection?
5. What are the 4 stages of natural selection?

Box 3 & 4

1. Why is variation within a population a good thing?
2. What is extinction?
3. Give an example of an extinct species.
4. What does endangered mean?
5. What is a predator?

# Y8: Reactions – Retrieval Questions

**Box 1: Chemical reactions**

What can be found on the left of a word equation?
What can be found on the right of a word equation?
What does the arrow mean?
State the "law of conservation of mass".

**Box 2: Chemical equations**

What compound is formed when magnesium and oxygen react?
How many atoms are there in an oxygen molecule?
What must the be same on both sides of a balanced chemical equation?
Using the MgO example, balance the following equation:
calcium + oxygen  calcium oxide

**Box 3: Burning fuels**

What is combustion?
What gas does a substance react with during combustion?
Give the word equation for the combustion of methane.
What is a fossil fuel? Give two examples.

**Box 4: Thermal Decomposition**

What is thermal decomposition?
What colour is copper carbonate?
Describe what happens to the appearance of copper carbonate when it burns.
What other product is formed during this reaction?

**Box 5: Endothermic and exothermic**

What does exothermic mean and what happens to the surrounding temperature?
Give two examples of an exothermic reaction.
What does endothermic mean and what happens to the surrounding temperature?
Give two examples of an endothermic reaction.

# Y8: Waves – Retrieval Questions

Box 1

1. What do waves transfer as they move?
2. What are the two different types of wave?
3. How are waves made?
4. Sketch a longitudinal wave. Label it with the following key terms: rarefaction, compression, wavelength.

Box 2 & 3

1. Where do sound waves enter the ear?
2. What name is given to the three small bones that vibrate after sound passes through the ear drum?
3. What is the name of the spiral structure inside the ear?
4. What unit is the frequency of sound measured in?
5. What range of frequency does the typical human have their auditory range?

Box 4

1. What media can sound waves travel through?
2. Why do sound waves travel faster through solids and liquids compared to gases?
3. If a sound waves has a large amplitude, what can you say about the sound that will be produced?
4. Sketch a sound wave that has a high pitch and high amplitude.
5. What is the top of a wave called?

Box 5

1. What equation links speed (v) with distance (d) and time (t)?
2. What is the speed of sound in air?
3. What is the unit for speed?
4. What unit should time be measured in for use our formula?

Keyword Box

1. What is an echo?
2. What does it mean if a sound wave is absorbed?
3. What device can be used to 'see' a sound wave?
4. What is a vacuum?
5. What range of frequency does ultrasound operate in?

# Y8: Earth – Retrieval Questions

<u>Box 1: The Greenhouse Effect</u>

1. What is the Greenhouse Effect?
2. Name two Greenhouse gases.
3. What is global warming?
4. Describe how the Greenhouse Effect keeps the Earth warm.

<u>Box 2: Earth's Atmosphere</u>

1. What % of Nitrogen is in the Earth's atmosphere?
2. What % of oxygen is in the Earth's atmosphere?
3. How much carbon dioxide is there?
4. In which group in the Periodic table is Argon?

<u>Box 3: The Carbon cycle</u>

1. What is the Carbon cycle?
2. Name three processes that put carbon dioxide into the atmosphere.
3. Name two processes that remove carbon dioxide from the atmosphere.
4. Describe what a carbon sink is, giving two examples.

<u>Box 4: Climate change</u>

1. Give three activities that increase carbon dioxi atmosphere.
2. What is climate change?
3. Extra carbon dioxide causes global warming. V effects does this have?
4. Long-term changes are called climate change. three examples of long-term changes due to cl change.

<u>Box 5: Recycling</u>

1. What is recycling?
2. What are natural resources?
3. Give three good reasons to recycle.
4. Give three reasons why people don't want to re

YEAR 8

# TECH

Categories of wood

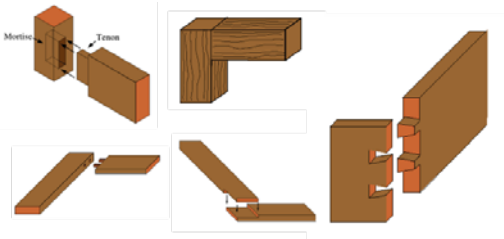
**Manufactured**
Made under controlled conditions so no defects
e.g. MDF, chipboard, plywood
**Natural**
Softwood- comes from evergreen trees eg pine, fir, larch, spruce
Hardwood- comes from deciduous trees eg oak, walnut, mahogany, beech, ash

**Safety in the work-shop**

1. Wear safety goggles
2. Wear apron
2. Don't cross the yel-low line
3. Bags and coats away
4. Don't run
5. Tie back long hair

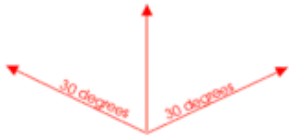
Wood joints

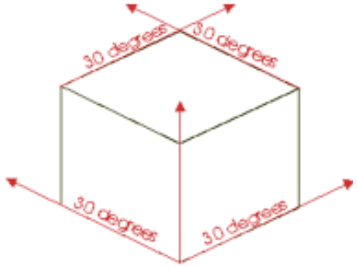
Mortise and tenon Butt



Dowel Halving joint Dovetail

Isometric drawing is another way of presenting designs/drawings in three dimensions. The example below has been drawn with a 30 degree set square. Designs are always drawn at 30 degrees in isometric projection.





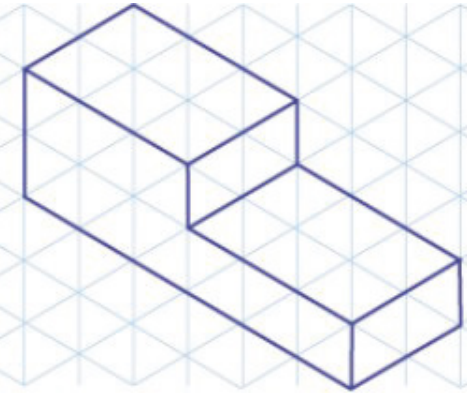
# Y8: Knowledge Organiser 1
# Timber And Drawing

## Isometric Drawing

Isometric grid paper is made up of many small cube shapes.

When creating the 3D drawing, it can be a good idea to first pro-duce the outline of a single side.

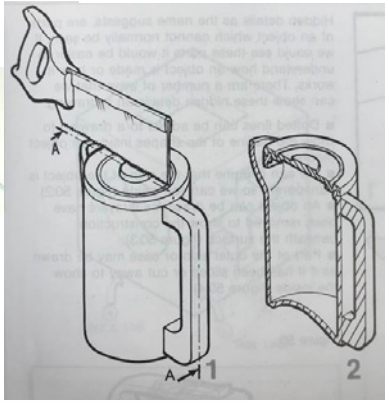
It is then a matter of ex-tending lines from each corner to create the full representation.



Pillar Drill

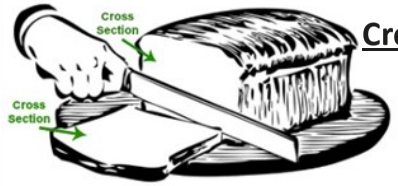
Rasp

Bradawl



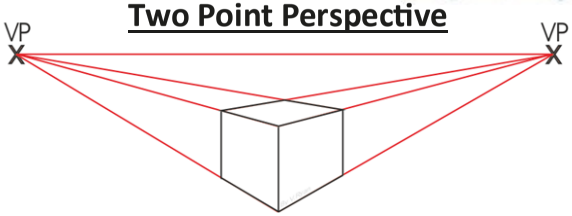
Band Facer


Tenon Saw

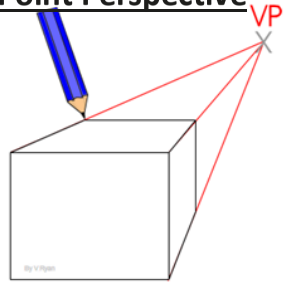


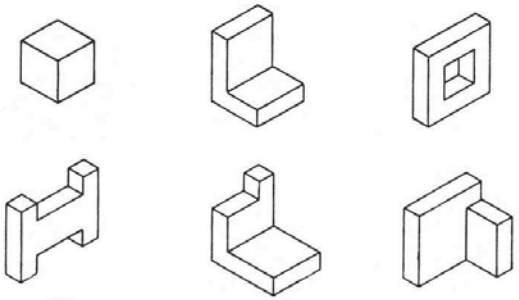

## Cross Sections

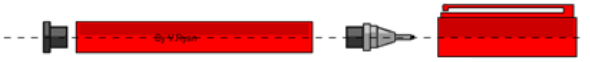
## Two Point Perspective




## Single Point Perspective





## Exploded Drawings

## New and Smart Materials

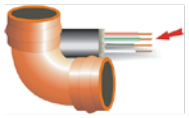
**Smart** materials react to their environment:
Colour changing
Light-emitting
Moving materials
Temperature changing

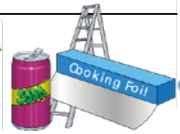
Photochromic materials
Thermochromic materials
Shape memory alloys

**New materials** are new developments in technology
Starch based polymers
Carbon fibre

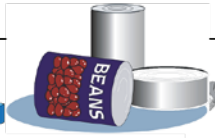
## Metals

Non-ferrous – contain no iron (do not rust)


Copper



Aluminium



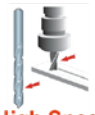
Tin


Zinc

Alloys – a mixture of two or more metals

Ferrous metals – contain iron (will rust)


Cast Iron


High Speed Steel


Stainless Steel


Mild Steel


Pewter


Brass

# Y8: Knowledge Organiser 2

**Alessi, New And Smart Materials, Metal, Scales of Production, 3d Printing, Vacuum Forming**

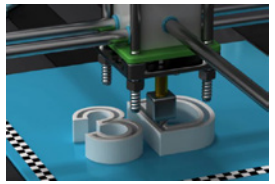
## Packaging

Some possible packaging functions are:
P – Preserve, I – Inform, C – Contain, T – Transport, P – Protect, D – Display
PICT PD
Common types of packaging—cartons, bubble wrap, bottles, jars, cardboard boxes, cans

## Scales of Production

Continuous Production—shampoos, cars or soft drinks
Mass Production—CD covers or fancy chocolate boxes
Batch Production—furniture manufacturers such as Ikea often make their furniture in batches
One Off Production— just one of a product is made

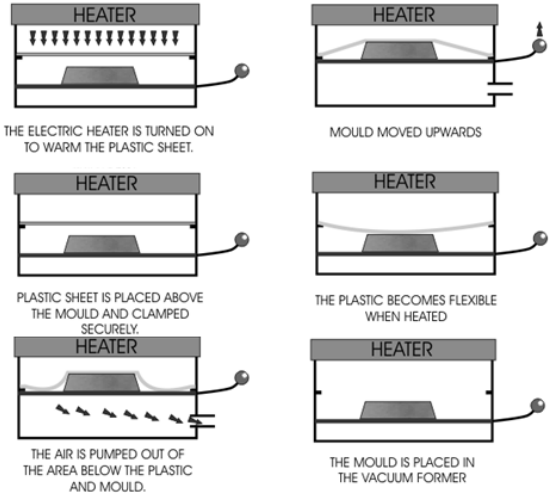

## 3D Printing



**A 3D printer is a computer-aided manufacturing (CAM) device that creates three-dimensional objects. Like a traditional printer, a 3D printer receives digital data from a computer as input. However, instead of printing the output on paper, a 3D printer builds a three-dimensional model out of a custom material (often plastic)**

## Vacuum Forming

Normally uses polystyrene



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