# Bishop Ullathorne Catholic School
# Knowledge Organiser

## Year 8
## Autumn Term
## 2023-2024

| Name |
| --- |
| Tutor Group |

*"If you are not willing to learn, no one can help you.*
*If you are determined to learn, no one can stop you."*

# Your Knowledge Organiser and Self Quizzing Book

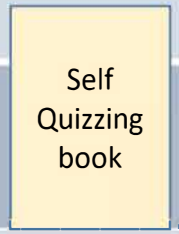
## Knowledge Organisers

Knowledge Organisers contain critical, fundamental knowledge that you MUST know in order to be successful in Year 8 and subsequent years.

They will help you recap, revisit and revise what you have learnt in order to move the knowledge within from your short-term memory to your long term memory.

You must keep all of your Knowledge Organisers and Self Quizzing books at home because the fundamental knowledge required in Year 8 will also be required in Year 9 to 11.

## Self Quizzing Book




This is the book that you should write in to complete your Knowledge Organiser Home Learning. **You do not need to bring this to school.**

Follow the simple rules on the right about how to use your Knowledge Organiser. You can also watch the video on our Home Learning webpage for more ideas on how to use the Knowledge Organiser.

You will be tested as a starter activity in your lesson on the day that the Home Learning is due. This will be completed in your normal exercise book and you will mark it in class.

## The 'Look Cover Write Check' method

**Step 1** Check Class Charts for what section your teacher has set you to learn for your Home Learning.

**Step 2** Write the title of the section in your Self Quizzing Book .

**Step 3** Write out the section that you have been asked to learn.

**Step 4** Cover up the section in your Self Quizzing book. Read it, Cover it, Say it in your head, check it…REPEAT until confident.

**Step 5** Cover up the section and write from memory in your Self Quizzing book.

**Step 6** Check your answers and correct where required. Repeat steps 4 to 6 until you are confident.

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| Subject | Page | Subject | Page |
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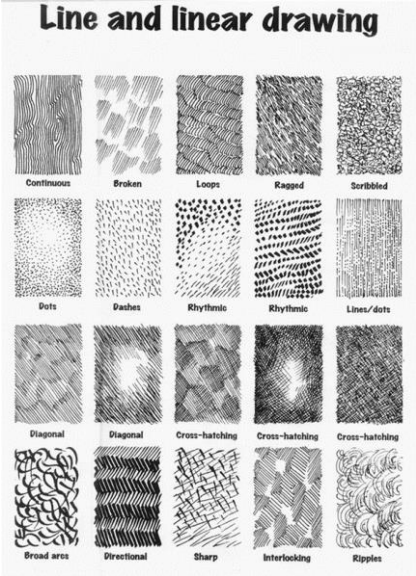
# Year 8 Art War and Conflict- German Expressionists

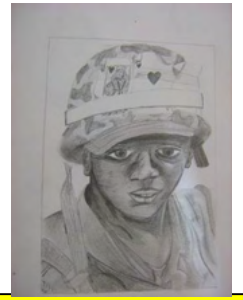
## a. Art key words

| | |
|---|---|
| Formal Elements | The parts used to make a piece of artwork. |
| Analogous colours | Colour next to each other on the colour wheel. |
| Mark making | describes the different lines, dots, marks, patterns, and textures we create in an artwork. |
| Monochrome | Light and dark tones of a singular colour. |
| Hatching and cross hatching | refers to a shading technique that implies shade, tone, or texture. The technique is done with a series of thin, parallel lines that give the appearance of shadow in varying degrees. |
| Stippling | the creation of a pattern simulating varying degrees of solidity or shading by using small dots. |
| Foreground | The area of an image—usually a photograph, drawing, or painting—that appears closest to the viewer. |
| Background | The area of an artwork that appears farthest away from the viewer; also, the area against which a figure or scene is placed. |
| Palette | Palette<br>1. The range of colours used by an artist in making a work of art; 2. A thin wooden or plastic board on which an artist holds and mixes paint. |

**Skills: Mark making to create texture/tonal value**




**Observational drawing from source.**

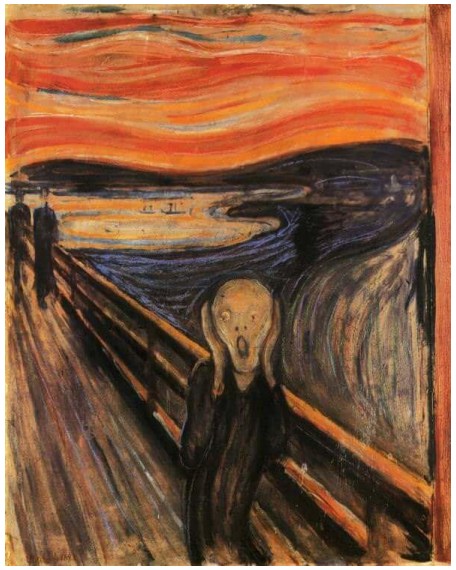


Home learning tasks:
1. Texture and mark making page
2. Art analysis and copy
3. Image collage
4. Planning composition

Artists: Max Beckerman
Ernest Barlack
Otto Dix
Käthe Kollwitz
Franz Marc

**German expressionism** was an early twentieth century German art movement that emphasized the artist's inner feelings or ideas over replicating reality, and was characterised by *simplified shapes, bright colours and gestural marks or brushstrokes*.

**Expressionism** refers to art in which the image of reality is distorted in order to make it expressive of the artist's inner feelings or ideas



Edvard Munch 'The scream' 1893'

Artists:
Edvard Munch
Wasilly Kandinsky
Egon Schiele
Paul Klee

**Composition** is the term given to a complete work of art and, more specifically, to the way in which all its elements work together to produce an overall effect. *The main types are:*

Symmetrical

asymmetrical

Radial symmetry

# Year 8 CPSHE Autumn Term 1

## Welcome and Public Institutions

| Lesson overview | 1 |
|---|---|
| Year 8 CPSHE | |
| The Ullathorne Way and Character Passport. | |
| Public services | |
| Health service | |
| Fire safety | |
| The police | |
| The courts | |

| Key-words | Definitions 2 |
|---|---|
| Public services | Public services are those – such as health and education – considered so essential they are made available to all citizens, regardless of income . |
| Tax | This is money that you pay on your income and other items (for example VAT) and the money goes to pay for the public services. |
| NHS | **N**ational **H**ealth **S**ervice. It refers to the Government-funded medical and health care services that everyone living in the UK can use without being asked to pay the full cost of the service. |

Here are some of the services the public institutions provide/oversee:

- Education and learning
- Home and community
- Money, tax and benefits
- Travel and transport
- Crime, justice and the law
- Motoring
- Employment
- Health and well being
- Environment and greener living
- Government and rights

4

3

**Fire service**

5

Types of **courts** in the UK:

- County **Court**.
- Magistrates' **Court**.
- Crown **Court**.
- Royal **Courts** of Justice .
- Youth **Court**.
- The Supreme **Court**.

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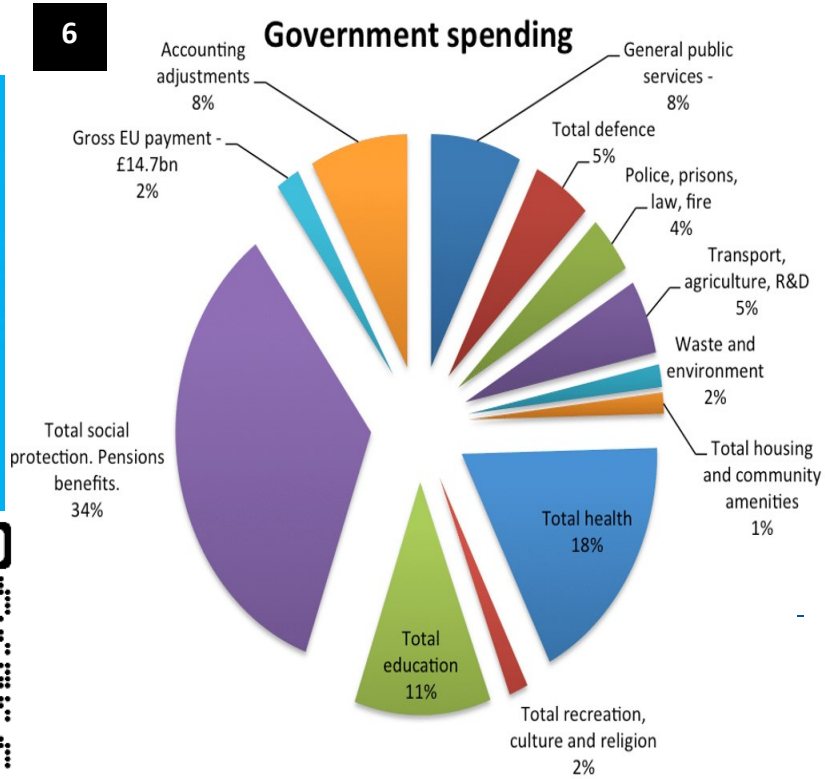


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**What are the 3 main duties of the police?**

- To protect life and property
- To maintain public order
- To prevent and detect crime


2

**Year 8 CPSHE Autumn Term 2**

**Volunteering and Charities / Our Community**

| **Lesson overview** |
|---|
| Volunteering and Charities |
| Our Community |
| Identity |
| Refugees |
| Asylum seekers |

1

| **Keywords** | **Definitions** |
|---|---|
| Volunteering | Any activity that involves spending time, unpaid, doing something that aims to benefit the environment or someone |
| Charity | An organisation that provides action and support based on donations. |
| Refugees | A person who flees for refuge or safety, especially to a foreign country, as in time of political upheaval or war for example. |
| Asylum seekers | A person who has left their home country as a political refugee and is seeking asylum in another. |

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## Personal Identity

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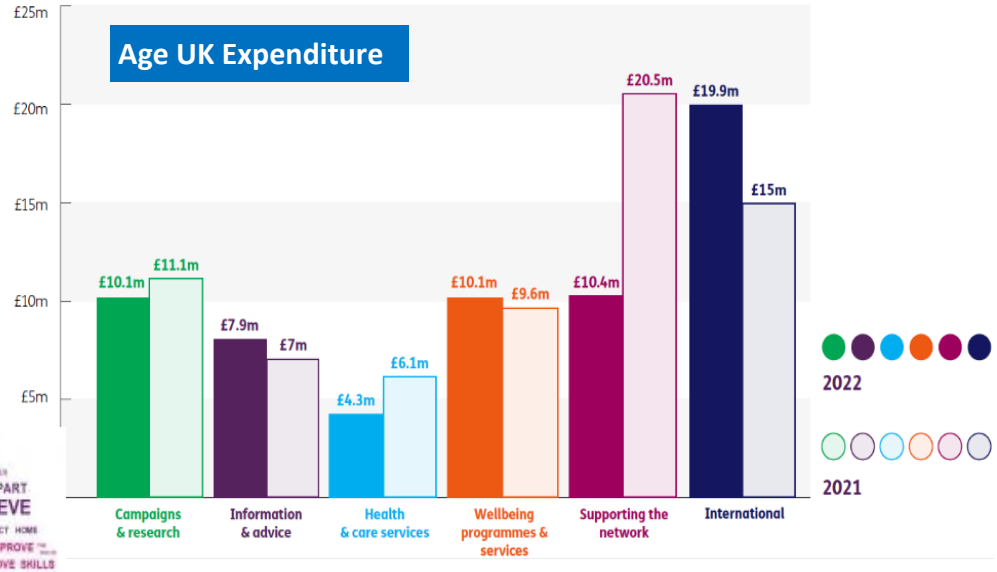
We spent **£62.8 million** on charitable activity.

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## WHO IS A REFUGEE?

A **refugee** is someone who owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside their country of nationality, and is unable to, or owing to such fear is unwilling to avail himself of the protection of that country.

8 **Local, national and interna-**

## WHO IS AN ASYLUM SEEKER?

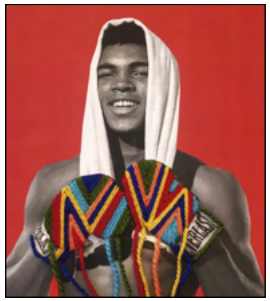
An **asylum seeker** is someone who has made a claim that he or she is a refugee, and is waiting for that claim to be accepted or rejected.

7

Not every asylum seeker will be recognised as a refugee, but every refugee is **initially** an asylum seeker.

# Year 8 Art Textiles - Portraits

| 1. Keywords | |
|---|---|
| Sample | A sample is an example of a textile technique you have tried. |
| Composition | The arrangement of the elements (objects) in a piece of creative work. |
| Portrait | A portrait is a representation of a particular person. This could be a painting, photograph, sculpture, or other artistic representation of a persons face and shoulders. |
| Texture | How an object looks or feels. An example of texture in textiles is the smooth feeling of satin. |
| Background | How an object looks or feels. An example of texture in textiles is the smooth feeling of satin. |
| Foreground | The part of a composition that appears closest to the viewer. |
| Collagraph | A form of printmaking using a collection of textures that have been collaged onto a firm surface. |
| Mono Printing | A form of printmaking that has lines or images that can only be made |
| Applique | A sewing technique that involves stitching a small piece of fabric onto a larger one to make a pattern or design. This can be done by hand or us- |
| Hand Embroidery | Adding detail, shape and pattern with thread. This can be by hand or machine. |



9. Artist—Victoria Villasana

Is a textiles artist from Mexico who is interested in history and culture and how people relate to each other in a digital world. She creates embroidery collages on photographs. She uses geometrical patterns and colour to express the human spirit.

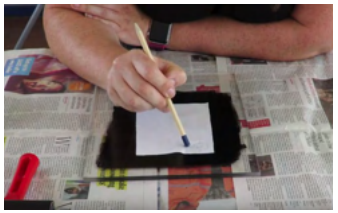
3. Techniques

The 3 techniques you will focus on in year 8 is:

Mono Printing

Hand Embroidery

Collagraph Printing



4. Mono Printing

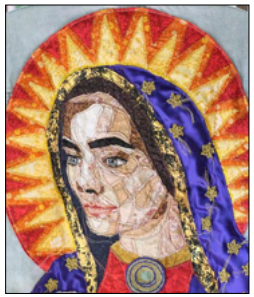
A type of printing technique that creates a single impression, no two prints will be identical. A modern technique developed in the 1960's.

5. Hand Embroidery

A way of creating decorative stitching on fabric. Using a variety of stitches and threads to create embellished surfaces. The techniques originates back to China 5th Century BC.

6. Collograph

A printmaking process which creates different tonal qualities using a variety of textured raised surfaces on a printing plate. A modern techniques developed just after the war in America.



8. Artist—Isabella González

Her work relates to the acceptance of living between two extremes, physically and emotionally. Her work involves different layers of fabric embroidered as an intention to mend herself. Her artistic production is deeply grounded in the handmade.


4

# Catering Year 8 Knowledge Organiser

1

## Key Points—Bacteria

Bacteria are found everywhere and need the right temperature, time, nutrients, pH level and oxygen to multiply.

Microorganisms (bacteria) are used to make a range of food products such as cheese, yoghurt and bread.

Bacterial contamination is the process of harmful bacterial in our food, which can lead to food poisoning and illness.

As a food handler you must do everything possible to prevent contamination and to control conditions that allow bacteria to multiply: cleaning, cooking, chilling, cross contamination.

The main symptoms of food poisoning are nausea, diarrhoea, vomiting, loss of appetite, mild fever.

Bacterial responsible for cause food poisoning are salmonella, e.coli, listeria and others.

2

## Key Points—Nutrition

Protein is needed for growth, maintenance and repair.

Proteins are built up of units of amino acids.

Fats can be classified as either saturated or unsaturated.

Saturated fats are considered to be more harmful to health because they raise levels of cholesterol.

Carbohydrates provide the body with energy.

Most of our energy should come from complex starchy foods.

Vitamins are micronutrients, required in small amounts to do essential jobs in the body.

Water makes up 2/3 of the body so it is vital to drink regularly.

Nutritional needs change throughout life, but everyone needs to consider.

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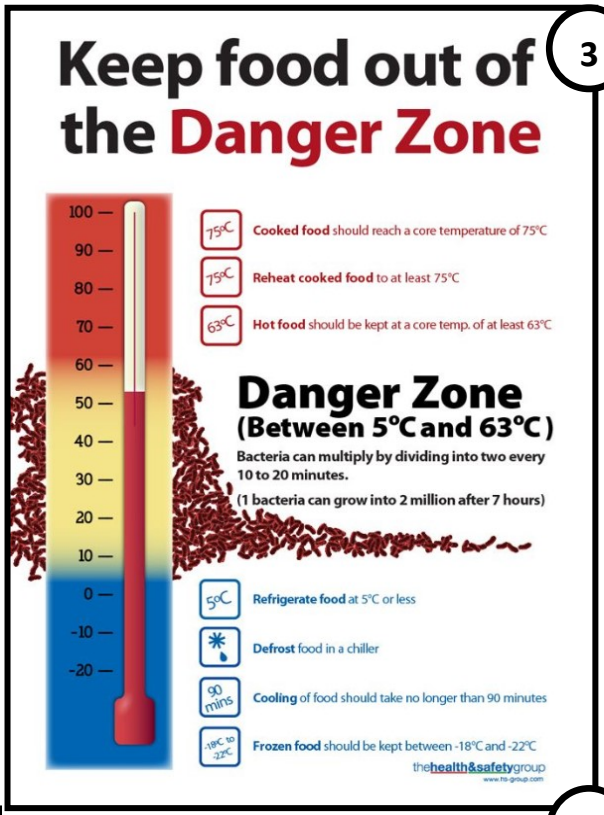


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## Environmental Health Officer (EHO)

The EHO is responsible for carrying out measure to protect public health and to provide support to minimise health and safety hazards.

EHO Responsibilities

Check food producers handle food hygienically.

They check food is being stored at the correct temperature.

They review processes sin the workplace e.g. use of correct equipment such as coloured chopping boards.

They inspect food stores such as te fridge and freezers.

They identify hazards.

They ask questions to check compliance

5

Microorganisms need five conditions to grow and multiply:

Time pH Moisture Temperature Food

6

**Biological contamination** - bacteria which might lead to food poisoning. Symptoms of food poisoning can include diarrhoea, vomiting, headaches and fever.

**Physical contamination** - foreign materials can cause injury. These could come from metal or plastic from factory machinery, or natural hazards like bones in fish.

**Chemical contamination** - pesticides or cleaning fluids contaminate food. These could cause severe illness.

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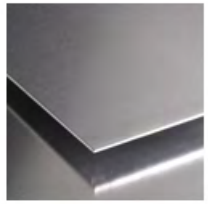
| Nutrient | Function and food source |
|---|---|
| Vitamin A | Keeps the eyes and skin healthy.<br>Found in milk, liver, carrots, red peppers |
| Vitamin B Group | Releases energy from food.<br>Bread, fish, broccoli, milk, peas, rice |
| Vitamin C | Keeps connective tissue healthy. Helps the body absorb iron.<br>Oranges, blackcurrants, red and green peppers |
| Vitamin D | Helps the body absorb calcium for strong bones and teeth.<br>Butter, eggs, milk, oily fish |
| Calcium | Builds strong bones and teeth.<br>Yoghurt, cheese, milk, tofu |
| Iron | Keeps red blood cells healthy.<br>Dark green vegetables, beans, fish, egg yolk, red meat |
| Sodium<br>( Salt) | Keeps the correct water balance in the body.<br>Cheese, ready meals, salted nuts, bacon |


5

# Year 8 Product Design

## 1

| | | |
|---|---|---|
| E.g. cast iron<br>**Ferrous Metals**<br>E.g. stainless steel | | Metals which contain iron and will rust and will attract a magnet |
| E.g. copper<br>**Non-ferrous Metals**<br>E.g. aluminium |  | Metals which contain DO NOT iron and will NOT rust and will NOT attract a magnet |
| E.g. ferrous alloy: stainless steel<br>**Alloys**<br>E.g. non-ferrous alloy: brass, bronze | | Metals that are a mixture of two or more other metals or elements to make a new metal with improved properties |

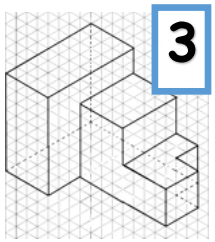
Metals are used for different purposes because of the properties they have.

| Metal | Property | Used for | Reasons |
|---|---|---|---|
| Copper | good conductor of electricity | electrical wires | can pass electricity to the product |
| Stainless Steel | does not rust | kitchen items and sinks | so it can be washed easily and used hygienically |
| Stainless Steel | tough | cutlery | so it can withstand impact |

## 2 Metal working tools

| | | |
|---|---|---|
| **Scribe** | | Used to draw around a template onto metals to show where to cut to show where to cut |
| **Junior Hacksaw** | | A saw used for cutting straight lines in woods, metals and plastics |
| **File**<br>**Filing** | | A tool used on material to small amounts to make it smooth. You can cross file and draw file. |
| **Riveting** | | A permanent method of joining metals |
| **Emery cloth** | | Coated abrasive on a cloth backing used on metals (instead of sandpaper) |
| **Power drill** | | A power tool used to drill holes through materials |

## 3



**Top tips for isometric drawing:**

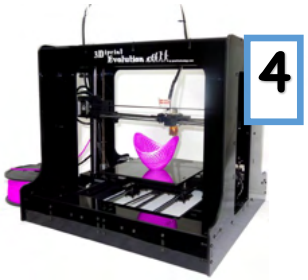
Use the grid

Start with the corner

You must have vertical lines (no horizontal)

Make sure you have parallel lines

## 4



**3d printing: Additive Manufacturing**

Step 1: create a 3D CAD drawing. It is sliced into very thin layers using specialist software

Step 2: heat the polymer filament and extrude it out of the nozzle

Step 3: build the prototypes in very thin layers of filament until complete. It will build from the bottom up, with the build platform moving one slice lower as each layer is created.

Advancements in technology (like 3D printing) is a great thing for manufacturers! Products are made more **accurately** and more **consistently** than if people were making it.

However, people will often **lose their jobs** as technology replaces them.

People may need to **retrain** and **learn new skills** for new jobs that are available.


6

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| | | |
|---|---|---|
| E.g. oak, beech<br>**Hard-woods**<br>E.g. ash, mahogany | | Timbers from deciduous trees that lose their leaves in winter. They produce expensive, close grained woods. |
| **Soft-woods**<br>E.g. cedar, pine | | Timbers from coniferous trees that have needles and cones. They produce cheaper woods with lots of knots. |
| **Manufac-tured Boards**<br>E.g. plywood, MDF | | Boards that we make from scraps of other timbers e.g MDF, chipboard, |

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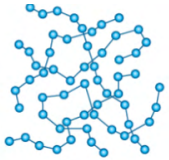
## Thermoforming Polymers

- can be reheated
- can be reshaped
- can be recycled

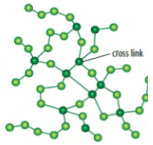
Examples: acrylic, HIPS, PVC



## Thermosetting polymers

- can't be reheated
- can't be reshaped
- can't be recycled

Examples: urea formaldehyde, polyester resin

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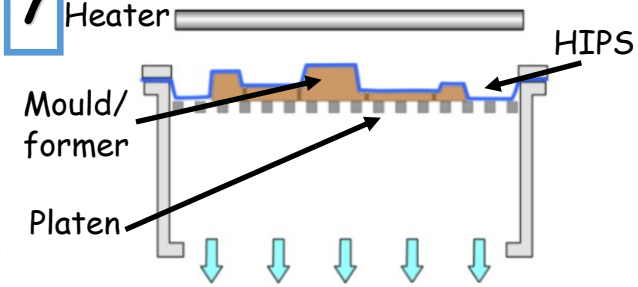
# Vacuum forming




Sandwich boxes

Yoghurt pots

Shower trays

## HIPS (high intensity polystyrene)

| | |
|---|---|
| Lightweight, high stiffness, impact resistant<br>Used in vacuum forming<br>Low melting point | Can be easily scratched<br>Becomes brittle when exposed to UV light |

Formers must have a draft angle so they can be removed from the HIPS. Webbing can occur if…

- formers are too close together
- formers are too high or
- the HIPS wasn't heated properly.

Step 1: the former/mould is placed onto the platen. The lever is used to lower the platen.

Step 2: a sheet of thermoforming polymer (HIPS or ABS) is clamped onto the machine using toggle clamps.

Step 3: the HIPS is heated until softened

Step 4: the platen is raised and the vacuum pump is turned on. This removes the air from the chamber and pulls the HIPS around the former/mould.

Step 5: when cool, remove the HIPS and the formers/moulds.

| | | |
|---|---|---|
| **Mould/ Former** | | The item to be vacuum formed |
| **Rasp** | | A course file with sharp, pointed projections to remove more material from wood or foam |
| **Vacuum forming** | | Heating a piece of thermoplastic and then stretching it over a mould by a vacuum |
| **Platen** | | Inside the vacuum former to put formers on. It is raised and lowered by the lever. |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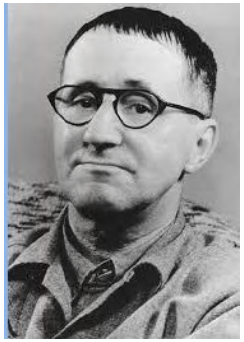
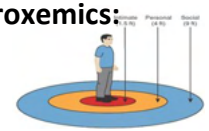
# Year 8
# DRAMA
## Page 1 of 2



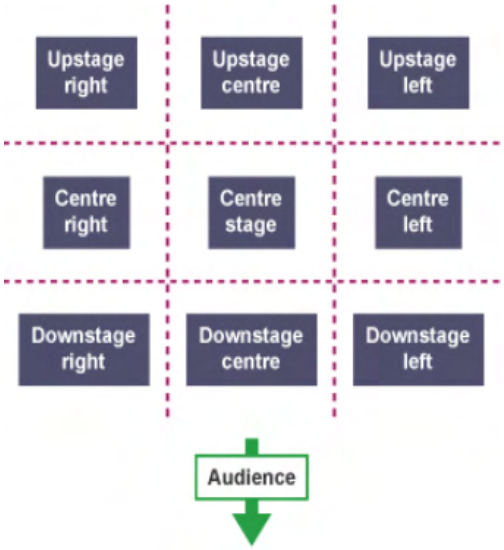
## 1. Key Words

| | |
|---|---|
| **Performance** | A piece that is presented to an audience. |
| **Dramatic convention** | Techniques used to communicate to the audience. |
| **Performance skills** | Signs and Symbols in Drama - an actor will use their **Vocal Skills** and **Physical Skills to communicate to an audience** |
| **Technical elements** | Signs and symbols in drama - use of Props, Costume, Lights, Sound, Music, Scenery, Set, Hair, Make-up, Backdrop… |
| **Verfremdungseffekt: 'estrangement effect'** | Used to distance the audience from the play. It is sometimes called the alienation effect. |

## 2. Performance Skills

| | |
|---|---|
| **Body Language** | The way you use your physicality to communicate. |
| **Characterisation** | Using a range of performance skills to create a character that is different to yourself. |
| **Gesture** | A movement (usually of the arm/hand) that communicates a specific meaning |
| **Levels** | Using different heights to communicate meaning or to add visual interest. |
| **Voice** | How you use your voice to communicate meaning. |
| **Facial Expression** | Using your face to show how a character is feeling |
| **Proxemics:**  | Where a character stands in relation to other characters and/or the audience. |

## 3. Areas of the Stage




**Remember:** The stage is always from the **actor's** point of view, as they are the ones standing on the stage.

Demonstrate good **spatial awareness** by using all areas of the stage, where appropriate.

## 4. Drama Techniques

| | |
|---|---|
| **Tableau / Freeze Frame** | A 'living picture' showing a moment in time – as though the pause button has been pressed. |
| **Exaggeration** | Making your voice and physicality as 'big' as you can. Being over the top (OTT) creating comedy. |
| **Script** | The lines that make up the story you are telling. |
| **Mime** | A silent performance, that uses physicality to communicate intentions to the audience |

## 5. Who was Brecht?

Bertolt Brecht was born in Germany in 1898 and died in 1956. He was a poet, playwright and theatre director. His influence is still present and many would argue that Brecht changed the face of modern theatre.

Brecht made his theatre highly political. He wanted to spark an interest in his audiences' perception of the world. He did not want his audiences to sit passively and get lost in a show's story, but to make them think and question the world they live in. He encouraged them to be critical of society. His work was often mischievous, provocative and ironic.

Brecht did not want the audience to have any emotional attachment to his characters, so he did various things to break it.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# Year 8 **DRAMA** Page 2 of 2

| 3. Physical Skills (Skills that involve using your body) | |
|---|---|
| **1. Movement** | Does an actor move **towards** or **away** from another character? |
| **2. Posture** | The **position an actor holds their body** when sitting or standing. For example, an upright posture or slouched. |
| **3. Gait** | The way an actor **walks**. |
| **4. Facial Expressions** | A form of **non-verbal communication** that expresses the way you are feeling, using the face. E.g. **Raised eyebrows or pursed lips.** |
| **5. Gestures** | A **movement of part of the body**, especially a hand or the head, to express an idea or meaning. E.g. **Waving, pointing, thumbs up.** |
| **6. Pace** | How **quickly** or **slowly** an actor moves. |
| **7. Levels** | **Sitting, Standing, Lying** – what does it show? |
| **8. Touch** | **Physical contact** or lack of it with other characters. |

| 6. Vocal Skills (Skills that involve using your voice) | |
|---|---|
| **1. Projection** | Ensuring your voice is **loud and clear** for the audience to hear. |
| **2. Volume** | How **loudly** or **quietly** you say something. **(Shouting, whispering)** |
| **3. Tone** | The **way** you say something in order to communicate your emotions. **(E.g. Angry, worried, joyous tone of voice)** |
| **4. Pace** | The **speed** of what you say. **(How quickly, how slowly)** |
| **5. Pause** | The **silence** between words and/or sentences. Moments of **pause** can create **tension,** show that you are **thinking** or create **emphasis**. |
| **6. Accent** | Use of an **accent** tells the audience **where your character is from.** |
| **7. Pitch** | How **high** or **low** your voice is. |
| **8. Emphasis** | Changing the way a word or part of a sentence is said, in order to **emphasise** it. **(Make it stand out.)** Try emphasising the words in capital letters and see how it changes the meaning:<br>"How could **YOU** do that?"<br>"How could you do **THAT**?" |

| 7. Brecht's Techniques | |
|---|---|
| **Breaking the fourth wall** | This is where the imaginary wall between the audience and actors on stage is broken. Rather than allowing the audience to sit passively and get lost in the show, the actors will sometimes directly address the audience with a speech, comment or a question. |
| **Narration** | Narration is used to remind the audience that they are watching a story. Sometimes the narrator will tell the audience what is about to happen in the story, before it happens, because if the audience knows the outcome then they may not get as emotionally involved. |
| **Minimal set, props, costumes and lighting** | Brecht believes the stage should be brightly lit at all times. That sets should not be realistic, just suggestive. And that actors should use minimal props, often only one per character. Also props can be used in several different ways, for example a suitcase may become a desk. |
| **Using placards** | A placard, or projection screen can be used to give the audience some extra factual information, for example it might say how many people have died in a particular war. Placards can also be used to introduce characters in generic ways, e.g. 'mum,' or 'dad.' Placards are also used to introduce a new scene, or to tell the audience when one has finished. |
| **Freeze frames / tableaux** | The actors may go into a freeze frame, so as to break the action. Sometimes it's done so that the audience can stop and think critically for moment. And sometimes it's done so that the narrator can speak, or so that an actor can come out of character and perhaps break the fourth wall. |


9

# Year 8 English: Dystopian Fiction

1

## Key Words

| |
|---|
| **Dystopia** - An imagined state or society in which there is great suffering or injustice, typically one that is totalitarian or post-apocalyptic. |
| **Allusion** - An imagined state or society in which there is great suffering or injustice, typically one that is totalitarian or post-apocalyptic. |
| **Protagonist** - The leading or major character in a play, film, novel etc. |
| **Conformity** - Compliance with standards, rules or laws. Behaving or acting in an accepted way to fit in with others. |
| **Impose** - To force (an unwelcome decision or ruling) on someone. |
| **Surveillance** - Close observation, especially of a suspected spy or criminal. |
| **Scapegoat** - A person who is blamed for the mistakes, or faults, of others. |
| **Dictatorship** - A society with a ruler who has total power over everything and everyone – typically by force. |
| **Tyranny** - Cruel, unreasonably and oppressive use of power or control. |
| **Satire** - The use of humour, exaggeration, ridicule or irony to expose and criticise stupidity – usually political or topical issues. |
| **Totalitarianism** - A government that requires complete subservience. |

2

## Characteristics of Dystopian fiction

- Propaganda is used to control the citizens of society
- Information, independent thought and freedom are restricted
- A figurehead or concept is worshiped by the citizens of the society
- Citizens are perceived to be under constant surveillance
- Citizens fear the outside world
- Citizens live in a dehumanised state
- The natural world is banished and distrusted
- Citizens conform to uniform expectations. Individuality and dissent are bad
- The society is an illusion of a perfect world.

3

## Plot Prompts

| |
|---|
| Decide a year, preferably in the future |
| Decide a location |
| Chose an adjective to describe that location in the year you chose (grim / frozen) |
| Who now rules that place (robots / aliens / fascists) |
| An adjective to describe the ruler or rules / laws (destructive) |
| A landmark that has been damaged (The London Eye) |
| An adjective to describe that landmark (shattered / decaying) |
| What event caused the world to become like this (meteor strike / nuclear attack) |
| Your protagonist – name / gender / job |
| An adjective to describe your protagonist (brave / resilient) |
| The name of a revolutionary organisation (The Sisterhood / The Alliance / The Freedom hunters) |
| Select 2 things the organisation could use to save the world (oxygen / brains) |
| An enemy – title / first name / last name / one negative adjective / job |



10

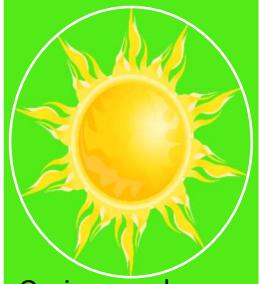
4

The moon like a freshly minted silver coin

Bluebells exploded from gardens

Tender ribbons of light

Turbo –winged blackbirds



Orpine purple night skies

Crepuscular light

Saffron orange

Fleecy clouds shackled to the limitless sky

Honeysuckle sweetness

Wheezing winds

Canopy of scorched leaves

Gorging on sweet chestnuts

Feverish yellows

Broiling oranges

Eerie tendrils of moonlight

Mangling winds

Skull white

An unearthly soundlessness

Skin seeping cold

Myrrh-scented candles

Interesting vocabulary to capture seasons

5

6

helicopter

+

bluebottle

**Ask questions like the ones below**

In the far distance a helicopter skimmed down between the roofs, hovered for an instant like a bluebottle

What are bluebottles seen as or connected to?

Why might the writer connect the helicopter to pests or to death and decay?

What mood / feeling do bluebottles evoke in the reader? How does this link to the story?

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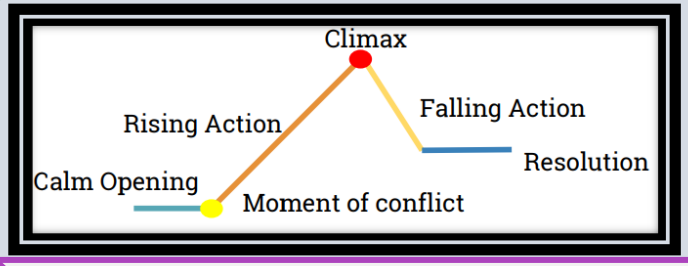
# Year 8 English -The modern novel.

1 **Remember:**

Fiction is NOT REAL

2 **Style and Structure**




Protagonist- The main character

Antagonist- The villain

Exposition- The opening of the story

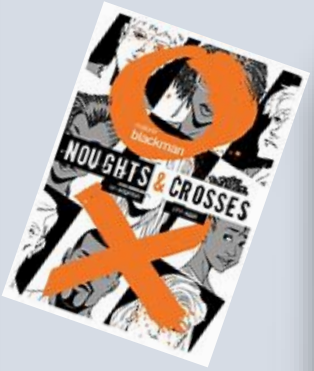
Resolution- The end of the story

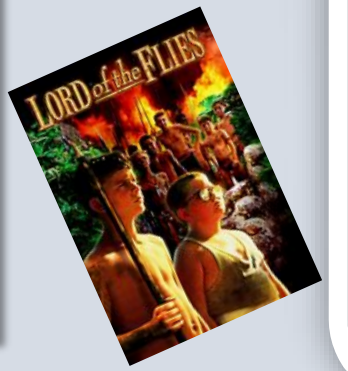
Climax- The biggest action moment

Conflict- The problem

Setting- Where it takes place.

3 **Some Key Features of Fiction:**




| | |
|---|---|
| point of view | 1st, 2nd, 3rd person (I went, you went, she went) |
| tense | Past, present, future (He went, he goes, he will go) |
| setting | Where the story takes place (high street, school, park) |
| dialogue | Speaking in the text ('go away' shouted the boy, 'go away!') |
| theme | Main moral/message in the story (be grateful for what you have) |
| short sentences | Sentences with less than 5 words (He ran.) |
| long sentences | Sentences that leave you out of breath. |
| flashback | Going back in time (I remember it like it was yesterday …) |
| dialect | Accents in writing (y'all gotta g'it 'er done) |
| metaphor | A comparison NOT using like or as (Cotton candy clouds) |
| symbolism | An item representing a big idea (a book for knowledge) |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## 4 Looking at writer's methods:

| | | | |
|---|---|---|---|
| adjective | Adjectives are words used to describe. For example: 'The puppy had a warm belly', 'The President gave an important speech' and 'We put on our cumbersome diving suits'. | simile | A simile is a figure of speech that makes a comparison, showing similarities between two different things, with the help of the words "like" or "as". For example: 'The water well was as dry as a bone', 'Her hair was as soft as a spider's web' and 'The truth was like a bad taste on his tongue'. |
| adverb | An adverb is a word that describes or gives more information about a verb, adjective, adverb, or phrase: In the phrase "she smiled cheerfully", the word "cheerfully" is an adverb. It is describing how she is smiling. These words often end with –'ly'. | metaphor | A metaphor is a figure of speech where a word or phrase (that ordinarily means one thing) is used to describe another, therefore making an implicit comparison. For example: 'a sea of troubles', 'the curtain of night' or 'all the world's a stage'. |
| onomatopoeia | Onomatopoeia is a language technique used to describe words that are formed from the sound that the object makes. For example: 'Boom! Bang! Crash!', 'My favourite game is Ping Pong' and 'The thirsty dog slurped the dirty water from the puddle'. | personification | Personification is when a human characteristic is given to an inanimate object or an object without conscious thought. For example: 'The moon winked at me through the clouds above', 'The wind howled its mighty objection' and 'The popcorn leapt out of the bowl'. |
| emotive language | Emotive language is a choice of words used to create an emotional impact on the writer's audience, for example 'sponsor a poor, lost puppy for only £5 a month'. This might make the reader feel sad, guilty and responsible which might make them more likely to donate to the cause. | five senses | This technique refers to sensory details which appeal to the five senses (taste, touch, smell, hearing, and sight) to help create imagery Some examples include: 'The heavy door suddenly, slammed shut' and 'the room was brightly lit by a large window and housed several modern pieces of electrical equipment but the effect was softened by a drinks cabinet and a warm red carpet'. |

## 5 Analysing methods:

**When analysing the writer's methods try asking yourself these questions-**

**What?**
- What choices has the writer consciously made?
- What methods have they chosen to used?

**Why?**
- Why have they chosen to sequence their work in this order?
- Why have they chosen this particular narrative perspective?

**How?**
- How does the writer make me feel?
- How does the method used help to build pace/tension?
- How does the writer want me to respond to this character? Should I like/dislike them?

## 6 Picture Prompts:

# YEAR 8 GEOGRAPHY - CRIME

## 1.KEY VOCABULARY

| | |
|---|---|
| **Crime** | An offence punishable by law |
| **Crime Hotspot** | An area with a higher amount of crime compare to other places nearby |
| **Law** | system of rules which a particular country or community recognises as regulating the actions of its members . |
| **Victim** | a person harmed, injured, or killed as a result of a crime, accident, or other event or action |
| **Cyber Crime** | Criminal activities carried out by means of computers or the internet. |
| **Sentence** | punishment that was actually ordered or could be ordered by a trial court in a criminal procedure |
| **Assault** | Make a physical attack on someone. |
| **Fraud** | Wrongful or criminal deception intended to result in financial or personal gain. |

## 2. GEOGRAPHY OF CRIME

Geographers study crime to find hotspots where crimes are likely to occur. The information is used to plan safer living spaces and to prevent international crimes such as drug trafficking and piracy. Geography is important when studying crime because when a crime happens it always has a location, a time and a reason. Understanding the patterns behind this helps:

- to see where crimes are most likely to be committed
- to combat crime
- to design areas to be more crime-proof

Crime can happen on an international scale as well as national or local. Heroin trafficking and **piracy** are two examples of international crime.

## 3. LOCATION OF CRIME

The location of a crime is important. There are several factors that can increase the rate of crime in an area:

- Large centre of population means there is a greater opportunity to commit a crime.
- Good road and transport links allow criminals to move around more easily.

Public space where there is no sense of ownership. In a private space it is easy to spot who is out of place or not there for a valid reason.

## 4. TRENDS OF CRIME AND REASONS WHY

By looking at the prison population in England and Wales some trends can be seen:

- men make up 95 per cent of those convicted of crime, and sentenced
- men aged 20 or under make up approximately ten per cent of the prison population
- over ten per cent of the UK prison population are foreign nationals
- before being sent to prison, nearly three quarters of criminals were receiving financial help (benefits) from the government

Reasons for people committing crime include poverty and unemployment. That is why many schemes to help areas with high crime rates involve training people to give them work-based skills.


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## 5. MAPPING CRIME

Mapping crime shows where crimes were committed but that does not tell the full story. It is important to understand how crime affects services in the area and communities.

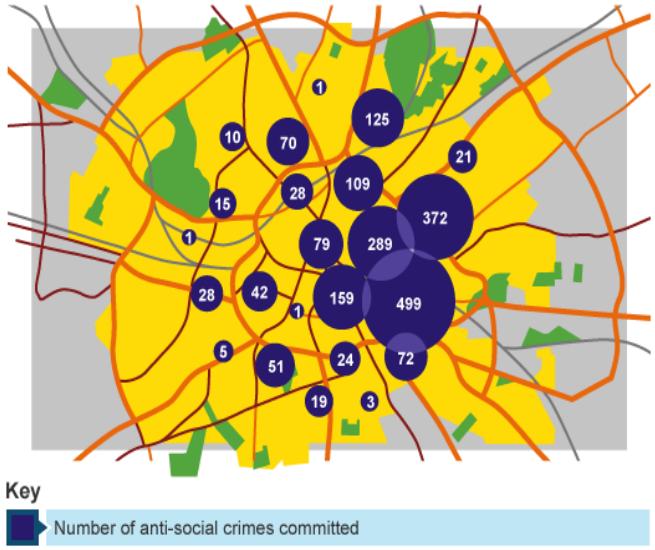
Some ways that crime affects local services:

- The National Health Service has to treat people who have suffered physically from crime.

The local council has to review the safety of areas and has to carry out **cost/benefit analyses** on whether to improve an area, eg adding street lighting or CCTV.

- The prison service has to house people who are jailed because of crime.

Shopkeepers and retailers may not stock certain items because of the fear of shoplifting or other related crimes.




## 6. DESIGNING OUT CRIME

- **Designing areas** and houses to make it more difficult for crimes to be committed
- **adding warnings** and alarms so that people are more aware of when crimes are being committed
- **tracking goods** and people after a crime has been committed

Methods used when designing out crime in housing estates are:

- Cul-de-sacs - to make it easy to notice someone who is not supposed to be there.
- Open spaces in public areas and footpaths - to allow everyone to keep an eye on suspicious behaviour. It is better to avoid having covered areas such as underpasses.

Building houses looking out over the public areas - to increase the amount of **defensible space**. T**arget hardening** of existing buildings and areas is another way to help reduce crime. This means that someone might add locks to their windows. A building might have high fences built around it, warning signs added or CCTV installed.

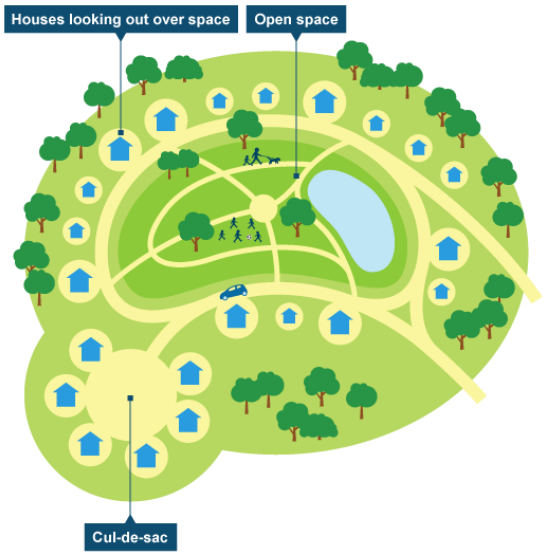
## 7. INTERNATIONAL CRIME

Land— Due to globalisation, international trade has increased. Some of this increase in trade is illegal. One type of illegal international trade on land is the drug trade.

Seas— When a person or group of people attack and rob a ship, this is called **piracy**. Often the ship's crew are held **hostage** for a **ransom**. Pirates may base themselves on a **mothership**, usually acquired by pirate activity, which is large enough to carry fuel and weapons. They then try and board large cargo ships using small vessels. The ships they board usually have valuable goods on them, such as oil.

Areas where piracy is common include the waters around:

- The Horn of Africa, Indonesia and Central America





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# YEAR 8 GEOGRAPHY - HOW ARE POPULATIONS CHANGING?

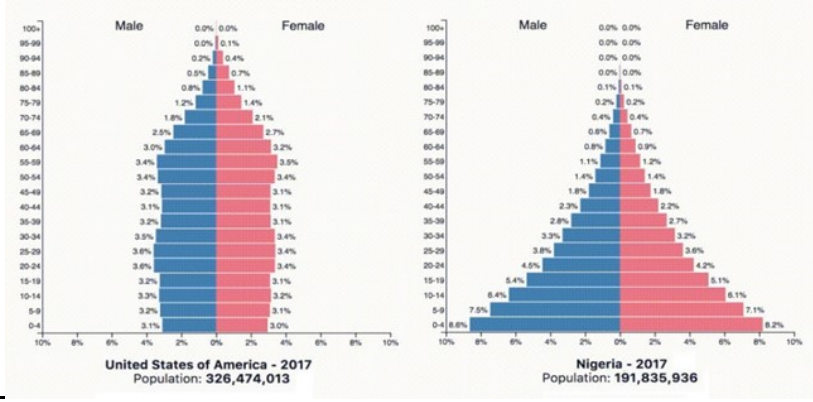
## 1.KEY VOCABULARY

| | |
|---|---|
| **Population** | The number of people living in a particular place. |
| **Population distribution** | The pattern where people live and how populations are spread out. |
| **Birth rate** | The number of births per 1000 of the country's population each year. |
| **Death rate** | The number of deaths per 1000 of the country's population each year. |
| **Natural increase/ decrease** | The difference between the birth rate and death rate. |
| **Underpopulated** | When a country doesn't have enough people to make use of the resources and technology available. |
| **Overpopulated** | When a country has too many people and not enough resources to maintain a reasonable standard of living. |
| **Population** | The number of people living in a particular place. |

## 2. WHY IS POPULATION SO UNEVNLY DISTRIBUTED

Settlements have built up in areas with natural resources that can support a population, such as water, soil, the ability to grow food and job opportunities. Areas that are often sparsely populated tend to have fewer resources and be harder to live in, such as mountainous areas, deserts or isolated places.

## 3. POPULATION PYRAMIDS




Population pyramids are used to analyse the structure of populations. They show the age and gender distribution of a given population. The shape of the pyramid depends both on the number of people in each age group and the proportion of males to females.

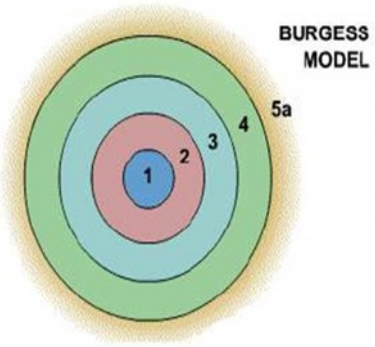
## 4. THE BURGESS MODEL

**1 – Central Business District (CBD). Inner area, no regular street pattern, high density buildings. Now centre for shops and offices.**

**2 – Inner City. Rectangular grids of streets. Often high density, terraced housing. Built near to factories for workers.**

**3 – Inner Suburbs. Housing estates often filling gaps between main roads, widely spaced. Often semi-detached housing.**

**4 – Outer Suburbs. Modern estate, curved roads, cul-de-sacs, widely spaced.**





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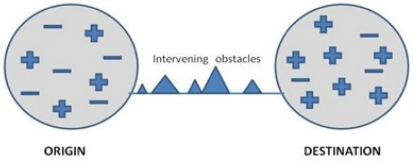
## 5. KEY VOCABULARY

| | |
|---|---|
| **Immigrant** | Someone who moves permanently to a different country. |
| **Voluntary migrant** | Someone who chooses to move to a different location. |
| **Forced migrant** | Someone who has no choice but to move to a new location. |
| **Refugee** | A person who has been forced to leave their country in order to escape war, persecution or natural disaster. |
| **Push factor** | Something that drives someone away from a certain place. |
| **Pull factor** | Something that attracts someone to a certain place. |
| **Urbanisation** | The increase in the proportion of people living in urban areas. |
| **Rural-urban migration** | The movement of people from the countryside (rural) to towns and cities (urban) within a country. |
| **Intervening obstacles** | Something which may reduce the likelihood of a migrant being able to move from one area to another – i.e Crossing borders |
| **Migrant** | Someone that moves from one place to another, with the intention of living temporarily or permanently in the new location. |
| **Immigrant** | Someone who moves permanently to a different country. |

## 6. PUSH AND PULL THEORY

**Lee's Push-Pull Theory**




### PUSH AND PULL FACTORS OF MIGRATION

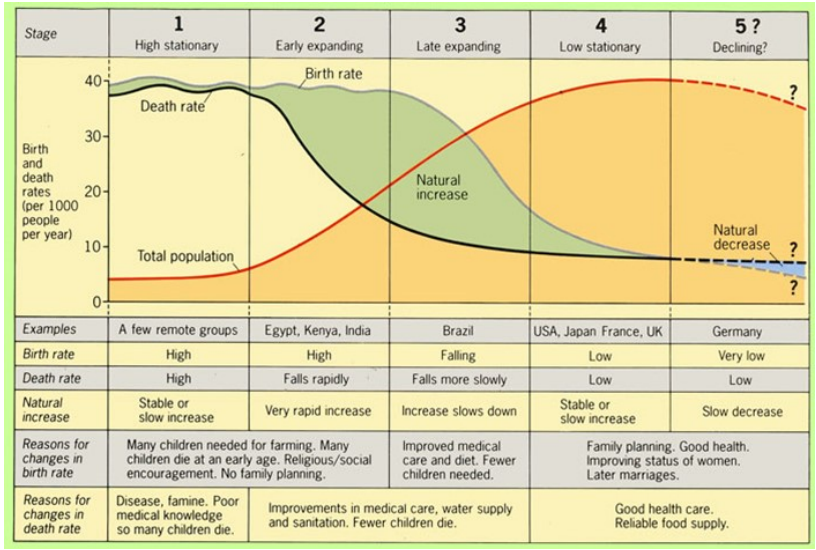
| PUSH FACTORS | PULL FACTORS |
|---|---|
| **Lack of jobs**<br>**Lack of healthcare**<br>**Lack of suitable housing**<br>**Crime**<br>**Poverty**<br>**Flooding**<br>**Unreliable crops**<br>**lack of schools**<br>**little to no income**<br>**Natural disasters** | Better jobs<br>Higher income<br>Access to schools<br>Lack of crime<br>No natural disasters<br>No flooding<br>Access to food<br>Better quality housing |

**Push factors are the reasons that you wish to leave an area that you have been living. Pull factors are the good things about a place that draw you to there to make you want to move.**

## 7. THE MIGRATION OF MEXICANS TO THE USA

**The migration of Mexican-born immigrants living in the USA sored between the years of 1970 and 2007 including many entering the country illegally, this is very dangerous and migrants are at risk of being caught and deported. Reasons for their migration however, are easy to understand. The USA is a rich and attractive nation. Mexico has problems with crime rates, drug use and corruption as well as poor education. The Mexicans that have migrated have filled jobs as farm labourers at harvest time, in factories or as cleaners. These are dirty low paid jobs that Americans don't want to do however, the migrants are happy to do any available work.**

### DEMOGRAPHIC TRANSITION MODEL




| Stage | 1 High stationary | 2 Early expanding | 3 Late expanding | 4 Low stationary | 5 ? Declining? |
|---|---|---|---|---|---|
| Examples | A few remote groups | Egypt, Kenya, India | Brazil | USA, Japan France, UK | Germany |
| Birth rate | High | High | Falling | Low | Very low |
| Death rate | High | Falls rapidly | Falls more slowly | Low | Low |
| Natural increase | Stable or slow increase | Very rapid increase | Increase slows down | Stable or slow increase | Slow decrease |
| Reasons for changes in birth rate | Many children needed for farming. Many children die at an early age. Religious/social encouragement. No family planning. | | Improved medical care and diet. Fewer children needed. | Family planning. Good health. Improving status of women. Later marriages. | |
| Reasons for changes in death rate | Disease, famine. Poor medical knowledge so many children die. | Improvements in medical care, water supply and sanitation. Fewer children die. | | Good health care. Reliable food supply. | |

**The demographic transition model shows how development data such as birth rate, death rate and total population change as a country develops. There are five key stages which countries can go through.**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## Year 8 Industrial Revolution— Section 1—Key Words

| | |
|---|---|
| **Acts** | laws passed by Parliament. |
| **Aqueduct** | a bridge that carries a canal over an obstacle. |
| **Canal** | a long narrow, man made channel of water. |
| **Census** | official count of the population, done every ten years in Britain. |
| **Cholera** | a deadly disease caused by infected (dirty) water. Victims suffer from diarrhoea, vomiting and can die. |
| **Domestic System** | the system where workers worked in their homes or small workshops rather than factories. |
| **Emigrated** | moved to another country to live. |
| **Exported** | sent out to other countries, usually to be sold. |
| **Factory system** | the system where people worked in factories to mass produce products. It replaced the domestic system. |
| **Immigration** | coming to a foreign country in order to settle there. |
| **Imported** | brought in from another country, usually to be sold. |
| **Industrial Revolution** | A complete change in the way things were made. A time when factories replaced farming as the main for business in Britain. Sometimes used to describe the changes in population/ transport/ manufacturing between 1750—1900. |
| **Laissez faire** | A French word meaning 'leave alone' this was the policy of the British Government towards issues such as public health. |
| **Manufacture** | To make goods in a factory. |
| **Population** | The number of people in a particular place at a particular time. |
| **Turnpike Trust** | A group of businessmen who improve and maintain a stretch of road and charge people to use it. |
| **Viaduct** | A long high bridge that carries a road or railway over an obstacle (such as a valley or river). |

## Section 2—An overview of how a town grew from 1500 to 1900

1500—most people lived in villages and villagers would travel to towns like this to sell their spare produce. Most houses have fireplaces and chimneys and some have glass in the windows. Everyone is free to work and live where they want. Most people own their own land. The church is Roman Catholic.

1750—the population of the town has increased and some of the outlying field have been built on. The castle has gone.

The church has become protestant and the Church of England has been established.

1850— The Industrial Revolution has changed the town forever. More than half the population of England now live in town. Factory owners are getting rich but the workers who work long hard hours are poorly paid. Working and living conditions are bad. Railways ensure goods can be moved around quickly.

1900—The town has continued to grow. New laws allow working class men the right to vote. New technologies have developed new jobs, for example there are now telephone exchanges. The empire allows foods from all over the wold to be sold in towns. Children have to go to school. Living conditions have improved.

## Section 3—Population growth

Population grew from 7 million to 37 million between 1750 and 1900 for a number of reasons:

1. the number of births increased
2. the number of deaths decreased
3. People moved into the country (immigration)

Contributing factors:

Farming—methods changed that allowed farmers to produce more food so people could have a better diet.

Healthcare—Midwifery—hospitals started to provide maternity wards. Injections—medical knowledge was improving—Edward Jenner discovered vaccination—this protected people against Smallpox which was a deadly disease. Doctors and nurses—after 1870, anaesthetics and antiseptics were used in surgery—this meant fewer people died from shock and infection—nurses were better trained too.

Cleaner cities— in 1875 the Second Public Health Act was introduced, this made councils clean up their towns—they had to provide clean water, sewers and better housing.

## Section 4—Mining

The Industrial Revolution was pushed forward through the development of the use of coal and iron, both of which were mined from the earth. Iron ore was dug from the ground and through the process of melting turned into liquid to then be poured into casts to make pots and pans, pipes and beams. When cast iron was reheated it became wrought iron that could be used for nails, chains, tools and furniture. Later iron would be used to build railways, locomotives, buildings, machinery, cranes and ships.

Coal is a rock found under ground. In 1750 it was mainly used to heat houses and cook with. With the Industrial Revolution more coal was needed—it was used to power the steam engines in factories and ships. It was used in the making of bricks, pottery, glass, beer, sugar, soap, and iron. Coal mines were dug deeper underground—it was a dangerous job—over 1000 people died each year.


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## Section 5—The Factory System

Before 1750—people worked in their homes—it was called the domestic system but the Industrial Revolution brought the factory. This allowed goods to be made more quickly and more cheaply. But the conditions were not good for the workers:

Long working hours: normal shifts usually 12-14 hours a day. Worked 6 days a week and sometimes half day on a Sunday

Low wages: typical wage for male workers was about 15 shillings (75p) a week, but women and children were paid much less, with children three shillings (15p). For this reason, employers preferred to employ women and children. Boys often sacked when they become adults.

Cruel discipline: whipped and hit with hands, sticks or with leather strap. Other punishments included nailing children's ears to the table, and dowsing them in water to keep them awake, fines and not allowing toilet breaks

Accidents: forcing children to crawl into dangerous, unguarded machinery led to many accidents and deaths.

Health: The air was full of dust, which led to chest and lung diseases and loud noise made by machines damaged workers' hearing.

Look at the flow diagram above—you can see how the building of a factory in a town increases the population in the town.

## Section 6—The development of transportation.

**Turnpike fever**— the government divided the roads into sections and rented them to 'turnpike trusts' - these trust improved the road and then charged a 'toll' for people to use the road.

By 1830, 20,000 miles of roads were controlled by trusts and the travel time from London to Edinburg had reduced from 2 weeks to 48 hours.

**Canal Mania**—the Duke of Bridgewater was finding the transportation of his coal on the roads too expensive. He came up with the idea of canals—man made waterways. The first canal opened in 1761, by 1830 over 4000 miles of canals existed. However, canal mania did not last long—it was going to be quickly overshadowed by the railway.

**Railways**—George Stephenson is credited with the creation of the first railway between Liverpool and Manchester—it would need 63 bridges, a tunnel and a viaduct—all engineering problems Stephenson overcame. By 1831 steam trains were taking over £200000 in fares and were much quicker than roads or canals. By 1850, there were 7000 miles of track linking London.

By 1880 it is thought that over 300,000 jobs were connected to the railways. The trains changed peoples lives too; daytrips to seaside towns became a reality. Food could arrive in towns—still fresh. National newspapers could be read on the same day in different parts of the country. In 1900 the journey from London to Edinburg now took 9 hours.

## Section 7—Invention

**Richard Arkwright**—opened Britain's first steam powered cotton factory.

**Isambard Kingdom Brunel**—designed the Clifton Suspension Bridge in Bristol, designed the Great Western Railway, and built 3 record breaking steam ships.

**Henry Bessemer**—invented a converter that turned iron into steel. (Steel is a stronger material.)

**Michael Faraday**—in 1831 he discovered how to generate electricity.

**George Stephenson**—designed the first steam locomotive.

**James Watt**—developed the steam engine so that it could rotate a wheel—this was called 'rotary motion' - steam power replaced horse, water, wind and muscle power.

## Section 8—Why did the Industrial Revolution happen?

**Britain's Empire**—brought raw materials cheaply into Britain from colonies—sold finished goods back to colonies at a profit.

**Resources**—Britain had the necessary raw materials; coal and iron ore to begin it's Industrial Revolution.

**There were more people**—they needed more goods; from clothes, shoes, knives and forks—keeping factories going.

**Inventors**—Lots of brilliant inventors who changed the way things were done.

**Entrepreneurs**—people who were prepared to take risks in creating business.


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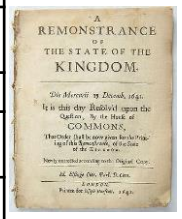
# KS3 History knowledge organiser:
# Year 8 Spring term 1: What were the causes of the English Civil War?

## Section 1: Key words and key individuals

| | |
|---|---|
| **Anglican** | An English protestant |
| **Catholic** | A Christian who follows the original 'universal' practices of worship and belief as directed by the Pope. |
| **Divine Right of Kings** | belief that the King is chosen by God and can go no wrong |
| **Grand Remonstrance** | A list of demands written by Puritan MPs including the right of Parliament to choose the King's ministers. |
| **Monarch** | A king or queen |
| **MP** | Member of Parliament – elected to sit in the House of Commons and be involved in ruling the country |
| **Long term cause** | A main reason for an event that usually leads to other reasons. These are often big problems that lead to an increase in tension over time. |
| **Protestant** | Someone who protested against the beliefs of the Catholic Church |
| **Puritan** | A strict Protestant who believed in simple church services and regular study of the bible. They wanted to 'purify' the Church of Catholic practices. |
| **Ship Money** | A tax traditionally only be imposed on coastal towns in times of war, to pay for the navy; Charles imposed the tax during peace and across the country. |
| **Short term cause** | A reason that 'sparks' off an event at a particular point. |
| **Charles I** | King from 1625- 49. The only English monarch who has been executed |
| **Henrietta Maria** | Charles I's wife, she was a French Catholic. |
| **Earl of Strafford** | Charles's chief adviser. Also known as Thomas Wentworth. Executed at Parliament's demand in 1641 |
| **John Pym** | The leading opponent of Charles in Parliament after 1640. Parliament's unofficial 'leader.' |
| **Oliver Cromwell** | MP before the war and devout Puritan. Leader of cavalry in New Model Army and Lord Protector between 1653 and 1658 |
| **Archbishop of Canterbury William Laud** | leader of the Church of England, appointed by Charles in 1633. He favoured a more Catholic form of Christianity |



## Section 2: The long term causes of the war

The long term causes can be grouped under these three key words:

1. Power

2. Religion

3. Money

| | |
|---|---|
| **1625** | Charles succeeds his Father, James as King of England (and Scotland). He marries Henrietta Maria. Charles believed in the Divine Rights of Kings which clashed with Parliament's growing confidence that it had certain rights and authority. |
| **1629-40** | MPs refused to increase taxes to help Charles pay for a war with Spain leading to the 11 years Tyranny; a period when Charles ruled alone and according to his own power and will. |
| **1633** | Charles sent Thomas Wentworth to take control of Ireland. On his return he was promoted to his chief advisor and given the title of the Earl of Stafford. Parliament were against this as they did not trust Wentworth, believing him to be too powerful and a threat to their position. |
| **1635-1636** | Charles ordered all landowners to pay Ship Money (to pay for the navy). In the past, only people living near the coast paid it, but Charles insisted that everyone must pay. This brought Charles great unpopularity and when a landowner called John Hampden refused to pay, he was sent to prison for disobeying the King. |
| **1637** | Charles tried to make the religion of Scotland more like England by making them use the English Prayer Book. The Scots refused so Charles sent in an army to force them. The Scots defeated them and demanded compensation. |
| **1640** | Charles was forced to recall Parliament as he needed money to pay the Scots. MPs once again refused to sanction taxes, unless Charles would agree to change the way in which he had been ruling the country. |
| **November 1641** | Parliament demands more power by writing a list of demands called the Grand Remonstrance. |
| **January 1642** | Charles burst into the House of Commons with 400 soldiers and tried to arrest 5 leading MPs. they had been warned and escaped by boat down the river Thames. |
| **August 1642** | Charles gathered his army and Parliament gathered theirs – Civil War had begun |

## Section 3: The short term causes of the war

| | |
|---|---|
| **November 1641** | Parliament demands more power by writing a list of demands called the Grand Remonstrance. |
| **January 1642** | Charles burst into the House of Commons with 400 soldiers and tried to arrest 5 leading MPs. they had been warned and escaped by boat down the river Thames. |
| **August 1642** | Charles gathered his army and Parliament gathered theirs. Charles raises his standard (flag) at Nottingham signifying that he is starting the war. |

# Maths, Y8—Data

## 1. Averages and range

**Mode:** the most common value

**Median:** the middle value when numbers are placed in order

**Mean:** sum of all values ÷ number of values

**Range:** largest value - smallest value

Find the mode, median, mean and range for this data

26, 27, 28, 29, 30, 32, 32, 36

Mode: **32**

Median: **29.5**

~~26~~, ~~27~~, ~~28~~, 29, 30, ~~32~~, ~~32~~, ~~36~~

Mean: (26 + 27 + 28 + 29 + 30 + 32+ 32 + 36) ÷ 8

= 240 ÷ 8 = **30**

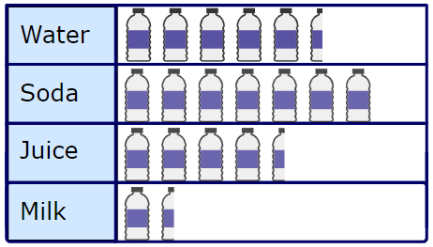
Range: 36 - 26 = **10**

## 2. Pictograms

Javed runs the school tuck shop.
He does a survey on what drinks students prefer.
Here are his results:

| Type of drink | Water | Soda | Juice | Milk |
|---|---|---|---|---|
| Number of votes | 11 | 14 | 9 | 3 |

Javed needs to present his results to the school council.
He could use a pictogram.
Each symbol represents a set number of votes.



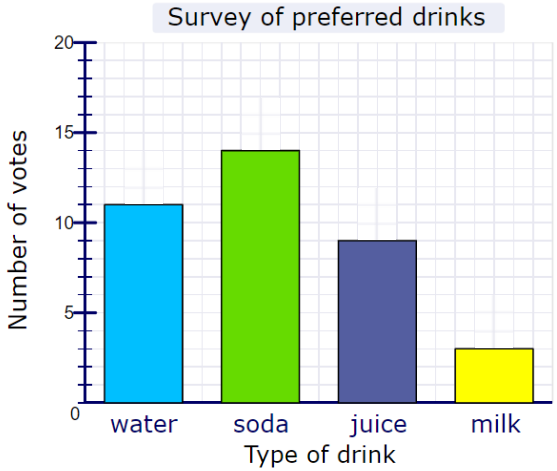

Key: = 2 votes

## 3. Bar charts

When drawing bar charts make sure that:

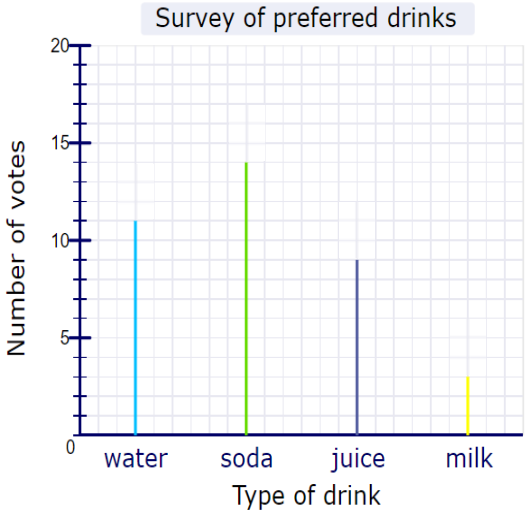
- All bars are the same width
- You put gaps between the bars. These should be the same width too.

Javed could have used a bar chart to display his data.




## 4. Vertical line graphs

Here is a vertical line graph for Javed's data.




## 5. Stem and Leaf Diagrams

A **stem and leaf diagram** is a good way to organise data into groups without losing any of the detail.

Here are the ages, in years, of the 24 employees in an office.

19 23 33 21 18 48 37 23 28 26 53 55

62 26 18 27 58 34 40 30 25 30 48 18

Think of each value as having a **stem** and a **leaf**. Here the stem is the **tens** and the leaf is the **units**.

**19**

1 stem — 9 leaf

**put the leaves in order, add a key**

| stem | leaf |
|---|---|
| 1 | 8 8 8 9 |
| 2 | 1 3 3 5 6 6 7 8 |
| 3 | 0 0 3 4 7 |
| 4 | 0 8 8 |
| 5 | 3 5 8 |
| 6 | 2 |

**Key: 1|8 means 18**

## 6. Pie Charts

In a pie chart the size of each segment represents its **proportion**.

To calculate the angles needed to draw the pie chart, divide 360° by the total frequency, this will give you an angle multiplier.

Freya worked out how she spent her holiday money.

| reason | £ | | degrees |
|---|---|---|---|
| Food and Drink | 32 | 32 × **3.396...** = **108.679°** | 109° |
| Entertainment | 36 | 36 × **3.396...** = **122.264°** | 122° |
| Presents | 21 | 21 × **3.396...** = **71.321°** | 71° |
| Day Trips | 17 | 17 × **3.396...** = **57.736°** | 58° |
| | | | 360° |

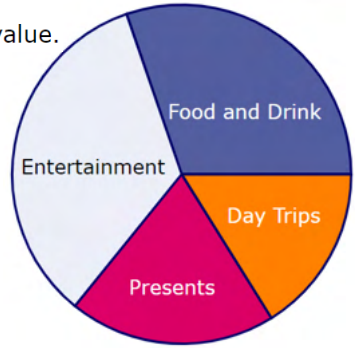
Freya's total spend was £106

Each pound would have $\frac{360}{106}$ = **3.396...°**

It is vital at this stage that we do not round this value.

Each pound needs **3.396...°** of the pie chart.

Here is the pie chart.
It shows the proportions of her money that she spent on each category.





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# Year 8- Sequences

## 1. Generating sequences

Use these rules to generate the first 5 terms of each sequence.

Add 5 to the previous term, start with 2.

**2, 7, 12, 17, 22, …**

Double the previous term, start with 1.

**1, 2, 4, 8, 16, …**

Half the previous term and then add 4. Start with 80.

**80, 44, 26, 17, 12.5, …**

If the last term is even, halve it.
If the last term is odd, subtract 1 and double. Start with 24.

**24, 12, 6, 3, 4, …**

## 2. Linear sequences

Look at the sequence: **3, 5, 7, 9, 11, …**
Each number in the sequence is called a **term**.
The difference between two consecutive terms is 2.
A sequence is **linear** if there is a **common difference** between consecutive terms.
In this sequence the **common difference** is 2.

### B. Generating linear sequences

A sequence has an nth term of **3n + 1**.
Find the first 5 terms:

1st = 3 × 1 + 1 = 4
2nd = 3 × 2 + 1 = 7
3rd = 3 × 3 + 1 = 10
4th = 3 × 4 + 1 = 13
5th = 3 × 5 + 1 = 16

**4, 7, 10, 13, 16, …**

Notice that the sequence goes up in 3s.
The **3** in the formula represents the **common difference** between

### C. Finding the nth term of linear sequences

Find the nth term of this sequence **5, 9, 13, 17, 21, …**
Step 1: find the common difference
The difference between consecutive terms is **4**.
Step 2: Compare to the first 5 multiples of 4.

**4, 8, 12, 16, 20, …**
+1 +1 +1 +1
**5, 9, 13, 17, 21, …**

So, the nth term formula is **4n + 1**

Find the nth term of this sequence **2, 9, 16, 23, 30, …**
Step 1: find the common difference
The difference between consecutive terms is **7**.
Step 2: Compare to the first 5 multiples of 7.

**7, 14, 21, 28, 35, …**
-5 -5 -5 -5
**2, 9, 16, 23, 30, …**

So, the nth term formula is **7n - 5**

## 3. Special sequences

Here is a sequence: **1, 1, 2, 3, 4, 8, …**
The term-to-term rule is:
**add the last two terms to get the next one**
This sequence is called the **Fibonacci sequence**.

A sequence may come from a pattern.

**1, 3, 6, 10, 15, …**

This sequence is called the **triangular numbers.**

**1, 4, 9, 16, 25, …**

This sequence is called the **square numbers**.

## 4. Geometric progressions

Look at the sequence **2, 4, 8, 16, …**

Can you find a pattern?
Each term is multiplied by **2** to get the next term.

Look at the sequence $1, \frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \ldots$

Can you find a pattern?
Each term is multiplied by $\frac{1}{2}$ to get the next term.

Sequences where each term is multiplied by the same number to get the next term are called geometric sequences.

The multiplier for a geometric sequence is called the **common ratio**.
Just like other sequences, a geometric sequence follows a rule.
To make a geometric sequence, you need to know the **starting point** and the **common ratio**.

Generate the first 4 terms of the geometric sequence given by the rule "start with –1 and multiply each term by 10 to get the next term."

-1 -10 -100 -1000
×10 ×10 ×10

So, the sequence is **-1, -10, -100, -1000, …**


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# Year 8 - Proportion

## 1. Unitary Method

Being able to work out how much one unit is worth helps us to scale up our problem. A proportion grid is a useful way to set out our working.

**4 Pencils cost 80p, work out the cost of 7 pencils.**

| Pencils | pence |
|---|---|
| 4 | 80 |
| ÷ 4 | ÷ 4 |
| 1 | 20 |
| x 7 | x 7 |
| 7 | 140 |

Work out the cost of one pencil by dividing by 4

Then find the cost of 7 pencils by multiplying by 7

**So 7 pencils cost 140p (or £1.40)**

## 2. Converting currency

Proportion grids work by multiplying or dividing down the grid, but also across.

Given that £1 = $1.30

a) Work out the value of £5 in $

| £ | | $ |
|---|---|---|
| 1 | x 1.30 → | 1.30 |
| x 5 ↓ | | x 5 ↓ |
| 5 | x 1.30 → | 6.50 |

So £5 = $6.50

b) Work out the value of $10.40 in £

| £ | | $ |
|---|---|---|
| 1 | x 1.30 → | 1.30 |
| ↓ | | ↓ |
| 8 | ← ÷ 1.30 | 10.40 |

So $10.40 = £8

For a) it is easier to go down and x 5,

but for b) it is easier to go across and ÷ 1.30

## 3. Recipe problems

This is the recipe for cottage pie for 2 people:

÷ 2 x 3

| | 2 people | 1 person | 3 people |
|---|---|---|---|
| mince | 250 g | 125 g | 375 g |
| potato | 400 g | 200 g | 600 g |
| butter | 30 g | 15 g | 45 g |

How much of each ingredient would you need for 3 people?

Work out the recipe per person by ÷ 2

Eg. Mince for 1 person = 250g ÷ 2 = 125g

Then find the recipe for 3 people by multiplying by 3

Eg. Mince for 3 people = 125g x 3 = 375g

## 4. Best buys

A fruit drink comes in two sizes:

a) 250ml for £1.80 b) 400ml for £2.50

Which is the best value?

We can't easily compare 250ml and 400ml.

But we can if we know the price per ml

a)

| ml | £ |
|---|---|
| 250 | 1.80 |
| ÷ 250 | ÷ 250 |
| 1 | 0.0072 |

b)

| ml | £ |
|---|---|
| 400 | 2.50 |
| ÷ 400 | ÷ 400 |
| 1 | 0.0063 |

£0.0063 per ml is the cheapest per ml, so b) 400ml for £2.50 is the best value.

At the hardware store, nails can be purchased in two different packets:

a) 200g for £1.80

b) 500g for £4.00

200g and 500g are both factors of 1kg.

To compare value, calculate the price for 1kg.

| g | £ |
|---|---|
| 200 | £1.80 |
| x 5 | x 5 |
| 1000 | £9 |

| g | £ |
|---|---|
| 500 | £4.00 |
| x 2 | x 2 |
| 1000 | £8 |

So, b) represents the best value for money

Look for the cheapest price per unit in any best buy question, or use a common multiple


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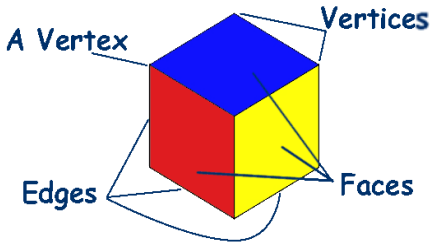
# Maths, Y8 - 3D Shapes

## 1. Keywords




**Face:** the flat surface of a 3D shape

**Edge:** the sides where faces come together

**Vertex:** the point where edges meet

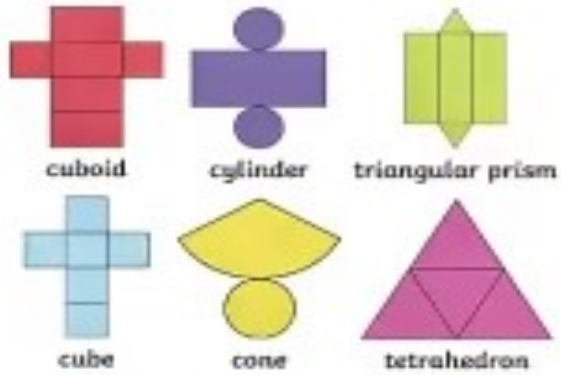
## 2. Properties of 3D shapes

| Cube | Sphere | Cylinder | Cuboid |
|---|---|---|---|
| 6 faces | 1 face | 3 faces | 6 faces |
| 12 edges | 0 edges | 2 edges | 12 edges |
| 8 vertices | 0 vertices | 0 vertices | 8 vertices |

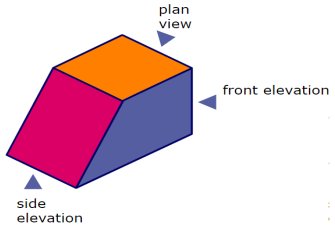
| Tetrahedron | Triangular Prism | Cone | Square-based Pyramid |
|---|---|---|---|
| 4 faces | 5 faces | 2 faces | 5 faces |
| 6 edges | 9 edges | 1 edge | 8 edges |
| 4 vertices | 6 vertices | 1 vertex | 5 vertices |

## 3. Nets

The **net** of a **3D shape** is what it looks like if it is opened out flat.




## 4. Plans and Elevations



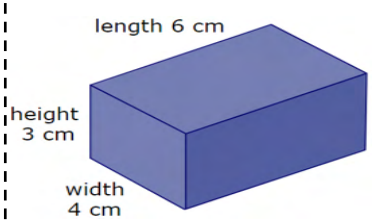

Plan 'top' view | Front elevation | Side elevation

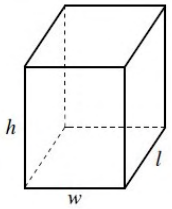
## 5. Volume

Volume is a measure of the amount of space there is inside a 3D object.

### A. Volume of Cubes and Cuboids

Volume = l x w x h



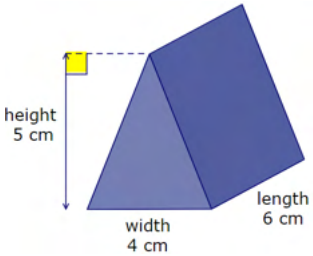



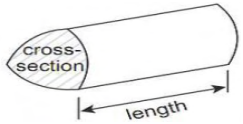

V = 6 x 4 x 3

= 72 cm$^3$

### B. Volume of a Prism

Volume = area of cross section x length



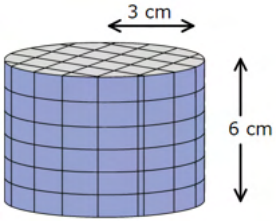

The cross-section is a triangle.

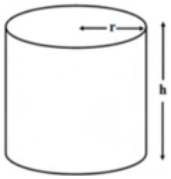
$$\text{area} = \tfrac{1}{2} \times \text{base} \times \text{height}$$
$$= \tfrac{1}{2} \times 4\text{ cm} \times 5\text{ cm}$$
$$= \tfrac{1}{2} \times 20\text{ cm}^2$$
$$= \mathbf{10\text{ cm}^2}$$

$$\text{volume} = 10\text{ cm}^3 \times 6$$
$$= \mathbf{60\text{ cm}^3}$$

### C. Volume of Cylinders

Volume = $\pi r^2 h$



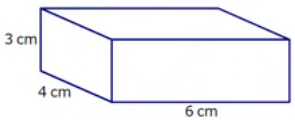




$$V = \pi r^2 h$$
$$= \pi \times 3^2 \times 6$$
$$= 54\pi$$
$$= \mathbf{169.65\text{ cm}^3}$$

## 6. Surface Area

Surface area is the total sum of the areas of all of the faces of a 3D shape.

### A. Surface area of a cuboid




Find the surface area of this cuboid.

first pair: Top & bottom

$6 \times 4 = 24\text{ cm}^2$

$2 \times 24 = \mathbf{48\text{ cm}^2}$

second pair: Sides

$3 \times 4 = 12\text{ cm}^2$

$2 \times 12 = \mathbf{24\text{ cm}^2}$

third pair: Front & back

$6 \times 3 = 18\text{ cm}^2$

$2 \times 18 = \mathbf{36\text{ cm}^2}$

surface area $= 48 + 24 + 36$

$= \mathbf{108\text{ cm}^2}$

### B. Surface area of a prism

triangle faces:

$\frac{1}{2} \times 5 \times 6 = 15\text{ cm}^2$

$2 \times 15 = \mathbf{30\text{ cm}^2}$

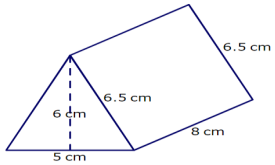
outer rectangle faces:

$8 \times 6.5 = 52\text{ cm}^2$

$2 \times 52 = \mathbf{104\text{ cm}^2}$

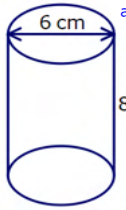
Base, a rectangle face:

$5 \times 8 = \mathbf{40\text{ cm}^2}$




surface area $= 30 + 104 + 40 = \mathbf{174\text{ cm}^2}$

### C. Surface area of a cylinder




area of one circular face

$= \pi r^2$

$= \pi \times 3 \times 3$

$= \mathbf{9\pi\text{ cm}^2}$

area of rectangle

= length × width

The width is the **circumference** of the circle.

$= \pi \times d$

$= \pi \times 6$

$= 6\pi$ cm

area of rectangle

$= 8 \times 6\pi$

$= \mathbf{48\pi\text{ cm}^2}$

total surface area

= 2 circles and rectangle

$= 2 \times \mathbf{9\pi\text{ cm}^2} + \mathbf{48\pi\text{ cm}^2}$

$= \mathbf{207\text{ cm}^2}$

(to the nearest cm²)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# Year 8 French Autumn Half Term 1 La mode et mon style

**Pour aller au collège…**
(To go to school…)

**Pour aller à une fête…**
(To go to a party…)

**Pour aller en ville…**
(To go to town…)

**Pour faire du sport…**
(To do sport)

**Pour sortir…**
(To go out…)

**Pour être à l'aise…**
(To be comfortable…)

**Le week-end…**
(At the weekend…)

**S'il fait beau…**
(If the weather is nice…)

**Quand il fait froid…**
(When it is cold…)

**Mais** (but)

**Par contre** (on the other hand)

**Qu'est-ce que tu portes le week-end/pour aller au collège ?** (What do you wear at the weekend/to go to school?)

**Je porte** (I wear)

**Tu portes** (you wear)

**Il/elle porte** (he/she wears)

**On porte** (we wear)

**Nous portons** (we wear)

**Vous portez** (you wear)

**Ils/elles portent** (they wear)

**Je ne porte jamais de*** (I never wear)

**J'aime porter** (I like to wear)

**Il/elle aime porter** (He/she likes to wear)

*** de replaces un/une/des**

un **T-shirt** (a T-shirt)
un **maillot de bain** (a swimsuit)
un **short** (shorts)
un **sweat** (a sweatshirt)
un **jean** (jeans)
un **blouson** (a bomber jacket)
un **chapeau** (a hat)
un **costume** (a suit)
un **pantalon** (trousers)
un **manteau** (a coat)
un **pull** (a jumper)
un **survêtement** (a tracksuit)
un **uniforme** (a uniform)
un **haut** (a top)

une **casquette** (a cap)
une **chemise** (a shirt)
une **cravate** (a tie)
une **écharpe** (a scarf)
une **jupe** (a skirt)
une **robe** (a dress)
une **veste** (a jacket)

des **gants** (gloves)

des **bottes** (boots)
des **chaussettes** (socks)
des **chaussures** (shoes)
des **baskets** (trainers)
des **sandales** (sandals)

**bleu / bleue / bleus / bleues**

**vert /verte / verts /vertes**

**noir / noire / noirs / noires**

**gris / grise / gris /grises**

**blanc / blanche / blancs / blanches**

**violet / violette /violets / violettes**

**jaune / jaune /jaunes / jaunes**

**rouge /rouge /rouges /rouges**

**rose / rose / roses / roses**

**orange /orange / orange / orange**

**marron / marron / marron / marron**

**coloré** (colourful) **à pois** (spotty) **à carreaux** (checked) **à manches courtes** (short sleeved)

**uni** (plain) **à rayures** (stripy) **sans manches** (sleeveless) **à manches longues** (long sleeved)


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# Year 8 French Autumn Half Term 1 La mode et mon style

| **Quel look/style préfères-tu?** (What look/style do you prefer?) | |
|---|---|
| **J'adore** (I love)<br>**J'aime** (I like)<br>**Je préfère** (I prefer)<br>**Je n'aime pas** (I don't like)<br>**Je déteste** (I hate) | **le look fashion** (the fashion look)<br>**le look rappeur** (the rapper look)<br>**le look gothique** (the gothic look)<br>**le style classique** ( the classic style)<br>**le style décontracté** (the casual style)<br>**le style skateur** (the skateboarder style)<br>**le style sportif** (the sporty style) |

| **Qu'est-ce que tu vas porter?** (What are you going to wear?) | | |
|---|---|---|
| **Pour aller à une fête d'anniversaire…** (To go to a birthday party…)<br>**Pour aller à un mariage** (To go to a wedding)<br>**Pour Noël** (At Christmas) | **je vais** (I am going)<br>**tu vas** (you are going)<br>**il/elle va** (he/she is going)<br>**on va** (we are going)<br>**nous allons** (we are going)<br>**vous allez** (you are going)<br>**ils/elles vont** (they are going) | **porter (**to wear) |

| **Qu'est-ce que tu penses?** (What do you think?) | |
|---|---|
| **A mon avis** (In my opinion)<br>**Je pense que** (I think that)<br>**Je dirais que** (I would say that) | **c'est pratique** (it's practical)<br>**c'est confortable** (it's comfortable)<br>**c'est élégant** (it's elegant/smart)<br>**c'est branché** (it's trendy)<br>**c'est à la mode** (it's fashionable)<br>**c'est mignon** (it's cute)<br>**c'est démodé** (it's old-fashioned)<br>**c'est inconfortable** (it's uncomfortable)<br>**c'est moche** (it's ugly)<br>**c'est nul** (it's rubbish)<br>**c'est ringard** (it's tacky) |

Les vêtements

https://quizlet.com/gb/548959158/y8-half-term-1-clothes-flash-cards/

Les opinions

https://quizlet.com/gb/706246018/y8-half-term-1-opinions-on-clothes-flash-cards/

**en cuir** (leather)
**en laine** (wool)
**en soie** (silk)
**en coton** (cotton)
**en nylon** (nylon)
**en jean** (denim)


26

# Year 8 French Autumn Half Term 2 Tout n’est pas rose

**Décris ta routine journalière.** Describe your daily routine.

| | | |
|---|---|---|
| **À cinq heures** at 5.00 | **Je me réveille** I wake up | **d’abord** firstly |
| **À cinq heures cinq** at 5.05 | **Je me brosse les dents** I brush my teeth | **puis** then |
| **À cinq heures dix** at 5.10 | **Je me lève** I get up | **ensuite** then/next |
| **À cinq heures et quart** at 5.15 | **Je quitte la maison** I leave the house | **après** after |
| **À cinq heures vingt** at 5.20 | **Je me lave** I have a wash | **après ça** after that |
| **À cinq heures vingt-cinq** at 5.25 | **Je vais au collège** I go to school | **pour finir** finally |
| **À cinq heures et demie** at 5.30 | **Je prends mon petit-déjeuner** I have breakfast | |
| **À <u>six</u> heures moins vingt-cinq** at 5.35 | **Je rentre chez moi** I return home | |
| **À <u>six</u> heures moins vingt** at 5.40 | **Je m’habille** I get dressed | |
| **À <u>six</u> heures moins le quart** at 5.45 | **Je fais mes devoirs** I do my homework | |
| **À <u>six</u> heures moins dix** at 5.50 | **Je me couche** I go to bed | |
| **À <u>six</u> heures moins cinq** at 5.55 | | |

**Grammaire** p. 168–169 WB p.43

**Reflexive verbs**

Reflexive verbs are used when the person or thing doing the action is doing it to themselves. These verbs have an extra pronoun to show this:
*je **me** lave* – I wash myself

| | |
|---|---|
| je **me** lave | je **m’**habille |
| tu **te** laves | tu **t’**habilles |
| il/elle **se** lave | il/elle **s’**habille |

**mais** but

**cependant** however

**par contre** on the other hand

**d’autre part** on the other hand

Daily routine
https://quizlet.com/gb/624719071/y8-half-term-2-ma-routine-flash-cards/

| | |
|---|---|
| **5** cinq | **50** cinquante |
| **10** dix | **60** soixante |
| **15** quinze | **70** soixante-dix |
| **20** vingt | **80** quatre-vingts |
| **25** vingt-cinq | **90** quatre-vingt-dix |
| **30** trente | **100** cent |
| **40** quarante | |

**Improving your speaking and writing**

How long a sentence can you make using these sequencers to describe your morning routine?

*d’abord* – firstly
*puis* – then/next
*ensuite* – then/next
*après* – after
*après ça* – after that
*pour finir* – finally


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| Vivo en | I live in |
|---|---|
| antiguo/a | *old* |
| histórico/a | *historic* |
| moderno/a | *modern* |
| las afueras | *outskirts* |
| la aldea | *village* |
| el campo | *countryside* |
| el centro | *centre* |
| la ciudad | *city* |
| la costa | *coast* |
| el desierto | *desert* |
| la isla | *island* |
| el mar | *sea* |
| la montaña | *mountain(s)* |
| la playa | *beach* |
| el pueblo | *town* |
| vivir | *to live* |
| la zona | *area* |
| la brújula | *compass* |
| el este | *east* |
| el noreste | *northeast* |
| el noroeste | *northwest* |
| el norte | *north* |
| el oeste | *west* |
| los puntos cardinales | *compass points* |
| el sur | *south* |
| el sureste | *southeast* |
| el suroeste | *southwest* |

## Gramática

p.88; WB p.42

***Es* and *está***

In Spanish, there are two ways to say 'it is': *es* and *está*.

*Es* is used for general descriptions:

*Madrid es grande.*
*Mi madre es simpática.*

*Está* is used for position:

*Valencia está en el este de España.*
*Pamplona está en el norte.*

## Gramática

***Vivir***

This is a regular *–ir* verb in the present tense.

| ***vivir*** | **to live** |
|---|---|
| *vivo* | I live |
| *vives* | you (sing) live |
| *vive* | he/she/it lives |
| *vivimos* | we live |
| *vivís* | you (pl) live |
| *viven* | they live |

## ¡Arriba, arriba!

You can make descriptions of homes more impressive by adding adjectives:

| | |
|---|---|
| *viejo/a* | old |
| *nuevo/a* | new |
| *espacioso/a* | spacious |
| *cómodo/a* | comfortable |
| *lujoso/a* | luxurious |

Remember to make sure the adjectives agree with what they describe:

- *una casa nueva*
- *dos pisos cómodos*

| Mi casa es tu casa | My house is your house |
|---|---|
| el apartamento | *apartment* |
| el área | *area* |
| el bloque | *block* |
| la caravana | *caravan* |
| la casa | *house* |
| la casa de campo | *country house* |
| el castillo | *castle* |
| el chalet | *villa* |
| la granja | *farm* |
| el piso | *flat* |
| el rascacielos | *skyscraper* |
| la región | *region* |
| la vista | *view* |
| bonito/a | *pretty* |
| cómodo/a | *comfortable* |
| espacioso/a | *spacious* |
| lujoso/a | *luxurious* |
| nuevo/a | *new* |
| viejo/a | *old* |

https://quizlet.com/371144552/claro-41-donde-vivo-yo-flash-cards/
https://quizlet.com/gb/812630168/claro-1-42-mi-casa-es-tu-casa-flash-cards/

28

| | |
|---|---|
| pasa a mi casa | come in to my house |
| en mi casa | in my house |
| hay… | there is/are |
| no hay … | there isn't/aren't |
| las habitaciones | rooms |
| el aseo | toilet |
| el ático | attic |
| el balcón | balcony |
| el baño | bathroom |
| la cocina | kitchen |
| el comedor | dining room |
| el dormitorio | bedroom |
| las escaleras | stairs |
| el garaje | garage |
| el jardín | garden |
| el pasillo | hallway |
| el salón | living room |
| situarse en | to be located in |
| el trastero | storage room |
| vender | to sell |
| abajo | downstairs |
| afuera | outside |
| arriba | upstairs |

| | |
|---|---|
| Mi habitación es mi reino | My room is my kingdom |
| En mi habitación hay… | In my room there is… |
| los muebles | *furniture* |
| el armario | *wardrobe* |
| la cama | *bed* |
| el espejo | *mirror* |
| la estantería | *shelves, bookcase* |
| la lámpara | *lamp* |
| la mesa | *table* |
| el ordenador | *computer* |
| el póster | *poster* |
| la silla | *chair* |
| la ventana | *window* |
| al lado de | *next to* |
| debajo de | *underneath* |
| delante de | *in front of* |
| detrás de | *behind* |
| encima de | *on top of* |
| entre | *between* |

## Gramática

p.89; WB p.44

**Prepositions of place with *estar***

The following expressions are used with the verb *estar* to state where something is:

| | |
|---|---|
| *encima de* | on top of |
| *debajo de* | under |
| *al lado de* | next to |
| *delante de* | in front of |
| *detrás de* | behind |
| *entre* | between |

Whenever you have *de* and *el* together in a sentence, you must combine them to make *del*.

- *El póster está encima **de el** armario.*
  ↓
  *El póster está encima **del** armario.*

Note that *entre* is **not** followed by *de* and so this rule is not needed.

## Patrones y reglas

Remember, 'a' is either *un* (masculine) or *una* (feminine). 'The' is either *el* (masculine) or *la* (feminine).

- ***un** armario* a wardrobe
- ***el** armario* the wardrobe
- ***una** cama* a bed
- ***la** cama* the bed

https://quizlet.com/gb/499638224/mi-casa-43-year-7-unit-4-claro-1-flash-cards/

https://quizlet.com/gb/499639079/mi-casa-44-year-7-unit-4-claro-1-flash-cards/


29

| | |
|---|---|
| En mi ciudad hay… | In my town there is |
| En mi ciudad no hay… | In my town there is not… |
| un banco | a bank |
| una biblioteca | a library |
| una calle | a street |
| una catedral | a cathedral |
| un cine | a cinema |
| una estación | a station |
| un estadio | a stadium |
| un hospital | a hospital |
| un hotel | a hotel |
| una iglesia | a church |
| un instituto | a school |
| una mezquita | a mosque |
| un museo | a museum |
| un parque | a park |
| una plaza de toros | a bull ring |
| un restaurante | a restaurant |
| un supermercado | a supermarket |
| una tienda de ropa | a clothes shop |

| | |
|---|---|
| bonito/a | pretty |
| histórico/a | historic |
| tranquilo/a | quiet/peaceful |

## Gramática

p.110; WB p.54

***Hay***

*Hay* is a very useful word that is used with singular or plural nouns. It means both 'there is' and 'there are'.

- *En mi ciudad hay una estación de tren.*
- *En mi casa hay tres dormitorios.*

The *un/una* is often missed out when *no hay* is used:

- *No hay estadio.*

Note that *hay* differs in meaning from *tiene* ('he/she/it has') and *es* ('he/she/it is').

## Gramática

p.110; WB p.55

***Ir* in the present tense**

*Ir* is one of the most frequently used verbs in Spanish. It is irregular in the present tense.

| *ir* | to go | | |
|---|---|---|---|
| *voy* | I go | *vamos* | we go |
| *vas* | you (sing) go | *vais* | you (pl) go |
| *va* | he/she/it goes | *van* | they go |

| | |
|---|---|
| Voy allí para… | I go there to… |
| apoyar | to support |
| comprar | to buy |
| estudiar | to study |
| ir | to go |
| observar | to observe |
| pasear | to walk |
| ver | to watch/see |
| viajar | to travel |
| visitar | to visit |
| el equipo | the team |
| las ruinas | the ruins |
| el sitio | the site/place |
| único/a | unique |
| al perro | the dog |

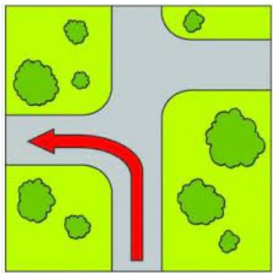
## Patrones y reglas

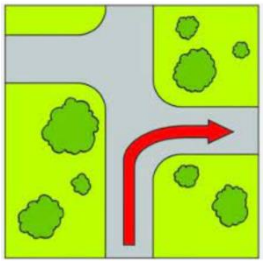
You have already come across the structure *ir a* ('to go to'). Note that if the noun that follows the *a* is masculine singular, you must combine the *a* and *el* to make *al*.

- *Voy **al** estadio.*
  I am going/I go to the stadium.
- *Vamos **al** supermercado.*
  We are going/We go to the supermarket.
- *¿Por dónde se va **al** hospital?*
  How do I get to the hospital?

| | |
|---|---|
| ¿Por dónde se va al… + PLACE? | How do I get to? |
| Cruza | Cross |
| Pasa | Go past |
| Toma | Take |
| Tuerce | Turn |

| | |
|---|---|
| La primera | The first |
| La segunda | The second |
| La tercera | The third |
| A la derecha | on the right |
| A la izquierda | on the left |
| Sigue todo recto | Go straight on |





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https://quizlet.com/gb/499646172/en-mi-ciudad-52-year-7-unit-5-claro-1-flash-cards/

https://quizlet.com/gb/499646682/en-mi-ciudad-53-year-7-unit-5-claro-1-flash-cards/


30

# Offbeat

*Exploring Reggae and Syncopation*

## A. How did Reggae develop?

**REGGAE** is one of the traditional musical styles from **JAMAICA**. It developed from :

**REGGAE**

| MENTO | SKA | ROCK STEADY |
|---|---|---|
| A form of Jamaican **FOLK MUSIC** like **CALYPSO** popular in the 1950's. | Fast dance music that emerged in the 1950's fusing American R&B with **MENTO** rhythms and featuring **ELECTRIC GUITARS, JAZZY HORN SECTIONS** and characteristic **OFFBEAT RHYTHMS.** | A more vocal style of dance music which used **RIFFS, SIMPLE HARMONIES, OFFBEAT RHYTHMS** and a strong **BASS LINE**. |

Reggae was first heard in the UK in the 1950's when immigrants began to settle. During the 1960's, people began importing singles from Jamaica to sell in UK shops. Now, Reggae is known as the national music of Jamaica.

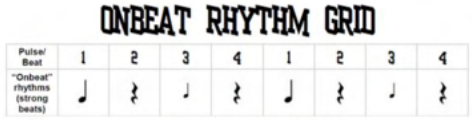
## B. Where is Jamaica?

## C. What are Reggae Songs About?

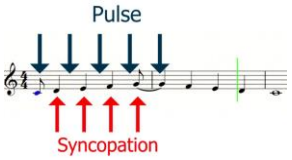
Reggae is closely associated with **RASTAFARIANISM** (a religious movement worshipping Haile Selassie as the Messiah and that black people are the chosen people and will eventually return to their African homeland). The **LYRICS** of Reggae songs are strongly influenced by Rastafarianism and are often political including themes such as **LOVE, BROTHERHOOD, PEACE, POVERTY, ANTI-RACISM, OPTIMISM** and **FREEDOM**.

## D. Offbeat Rhythms & Syncopation

**OFFBEAT RHYTHMS –** Rhythms that emphasise or stress the **WEAK BEATS OF A BAR**. In music that is in 4/4 time, the first beat of the bar is the strongest, the third the next strongest and the second and fourth are weaker. Emphasising the second and fourth beats of the bar gives a "missing beat feel" to the rhythm and makes the music sound **OFFBEAT,** often emphasised by the **BASS DRUM** or a **RIM SHOT** (hitting the edge of a **SNARE DRUM**) in much Reggae music.

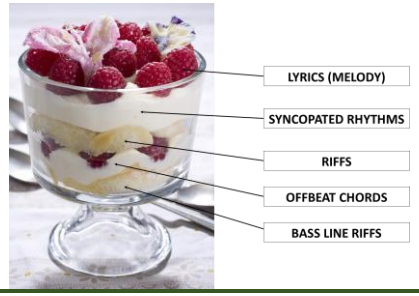


**SYNCOPATION –** A way of changing a rhythm by making some notes a bit early, often so they cross over the main beat of the music giving the music a further **OFFBEAT** feel – another common feature of Reggae music.




## E. Musical Features of Reggae

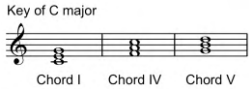
**OFFBEAT RHYTHMS AND CHORDS** (see D)
**SYNCOPATED RHYTHMS AND MELODIES** (see D)
**SUNG LYRICS** (see C)
**LEAD SINGER** often with **BACKING SINGERS** sometimes singing in **CALL AND RESPONSE** (see F3) accompanied by a Reggae band which often features: **BRASS INSTRUMENTS** and **SAXOPHONES, ELECTRIC GUITARS, BASS GUITAR, KEYBOARDS, DRUMS AND PERCUSSION INSTRUMENTS.**
**VOCAL AND INSTRUMENTAL IMPROVISATIONS** (see F2)
**MELODIC RIFFS** (see F5)
**SLOW, RELAXED** ('chilled!') **TEMPO**
**4/4 METRE/TIME SIGNATURE**
Most Reggae songs are structured in **VERSE AND CHORUS/POPULAR SONG FORM**.
**SIMPLE HARMONIES** (see F4)




**THICK TEXTURAL LAYERS** (see F9) "The Reggae Trifle" is an example of how many Reggae songs are 'layered'.

## F. Reggae Key Words

1. **MELODY** – The main 'tune' of a piece of music, often sung by the **LEAD SINGER**.
2. **IMPROVISATION** – Previously unprepared performance.
3. **CALL AND RESPONSE** – Similar to a "Question and Answer" often the call sung by the lead singer and answered by the backing singers or instruments (the response) – musical dialogue.
4. **SIMPLE HARMONIES** – using a limited number of **CHORDS,** mainly **PRIMARY TRIADS** such as the **TONIC, DOMINANT** and **SUBDOMINANT** chords.




5. **RIFF** – A repeated musical pattern. Often the **BASS GUITAR** played repeated **MELODIC BASS RIFFS** in Reggae songs.
6. **BASS/BASS LINE** – The lowest pitched part of a piece of music often played by the **BASS GUITAR** in Reggae which plays an important role.
7. **CHORD** – 2 or more notes played together in **HARMONY**.
8. **RHYTHM** – A series of long and short sounds.
9. **TEXTURE** – Layers of sound combined to make music.

## G. Who was Bob Marley?

**BOB MARLEY** was a famous reggae singer, **SONGWRITER**, and musician who first became famous in his band The Wailers, and later as a **SOLO ARTIST**. He was born Nesta Robert Marley on February 6th, 1945 in Nine Mile, Saint Ann, Jamaica. Although he grew up in poverty, he surrounded himself with music and met some of the future members of The Wailers. Bob Marley became involved in the Rastafarian movement and this influenced his music style greatly. Bob Marley and The Wailers worked with several famous musicians before becoming famous on their own. His career flourished and he became a cultural icon. He was the first international superstar to have been born in poverty in a Third-World country.

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# All That Jazz

*Exploring Jazz and The Blues*

African Music

European Music

## Work-songs & Spirituals

Combined African **SYNCOPATIONS** and **POLYRHYTHMS** with hymn-tunes from the white settlers from Europe.
Based on African **CALL AND RESPONSE** pattern with leader (**UNISON**) singing the "call" answered by a chorus (**HARMONY**) singing the "response" (answer).

## The Blues

Simple, personal, and strongly felt lyrics in **A-A-B** form.
Built on a chord progression called the **TWELVE BAR BLUES** (using **CHORDS I, IV & V**) and some **SEVENTH CHORDS**.
Uses the **BLUES SCALE** for vocal and instrumental **IMPROVISATIONS.** Melodies are often **SYNCOPATED** with instrumental **BREAKS** at the end of each vocal line.
Famous Blues singers include *Bessie Smith, Sarah Vaughan, Ella Fitzgerald, Billie Holiday.*

## Ragtime

Performed on a solo piano with a leaping **VAMP** accompaniment in the left hand against **SYNCOPATED** offbeat and **CHROMATIC** melodies in the right hand.
Longer pieces of ragtime often broken down into different sections for variety. *Scott Joplin* was the most famous ragtime composer whose works include: *"The Entertainer", "Maple Leaf Rag" and "Ragtime Dance"* .

## Dixieland/Trad/New Orleans Jazz

Small ensembles of 5-6 players on instruments such as drums, banjo, cornet, trombone, string bass, clarinet etc. Based on a traditional "song" but "played around" with by solo performers adding **IMPROVISATIONS** and **COUNTER MELODIES**
Soloists accompanied and 'backed' by a "**RHYTHM SECTION**". *Famous Dixieland Jazz artists include Duke Ellington, Bix Beiderbecke, Louis Armstrong.*

## Swing

Larger ensembles of 10+ with a "leader" who wrote down and arranged the music for players. Sections included rhythm (piano and drums/ bass), reeds trumpets and trombones. **CHROMATIC SCALE** often used in Swing. Uses **SOLOISTS** who **IMPROVISE** against the **ENSEMBLE** in **COLLECTIVE IMPROVISATION.** Often characterised by a **SWING** rhythm which is easy to **DANCE** to. Often based on a **WALKING BASS LINE.** *Glenn Miller is probably the most famous swing band leader (and Trombonist) and his well-known piece "In the Mood".*

## Bebop

Bebop developed in 1940's as swing declined in popularity. Characterised by fast tempo, tricky chord changes and emphasis placed on **VITRUOSIC IMPROVISATION** with improvisation contests.
Bands returned to 5 or 6 members and Bebop was listened to rather than danced to.
Famous Bebop musicians include *Charlie Parker* and *Dizzy Gillespie*.

## Free/Modal Jazz

Slower Tempo than Swing and Bebop.
More laid-back feel and relaxed mood.
Continued the jazz tradition of a **SOLOIST(S)** backed by **RHYTHM SECTION. IMPROVISATION** still a key feature but more emphasis on **TIMBRE** and **SONORITY**. Based on a set of chords (often 12-bar blues or 32 bars) and based on **MODES** (a type of **SCALE**) *e.g., Dorian Mode, Lydian Mode etc.* Famous Modal Jazz artists include *Miles Davis, John Coltrane*.

## A. Jazz and Blues Key Words

**RIFF/OSTINATO** – Short, repeated musical patterns often used in **SOLOS**.
**IMPROVISATION** – music created 'on the spot' (previously unprepared performance)
**SEVENTH CHORD** – a **TRIAD** (root, third and fifth) with a fourth note added which is seven notes about the root/tonic. **C7** = C , E, G (triad) + **B flat**.
**SWING/SWUNG RHYTHM** – performing a regular 'straight' rhythm with a 'lilt' in a "**ONE** and **A**, **TWO** and **A**" style (using **TRIPLETS**) common in swing music.

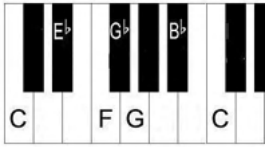
## B. The Twelve Bar Blues

Some or all of these chords can be **SEVENTH CHORDS (7)**

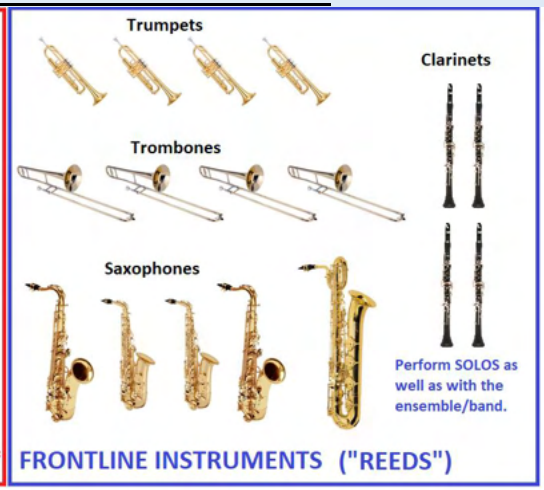
| | | | |
|---|---|---|---|
| CHORD I | CHORD I | CHORD I | CHORD I |
| CHORD IV | CHORD IV | CHORD I | CHORD I |
| CHORD V | CHORD IV | CHORD I | CHORD I |

## C. The Blues Scale

**BLUES SCALE** – a series of notes often used within improvisations in blues music *(the Blues Scale on C is shown to the right)*.
**BLUE NOTES** – additional or extra sharpened or flattened notes in a melody.




## D. Instruments of Jazz and Blues

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# YEAR 8 HANDBALL KNOWLEDGE ORGANISER

## 1. Rules of the Game.

1. **Ball can be held for maximum of 3 seconds when stood still**
2. **Outfield players cannot enter either 'D'**
3. **A maximum of three steps can be made before and after a bounce of the ball**
4. **Contact with the ball cannot be made with the lower leg/foot unless you are a goalkeeper**
6. **When a foul is committed this is a free throw with the opponents to stand at least 3 metres away from the ball**
5. **Any contact made must be towards the front of an opponent – none can be made from behind**

## 2. Passing & Receiving – How do we throw and catch the ball effectively in handball whilst on the move?

**You may not always be receiving the ball from a static position.**

**Try to receive the ball slightly in front of you so that receiving the ball does not halt momentum**

- Place hand out in front to act as a target for your teammate
- Relax fingers to act as a shock absorber when the ball makes contact with the hand
- Bend elbows slightly to aid with this
- Bring other hand on top of the ball to ensure ball is secure in grip

## 3. Moving with the ball – How can we move more effectively with the ball after three steps?

After taking three steps we can then bounce the ball before taking three more steps – **3 steps – bounce – 3 steps**

**Things to note:**

- Should only be used when there is space in front
- Do not bounce the ball at feet or right in front of opponent

## 4. What fitness components are important in handball?

| Components of Fitness |
|---|
| **Balance –** to be able to stay upright over the base of support whilst jumping up to block |
| **Speed -** to move the legs quickly to move past an opponent |
| **Coordination –** ability to move arms to pass whilst using eyes to look for the target |
| **Power –** to ensure that shooting is performed explosively to make it harder for the goalkeeper to save |
| **Reaction Time –** to respond quickly to an opponent trying to move past with the ball or to shoot |


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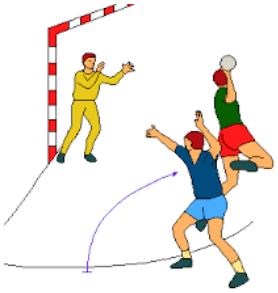
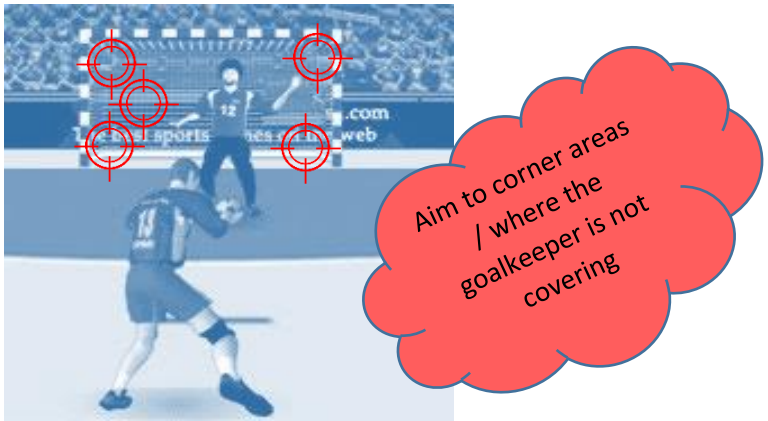
## 5. Shooting – How can we effectively shoot in handball by getting closer to the goal?



**Shots can be made by jumping prior to the line of the 'D' as long as the ball is thrown before landing inside of the 'D'**

- Receive ball on the move
- Raise the ball above shoulder alike to when performing the shoulder pass
- Use the three steps to move into the shot to produce more power
- Transfer body weight from back to front
- Jump forwards to get close to the goal and release before landing inside the 'D'




## 6. Blocking – how can we defend effectively in handball?

Meet the opponent as close as you can in a balanced position

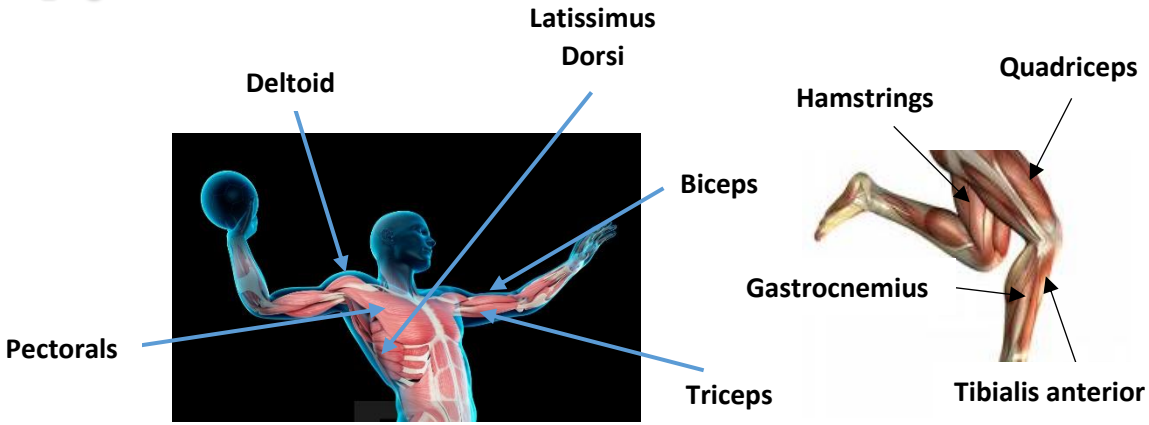
Slight bend in the elbows

Get as close as possible to the shooting arm of the opponent

Jump up with body arms raised and close together so the ball cannot go through the middle

Aim to block the ball with hands or forearms so no injury occurs

## 7. What muscles are used in handball?





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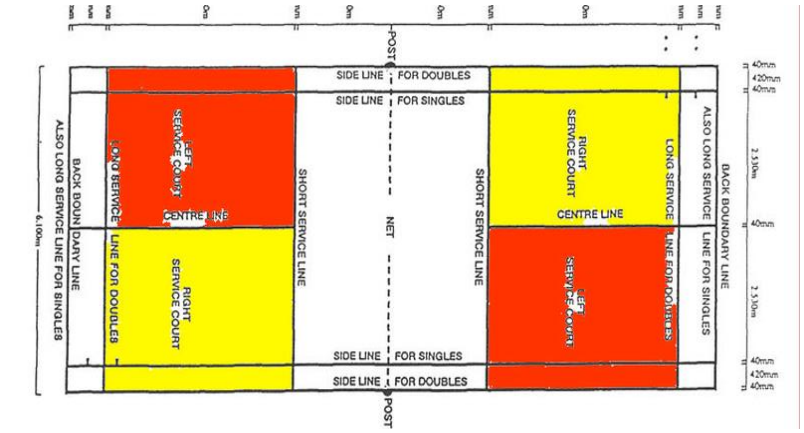
# Badminton Y8

## Knowledge Organiser

### 1. Serving System- Doubles

1. Each side only has one serve. This means if you start serving and lose the point, the serve it passes to the other team.
2. Players only change side of the court if they win na point on their serve.
3. When your score is even you serve from the right hand side of the court, if its odd serve from the left.

### 3. Badminton Court - Doubles



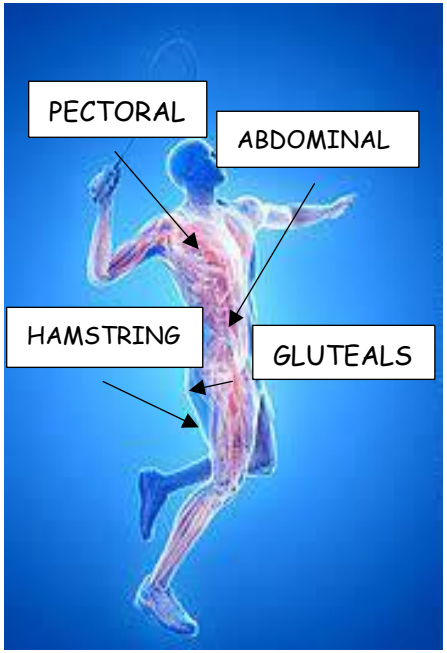

### 2. Skills & Techniques

**Grip and ready position:** To be able to demonstrate & use the correct grip and ready position.
**Overhead/Underarm Clear:**. To develop the skill of outwitting an opponent using a combination of shots. Teaching points; Position of shuttle- key to shot, Aim towards flight of shuttle with non racket hand. Snap wrist on contact, high arc of shuttle
**Drop shot:** To be able to outwit opponents using simple drop shot. Teaching points; deception, low over net & use of angles.
**the Smash:** To understand the importance of movement and preparation for an effective smash. Teaching points; Shuttle in front of head, Snap wrist, Aim towards ground
**Low Serve:** holding the racket using the thumb grip. The stance should be square or slightly staggered with the racket side foot in front of the other foot. The feet and body should be facing the opponent. The shuttle should be held at waist height, and body weight should be distributed between both feet.
**High Serve**: Most of the bodyweight should be placed on the dominant (rear) foot. Take the arm back into the backswing position with the wrist and hand cocked. Bodyweight should then be shifted on to the non-dominant (front) foot. To produce the pace on this serve a lot of quick wrist action, and forearm rotation is needed. Make contact with the shuttle at thigh level.

### 4. Rules:

1. The player/pair winning a rally adds a point to its score.
2. The player/pair winning a game serves first in the next game.
3. A point is scored when the shuttlecock lands inside the opponent's court or if a returned shuttlecock hits the net or lands outside of the court the player will lose the point.

### 5. Muscles Used in Badminton




### 6. Components of Fitness

**Cardiovascular Endurance –** The ability of the heart and lungs to supply oxygen to the working muscles
**Power –** The product of speed and strength, ie speed x strength.
**Co-ordination –** The ability to use two or more parts of the body together smoothly and efficiently

### 7. Key Words

**Footwork –** the way in which you move your feet to move around the court.

**Ready Position –** the waiting position before you move or play a shot.

**Trajectory –** the path followed by the shuttle once hit by the racket.

### 8.Bones Used in Badminton

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# YEAR 8 NETBALL KNOWLEDGE ORGANISER

## 1. Key Skills and Rules

**Speed**:-to dash across the court, catch and pass the netball and defend your opponent.

**Strength** – to apply great force when accelerating, jumping, or throwing the netball.

**Agility** – to rapidly change your position with precise control to dodge your opponents.

**Passing**- Being able to select the right type of pass.

**Footwork**:-Making sure that you don't move your feet once planted. No walking or running with the ball.

**Shooting**:-Feet shoulder width apart, ball above head, Only forearms bends, Bend knees, bend forearm, Raise up . Aim for back of ring.

**Dodging**:- Using different techniques to get free for the ball.

**Marking**:- Keeping close to the player and ensure that you have your hand ready. You can either defend the zone or the player.

**Contact:** You cannot touch or push any player during the game. This will result in a penalty pass, or penalty shot if you are in the circle, to the opposition.

**Obstruction**: You must be at least 1 metre away from the player holding the ball before you mark or defend the ball. This will result in a penalty pass, or penalty shot if you are in the circle, to the opposition.

**Held Ball:** You can only hold the ball for 3 seconds before you pass or shoot the ball, and picks it back up again, the opposition get a free pass.

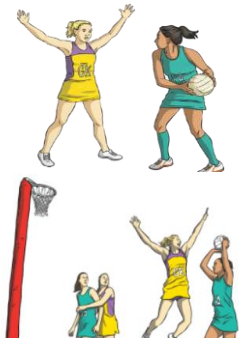
## 2. Dodging

Dodging is used when you are attacking and want to lose your defender so that you can receive the ball without them inception.

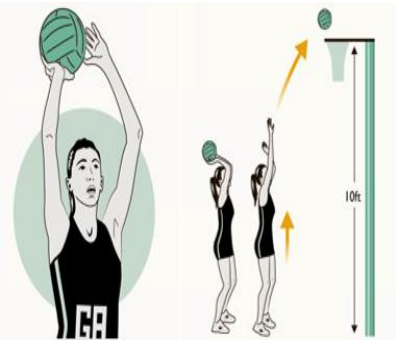
The Feint Dodge - You should be on your toes ready to move quickly. You should drop your shoulder and pretend to go in one direction to outwit your opponent, before quickly pushing off your outside foot to accelerate in the opposite direction. Signal that you would like to receive the ball into the space you are heading towards.

## 3.Defending

Each player on the team has a part to play when it comes to defending. Players need to work collectively in order to slow down the speed of the attack, by limiting the passing options and forcing errors in order to gain possession of the ball. It's your job as the defender to be aware of the ball and anticipate where your attacking player will run.



## 4. Shooting




1. Rest the ball on your preferred shooting hand with the other hand supporting on the side.
2. Feet should be shoulder width apart.
3. Look at the back of the ring.
4. Bend your knees, lift your heels off the floor and push the ball up and over the top of the ring to loop into the net.

## 5. Key Words

Attack: Attack in netball involves players keeping possession and passing the ball across the centre and goal third to the shooting circle, also known as the D or semi-circle.

Defend: There are three stages of defending in netball; marking the opposing player, marking the ball and marking the zone. The aim of defending is to create an interception and become the attacking team.

Obstruction: You must stand one meter away from the opposition with the ball, otherwise you will be called by the umpire for obstruction and the opposition will receive a penalty pass. You will have to stand by their side, out of the game, until they play this pass.

Outwitting your opponent: to get an advantage over a player by using tactics.

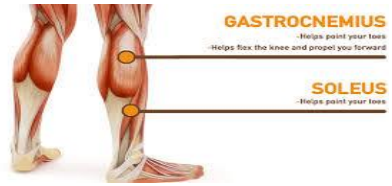
Accuracy: To play precisely or correctly e.g. your passes must be timed accurately when passing into space.

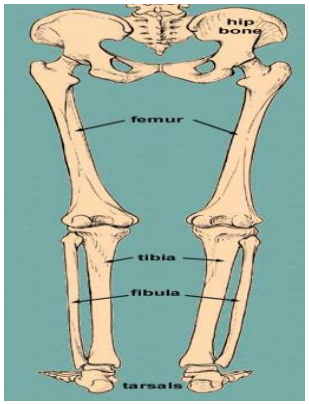
Dodging: Dodging in netball terms relates to moving from side to side to confuse the opponent before sprinting off to catch the ball. This is a way to outwit your opponent.

Footwork: When in position of the ball, you must not move the foot you landed on when you first received the ball. If you move your landing foot, the opposition will receive a free pass.

Shooting: This is how points are scored in netball. Only the Goal Attack or Goal Shooter can shoot when they are in the semi-circle.

## 6. Bones and Muscles




## 7. Components of Fitness

**1. Cardiovascular Endurance**: So you can last the full length of the games, while maintain skill level

**2. Speed:** Enables you to beat opponent to the ball

**3. Reaction time :** You can react to the ball before your opponent, and to get rebounds.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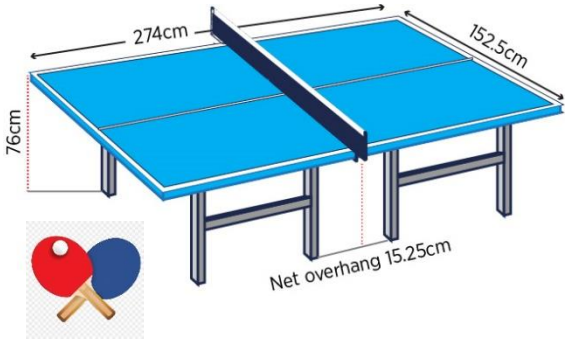
# TABLE TENNIS - YEAR 8

**1. Aim of the game:** hit the ball over the net onto your opponent's side. A point is won by you if your opponent is unable to return the ball to your side of the table (e.g. they miss the ball, they hit the ball but it misses your side of the table or the ball hits the net) or if they hit the ball before it bounces on their side of the table.

**2. Table layout:**




**3. Scoring:** The winner of a game is the first to 11 points. There must be a gap of at least two points between opponents at the end of the game though, so if the score is 10-10, the game goes into extra play until one of the players has gained a lead of 2 points. The point goes to the player who successfully ends a rally, regardless of who has served.

**4. Rules:** A player takes two serves before the ball switches to the opponent to serve, except during periods of extra play where it changes each time. Service can be diagonal or in a straight line in singles. For service, the ball should first bounce in one's court, then in the opponent's court. If the ball touches the net before touching the opponent's court it is a 'let' and service is retaken. A player is not allowed to strike the ball in volley. A player may not touch the table with their non-paddle hand.

**5. Keywords:**

**SERVE -** The first shot, done by the server.

**LET –** Service ball hitting the net or a distraction that causes the point played over.

**FOOTWORK -** How a person moves to make a shot.

**TOP-SPIN –** Spin placed on a ball to allow it to curve down onto the table.

**BACK-SPIN –** Backward spin placed on the ball. Also called Underspin.

**VOLLEY –** To strike the ball before it touches the table.

**CROSS-COURT –** A ball that is hit diagonally from corner to corner.

**DOWN THE LINE –** A ball that is hit along the side of the table, parallel to the sidelines, is hit down the line.

**6. Skills/ techniques:**

**SERVE (forehand/ backhand) –** A stroke which starts every rally.

**PUSH (forehand/ backhand) –** To keep the ball safe from the opponent attacking the ball. To increase the opportunity to attack.

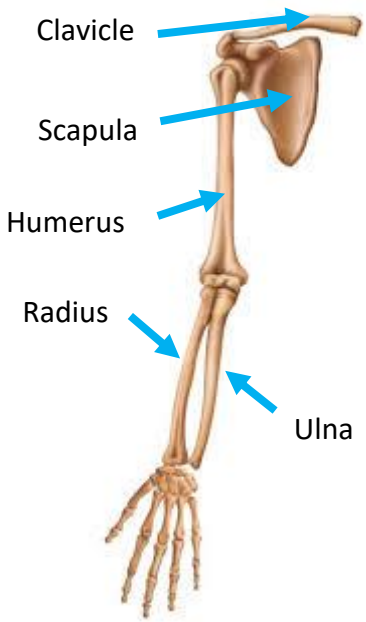
**DRIVE (forehand/ backhand) –** To decrease the amount of time available to the opponent.

**DROP SHOT –** Short placement - very close to the net.

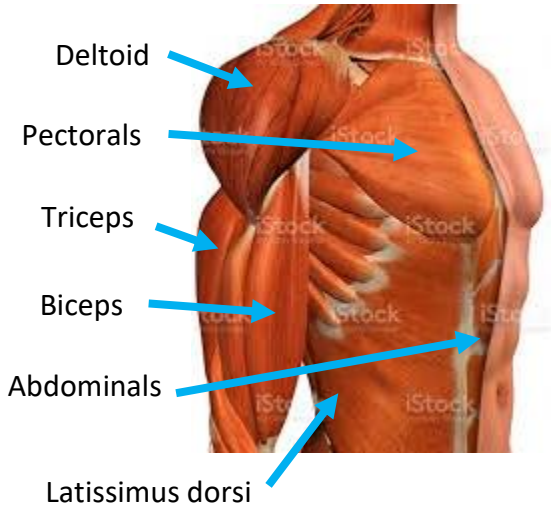
**LOB –** Usually used in a backcourt/ defensive situation. The player hits the ball high. The deeper the ball lands on the table, the more difficult it will be for the opponent to smash.

**SMASH -** A put-away shot. Ball is hit with enough speed so the opponent cannot make a return.

**7. Bones:**




**8. Muscles:**




**9. Components of fitness:**

**CO-ORDINATION –** *The ability to use different (two or more) parts of the body together smoothly and efficiently*

**REACTION TIME –** *The time taken to initiate a response to a stimulus*

**AGILITY –** *The ability to move/ change direction quickly (at speed) whilst maintaining control*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# RE

# 8.1 Salvation History Knowledge Organiser

| Keywords | Definition |
|---|---|
| 1. Word of God | God's direct message to us through the words in the Bible |
| 2. Revelation | God reveals himself to us in different ways, for example in Jesus, the Holy Spirit and prophets |
| 3. Covenant | A promise between God and his people |
| 4. Saviour | Someone who rescues or saves people from harm |
| 5. Messiah | The promised saviour of the Jews |
| 6. Fulfilment | Meeting or going beyond a prediction or requirement |
| 7. Exodus | The second book of the Bible, meaning "the exit", which tells the exit of the Hebrews from Egypt |
| 8.Passover | Also called Pesach, it is the spring time festival which celebrates the Hebrews exodus from Egypt |

## 9. Themes of the Bible

The Bible teaches key themes of repentance, redemption, forgiveness, sacrifice, faithfulness, victory and love

## 10. Interpretations of the Bible

Some Christians believe that the Bible is word to word, literally true. However, Catholics believe that some stories are not historical, but are metaphorical stories to teach the truth

## 11. The Bible as a love story

The Bible as a whole can be interpreted as a love story between God and humanity, which includes falling in love, arguments, reconciliation, deepening relationship and commitment.

## 12. Genesis 1- Creation

When God created the Earth "he saw that it was good". He made the universe in 7 days. He trusted humans to look after all of the animals and plants (stewardship) because He loved them most. **Humans were made in God's likeness.**

## 13. Genesis 3: Adam and Eve

The first humans, turned away from God's promise when they were tempted by the devil. God was upset that they turned away from him and **sent them out of the Garden of Eden**

## 14. Genesis 3: the meaning

This resulted in an understanding of what sin was and this physically and spiritually separated them from God. Original Sin enters all humans and they experience pain and death.

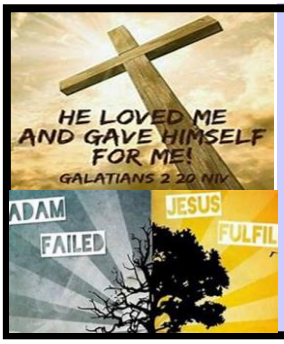
**15. God's covenant with Noah** was a commitment to maintain the relationship between Creator and creation; his relationship with the natural order – understood in the act of creation – whereby he promised never again to destroy the earth with a flood.

**16. God's covenant with Abraham**

God tells Abraham that He will give him land, a deeper relationship and many descendants. Abraham had children **through a miracle**. The land and descendants were gifts to humans to keep them safe.

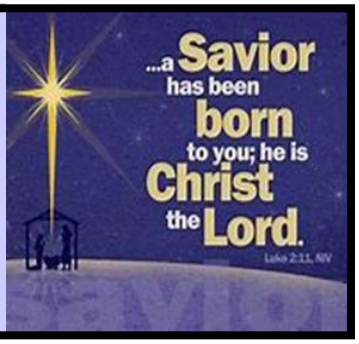
**17. God's covenant with Moses**

The descendants of Abraham left the land God promised them. They stopped believing and trusting in God. They stayed there until God told Moses to **lead the Jews back into the promised land**.




**18. The covenant of Jesus**

God sent Jesus **to prove how much God loved humans.** Jesus made the ultimate sacrifice and died but then rose from the dead. Christians believe that a baptism in Jesus' death and resurrection removes their sins.




**19. Holy Spirit**

So that humans would never be separated from God again, Jesus gives humans the Holy Spirit. The **first people to receive it were Peter and the other disciples**. Christians believe that the modern church comes from this event.

**20. Take it further…**

How does the story of the flood link to Pentecost?
How is Jesus a "New Adam"?
Does it matter how we interpret the Bible?

**21. Think about…**

How were the banishing from Paradise, the flood, the plagues restored by Jesus?
What is the most important covenant?

| You should be aiming for these **skills** on every assessment **page** | | |
|---|---|---|
| **Knowledge and understanding skills** | **S K** | **Show *Knowledge* and *understanding* of facts/ information/ points of view through detailed explanations and development** |
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# RE

# 8.2 Person of Jesus Knowledge Organiser

| Key words: | |
|---|---|
| **1. Son of Man** | A title used by Jesus of himself, probably meaning he would suffer before bringing in God's Kingdom |
| **2. Messiah** | The Anointed One (Christ) who would bring in God's Kingdom |
| **3. Confession** | An acknowledgement or declaration of something |
| **4. John the Baptist** | The man who baptised Jesus in the river Jordan |
| **5. Legion** | A man from whom Jesus cast out many demons |
| **6. Jairus** | The synagogue ruler whose daughter was brought back to life by Jesus |
| **7. Moses** | The Old Testament prophet to whom God gave his Law |
| **8. Elijah** | The Old Testament prophet believed to return before the Messiah |

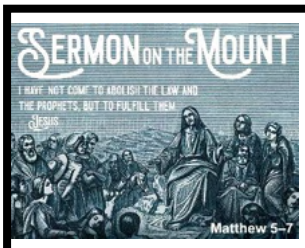
**9. Who is Jesus?**
He was born, lived and died in Israel- which was once called Palestine
**Born**: Bethlehem
**Lived**: Travelled all around…spent time in Nazareth and Galilee
**Died**: Aged 33 in Jerusalem

**10. Son of God**
"Jesus" is the modern term for the **Son** of **God**.

**11. Jesus growing up**
When Jesus was 12, Mary and Joseph searched for three days for Jesus. They were getting desperate. At last they went to the temple – and there he was sitting among a crowd of clever men, listening to them talking and asking questions. Everyone was astounded at the things Jesus knew and said.

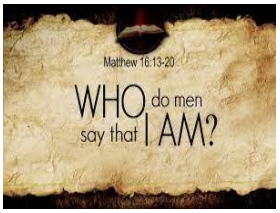
| Messiah | |
|---|---|
| **Messiah quality** (Bible Ref) | **How it is shown by Jesus** |
| **12. Royal** Matthew 1:1-16 | – He is a descendent of David who was a King |
| **13. Judge and Warrior** John 8:2-11 | – even though he doesn't judge the woman, he judges those who were about to stone her<br>– he fights for what is right, justice |
| **14. Anointed by God and Ruler** Luke 1:26-34 | – Mary is told she will carry God's Son<br>– she is told he will rule over the house of Jacob |
| **15. Restorer of the kingdom** Mark 11: 15-19 | – the temple should be for all people, just like the kingdom of God, for 'all nations' |
| **16. Bringer of Peace** Matthew 26: 52-53 | – he responds peacefully even though they are fighting with him |

**17. Jesus' Baptism**
Jesus' baptism was a turning point in his life. Until the age of 30 the Bible tells us very little about the early life of Jesus.
The *Synoptic* Gospels – Matthew, Luke and Mark – all record the baptism of Jesus at the beginning of their Gospels as the beginning of Jesus earthly ministry. From this point onwards Jesus begins to heal the sick, forgive sins, preach and perform many miracles.




**18. Moral Authority of Jesus** The Old Law was given so people knew how to respond to God's will. Jesus transforms this by focusing on what people's attitudes should be.

**19. Transfiguration**
The Transfiguration is a pivotal moment, and the setting on the mountain is presented as the point where human nature meets God: the meeting place for the temporal and the eternal, with Jesus himself as the connecting point, acting as the bridge between heaven and earth.




**20. Peters confession at Caesarea Philippi**
*Who do People say I am?*
Peter is the first person to recognise that Jesus was the Christ- the messiah who was going to save them from their sins

**21. Parables**
Jesus used stories about things that people were familiar with. Everyone knew about fishing and farming and so lots of parables are about these things.

**22. Miracles**
A miracle is an extraordinary event that goes against nature, cannot be explained by science
Types of Miracles: Nature Miracles, Healing Miracles, Raising from the Dead, Exorcisms Miracles to show; People's Faith, Jesus' compassion, Signs of the Kingdom of God

**23. Think about:**
What is the nature of Jesus?
Was Jesus God?
What can we learn about our actions from Jesus' Teaching?
What do we learn from the example of the disciples?

**24. Take it Further:**
The word kenosis means emptying. This does not mean that Jesus stopped being God when he came to earth. Rather, it means he accepted the limitations of being a human whilst he was on earth. On occasions he showed his divine power but most of the time he accepted living as human (he felt pain, hunger, tiredness etc.)

| You should be aiming for these **skills** on every assessment **page** | | |
|---|---|---|
| **Knowledge and understanding skills** | **S K** | **Show *Knowledge* and *understanding* of facts/ information/ points of view through detailed explanations and development** |
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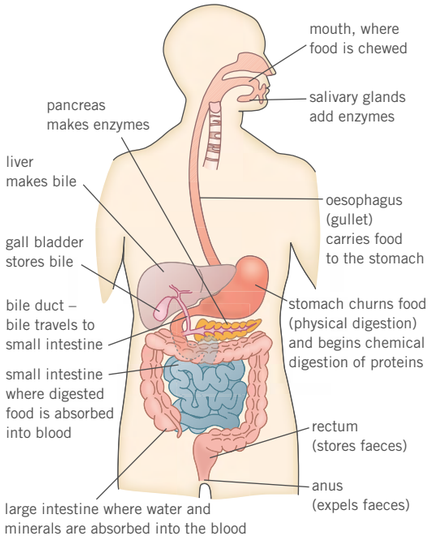
# B2 Chapter 1: Health and lifestyle

## Knowledge organiser

## Diet

### The digestive system

Digestion is the breaking down of large insoluble food molecules to small soluble ones. These small molecules are absorbed into the blood for your body to use.




**Bacteria** live on fibre in your diet in the large intestine and make important vitamins (e.g., vitamin K).

### Enzymes

**Enzymes** are special proteins that can break large molecules of nutrients down into small molecules.

Enzymes are known as biological **catalysts** – they speed up **digestion** without being used up.

There are three main types of enzyme involved in digestion:

| | Type of enzyme | | |
|---|---|---|---|
| | carbohydrase | protease | lipase |
| speeds up digestion of | carbohydrates (e.g., starch) | protein | lipids |
| | ↓ sugars | ↓ amino acids | ↓ fatty acids and glycerol |

### Nutrients

| Nutrient | Role in your body |
|---|---|
| carbohydrates | main source of energy |
| lipids | fats and oils provide energy |
| proteins | growth and repair of cells and tissues |
| vitamins and minerals | essential in small amounts to keep you healthy |
| water | needed in all cells and body fluids |
| fibre | provides bulk to food to keep it moving through the gut (not actually a nutrient) |

### Food tests

**Starch**

Add a few drops of iodine solution to the food solution.

Result: If the solution turns blue-black, the food contains starch.

**Lipids**

Add a few drops of ethanol to the food solution, shake it, and leave for one minute. Then pour the ethanol into a test tube of water.

Result: If the solution turns cloudy, the food contains lipids.

**Sugar**

Add a few drops of Benedict's solution and heat the solution in a water bath.

Result: If the solution turns orange-red, the food contains sugar.

**Protein**

Add a few drops of copper sulfate solution and sodium hydroxide solution.

Result: If the solution turns purple, the food contains protein.

### Effects of an unhealthy diet

A **balanced diet** is when you have the right proportions of the food groups to keep you healthy.

Eating an unbalanced diet can lead you to be:

**underweight**

Increased risk of:
- poor immune system
- lack of energy
- lack of vitamins and minerals.

**overweight**

Increased risk of:
- heart disease
- stroke
- diabetes
- some cancers.

**vitamin and mineral deficient**

Vitamin A deficiency can lead to night blindness.

Vitamin D deficiency can lead to rickets.

## Effects of lifestyle on health

### Drugs

Drugs are any chemicals that affect the way your brain and body work.

| Medicinal drugs | Recreational drugs |
|---|---|
| • used in medicine<br>• benefit your health if used correctly<br>• used to treat symptoms or cure illness<br>• some have side effects | • taken for enjoyment/to relax/stay awake<br>• normally have no health benefits<br>• many can be harmful<br>• many are illegal |
| examples include: painkillers, antibiotics, and cough mixture | examples include: alcohol, caffeine, heroine, cocaine, tobacco |

### Alcohol

Alcohol is a depressant because it slows down your body's reactions.

Drinking large amounts of alcohol over a long time can cause:
- stomach ulcers
- heart disease
- reduced fertility
- brain damage
- liver damage (cirrhosis)

Drinking during pregnancy increases the risk of:
- miscarriage
- stillbirth
- premature birth
- low birth weight babies
- Foetal Alcohol Syndrome (FAS)

### Smoking

Cigarette smoke is full of harmful chemicals including:

**tar** – clogs the lining of the lungs and alveoli, contains cancer-causing chemicals

**nicotine** – an addictive stimulant

**carbon monoxide** – stops blood from carrying oxygen.

Smoking can cause many different diseases, including:
- heart disease
- emphysema
- respiratory infections
- strokes
- lung cancer

Smoking during pregnancy increases the risk of miscarriage and low birth weight babies, and can also affect the foetus' development.

**Addiction** – When your body becomes used to the chemical changes caused by a drug and you need to take the drug to feel normal.

When a person who is addicted to a drug tries to stop taking it, they may suffer from sickness, nausea, stomach cramps, headaches, anxiety, and sweating. These are called **withdrawal symptoms**.

## Key words

Make sure you can write definitions for these key terms.

addiction anus balanced diet carbohydrase carbohydrate carbon monoxide catalyst deficiency digestion digestive system drug enzyme fibre food test large intestine lipid lipase mineral nicotine nutrient obese oesophagus protease protein rectum small intestine starvation stimulant stomach tar vitamin withdrawal symptom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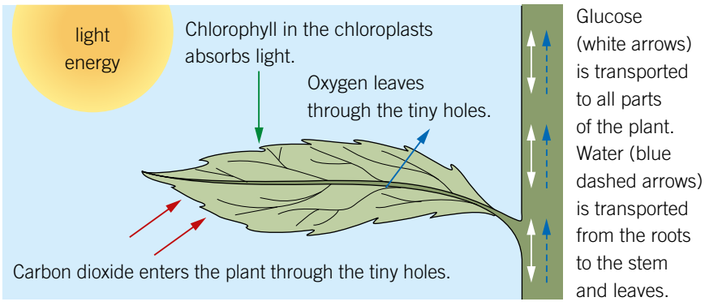
# B2 Chapter 2: Biological processes

## Knowledge organiser

## Photosynthesis

**Photosynthesis** is a chemical reaction that takes place in the **chloroplasts** to produce **glucose**.

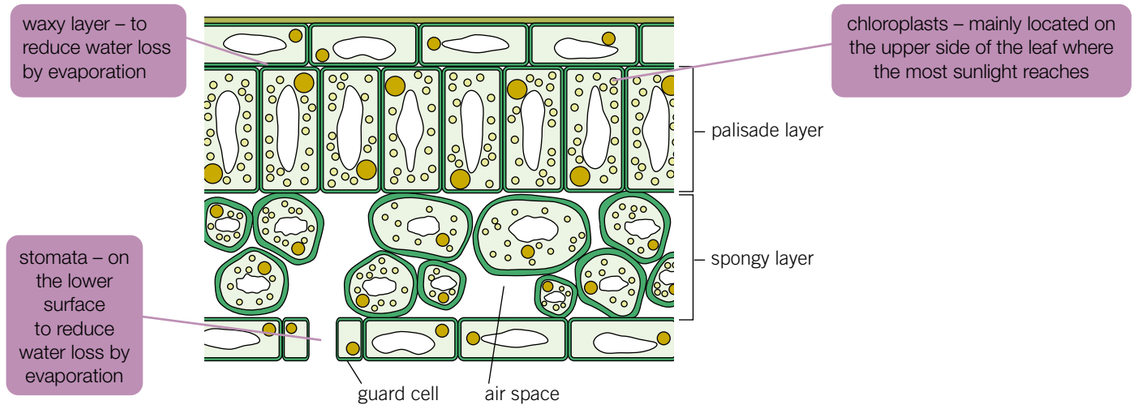
carbon dioxide + water ➞ oxygen + glucose




The minerals plants need are:

1. **nitrates** for growth
2. **phosphates** for healthy roots
3. potassium for healthy leaves and flowers
4. magnesium for making chlorophyll

If a plant does not have enough of a mineral, it may suffer from a mineral **deficiency**. Farmers can use **fertilisers** to add missing minerals to the soil.




Leaves are specially adapted for photosynthesis:

- have lots of green **chlorophyll** – absorb sunlight for photosynthesis
- are thin – allow gases to diffuse in and out of the leaf
- have a large surface area – absorb as much light as possible
- have veins – xylem transports water and phloem transports glucose

## Respiration

**with oxygen**

### Aerobic respiration

glucose + oxygen ➞ carbon dioxide + water ( + energy)

- Respiration occurs in the **mitochondria** of cells to produce energy.
- Glucose is absorbed from the small intestine into the blood **plasma**. It is transported to the cells where it diffuses in.
- Oxygen is breathed in and diffuses into the bloodstream. Oxygen is then carried by haemoglobin to the cells where it diffuses in.
- Carbon dioxide diffuses out of the cells into the blood plasma. It is transported to the lungs where it diffuses into the air sacs and is exhaled.

**without oxygen**

### Anaerobic respiration (in animals)

glucose ➞ lactic acid ( + energy)

- This occurs when there is not enough oxygen for aerobic respiration, such as during strenuous exercise.
- It transfers less energy than aerobic respiration.
- The lactic acid produced can cause muscle cramps. This causes increased inhalation to break down lactic acid – the oxygen needed is called the **oxygen debt**.

### Fermentation (in microorganisms)

glucose ➞ ethanol + carbon dioxide ( + energy)

- Yeast respires anaerobically – this fermentation is important in food production (e.g., bread, beer, and wine).

## Key words

Make sure you can write definitions for these key terms.

aerobic, anaerobic, chlorophyll, community, consumer, deficiency, fermentation, fertiliser, producer, mitochondria, nitrate, oxygen debt, plasma, phosphate, photosynthesis, stomata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# C2 Chapter 1: The Periodic Table

## Knowledge organiser

The **Periodic Table** displays the names and symbols of all the **elements** we have discovered which are organised by their **chemical properties** and their **physical properties**. There are about 100 naturally occuring elements.

### Physical properties

The **physical properties** of an element describe how a substance behaves generally.

(*E.g.*, ***conductor*** *of electricity, dense, conductor of heat, shiny,* ***malleable****, sonorous, high melting and boiling points*)

### Chemical properties

The **chemical properties** of an element describe how a substance behaves in chemical reactions.

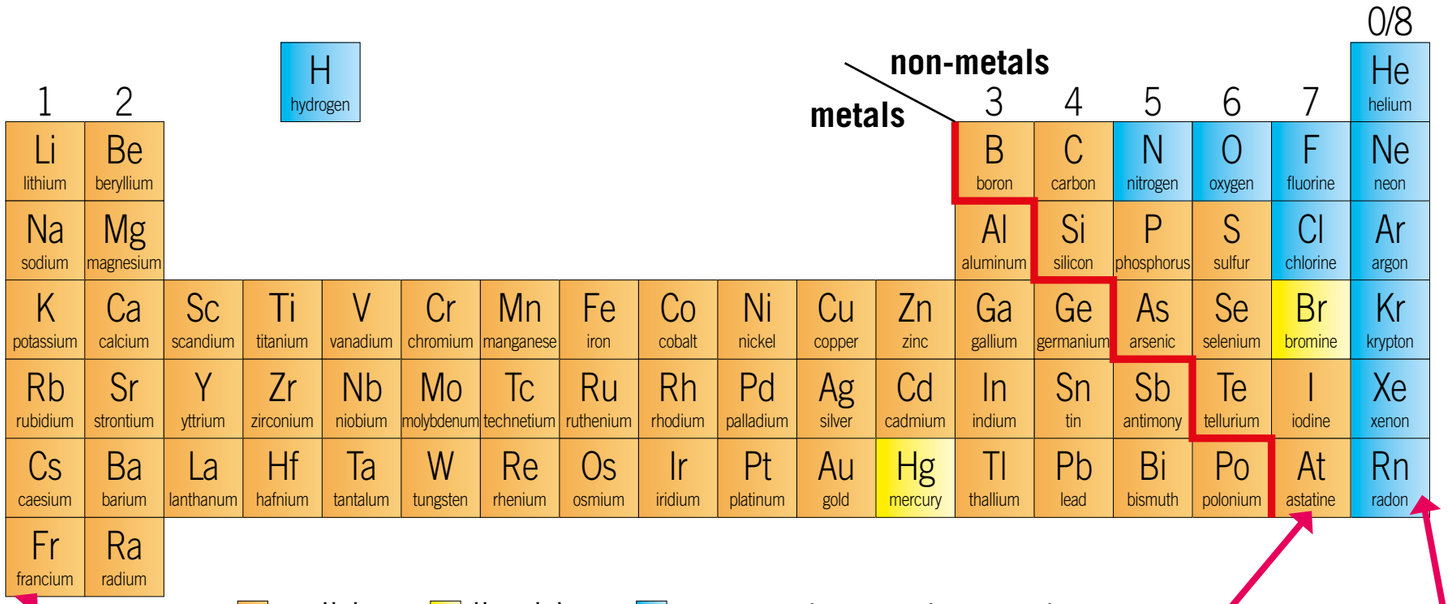
*For example, how reactive it is, what other substances it reacts with, and the products it forms in reactions.*

### Metals

- good conductors of heat and electricity
- shiny
- malleable and ductile
- sonorous when solid
- most have high melting and boiling points
- some metals react with oxygen to form metal oxides

### Group 1

- called the **alkali metals**
- like all other metals but are very **reactive**
- react vigorously (strongly) with water
- get more reactive as you go down the group
- lower melting points than most other metals
- melting points decrease down the group
- always produce a metal hydroxide and hydrogen gas when reacted with water




solids liquids gases at room temprature

This version of the Periodic Table does not include every discovered element.

### Group 7

- called the **halogens**
- generally very reactive
- generally the opposite of Group 1
- melting point increases down the group while reactivity decreases.
- take part in **displacement reactions**, where an element from higher up the group takes the place of one from lower down the group in a compound.

For example: *potassium iodide + chlorine → potassium chloride + iodine*

- columns are called **groups**
- rows are called **periods**

Elements in a group normally have similar properties, meaning chemists can predict properties of elements based on their group.

### Non-metals

- often have properties the opposite of metals
- low boiling points, so are often gases at room temperature
- poor conductors of electricity and heat
- dull in appearance
- low density
- **brittle** and not sonorous
- some metals react with oxygen to form metal oxides

### Group 0

- called the **noble gases**
- very unreactive
- low boiling points, so are gases at room temperature
- like the halogens, their boiling points increase down the group

### Key words

Make sure you can write definitions for these key terms.

alkali metal brittle conductor chemical property dense displacement reaction element group halogen malleable metal noble gas non-metal period Periodic Table physical property sonorous reactive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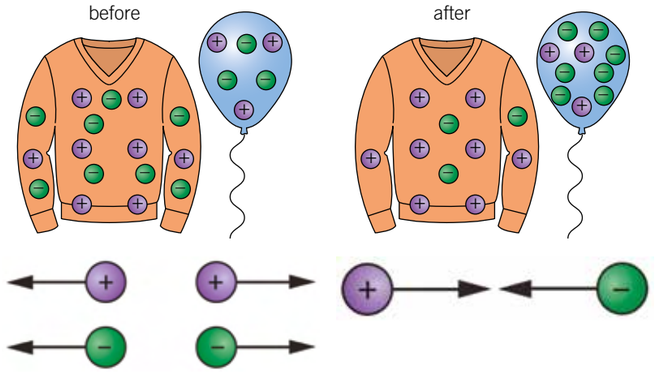
# P2 Chapter 1: Electricity and magnetism

## Knowledge organiser

## Charging up

**Static electricity**: by rubbing **insulators** together **electrons** are transferred, which gives the objects electric charges.



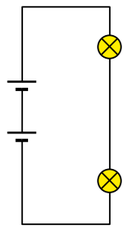

Charged objects have **electric fields** around them.
If you put a charged object in an electric field, a force acts on the object.

## Series and parallel circuits

In a series circuit all of the components are connected in one loop. If one component or wire breaks, **current** stops flowing everywhere.

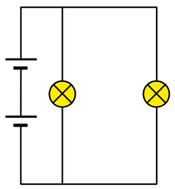
### Series circuits

- contain only one loop
- the current is the same everywhere
- the **potential difference** across each component adds up to the potential difference across the battery



### Parallel circuits

- contain multiple branches
- currents in all the branches add up to make the total current
- the potential difference across each component is the same as the potential difference across the battery



## Potential difference

- Potential difference is the amount of energy transferred by the charges in the circuit.
- It is measured with a **voltmeter** (connected in parallel). The unit is the **volt (V)**.

## Circuits and currents

- Current is the amount of charge flowing per second.
- It is measured with an **ammeter** (connected in series).
- The unit for current is the **amp (A)**.

## Resistance

The **resistance** is a measure of how easy it is for current to pass through a component.

**conductors** – low resistance
**insulators** – high resistance

Resistance is calculated by measuring the potential difference and the current.

The unit for resistance is the **ohm (Ω)**.

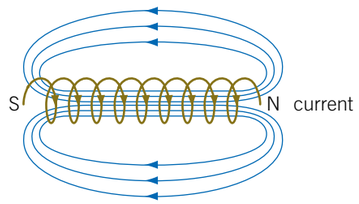
$$\text{resistance } (\Omega) = \frac{\text{potential difference (V)}}{\text{current (A)}}$$

## Electromagnets

- **Electromagnets** are only magnetic when they have a flow of current, so they can be turned off.
- They are made by running a current through a coil of wire.
- They usually have an iron core in the middle of the coil, which makes them stronger.

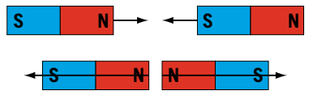
You can make an electromagnet stronger by:

- adding more turns of wire on the coil
- using more current.



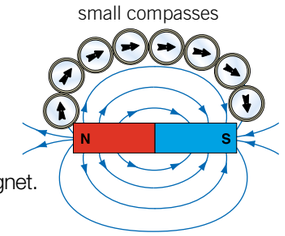

## Magnets

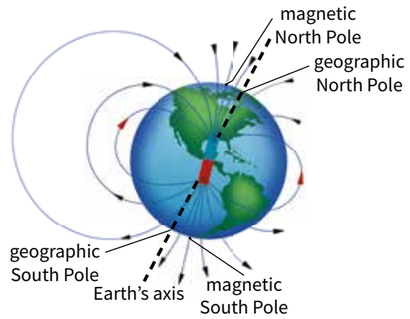
- **Magnets** have north and south poles.
- Opposite poles attract, and the same poles repel:




### Magnetic fields

- A magnet has a field around it.
- You can see the field around a bar magnet with a small compass or iron filings.
- If the lines are close together the field is stronger.
- The Earth has a magnetic field, which acts like a big bar magnet.



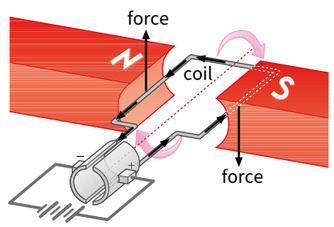

## Uses of electromagnets

- moving cars or other metal objects
- sorting iron and steel from aluminium
- making motors and speakers
- making levitating trains, which travel much faster as there is no friction

### How motors work

Applying a current to a coil of wire makes it electromagnetic.

This causes a force between the coil of wire and the permanent magnet nearby, which makes the wire spin. This is a motor.




## Key words

Make sure you can write definitions for these key terms.

ammeter attract conductor current electron electric field electromagnet insulator repel magnet magnetic field line motor north pole ohm parallel potential difference resistance series static electricity south pole volt voltmeter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