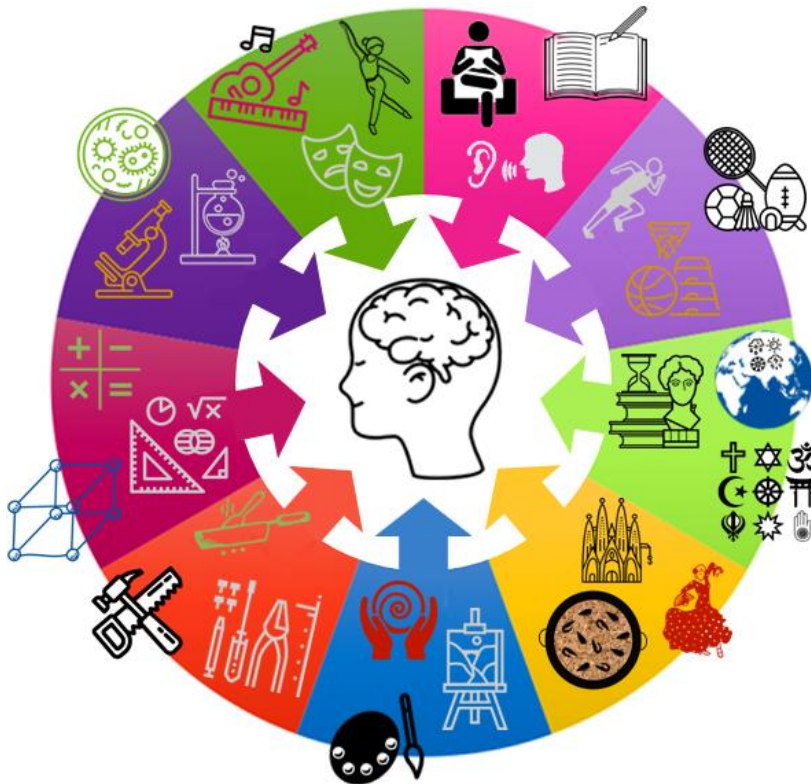


100% book - Year 10 Grammar

Aim to memorise 100% of the knowledge on these Knowledge Organisers.

Term 2



Swindon Academy 2024-25

| | |
|---------------|--|
| Name: | |
| Tutor Group: | |
| Tutor & Room: | |

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

How to use your 100% book of Knowledge Organisers and Quizzable Organisers

Knowledge Organisers

Knowledge Organisers contain the essential knowledge that you **MUST** know in order to be successful this year and in all subsequent years.

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

Quizzable Knowledge Organisers

These are designed to help you quiz yourself on the essential Knowledge.

Use them to test yourself or get someone else to test you, until you are confident you can recall the information from memory.

Top Tip

Don't write on your Quizzable Knowledge Organisers! Quiz yourself by writing the missing words in your prep book. That way you can quiz yourself again and again!

Expectations for Prep and for using your Knowledge Organisers

1. Complete all prep work set in your subject prep book.
2. Bring your prep book to every lesson and ensure that you have completed all work by the deadline.
3. Take pride in your prep book – keep it neat and tidy.
4. Present work in your prep book to the same standard you are expected to do in class.
5. Ensure that your use of SPAG is accurate.
6. Write in blue or black pen and sketch in pencil.
7. Ensure every piece of work has a title and date.
8. Use a ruler for straight lines.
9. If you are unsure about the prep, speak to your teacher.
10. Review your prep work in green pen using the mark scheme.

How do I complete Knowledge Organiser Prep?

Step 1

Check Epraise and identify what words /definitions/facts you have been asked to learn. Find the Knowledge Organiser you need to use.

The image shows a screenshot of the Epraise website. On the left is a 'Planner' for the week of 20th May to 26th May 2020, with a grid for different subjects. On the right is a 'Knowledge Organiser' for 'What is particle theory?'. It contains various questions and answers, such as 'What is particle theory?', 'Describe the arrangement and movement of particles in the three states of matter.', and 'What are the different changes of state?'. There are also diagrams of particle arrangements for solid, liquid, and gas.

Step 2

Write today's date and the title from your Knowledge Organiser in your Prep Book.

The image shows a student's prep book. The date '29th May 2020' and the title 'Particle theory' are written in blue ink. The background is a printed version of the 'What is particle theory?' knowledge organiser, with the student's handwriting overlaid on the text.

Step 3

Write out the keywords/definitions/facts from your Knowledge Organiser in FULL.

The image shows handwritten notes in a student's prep book. The date '29th May 2020' is written at the top. Below it, the title 'Particle theory' is underlined. The notes include: 'Properties of the states of matter', 'Particle theory = all matter is made of particles', 'Solid = regular pattern particles vibrate in fixed position', 'Liquid = particles are arranged randomly but are still touching each other. Particles can slide past each other and move around.', and 'Gas = Particles are far apart and are arranged randomly. Particles carry a lot of energy'.

Step 4

Read the keywords/definitions/facts out loud to yourself again and again and write the keywords/definitions/facts at least 3 times.

The image shows handwritten notes in a student's prep book. The student has repeated the definitions and facts from Step 3 multiple times, writing them out in blue ink.

Step 5

Open your quizzable Knowledge Organiser. Write the missing words from your quizzable Knowledge organiser in your prep book.

The image shows a student's prep book. The student has filled in missing words from a quizzable knowledge organiser. The words 'Self quizzing', 'Arrangement/Movement of matter', 'Solid = regular pattern', and 'Liquid =' are written in blue ink.

Step 6

Check your answers using your Knowledge Organiser. Repeat Steps 3 to 5 with any questions you got wrong until you are confident.

The image shows handwritten notes in a student's prep book. The student has checked their answers and repeated steps 3 to 5 for any questions they got wrong. The notes include: 'Particle theory = all matter is made of particles', 'Solid = regular pattern particles vibrate in fixed position', 'Liquid = particles are arranged randomly but are still touching each other. Particles can slide past each other and move around.', and 'Gas = Particles are far apart and are arranged randomly. Particles carry a lot of energy'.

Make sure you bring in your completed Prep notes to demonstrate that you have completed your prep.

ENGLISH –A Christmas Carol- Grammar

| 1. Context | |
|--|--|
| <p>Writer: Charles Dickens (1812-1870)</p> <p>Dates: First published in 1843</p> <p>Genre: Allegorical; a ghost story.</p> <p>Era: Victorian</p> <p>Set: Victorian London</p> <p>Structure: The novella is divided into 5 staves (chapters).</p> | <p>Biography of Dickens</p> <ul style="list-style-type: none"> Born in Portsmouth in 1812 When Dickens was 12, his father was sent to debtors' prison as he was unable to pay his bills. His mother and youngest siblings were sent with him, whilst Dickens stayed with a family friend. In order to help his family, Dickens had to leave school and work in a factory sticking labels on bottles. Dickens dedicated his life to writing works that revealed the horrors of life in Victorian London for those living in poverty. |
| <p>Christmas: Dickens grew concerned that, due to capitalism, society had lost sight of traditional values (Christian morals, forgiveness, charity). He felt that Christmas was the perfect time to reconnect with these values and used his novella to do this. He also knew that Christmas would be a popular topic so it would sell well – therefore enabling his message to reach a wider audience.</p> | <p>London and inequality: Dickens juxtaposes scenes of middle-class comfort and poverty to emphasise the close proximity and contrast of the different classes. It highlights the Christian concept of 'love thy neighbour'. The urban setting allows Dickens to exercise his fondness for hyperbole, with the exaggerated extremes of poverty adding to the effect of the 'plight of the poor'.</p> |
| <p>The Poor Law, 1834 In order to deter poor people from claiming financial help, the government made claimants live in workhouses: essentially, prisons for the poor. Dickens hated this law. He spent 1843 touring factories and mines in England and wished to highlight the situation facing poor people. A Christmas Carol was published soon after – in December 1843.</p> | <p>Malthusian Theory The reformation of The Poor Law was partially informed by the writings of Thomas Malthus. Malthus argued that if living standards increased, population would increase and eventually the number of people would be too great for the food that could be produced. As a result, Malthus argued it was important not to support the poor or improve their standards of living, but to allow them to die if they couldn't support themselves because charity would only prolong their suffering.</p> |
| <p>The Supernatural: Victorian society was fascinated by the supernatural, including mediums, ghosts, and spiritualism. However, this belief in the supernatural was also heavily influenced by the church, with the belief that ghosts were souls who were trapped in purgatory (a place of suffering where the souls of sinners were trapped).</p> | |

| 2. Key Characters | |
|--|--|
| <p>Ebenezer Scrooge: The protagonist is initially established as an archetypal villain who dismisses the goodwill and generosity associated with Christmas. After being forced to transform, he feels remorse for his avarice and becomes a symbol of Christmas spirit. Scrooge embodies the relentless capitalist spirit of the time, but also demonstrates that everyone has the capacity to reform.</p> | |
| <p>Bob Cratchit: Bob is Scrooge's down-trodden but loyal employee. His family are a symbol of Victorian poverty, cheerfulness in adversity, togetherness and Christmas Spirit. Bob shows pity for Scrooge, and provides a contrast to Scrooge's isolation and meanness. His son, Tiny Tim, is an emblem for noble poverty; he accepts his disability without complaint.</p> | |
| <p>Fred: Fred juxtaposes the character of Scrooge and epitomises the concept of goodwill and forgiveness, refusing to be discouraged by his uncle's misery. People speak highly of Fred and his generosity, in contrast to how they speak of Scrooge. Fred shows that Scrooge has chosen isolation and shows forgiveness to Scrooge, welcoming him in Stave Five.</p> | |
| <p>Marley's Ghost: Marley's ghost is the spiritual representation of Scrooge's potential fate. The chains that drag him down symbolize the guilt caused by his failure to help people in need. Marley's ghost warns Scrooge that he too will experience the same guilt if he continues to deny people help.</p> | |
| <p>The ghosts: The Ghost of Christmas Past is a symbol of childhood, truth and enlightenment. The Ghost of Christmas Present represents goodwill, plenty and the festival of Christmas. The Ghost of Christmas Yet to Come symbolises a catastrophic future for mankind.</p> | |
| <p>Belle: The woman that Scrooge was engaged to when he was a young man. Belle's role is crucial in Scrooge's transformation, as the scenes show Scrooge what he might have had in his life if he had not been so avaricious. Through the character of Belle, Dickens sets emotional love directly against Scrooge's love of money and suggests that avarice can lead to a deprivation of kindness, love and empathy.</p> | |
| 3. Central Themes | |
| <p>Social injustice</p> | <p>Dickens highlights the unfairness within society through the juxtaposition of the poor and wealthy. Through Scrooge's refusal to give to charity and his exclamation that the poor should be in workhouses or die, Dickens illustrates the selfishness of the higher classes and the injustice of wealth distribution in Victorian society. The children, Ignorance and Want, personify the dangerous consequences of allowing poverty to continue.</p> |
| <p>Transformation and redemption</p> | <p>By establishing Scrooge as an archetypal villain, Dickens is able to emphasise the idea that everyone is capable of transformation and redemption. From starting as a greedy, avaricious miser, Scrooge is able to reflect upon his actions and to understand that he must live his life helping others to avoid Marley's fate.</p> |
| <p>Social responsibility</p> | <p>Dickens felt that every individual had a responsibility for those around them. Marley's Ghost conveys the message of the novella when he cries, 'Mankind was my business' demonstrating that the proper 'business' of life is not about seeking financial reward but having concern for others. Dickens highlights the importance of trying to make a difference- whether that be large financial contributions (Scrooge), smaller contributions (Fezziwig) or simply showing compassion and kindness to one another.</p> |

| 4. Key Vocabulary | |
|---|--|
| Avarice | Extreme greed of possessions or money |
| Salvation | Saving someone from harm or destruction |
| Miserly | someone who is greedy and does not like spending money |
| Cruel | Mean or cruel |
| Antithesis | The exact opposite of something |
| Epiphany | A moment of sudden understanding |
| Redemption | The act of being saved or freed from sin or error |
| Benevolence | Kind and helpful towards others |
| Philanthropic | Showing concern for others by being charitable |
| Misanthropic | Someone who has a hatred for other people |
| Penitence | sincere regret for wrong or evil things that you have done |
| Remorse | a strong feeling of sadness and regret about something wrong that you have done |
| Deprivation | When someone is unable to have the things they need or want |
| Despotism | exercising power in a cruel and controlling way |
| Capitalism | A political system in which property, business, and industry are owned by private individuals and not by the government |
| 5. Key Terminology, Symbols and Devices | |
| Stave | Chapters in the novella, but we normally associate staves with music, as if the book is a Christmas carol, and each chapter is part of the song. As Christmas carols are repetitive and easy to remember, it links to how Dickens wishes his message to be remembered. |
| Intrusive Narrator | A narrator who interrupts the story to provide a commentary to the reader on some aspect of the story or on a more general topic. In 'A Christmas Carol' the narrator helps to shape our impressions of Scrooge. |
| Circular structure | Circular narratives cycle through the story one event at a time to end back where the story originated. |
| Allegory | A story that can be interpreted to reveal a hidden meaning, typically a moral or political one. |
| Allegorical figures | An allegorical figure is a character that serves two purposes: first, they are an important person in the story in their own right, and, second, they represent abstract meanings or ideas. |
| Foreshadowing | Foreshadowing is a literary device in which a writer gives an advance hint of what is to come later in the story. |
| Didactic | A type of literature that is written to inform or instruct the reader, especially in moral or political lessons. |
| Semantic Field | A set of words that are related in meaning. Dickens frequently uses semantic fields of warmth and coldness that are associated with the characters. |

ENGLISH –A Christmas Carol- Grammar

| The Big Ideas | Notes |
|--|-------|
| <p>Dickens promotes a social responsibility in which he argues that everyone must contribute.</p> | |
| <p>Dickens suggests that change is possible, and that everyone has capacity to redeem themselves and reform.</p> | |
| <p>Dickens illustrates the injustice of wealth distribution in Victorian society and highlights the dangerous consequences of allowing poverty to continue</p> | |
| <p>Dickens uses contrasting characterisation to demonstrate how we must be generous and socially responsible.</p> | |
| <p>Dickens uses contrasts in setting to highlight social injustice</p> | |

B4 – Bioenergetics

Photosynthesis

1. What are the two reactants for photosynthesis?
2. What are the two products?
3. Where in a cell does this reaction happen?
4. Name two uses of glucose produced in photosynthesis.
5. What else is needed for plants to produce amino acids?
6. What chemical is used to test for starch?
7. Which parts of the leaf contain starch in a variegated leaf?



Factors that affect rate of photosynthesis

1. What are the three main factors that affect the rate of photosynthesis?
2. What is a 'limiting factor'?
3. Why does increasing the temperature above a certain point cause the rate to drop?
4. Describe the effect of increasing the concentration of CO₂ on the rate of photosynthesis

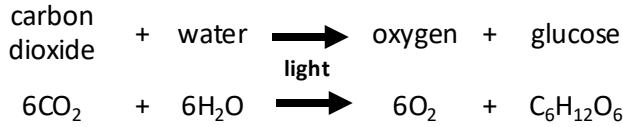
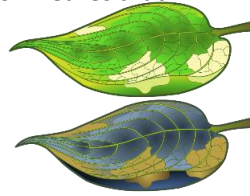
RP5 – Effect of light intensity on rate of photosynthesis

1. What is the independent variable in this investigation?
2. What needs to be kept the same?
3. What is the dependent variable?
4. Why is an LED lamp used rather than a regular lamp?
5. Why is sodium hydrogen carbonate solution used?
6. What is a good range and interval for the distance measurements?
7. Why is the plant left for 2 minutes every time the lamp is moved?
8. Describe the relationship between distance and the number of bubbles per minute

B4 – Bioenergetics

Photosynthesis

Endothermic chemical reaction that takes place in chloroplasts in leaves that produces glucose and oxygen from carbon dioxide and water



What do plants do with the glucose?

- Stored as starch
- Stored as fats and oils
- For making cellulose (for cell walls)
- For respiration
- For making amino acids (along with nitrates from soil)

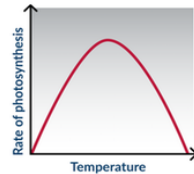
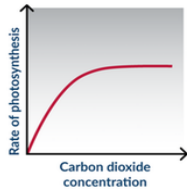
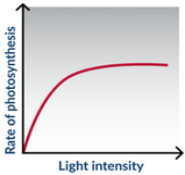
Testing the leaf for starch:

- Boil the leaf for 5 minutes to soften
- Put into heated ethanol to remove chlorophyll (turn off Bunsen burner!)
- Spread leaf on a white tile
- Add iodine
- In the places that contain starch the iodine will turn blue/black
- In a variegated leaf, only the parts containing chlorophyll turn blue black
- This shows chlorophyll is essential for photosynthesis

Factors that affect the rate of photosynthesis

- Light
- Temperature
- CO₂ concentration

Whichever one is in the shortest supply is called the **limiting factor** – as it is the one limiting the rate of photosynthesis

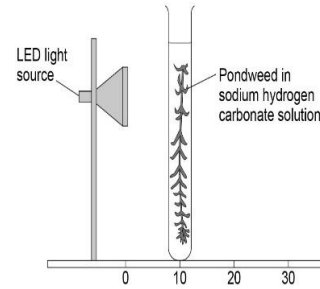


Increased light intensity increases the rate, but only up to a point, when CO₂ or temperature become limiting

Increased CO₂ conc increases the rate, but only up to a point, when light or temperature become limiting

Increased temperature increases the rate, but only up to a point, then the enzymes are denatured & rate drops

RP5 – Effect of light intensity on rate of photosynthesis



Independent variable: distance between lamp and plant (or light intensity)

Dependent variable – number of bubbles per second / rate of photosynthesis

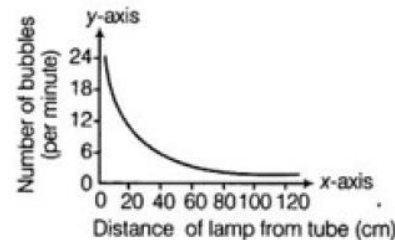
Controls – temperature of solution, piece of pondweed

1. Measure 10cm length of pondweed and cut with scissors.
2. Place into beaker of 250ml NaHCO₃ solution. (this provides CO₂)
3. Place lamp 10cm away from pondweed – turn on lamp and leave for 2 minutes to adjust to light intensity.
4. Count number of bubbles produced in 60 seconds and record in table.
5. Repeat steps 3 and 4 for lamp distances of 20cm – 50cm at 10cm intervals.
6. Keep the temperature of the solution the same (LED light is used to not give off heat)

Inverse Square Law (HT only)

As distance of the lamp doubles the light intensity of the plant quarters $I = \frac{1}{d^2}$

Typical results:



As the **distance** between the lamp and the pondweed **increases**, the **number of bubbles per minute decreases**

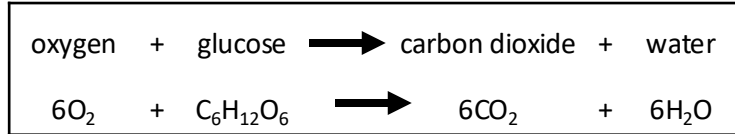
B4 – Bioenergetics

Respiration

Respiration is a chemical reaction that happens in the mitochondria of cells to release energy from glucose.

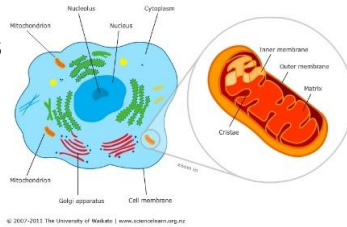
There are two types – Aerobic and Anaerobic.

Aerobic: - with oxygen



Organisms need energy for:

- chemical reactions to build larger molecules
- movement
- keeping warm.



Exercise

During exercise, more energy is needed so that muscles can keep contracting. This means more respiration is needed.

Increased breath depth -

Get more oxygen into blood per breath and remove CO_2

Increased breathing rate -

Get oxygen into blood quickly.



Increased heart rate -

Get more oxygenated blood to muscles.

Heart beats harder - more

blood is pumped with every beat.

During intense exercise, there is just not enough oxygen getting into the body. The muscles start to respire anaerobically.

The build up of lactic acid can cause cramp/stitch.

(HT ONLY) When exercise is over, the lactic acid has to be oxidised to CO_2 and H_2O . The amount of oxygen needed to do this is called the oxygen debt

Anaerobic respiration

Respiration without oxygen

In animal cells = glucose → lactic acid

In plant/yeast cells = glucose → ethanol + carbon dioxide

In yeast, this is fermentation and is used in brewing and baking



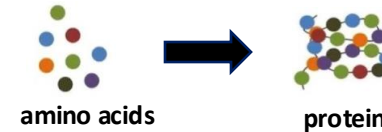
| | Aerobic | Anaerobic |
|------------------------|-------------------|--|
| Oxygen used? | Yes | No |
| Waste products | CO_2 and H_2O | Lactic acid (animals) Ethanol + CO_2 (plants/yeast) |
| Energy released | Lots | Much less |

Metabolism

Metabolism is the sum of all the reactions in a cell or the body.

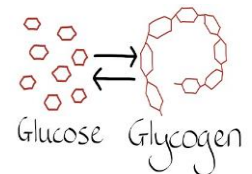
The 'metabolic rate' is the rate at which all of these reactions take place.

An example of a reaction = making proteins using amino acids from digestion.



More examples:

- glucose → glycogen (in muscles/liver)
- respiration
- protein → urea
- glycerol and fatty acids → fats



B4 – Bioenergetics

Respiration

1. What is respiration?
2. Where does respiration take place?
3. What does aerobic mean?
4. Give two uses for the energy released from respiration
5. What are the two types of respiration?
6. What are the reactants in respiration?
7. Write the equation for respiration below

Exercise

1. Describe two changes to breathing during exercise
2. Why does breathing need to change during exercise?
3. What happens to heart rate during exercise?
4. When does anaerobic respiration happen?
5. Which chemical builds up in muscles during anaerobic respiration?

Anaerobic respiration

1. What is anaerobic respiration?
2. What is 'fermentation'?
3. What are the waste products of anaerobic respiration in humans?
4. What are the waste products of anaerobic respiration in plants and yeast cells?
5. Which type of respiration releases most energy?

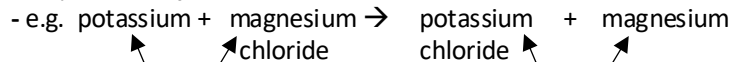
Metabolism

1. What is the metabolic rate?
2. Give two examples of metabolic reactions other than respiration
3. What is glucose stored as in muscles?
4. What are fats made of?

C4 – Chemical Changes

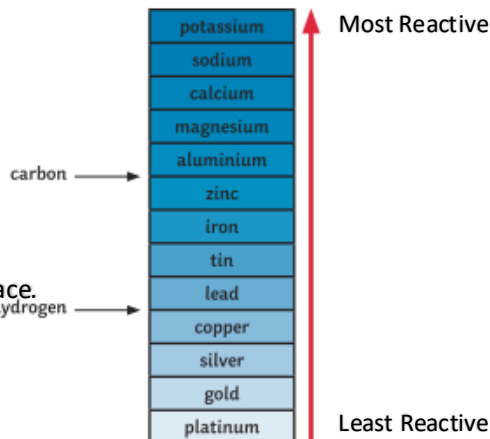
The Reactivity Series

- A more reactive metal will replace a less reactive metal in a compound (**displacement**)



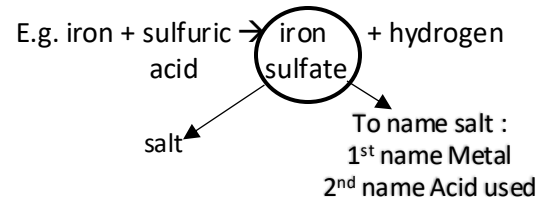
Potassium is more reactive than magnesium

Potassium **displaces** magnesium from the compound and takes its place.



Reactions of acids with metals

- Metal + acid → salt + hydrogen



Naming Salts

| Acid used | Salt produced |
|--------------|---------------|
| Hydrochloric | Chloride |
| Sulfuric | Sulfate |
| Nitric | Nitrate |

Extraction of Metals

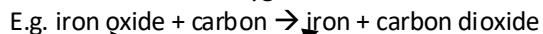
- Extraction = remove metal from an ore or a compound.

Ore = a rock containing enough metal to make extracting metal worthwhile.

How to extract metals:

Less reactive than carbon – reduction with carbon

Reduction = loss of oxygen



Oxygen has been removed to extract iron.

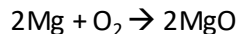
Carbon and the oxygen removed from the iron react to make carbon dioxide

More reactive than carbon – electrolysis is used.

- Some metals are found in **native** form (not reacted, so in element form) – usually platinum and gold as **very unreactive**.

Reaction of metals with oxygen

- Metal + oxygen → metal oxide



Oxidation reaction as metal gained oxygen

- Oxidation = gaining oxygen

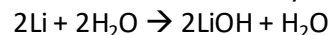
- Reduction = losing oxygen

Reaction of metals with water

- Most metals don't react well with water

- Group 1 and group 2 react to form alkalis

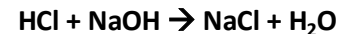
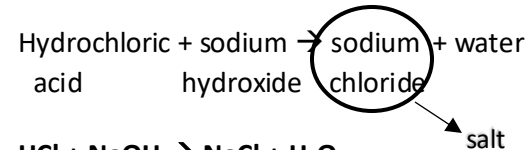
- Metal + water → metal hydroxide + hydrogen



Metal hydroxides are alkaline

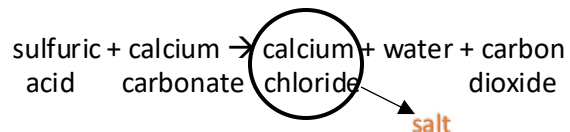
Reactions of acids with alkalis

- Acid + alkali → salt + water neutralisation



Reactions of acids with carbonates

- Acid + carbonate → salt + water + carbon dioxide



C4 – Chemical Changes

1. What is meant by displacement?

2. Name a very reactive metal

3. Name two metals which are less reactive than hydrogen.

1. State the general equation for the reaction of metal with acid.

2. State the salts produced from hydrochloric acid, sulfuric acid and nitric acid.

1. Define extraction.

2. What is an ore?

3. How do you extract a metal less reactive than carbon?

1. State the general equation for the reaction of metal with oxygen.

2. Write a word equation for the reaction of iron with oxygen.

1. State the general equation for the reaction of acid with an alkali.

4. What is meant by reduction?

1. State the general equation for the reaction of metal with water.

5. What is meant by a 'native metal'?

2. Are hydroxides acid/alkaline?

1. State the general equation for the reaction of acid with carbonates.

6. Give an example of a metal found in native form.

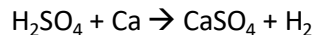
C4 – Chemical Changes

Redox Reactions (HT only)

- Redox = reduction and oxidation takes place at same time in a reaction.

- Metal + acid = redox reaction

Example



Ionic equation: $2\text{H}^+ + \text{Ca} \rightarrow \text{Ca}^{2+} + \text{H}_2$ Lost 2 electrons (oxidation)

Half equation 1: $\text{Ca} \rightarrow \text{Ca}^{2+} + 2\text{e}^-$

Half equation 2: $2\text{H}^+ + 2\text{e}^- \rightarrow \text{H}_2$ Gained 2 electrons (reduction)

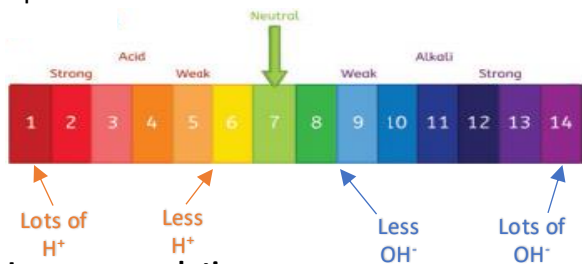
pH Scale

- Shows how acidic or alkaline solution is.

- pH 1-6 = acid

- pH 7 = neutral

- pH 8-14 = alkali

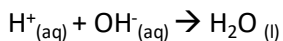


In aqueous solutions:

Acids – produce H^+ ions

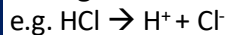
Alkalis – produce OH^- ions

In neutralisation reactions:



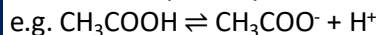
Strong/Weak Acids (HT only)

Strong acid = completely dissociates in a solution



Examples = nitric acid and sulfuric acid

Weak acid = partially dissociates in solution.



\rightleftharpoons = reversible reaction

Hasn't fully turned into ions – only partially

Concentration = how much is dissolved in every cm^3

Strong/weak = how well it ionises

As pH decreases by 1 unit, **hydrogen ion**

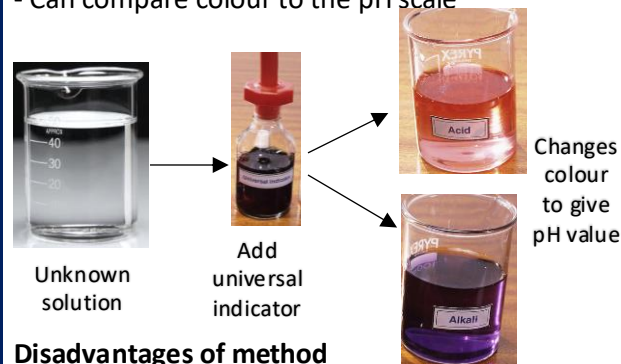
concentration of solution increases by factor of 10

Measuring pH of a solution

- Can use **universal indicator**

- Gives the solution a colour

- Can compare colour to the pH scale



Disadvantages of method

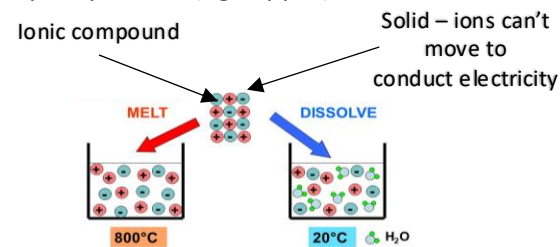
- Colour is **subjective** – different people may see different colours

- Doesn't give an exact pH number (could use **pH probe** to make more **accurate**).

Electrolysis

- **Splitting** up a **compound** using electricity.

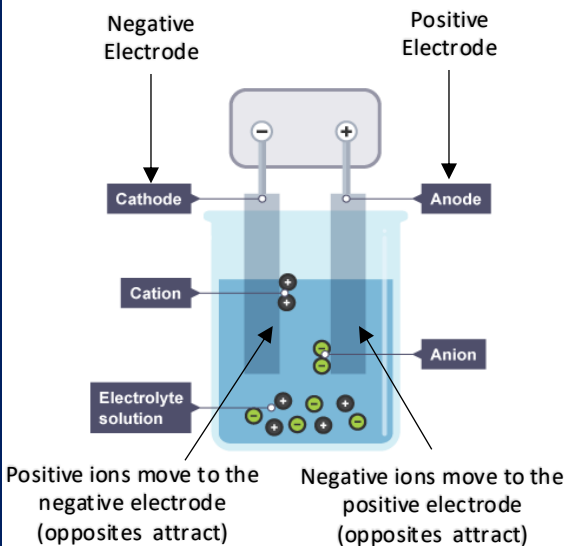
- Used to extract metals from compounds, purify metals (eg copper)



- Must be **molten** or **aqueous** (dissolved in water) to allow **ions** to **move** to the electrodes

The Process of Electrolysis

Two **electrodes** – made of **inert** material (doesn't react)



C4 – Chemical Changes

1. What is a redox reaction?

2. In terms of electrons, what does oxidation mean?

3. In terms of electrons, what does reduction mean?

1. Define a strong acid.

2. Give an example of a strong acid.

3. Define a weak acid.

4. What happens to H^+ concentration as the pH value decreases by 1?

1. What is meant by the term electrolysis?

2. What is electrolysis used for?

3. What must the compound be for electrolysis to take place?

4. Why can solid ionic compounds not conduct electricity?

1. What is the pH range for an acid?

2. What is the pH range for an alkali?

3. If a substance has a pH of 7, what type of substance is it?

4. What ions do acids produce in solution?

5. What ions do alkalis produce in a solution?

6. State the ionic equation for neutralisation reactions.

1. Describe a simple method to test the pH of an unknown solution.

2. State 2 disadvantages of using universal indicator.

3. How can pH be measured more accurately?

5. What does inert mean?

6. Name the positive electrode.

7. Name the negative electrode.

8. Why do positive ions move to the negative electrode?

P5 – Forces

Distance and Displacement

Distance

- How far an object moves
- Does not involve direction
- Distance = scalar quantity

Displacement

- Includes both the **distance** an object moves, measured in a straight line, from start to finish point and the **direction** of that straight line.
- Displacement = vector quantity

Speed

You should be able to recall the following typical speeds:

| Activity | Typical Speed (m/s) |
|----------------|---------------------|
| Walking | 1.5 |
| Running | 3 |
| Cycling | 6 |
| A car | 25 |
| A train | 55 |
| Speed of sound | 330 |

Calculating speed:

$$\text{speed} = \text{distance} \div \text{time}$$

E.g. A car travels 100 metres in 3.8 seconds. What is the average speed?

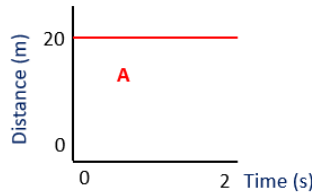
$$v = s/t$$

$$v = 100 \text{ m} / 3.8 \text{ s}$$

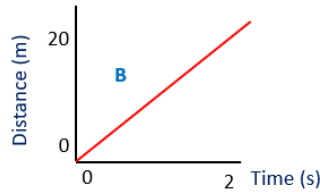
$$v = 26 \text{ m/s}$$

Distance time graphs

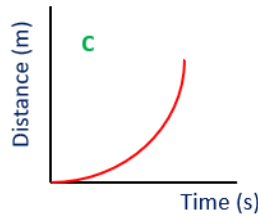
Distance time graphs show the motion of an object
The gradient tells us the speed of the object



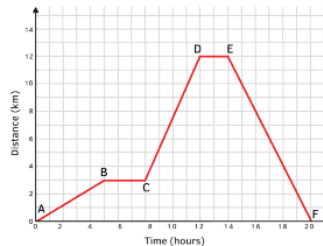
Object is stationary
(distance not changing)



Object is travelling at constant speed
 $v = 20/2$
 $v = 10 \text{ m/s}$



Object is accelerating
(HT only) Speed can be calculated by:
- Drawing a **tangent** and finding the **gradient** of the tangent



A journey generally has different speeds.
Average speed can be calculated by using total distance \div time

Velocity and Acceleration

Velocity & acceleration = vector quantities

1. Velocity = **speed** in a given **direction**
 - positive velocity = forwards (eg +5 m/s)
 - negative velocity = backwards (eg -5 m/s)
2. Acceleration is a **change in velocity**
 - positive acceleration = speeding up
 - negative acceleration = slowing down

Average acceleration of an object can be calculated using:

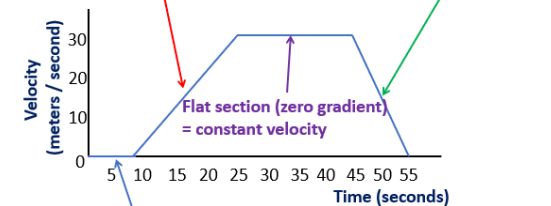
$$\text{acceleration} = \frac{\text{final velocity} - \text{initial velocity}}{\text{time taken}}$$

Units for acceleration are m/s^2

Velocity time graphs

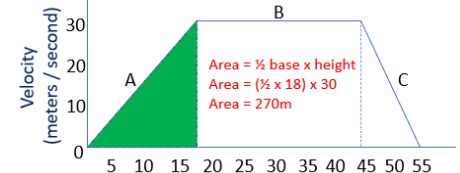
Show how velocity changes during a journey

The gradient shows the acceleration
Constant positive gradient = acceleration
Constant negative gradient = deceleration



Flat section along the x-axis (zero gradient) = constant zero velocity

HT only - area underneath a velocity time graph is the distance travelled by an object



P5 – Forces

1. What type of quantity is distance?
2. What is 'displacement'?
3. Why is displacement a vector quantity?

Speed

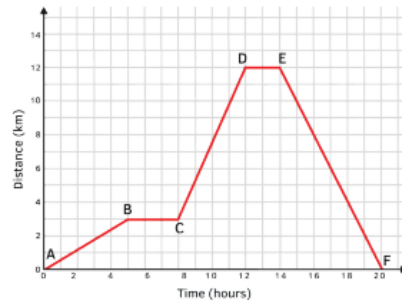
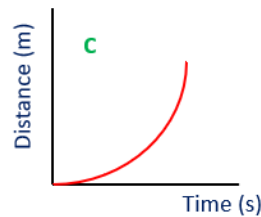
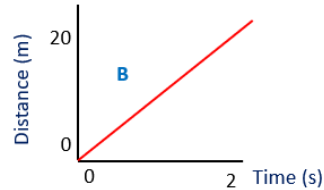
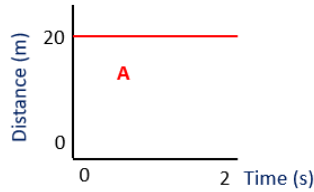
1. Complete the table:

| Activity | Typical Speed (m/s) |
|----------------|---------------------|
| Walking | |
| Running | |
| | 6 |
| A car | |
| | 55 |
| Speed of sound | |

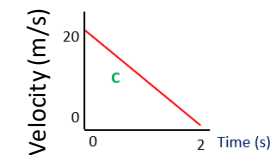
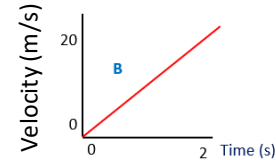
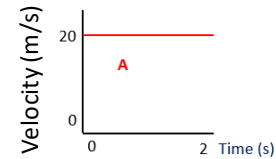
2. What is the equation linking distance, speed and time?

3. What are the units for speed?

1. Describe the motion of the objects:



1. Define velocity and acceleration. Give the units.
2. What does a negative velocity indicate?
3. What does a negative acceleration indicate?
4. What is the equation linking acceleration, final velocity, initial velocity and time?
5. Describe the motion of the objects shown in the graph (include numbers if you can!)



5. How do you calculate acceleration from a velocity time graph?

6. (HT) What does the area under the line on a velocity time graph show?

P5 – Forces – Required Practical - Acceleration

Aim: To investigate the effect of **varying force** on the acceleration of an object of constant mass.

You may be given any of the following apparatus set-ups to conduct these investigations:

Independent variable = force applied

Dependent variable = acceleration

Control variables = mass of toy car and surface car is on.

Method (using toy car)

1) Place the car on a ramp. Incline the ramp until the car just does not move. This is to remove as much of the effect of friction as possible.

2) Set up a light gate at the end of the ramp

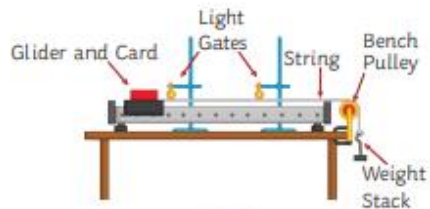
3) Place a 1N weight on the pulley attached to the toy car.

4) Allow the weight to drop and read the acceleration of the car from the light gate

5) Repeat the experiment several times, decreasing the weight on the pulley each time (e.g. 0.8N, 0.6N, 0.4N etc.) Place the removed mass onto the car to keep the mass of the system constant

Results

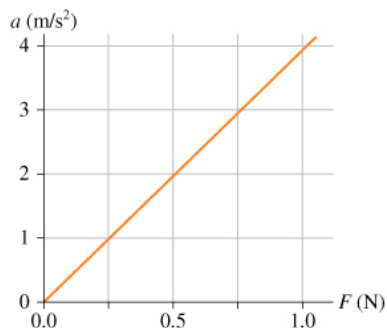
Acceleration is proportional to force applied



or



or



Aim: Investigate the effect of **varying mass** of an object on the acceleration produced by a constant force.

You may be given any of the following apparatus set-ups to conduct these investigations:

Independent variable = mass of glider

Dependent variable = acceleration of glider

Control variables = force applied and surface car is on

Method (using glider)

1) Place the glider on the track. Switch on the air blower and adjust until the glider just doesn't move. This is to remove as much of the effect of friction as possible.

2. Set up a light gate at the end of the air track

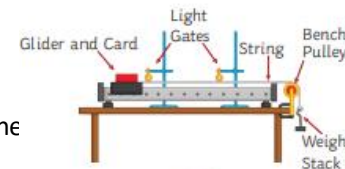
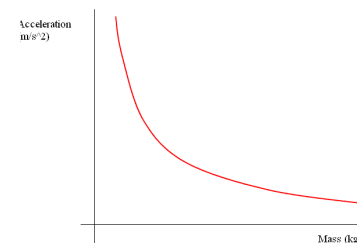
3) Add a 10g mass onto the glider. Place a 1N weight on the pulley attached to the glider and let go.

4) Record the acceleration from the light gate

5) Repeat the experiment several times, increasing the mass on the glider each time (e.g. 20g, 30g, 40g etc.) whilst keeping the weight (1N) on the pulley constant.

Results

Acceleration is inversely proportional to mass



or

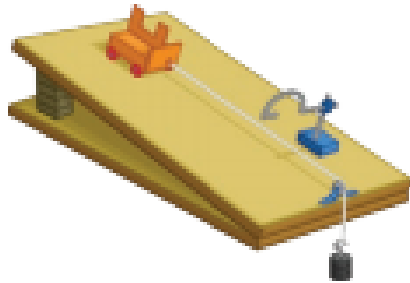


or



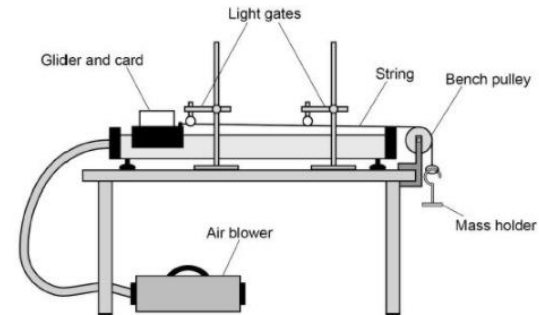
P5 – Forces – Required Practical - Acceleration

A student was investigating the effect of changing the force on the acceleration of a toy car down a ramp, using the equipment shown below:



1. What provides the force for the car to move?
2. Why is the ramp tilted?
3. What is the independent variable in the investigation?
4. What is the dependent variable?
5. How is force changed during the experiment?
6. What is the name of the piece of equipment shown that measures the acceleration?
7. How is mass kept constant throughout the experiment?
8. What relationship do you expect to see between force and acceleration?

A student was investigating the effect of changing the mass of an object on the acceleration, using the equipment shown below



1. What is the independent variable?
2. What is the dependent variable?
2. What variables need to be controlled?
4. Why is the air blower switched on?
5. Describe the relationship you would expect to find between mass and acceleration

P5 – Forces

Stopping Distance

Stopping distance = thinking distance + braking distance

- Greater the speed of vehicle – greater the stopping distance.

Thinking Distance (reaction time)

Thinking distance = distance travelled before driver reacts and presses brakes.

Reaction times are typically 0.2s to 0.9s

Factors that affect a driver's reaction time:

- Tiredness
- Drugs
- Alcohol
- Age
- Distractions (e.g. phone/music)

Momentum (HT only)

- Defined by the equation:

$$\text{momentum} = \text{mass} \times \text{velocity}$$

$$p = m \times v$$

Units:

momentum = kilograms metre per second (kg m/s)

mass = kg

velocity = m/s

- In a closed system, total momentum before an event is equal to the total momentum after the event – this is called **conservation of momentum**.

Braking Distance

Braking distance = the distance travelled by a vehicle once with **brakes are applied** until it reaches a full stop.

It can be affected by:

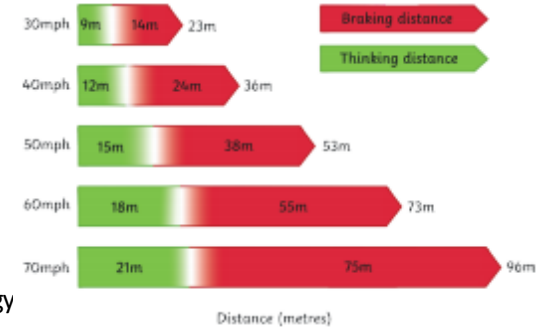
- wet/icy roads
- poor vehicle conditions (brakes/tyres)

When a force is applied to brakes, **work is done** by the friction between the car wheels and the brakes.

Work done – reduces the **kinetic energy store** and energy is transferred to **the thermal store of the brakes**, increasing their temperature.

Increased speed = increased force required to stop the vehicle

Very large decelerations can lead to brakes overheating and/or loss of control of the car.



Newton's First Law

If resultant force acting on object is zero:

- Stationary object will remain stationary
- Moving object will continue at a steady speed and in the same direction.

100N resistance (friction and air) 100N thrust



(HT only) Inertia = tendency of an object to continue in a state of rest or uniform motion (same speed and direction)

Newton's Second Law

Acceleration of an object is proportional to resultant force acting on it and inversely proportional to the mass of the object

Resultant force = mass x acceleration

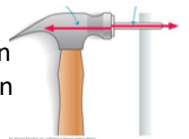
$$F = m \times a$$

(HT only) Inertial mass = how difficult it is to change an object's velocity. Defined as ratio of force over acceleration.

Newton's Third Law

When two objects interact, forces acting on each other are always equal and opposite.

e.g. a hammer hitting a nail
The hammer exerts a force on the nail, and the nail exerts an equal and opposite force on the hammer.



P5 – Forces

1. What is stopping distance?

2. What is the equation linking braking distance, stopping distance and thinking distance?

3. What is the typical reaction time range of a human?

4. What factors may affect a driver's reaction time?

1. What is the equation linking mass, momentum and velocity?

2. What are the units for momentum?

3. What happens to total momentum during a collision or explosion?

1. What is 'braking distance'?

2. What factors affect braking distance?

3. Describe the energy transfers when brakes are applied to stop a moving car

4. Why are large decelerations dangerous?

1. What happens to a stationary object when the resultant force acting on the object is zero?

2. What happens to a moving object when the resultant forces are zero?

3. (HT) What is inertia?

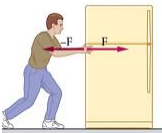
1. State Newton's second law.

2. What is the equation linking acceleration, force and mass?

3. What is inertial mass? (HT)

1. State Newton's third law.

2. Describe the forces acting in the picture





1. Global pattern of urban change

The world's population is growing rapidly; currently 50% of us live in urban areas.

| | |
|--------------|--|
| Urbanisation | An increasing percentage of a country's population living in towns and cities. |
| HICs | Very slow rate of urbanisation. Already have high urban populations. Urbanisation happened earlier (during the industrial revolution). |
| NEEs | Fast rate of urbanisation due to industrialisation. Urban population is increasing rapidly. |
| LICs | Fast rate of urbanisation. Urban population is low as many still work in farming. |

2. Factors affecting urbanisation

| | |
|-----------------------|---|
| Rural-Urban migration | The movement of people from a rural area (countryside) to an urban area (towns and cities). |
| Push factors | Negative factors that make people leave an area e.g. drought, famine, war, few services. |
| Pull factors | Positive factors that attract people to an area e.g. better access to services, better paid jobs, access to electricity. |
| Natural Increase | When the birth rate is higher than death rate; the population grows. High in NEE cities as migrants are often young and health care is improving. |

3. Megacities

| | |
|-----------|---|
| Megacity | A city of more than 10 million people living there. |
| How many? | There are now 34. Rapidly increasing. |
| Where? | Most are in Africa and Asia. |

4. Key terms

| | |
|-----------------------------|--|
| Social deprivation | The extent an individual or an area lacks services, decent housing, adequate income and employment. |
| Dereliction | Abandoned buildings and wasteland. |
| Urban Greening | Process of increasing and preserving open space in urban areas i.e. parks. |
| Urban sprawl | Unplanned growth of urban areas into surrounding rural areas. |
| Integrated Transport System | Different forms of transport are linked together to make it easy to transfer from one to another. |
| Brownfield | Land that has been used, abandoned and now awaits reuse; they are often found in urban areas. |
| Greenfield | A plot of land, often in rural areas or on the edges of urban areas that has not been built on before. |
| Commuter settlements | A place where people live but travel elsewhere for work e.g. Yate → Bristol. |

5. Sustainable urban living

| | |
|--------------------------|--|
| Sustainable urban living | Where people living, now, have the things they need, without reducing the ability of people in future to meet their needs. |
| Water conservation | Recycling grey water. ½ flush toilets. Rainwater harvesting on roofs. Permeable pavements- filters pollutants. |
| Energy conservation | Energy efficient appliances. Energy saving (south facing windows). Use of renewable energy sources. |
| Waste recycling | Recycling boxes in houses. Recycling facilities nearby. Encourage websites like 'Freecycle'. |
| Creating green space | Maintain green spaces around towns- Cools area, encourage exercise, happy. |

6. Urban transport strategies used to reduce traffic congestion

| | |
|--------------------------|---|
| Problems with congestion | air pollution (global warming). Late for work, deliveries delayed. accidents, stress, asthma. In Bristol, 200 people die as a result of air pollution each year. |
| Beryl Bikes | Shared bikes in Bournemouth + Poole. |
| Oyster Cards | Quick and easy to pay for more than one type of public transport (London). |
| Park and ride | Car parks on the outskirts of a town, with buses into the city centre. |
| Congestion charge | Charge for entering the city centre at peak times. |
| Bus lanes | Stop buses being held in traffic. |

**1. Global pattern of urban change**

The world's population is growing rapidly; currently 50% of us live in urban areas.

| | |
|--------------|--|
| Urbanisation | |
| HICs | |
| NEEs | |
| LICs | |

2. Factors affecting urbanisation

| | |
|-----------------------|--|
| Rural-Urban migration | |
| Push factors | |
| Pull factors | |
| Natural Increase | |

3. Megacities

| | |
|-----------|--|
| Megacity | |
| How many? | |
| Where? | |

4. Key terms

| | |
|-----------------------------|--|
| Social deprivation | |
| Dereliction | |
| Urban Greening | |
| Urban sprawl | |
| Integrated Transport System | |
| Brownfield | |
| Greenfield | |
| Commuter settlements | |

5. Sustainable urban living

| | |
|--------------------------|--|
| Sustainable urban living | |
| Water conservation | |
| Energy conservation | |
| Waste recycling | |
| Creating green space | |

6. Urban transport strategies used to reduce traffic congestion

| | |
|--------------------------|--|
| Problems with congestion | |
| Beryl Bikes | |
| Oyster Cards | |
| Park and ride | |
| Congestion charge | |
| Bus lanes | |



7. Distribution of population and major cities in the UK

| | |
|------------|---|
| Population | 66 million. Distribution is very uneven. 82% live in urban areas. Upland areas are sparsely populated. |
| Cities | Most in lowland areas and on coasts. London is the biggest city and the capital. It has 10% of the population. Cities reflect our industrial past (near raw materials e.g. Leeds near coal). Counter-urbanisation is a recent trend. |

8. Location and importance of Bristol

| | |
|---------------------------|---|
| Location | South west of the UK, on Bristol Channel. Near to junction of M4 & M5. |
| Importance within the UK | Largest city in the southwest. 8 th most popular city for foreign tourists. 2 universities and 2 cathedrals. |
| Importance to wider world | Largest concentration of silicon chip manufacturing outside of California. International airport (links to Europe). Many TNCs located there (AirBus, BMW) |

9. Impacts of migration on the growth and character of the city

| | |
|-------------------------|---|
| National migration | 1851 - 1891 population doubled as people arrived looking for work. |
| International migration | Now international migration accounts for half of its growth. 50 countries. Many from Europe (Poland, Spain). |
| Impact on | Many cultural opportunities. Afro-Caribbean- strong community |

10. Urban change in Bristol

- Population is growing rapidly.
- Population is more ethnically diverse.
- More under 16-year olds than of pensionable age.
- Electrification of railway to London (<70 minutes).
- Become more accessible (road, rail, air).

11. Opportunities created by urban change

| | |
|------------------------------|---|
| Cultural mix | 50 countries represented (food, art). St Paul's Carnival (attracts 40,000). |
| Recreation and entertainment | Underground music scene -Colston Hall. Entertainment (The Bristol Old Vic). 2 football teams (City, Rovers). Shopping Cribbs Causeway, Cabot Circus. |
| Employment | Highly tech. industries = jobs. 50 silicon businesses. Many TNCs. £100 million improved broadband. |
| Integrated transport system | Links different types of public transport Reduces congestion in the city. ↗ % people walking and cycling (57%). |
| Urban greening | > 90% live within 350m of park/water. 300 parks. 1/3 Bristol is open space. 2015 European Green Capital status. |

12. An example of an urban regeneration project

| Example | Why did it need regeneration? | What are the main features? | Successful? |
|-------------------------|--|--|---|
| Temple Quarter, Bristol | <ul style="list-style-type: none"> • Bristol surrounded by a green belt. • Brownfield site- rundown, ugly. • By Bristol Temple Meads Station- poor impression for new visitors. • Previously an industrial area. | <ul style="list-style-type: none"> • Enterprise Zone e.g. low rents. • Improve access e.g. ITS. • New bridge across River Avon (access to planned Bristol Arena). • Maintain historical features, cobbled streets- gives character • Brunel's Engine Shed £1.7mill. | <ul style="list-style-type: none"> ✓ 4,000 new jobs by 2020 (17,000 by 2037) ✓ Attracts tourists. ✓ Redeveloped brownfield site ✗ Arena still not built |

13. Challenges created by urban change

| | |
|----------------------------------|---|
| Urban deprivation | Some areas face social deprivation. 1/3 of people in <u>Filwood</u> are in very-low income households. Problems of crime, drug use, low quality housing, lack of transport. |
| Inequality in housing | <u>Filwood</u> - 50% in council housing. <u>Stoke Bishop</u> - millionaires (large villas) |
| Inequality in education | <u>Filwood</u> - 36% get top GCSE grades. <u>Stoke Bishop</u> - 94%. |
| Inequality in health | <u>Filwood</u> - Life expectancy 78 years. <u>Stoke Bishop</u> - 83 years. |
| Employment | <u>Filwood</u> - 1/3 16-24-year olds. <u>Stoke Bishop</u> - Just 3%. |
| Dereliction | Industrial buildings derelict (inner-city). <u>Stokes Croft</u> (many squatters). |
| Building on brown and greenfield | 2006-13 94% housing on brownfield. Plan for 30,000 homes on brownfield. <u>Temple Meads</u> built on brownfield. |
| Waste disposal | >1/2 million tonnes of waste/year. (23% lower per head than UK average) ↗ recycling by 50%. Teach it in schools. |
| Urban sprawl | Greenbelt to prevent merge with Bath City extended to NW (<u>Bradley Stoke</u>). Led to destruction of greenfield sites. <u>Yate</u> - Commuter settlement. |

**7. Distribution of population and major cities in the UK**

| | |
|------------|--|
| Population | |
| Cities | |

8. Location and importance of Bristol

| | |
|---------------------------|--|
| Location | |
| Importance within the UK | |
| Importance to wider world | |

9. Impacts of migration on the growth and character of the city

| | |
|-------------------------|--|
| National migration | |
| International migration | |
| Impact on character | |

10. Urban change in Bristol

| |
|--|
| |
|--|

11. Opportunities created by urban change

| | |
|------------------------------|--|
| Cultural mix | |
| Recreation and entertainment | |
| Employment | |
| Integrated transport system | |
| Urban greening | |

12. An example of an urban regeneration project

| Example | Why did it need regeneration? | What are the main features? | Successful? |
|-------------------------|-------------------------------|-----------------------------|-------------|
| Temple Quarter, Bristol | | | |

13. Challenges created by urban change

| | |
|----------------------------------|--|
| Urban deprivation | |
| Inequality in housing | |
| Inequality in education | |
| Inequality in health | |
| Employment | |
| Dereliction | |
| Building on brown and greenfield | |
| Waste disposal | |
| Urban sprawl | |

What we are learning this term:
 3.1 Ideas about the cause of disease and illness
 3.2 Approaches to treatment and prevention
 3.3 Key Individuals and fighting cholera in London, 1854

| A. | Can you define these key words? |
|------------------------|---|
| microbes | Any living organism that is too small to see without a microscope. Microbes include bacteria. |
| vaccination | Treatment with a vaccine to produce immunity against a disease |
| spontaneous generation | Claimed rotting matter created microbes. |
| bacteriology | The study of bacteria. |
| inoculate | Deliberately infecting yourself with a disease to avoid a more severe case later on. |

C. Fighting cholera in London , 1854 (3.3)

| | |
|------------------------|---|
| What is Cholera a? | Cholera was a terrible water borne disease that spread quickly across England from 1831. There were lots of cases in slum dwellings. |
| Attempts to prevent it | Some steps were taken to clean up the filthiest areas of the city. Idea that it was caused by miasma was widespread, so local councils focused on cleaning up the mess in which they were living |
| John Snow | John Snow was surgeon who investigated the 1854 epidemic. He created a spot map to show the deaths and noticed they were concentrated around a water pump in Broad Street, SoHo. Clear the water pump was the source of the outbreak |
| Impact of Snows work | In the short-term Snow removed the handle from the Broad Street pump and the deaths in that area went away. Long-term Snow presented his work to the government arguing clean water needed to be supplied. Many rejected his work and clung to the idea of miasma causing cholera |

| B. Change and continuity in ideas about disease and illness in the 18 th and 19 th Century. (3.1-3.2) | | |
|--|--|---|
| Causes | Prevention | Treatments |
| Religion – People no longer believed that God was responsible for illnesses and world events | Vaccinations – the work of Edward Jenner in the 18 th century led to the first vaccination being created for smallpox. This led the way to other vaccinations being produced as Pastuer and Robert Koch isolated microbes which caused certain diseases | Continuance – despite the new ideas about the cause of disease and illness in the 18 th century, it took a while for medical science to catch up. Not a great deal of understanding how to remove germs as part of treatment |
| Age of Enlightenment/Scientific Revolution – people started to look for answers in the world about disease and illness. There was also great change across science influencing ideas about cause | Public Health Act 1875 – in the 18 th Century the government had a very <i>laissez-faire</i> attitude to public health. This changed when more men could vote. The government realised changes were needed and passed the Public Health Act. This Act stated that clean water, sewage system, public parks, housing officers and street lighting had to be provided | Hospitals – Florence Nightingale was a pioneer in changing hospitals and hospital care in the 19 th Century. Following her success at the war hospital in the Crimea, Nightingale changed the way that hospitals were designed to having separate wards and more ventilation. Also set up a training school for nurses to give better care |
| Miasma – people still believed in the theory that disease and illness was caused by harmful fumes in the air. BUT it was becoming less popular | Role of the government – Took a more active role in preventing disease, making smallpox vaccinations compulsory | Anaesthetics – one of the big problems in the 18 th and 19 th centuries was pain during surgery. Ether and laughing gas had been used but they were not good enough. John Simpson discovered that chloroform could be used as a pain relief – this led to more complex surgeries being performed |
| Spontaneous Generation – this theory stated that rotting matter caused bacteria to form, causing people to get ill | | Antiseptics – another big problem with surgery was infections. Joseph Lister built on Pasteur's work and discovered that carbolic acid could be used to prevent infections. Used on wounds and Sterilised equipment, but some surgeons did not like the change |
| Germ Theory – this correct theory put forward by Louis Pastuer was that germs caused matter to rot. He linked this to disease and illness, stating that germs caused people to get ill | | |

D. Key People (3.3)

| Edward Jenner | John Snow | Edwin Chadwick |
|--|--|--|
| Country doctor who realised that milkmaids who got cowpox did not catch smallpox – decided they must be connected. Tested his theory by infecting a local boy with cowpox and then tried to infect him with smallpox but he did not get ill. Wrote up his findings to make sure doctors could follow. Had successfully developed the first vaccine, which was supported by the government. | Used scientific methods to prove that cholera was a water borne disease in the 1850's. Snow presented his findings to the government, recommending that the sewer systems were improved, which they were eventually. | Published his <i>Report on the Sanitary Conditions of the Labouring Classes</i> in 1842. he spent time researching the urban poor and discovered that people living in cities had a lower life expectancy than people living in the countryside. Campaigned for all cities to set up boards of health, responsible for clean water and disposing sewage. |



| Keywords | | What we are learning in this unit | | B. | The 5 Pillars - Salah |
|---------------|--|---|---|-------------------------------------|--|
| Tawalla | Showing love for God and for those who follow Him | A. The 5 Pillars and 10 Obligatory Acts B. Salah C. Sawm D. Zakah E. Hajj F. Jihad G. Id-ul-Adha H. Id-ul-Fitr | | What is it? | <ul style="list-style-type: none"> “Salah is a prescribed duty that has to be performed at the given time by the Qur’an” Muslims pray 5 times per day and this allows them to communicate with Allah. The prayers are done at dawn (fajr), afternoon (zuhr), late afternoon (asr), dusk (maghrib) and night (isha) Muslims face the holy city of Makkah when paying. |
| Tabarra | Disassociation with God’s enemies | A. | 5 Pillars of Islam and 10 obligatory acts | Wuzu | <ul style="list-style-type: none"> The washing process to purify the mind and body for prayer Muhammad said the key to Salah is cleanliness Hands, arms, nose, mouth, head, neck and ears are cleaned as well as both feet up to the ankle. |
| Khums | The obligation to pay one-fifth of acquired wealth | What are the 5 pillars | <ul style="list-style-type: none"> 5 key practices or duties for Muslims Both Sunni and Shi’a keep these (Shi’a have them as part of the 10 obligations) They are seen as pillars “holding up the religion” and are all of equal importance | Rak’ahs and recitations | <ul style="list-style-type: none"> These are the movements that Muslims make during prayer Takbir – raise hands to ears and say ‘Allahu Akbar’ Qiyam – Standing, Muslims recite Surah Then bow to the waist saying “Glory be to my Great Lord and praise be to Him” Then sink to their knees saying “Glory be to my Lord, The Most Supreme...” |
| Lesser jihad | The physical struggle or holy war in defence of Islam | What are the 10 obligatory acts | <ul style="list-style-type: none"> There are 10 obligations for a Muslim according to the Shi’a branch of Islam. These include prayer, fasting, almsgiving, pilgrimage, jihad, khums, directing others towards good, forbidding evil, tawalla and tabarra | Salah at home | <ul style="list-style-type: none"> Salah is a big part of family life Meals and other activities are usually scheduled to fit around prayer times Families pray all together and might have a room set aside for prayer |
| Greater jihad | The daily struggle and inner spiritual striving to live as a Muslim | Shahadah | <ul style="list-style-type: none"> Shahadah is the first of the 5 pillars It is the Muslim declaration of faith “there is no God but Allah, and Muhammad is His messenger” This is a statement that Muslims reject anything but Allah as their focus of belief It also recognises that Muhammad has an important role and his life is an example to follow | Salah in the mosque | <ul style="list-style-type: none"> All mosques have a qiblah wall which is to show where to face Makkah Men and women pray in separate rooms at the Mosque |
| Sunni | Muslims who believe in the successorship of Abu Bakr, Umar, Uthman and Ali as leaders after the Prophet Muhammad | | | Jumma | <ul style="list-style-type: none"> Jumma is congregational prayer held on a Friday at the mosque where the imam leads the prayer Praying together as a community develops the feeling of unity amongst Muslims Men are obliged to attend unless they are sick or too old Women do not have to go – they may pray at home instead |
| Shi’a | Muslims who believe in the Imamah, leadership of Ali and his descendants | | | Differences between Sunni and Shi’a | <ul style="list-style-type: none"> Shi’a Muslims combine some prayers so they may only pray 3x a day Shi’a use natural elements e.g. clay where their head rests |
| Niyah | Intention during prayer - having the right intention to worship God | | | | |
| Du’a | A personal prayer that is done in addition to Salah e.g. asking Allah for help | | | | |
| | | Jihad | | | |
| Lesser Jihad | | <ul style="list-style-type: none"> Originated when Prophet Muhammad and early Muslims were being attacked and oppressed by the Meccans and had no choice but to engage “Fight in the way of God those who fight against you but do not transgress” Conditions for declaration <ul style="list-style-type: none"> self-defense proportionate legitimate authority no harm to civilians | | | |
| Greater Jihad | | <ul style="list-style-type: none"> A struggle within oneself to follow the teachings of Islam and be a better person e.g. perform the Five Pillars, follow Sunnah and avoid temptation “encourage what is right and forbid what is wrong” | | | |



| Keywords | | What we are learning in this unit | | B. | <i>The 5 Pillars - Salah</i> | | |
|---------------|--|---|--|---------------------------------|--|-------------------------------------|--|
| Tawalla | | A. The 5 Pillars and 10 Obligatory Acts B. Salah C. Sawm D. Zakah E. Hajj F. Jihad G. Id-ul-Adha H. Id-ul-Fitr | | What is it? | | | |
| Tabarra | | | | A. | <i>5 Pillars of Islam and 10 obligatory acts</i> | Wuzu | |
| Khums | | | | What are the 5 pillars | | Rak'ahs and recitations | |
| Lesser jihad | | | | What are the 10 obligatory acts | | Salah at home | |
| Greater jihad | | | | Shahadah | | Salah in the mosque | |
| Sunni | | | | <i>Jihad</i> | | Jummah | |
| Shi'a | | | | | | Lesser Jihad | |
| Niyah | | | | | | Greater Jihad | |
| Du'a | | | | | | Differences between Sunni and Shi'a | |



The 5 Pillars - Zakah

| | |
|---------------------------------|--|
| The role of giving alms | <ul style="list-style-type: none"> • Muslims believe it is their duty to ensure Allah's wealth has been distributed equally as everyone is the same • The Qur'an commands to give to those in need |
| The significance of giving alms | <ul style="list-style-type: none"> • Giving 2.5% of savings/wealth to charity • Wealth can cause greed which is evil, so Zakah purifies wealth – wealth is given by God and must be shared • The Prophet Muhammad practiced Zakah as a practice in Medina • Given to the poor, needy and travellers • Sadaqah is giving from the heart out of generosity and compassion |
| Khums | <ul style="list-style-type: none"> • Shi'a Islam – one of the 10 obligatory acts • 20% of any profit earned by Shi'a Muslims paid as a tax • Split between charities that support Islamic education and anyone who is in need • "know that whatever of a thing you acquire, a fifth of it is for Allah, for the Messenger, for the near relative, and the orphans, the needy, and the wayfarer" |

The 5 Pillars - Sawm

| | |
|-----------------------------|---|
| The role of fasting | <ul style="list-style-type: none"> • Fasting during Ramadan (9th month in Muslim calendar) • Muslims give up food, drink, smoking and sexual activity in daylight hours • Pregnant people, children under 12, travellers and elderly people are exempt from fasting. |
| The significance of fasting | <ul style="list-style-type: none"> • Ramadan is believed to be the month that Prophet Muhammad began to receive revelations of the Qur'an • Helps Muslims to become spiritually stronger |
| Reasons for fasting | <ul style="list-style-type: none"> • Obeying God and exercising self-discipline • Develops empathy for the poor • Appreciation of God's gifts • Giving thanks for the Qur'an • Sharing fellowship and community with other Muslims |
| Night of power | <ul style="list-style-type: none"> • The night when the Angel Jibril first appeared to Muhammad and began revealing the Qur'an. • The most important event in history – "better than a thousand months" [Surah 97:3] • Laylat Al-Qadr is the holiest night of the year. Muslims try to stay awake for the whole night to pray and study for the Qur'an |

The 5 Pillars - Hajj

| | |
|--------------------------------|---|
| The role of pilgrimage | <ul style="list-style-type: none"> • A pilgrimage to Makkah which is compulsory for Muslims to take at least once as long as they can afford it and are healthy |
| The significance of pilgrimage | <ul style="list-style-type: none"> • God told Ibrahim to take his wife and son on a journey and leave them without food or water • Hajira ran up and down two hills in search of water, could not find any and prayed to God. Then water sprung from the ground. This is the Zamzam well • When Ibrahim returned he was commanded to build the Ka'ba as a shrine dedicated to Allah • Hajj is performed in the month of Dhu'l-Hijja |
| Actions | <ul style="list-style-type: none"> • Ihram – dressing in two pieces of white cloth • Circling the Ka'aba 7 times (tawaf) • Drinking water from the Zamzam well like Hajar • walking between Al-Safa and Al-Marwa hills seven times • Throwing stones at 3 pillars (jamarat) to represent casting out the devil and remembering Ibrahim throwing stones at the devil to drive him away • Asking Allah for forgiveness at Mt Arafat • Collecting pebbles at Muzdalifah |

Id-ul-Adha, Id-ul-Fitr, Ashura

| | |
|------------|--|
| Id-ul-Adha | <ul style="list-style-type: none"> • Festival of sacrifice • Marks the end of Hajj and is a chance for whole Ummah to celebrate • Origins – Ibrahim's commitment to God in being willing to sacrifice his son, Ishmael. God was testing Ibrahim • Key events – new clothes, sacrificing an animal, visiting the Mosque. • People ask a butcher to slaughter a sheep for them and share the meat with the community |
| Id-ul-Fitr | <ul style="list-style-type: none"> • Festival of fast-breaking • Marks the end of Ramadan • Key events – Decorate homes with colourful light and banners, dress in new clothes, gather in Mosques, give gifts and money, give to the poor • Zakah ul-Fitr – donation to the poor so that everyone can eat a generous meal at the end of Ramadan. |
| Ashura | <ul style="list-style-type: none"> • Sunni celebration – many fast on this day which was established by Prophet Muhammad • Shi'a mourning – Husayn was murdered and beheaded. Muslims remember his death and betrayal • Key events – public displays of grief, day of sorrow, wear black, re-enactments of martyrdom, not a public holiday in Britain but Muslims may have day off school |



The 5 Pillars - Zakah

| | |
|---------------------------------|--|
| | |
| The role of giving alms | |
| The significance of giving alms | |
| Khums | |

The 5 Pillars - Sawm

| | |
|-----------------------------|--|
| | |
| The role of fasting | |
| The significance of fasting | |
| Reasons for fasting | |
| Night of power | |

The 5 Pillars - Hajj

| | |
|--------------------------------|--|
| | |
| The role of pilgrimage | |
| The significance of pilgrimage | |
| Actions | |

Id-ul-Adha, Id-ul-Fitr, Ashura

| | |
|---|--|
| | |
| Id-ul-Adha Not an official holiday in UK | |
| Id-ul-Fitr Public holiday in Muslim majority countries, not UK | |
| Ashura | |

Year 10 Spanish Knowledge Organiser Term 2



My Personal World

This is some of the vocabulary that you will learn / come across in **Term 2**. Use this knowledge organiser to revise / go over vocabulary. These words have been added in by the exam board (Edexcel) so the more you learn, the better your grade!

Techniques for learning vocab:

- Look / cover / write / check – ask your teacher for a sheet and to show you how.
- Mind maps
- Post it notes / flash cards
- Record yourself saying them
- Get a family member to quiz you – they say the English, you say the Spanish
- Write the word in a sentence – put it into context

Spare copies of this kept in class. Just ask your teacher if you need one.

¿A quién sigues? (pages 60–61):

| | |
|---|---|
| ¿A quién sigues en las redes sociales? | <i>Who do you follow on social media?</i> |
| Sigo ... | <i>I follow ...</i> |
| a artistas / cantantes latinos | <i>artists / Latin singers</i> |
| canales de cocina/*videojuegos | <i>cooking/videogames channels</i> |
| *vlogs de ... | <i>... vlogs</i> |
| *rutinas / estilo de vida / moda | <i>routines / lifestyle / fashion</i> |
| ¿Desde hace cuánto tiempo? | <i>For how long?</i> |
| Desde hace ... | <i>For ...</i> |
| un mes/año | <i>a month/year</i> |
| meses / (mucho) tiempo | <i>months / a long time</i> |
| ¿Por qué te gusta? | <i>Why do you like it?</i> |
| Me gusta porque ... | <i>I like it because ...</i> |
| aprendo mucho | <i>I learn a lot</i> |
| quiero aprender más | <i>I want to learn more</i> |
| la música es mi vida | <i>music is my life</i> |
| los vídeos son divertidos/ útiles/*virales | <i>the videos are fun/useful/ viral</i> |
| soy aficionado/a | <i>I am a fan ...</i> |
| al deporte | <i>of sport</i> |
| a la música latina | <i>of Latin music</i> |

¿A quién admiras?

| | |
|--|--|
| *Admiro a ... | <i>I admire ...</i> |
| Lo/La sigo / *admiro porque ... | <i>I follow / admire him/her because ...</i> |
| apoya a otras personas | <i>he/she supports other people</i> |
| es un buen modelo de conducta | <i>he/she is a good role model</i> |
| es una *inspiración para otros | <i>he/she is an inspiration to others</i> |
| Lucha / Luchó por ... | <i>He/She fights/fought for ...</i> |
| los derechos de las personas transgénero | <i>transgender rights</i> |
| la igualdad de oportunidades | <i>equal opportunities</i> |
| Fue ... | <i>He/She was ...</i> |
| la primera persona en ... | <i>the first person to ...</i> |
| participar / ganar ... | <i>participate / win ...</i> |
| El año pasado / Hace dos años ... | <i>Last year / Two years ago ...</i> |
| participó en / ganó ... | <i>he/she participated in / won ...</i> |

¡Amigos para siempre! (pages 62–63):

| | |
|---|--|
| ¿Cómo es tu relación con tus amigos? | <i>What is your relationship with your friends like?</i> |
| ¿Te llevas bien con tus amigos? | <i>Do you get on well with your friends?</i> |
| (No) Me llevo bien con ... | <i>I (don't) get on well with ...</i> |
| Me divierto mucho con ... | <i>I have lots of fun with ...</i> |
| Mi mejor amigo/a y yo ... | <i>My best friend and I ...</i> |
| Mis amigos/as y yo ... | <i>My friends and I ...</i> |
| nos llevamos *genial | <i>get on really well/great</i> |
| nos divertimos mucho juntos/as | <i>have lots of fun together</i> |
| porque ... | <i>because ...</i> |
| hacemos muchas cosas juntos/as | <i>we do lots of things together</i> |
| me hace(n) reír | <i>he/she/they make(s) me laugh</i> |
| me conoce(n) bien | <i>he/she/they know(s) me well</i> |
| puedo confiar en él/ella totalmente | <i>I can trust him/her totally</i> |
| siempre estamos juntos | <i>we are always together</i> |
| casi nunca nos peleamos | <i>we hardly ever fight</i> |
| puedo contar con él/ella/ellos/ellas (para todo) | <i>I can count on him/her/them (for everything)</i> |
| tenemos los mismos intereses | <i>we have the same interests</i> |

¿Cómo es un buen amigo?

| | |
|--|---|
| ¿Cómo te ayuda tu mejor amigo/a? | <i>How does your best friend help you?</i> |
| Mi mejor amigo/a ... | <i>My best friend ...</i> |
| Un buen amigo / Una buena amiga ... | <i>A good friend ...</i> |
| te comprende | <i>understands you</i> |
| te conoce bien | <i>knows you well</i> |
| te hace reír | <i>makes you laugh</i> |
| te respeta | <i>respects you</i> |
| me acepta como soy | <i>accepts me as I am</i> |
| te acepta como eres | <i>accepts you as you are</i> |
| te ayuda cuando tienes problemas | <i>helps you when you have problems</i> |
| te apoya en lo bueno y en lo malo | <i>supports you in the good and the bad</i> |
| te da buenos consejos | <i>gives you good advice</i> |
| no te critica | <i>does not criticise you</i> |
| es fiel | <i>is loyal</i> |
| puede guardar un *secreto | <i>can keep a secret</i> |

Así soy yo (pages 64–65):

| | |
|--|---|
| ¿Cómo eres? | What are you like? |
| ¿Qué es lo más importante para ti? | What is the most important thing to you? |
| Para mí, lo más importante es / son ... | For me, the most important thing is ... |
| mi familia / mi educación | my family / my education |
| mi cultura / mis derechos | my culture / my rights |
| mis amigos / la amistad | my friends / friendship |
| mi religión / mi fe | my religion / my faith |
| ¿Qué cosas te interesan/ preocupan ? | What things interest/worry you? |
| Las cosas que me interesan/ preocupan son ... | The things that interest/worry me are ... |
| el amor / la paz / el planeta | love / peace / the planet |
| la justicia / el futuro del mundo | justice / the future of the world |
| ¿Cuáles son tus sueños? | What are your dreams? |
| Mi objetivo /sueño es ... | My objective/dream is to ... |
| En el futuro voy a ... | In the future I am going to ... |
| ser jefe/a (de una compañía) | be a/the boss (of a company) |
| ser rico/a / tener éxito | be wealthy / be successful |
| luchar por un mundo mejor | fight for a better world |

| | |
|--|--|
| ¿Qué piensas de las redes sociales? | What do you think about social media? |
| ¿Qué es lo bueno/ lo malo de las redes sociales? | What is the good/bad thing about social media? |
| Lo bueno/malo es que ... | The good/bad thing is that ... |
| causan *adicción/ presión / *acoso | it (social media) causes addiction/pressure/bullying |
| causan problemas para dormir | it (social media) causes sleeping problems |
| son una gran *distracción | it (social media) is a big distraction |
| son buenas/útiles para ... | it (social media) is good/ useful for... |
| compartir fotos/vídeos/ideas | sharing photos/videos/ideas |
| buscar información sobre ... | searching for information about ... |
| estar en contacto con tus amigos | being in touch with your friends |
| participar en la comunidad | participating in the community |
| expresarse | expressing yourself |
| chatear con ... | chatting with .. |
| escuchar / ver ... | listening to / watching ... |

Necesito ayuda, ¿qué puedo hacer? (pages 66–67):

| | |
|-----------------------------------|---------------------------------|
| ¿Qué puedo hacer? | What can I do? |
| Mi problema es que ... | My problem is that ... |
| me siento / estoy ... | I feel / I am ... |
| diferente / triste | different / sad |
| solo/a / muy mal | alone/ very bad |
| no me relaciono con nadie | I don't interact with anyone |
| ignora todos mis mensajes | he/she ignores all my messages |
| es muy negativo/a | he/she is very negative |
| me peleo mucho con él/ella | I fight with him/her a lot |
| se ríen de mí | they laugh at me |
| siempre me critica | he/she is always criticising me |

| | |
|--|------------------------------------|
| Deberías ... | You should ... |
| Podrías ... | You could ... |
| Es importante/necesario ... | It is important/necessary to ... |
| limitar el tiempo en línea | limit your time online |
| organizar actividades | organise activities |
| apoyar a tu familia | support your family |
| buscar ayuda profesional | seek professional help |
| explicarles cómo te sientes | explain to them how you feel |
| expresar tus sentimientos | express your feelings |
| hablar con él/ella/ellos/ ellas cara a cara | speak to him/her/them face to face |
| crear nuevas *rutinas | create new routines |
| Tienes que ser fuerte. | You have to be strong. |

Some verbs for describing relationships are **reflexive** in Spanish. Watch out for those that are also stem-changing in the present tense, such as **sentirse**.

| Present tense | pelearse (to argue/fight) | sentirse → ie (to feel) |
|-----------------------|----------------------------------|---------------------------------------|
| (yo) | me peleo | me <u>s</u> iento |
| (tú) | te pelear | te <u>s</u> ientes |
| (él/ella/usted) | se pelea | se <u>s</u> iente |
| (nosotros/as) | nos peleamos | nos sentimos |
| (vosotros/as) | os peleáis | os sentís |
| (ellos/ellas/ustedes) | se pelean | se <u>s</u> ienten |

Other reflexive verbs include:

relajarse (to relax)
llevarse (to get on)
relacionarse (con) (to relate to / interact with)
casarse (con) (to get married to)
separarse (to split up)
reírse → **i** (to laugh)
divertirse → **ie** (to have fun)

Escribir **1** **Translate these sentences into Spanish.**

Example: 1 *Mi padrastro y yo no nos...*

- 1 My stepdad and I don't get on well and we argue a lot.
- 2 I get on very well with my best friend. We never argue.
- 3 I relax with my family when I go on holiday.
- 4 I feel good when I'm with my friends because we have a lot of fun.
- 5 Friendship is important for me and I relate well to all my friends.
- 6 I have a lot of fun with my friends because we laugh a lot when we are together.



| Term | Definition |
|---------------|--|
| Abstraction | The process of removing all unnecessary details from a problem. |
| Algorithm | The sequence of steps required to carry out a specific task. |
| Assignment | Setting the value of a variable in a computer program. |
| Data | Units of information which is acted upon by instructions. |
| Decomposition | Breaking down a problem into smaller steps that are easier to work with and solve. |
| Flowchart | A diagram which shows the step by step flow of an algorithm. |
| Input | Data which is inserted into a system to be processed or stored. |
| Output | Data which is sent out of a system. |
| Process | An action taken by the program without input from the user. |
| Pseudocode | A method of writing an algorithm using plain English. |
| Variable | A memory location within a computer where values are stored |

| Data Type | Explanation | Example |
|--------------|--------------------------------------|-------------|
| Boolean | TRUE/FALSE or 1/0 | TRUE or 1 |
| Character | A single, alphanumeric character. | 1 or A or ! |
| Integer | Whole numbers | 15 |
| String | One or more alphanumeric characters. | 1A! |
| Real - Float | Decimal numbers | 15.5 |

| Flowchart Symbol | Name | Usage |
|------------------|--------------|---|
| Start/Stop | Terminator | The start or end of the algorithm. |
| Process | Process | An action which occurs during the algorithm. |
| Input/Output | Input/Output | Data is either inputted to or outputted from the algorithm. |
| Decision | Decision | A Yes/No, True/False decision. |

| Common Algorithms | Explained |
|-------------------|--|
| Binary Search | Compares the search object to the middle point of a sorted list. If they are not equal, the half in which the target cannot lie is eliminated and the search continues on the remaining half, again taking the middle point to compare to the search object, and repeating this until the target value is found or the end is reached. |
| Bubble Sort | Sorts a list by continuously stepping through a list, swapping items until they appear in the correct order. |
| Linear Search | Compares the search object with each item in the list in order from the beginning until it is found or the end is reached. |
| Merge Sort | Sorts a list by repeatedly dividing a list into two until all the elements are separated individually. Pairs of elements are then compared, placed into order and combined. The process is then repeated until the list is recompiled in the correct order as a whole. |

| Term | Definition |
|-------------------------|---|
| Arithmetic Operator | A mathematical character to perform a calculation. Example: + |
| Array | A set of values, of the same data type, stored in sequence. A list. |
| Casting | Setting or changing the data type of a variable. |
| Concatenation | Connecting strings of characters together. |
| Condition | A statement which is either true or false. A computation depends on whether a condition is true or false. |
| Constant | A value which does not change whilst the program is running. |
| Element | An individual item in an array. A value in a list. |
| File | Anything you can save. Document, piece of music, data etc. |
| Identifier | A name, usually for part of the program such as a constant, variable array etc. |
| IF Statement -Selection | A statement that lets a program select an action depending on whether it is true or false. |
| Loops -Iteration | Repeating an action, activity or section within a program. |
| Operator | A character which determines what action is to be considered or determined. Example: = |
| Relational Operator | An operator which compares two values. Example: < |
| Subroutine | A section of code written outside of the main program. Covers procedures and functions. |

| Variable | A memory location within a computer where values are stored. |
|----------|--|
|----------|--|

```

Input/Output and Calculation
userInputName = input("Enter your name: ")
userNum = int(input("Enter an integer: "))
userDec = float(input("Enter a decimal number: "))

calculation = userNum + userDec

print("Hello", userInputName, "the result is", calculation)

Enter your name: Mr. Weston Enter an integer: 3 Enter a decimal number: 15.2 Hello Mr. West on the result is 18.2

IF Statements
print("Press 1 for a greeting. Press 2 for a farewell.")
userChoice = int(input("Awaiting Input: "))

if userChoice == 1: print("Hello User!")
elif userChoice == 2: print("Goodbye User!")
else:
    print("Error - 1 or 2 not detected.")
    
```

```

Press 1 for a greeting. Press 2 for a farewell Awaiting Input: 1
Hello User!
>>>
Press 1 for a greeting. Press 2 for a farewell Awaiting Input: 2
Goodbye User!
>>>
Press 1 for a greeting. Press 2 for a farewell
Awaiting Input: 3
Error - 1 or 2 not detected.
    
```

```

LOOPS
(userChoice = "Yes"
while userChoice == "Yes":
    userChoice = input("Do you want to repeat this? ")
    
```

```

userCount = int(input("How many times do you want to use this loop? "))
for i in range(1, userCount+1): print("You asked for this many.")
    
```

```

Do you want to repeat this? Yes Do you want to repeat this? Yes
Do you want to repeat this? No thank you.
How many times do you want to use this loop? 3 You asked for this many.
You asked for this many.
You asked for this many.
    
```



| Term | Definition |
|------|--|
| | The process of removing all unnecessary details from a problem. |
| | The sequence of steps required to carry out a specific task. |
| | Setting the value of a variable in a computer program. |
| | Units of information which is acted upon by instructions. |
| | Breaking down a problem into smaller steps that are easier to work with and solve. |
| | A diagram which shows the step by step flow of an algorithm. |
| | Data which is inserted into a system to be processed or stored. |
| | Data which is sent out of a system. |
| | An action taken by the program without input from the user. |
| | A method of writing an algorithm using plain English. |
| | A memory location within a computer where values are stored |

| Data Type | Explanation | Example |
|-----------|--------------------------------------|---------|
| | TRUE/FALSE or 1/0 | |
| | A single, alphanumeric character. | |
| | Whole numbers | |
| | One or more alphanumeric characters. | |
| | Decimal numbers | |

| Flowchart Symbol | Name | Usage |
|------------------|------------|-------|
| -.- | Terminator | |
| Start/Stop | | |
| Process | Process | |
| | Input/ | |
| w Input/ M | Output | |
| * Output | | |
| | Decision | |

| Common Algorithms | Explained |
|-------------------|--|
| | Compares the search object to the middle point of a sorted list. If they are not equal, the half in which the target cannot lie is eliminated and the search continues on the remaining half, again taking the middle point to compare to the search object, and repeating this until the target value is found or the end is reached. |
| | Sorts a list by continuously stepping through a list, swapping items until they appear in the correct order. |
| | Compares the search object with each item in the list in order from the beginning until it is found or the end is reached. |
| | Sorts a list by repeatedly dividing a list into two until all the elements are separated individually. Pairs of elements are then compared, placed into order and combined. The process is then repeated until the list is recompiled in the correct order as a whole. |

| Term | Definition |
|------|---|
| | A mathematical character to perform a calculation. Example: + |
| | A set of values, of the same data type, stored in sequence. A list. |
| | Setting or changing the data type of a variable. |
| | Connecting strings of characters together. |
| | A statement which is either true or false. A computation depends on whether a condition is true or false. |
| | A value which does not change whilst the program is running. |
| | An individual item in an array. A value in a list. |
| | Anything you can save. Document, piece of music, data etc. |
| | A name, usually for part of the program such as a constant, variable, array etc. |
| | A statement that lets a program select an action depending on whether it is true or false. |
| | Repeating an action, activity or section within a program. |
| | A character which determines what action is to be considered or determined. Example: = |
| | An operator which compares two values. Example: < |
| | A section of code written outside of the main program. Covers procedures and functions. |

| Variable | A memory location |
|----------|--------------------------|
| | within a computer |
| | where values are stored. |

Input/Output and Calculation

```

userInputName = input("Enter your name: ") userNum =
int(input("Enter an integer: ")) userDec = float(input("Enter a
decimal number: "))
calculation = userNum + userDec
print("Hello", userInputName, "the result is", calculation)
Enter your name: Mr. Weston Enter an integer: 3 Enter a decimal
number: 15.2 Hello Mr. West on the result is 18.2

IF Statements
print("Press 1 for a greeting. Press 2 for a farewell.") userChoice =
int(input("Awaiting Input: "))
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    print("Error - 1 or 2 not detected.")
    
```

```

Press 1 for a greeting. Press 2 for a farewell Awaiting Input: 1
Hello User!
>>>
Press 1 for a greeting. Press 2 for a farewell Awaiting Input: 2
Goodbye User!
>>>
Press 1 for a greeting. Press 2 for a farewell
Awaiting Input: 3
Error - '1' or '2' not detected.
    
```

LOOPS

```

(userChoice = "Yes"
while userChoice == "Yes":
    userChoice = input("Do you want to repeat this? ")
    
```

```

userCount = int(input("How many times do you want to use this
loop? "))
for i in range (1, userCount+1): print("You asked for this many.")
    
```

```

Do you want to repeat this? Yes Do you want to repeat this? Yes
Do you want to repeat this? No thank you.
How many times do you want to use this loop? 3 You asked for
this many.
You asked for this many.
You asked for this many.
    
```

9. Customer Needs

For a business to be successful, it must understand what customers need. There are six main areas to consider.

| Area of Consideration | Why? |
|------------------------------|---|
| Price | For most consumers, most of the time, price is a crucial factor when considering purchasing a product. Pricing a product too high will put consumers off, pricing a product too low may lead the consumers to question the quality of the product and look to competitors. |
| Quality | Consumers will always consider the quality of a product when purchasing it. Products that lack quality and durability may be rejected by consumers for more reliable products |
| Choice | Consumers love choice, even though it can sometimes be hard to make decisions in the face of 'too much' choice. |
| Convenience | Consumers want easy access and to not travel <u>to</u> far. Businesses will need a full range of stock, short ques at checkouts and a clearly laid out store/website to give the customers a convenient experience. |
| Being efficient and reliable | Customers expect consistently good value for their own time and good customer service. Consumers expect high standards to meet every time they use the goods/services provided. |
| Providing great design | Many customers value design and style above price. They want clothes that make them look and feel great, cosmetics that make them look older – or younger – and cars that make them feel successful. Product design can be one way that businesses meet the needs of their customers. |

10. Customer Needs

| Term | Definition |
|--------------------------------|---|
| Choice | Giving customers options and increasing the chance that the product will be perfect for the tastes/habits of one type of customer. |
| Convenience | Making life easier for customers, perhaps by a great location or a product that saves time in preparation or consumption. |
| Identifying Customers | Finding out who they are: their age, gender, incomes, where they live and what they want |
| Quality | to a customer quality means getting what they want at a good standard of manufacture or perhaps better than expected; some companies use the term 'customer delight'. |
| Understanding Customers | Learning why customers do what they do, making it easier to see how to make a product that better suits them. |

11. Market Research

There are four main areas where market research can prove useful:

| Area | Why? |
|---|--|
| To identify and understand customer needs | For any Business, understanding the needs of customers is important. Employing market research to finds is well worth the time of a business |
| To identify gaps in the market | Market research along with market maps show which customer requirements are covered and which are not. |
| To reduce risks | Market research reduces risk in two ways: <ul style="list-style-type: none"> • Market research clarifies whether there is demand for a product • Whether the market needs new products |

9. Customer Needs

For a business to be successful, it must understand what customers need. There are six main areas to consider.

| Area of Consideration | Why? |
|------------------------------|------|
| Price | |
| Quality | |
| Choice | |
| Convenience | |
| Being efficient and reliable | |
| Providing great design | |

10. Customer Needs

| Term | Definition |
|-------------------------|------------|
| Choice | |
| Convenience | |
| Identifying Customers | |
| Quality | |
| Understanding Customers | |

11. Market Research

There are four main areas where market research can prove useful:

| Area | Why? |
|---|------|
| To identify and understand customer needs | |
| To identify gaps in the market | |
| To reduce risks | |

12. Market Research – Methods of Research

| Term | Definition |
|--------------------|---|
| Focus Group | A group discussion among people selected from the target market; it draws on psychology to provide qualitative insights into consumer attitudes |
| Primary Research | Research conducted first-hand; it is tailored to a company's specific need, for example a quantitative sales estimate for a brand-new chocolate bar. |
| Qualitative Data | In depth research into the opinions and views of a small group of potential or actual customers; it is non-numerical and can provide useful insight into why consumers buy what they buy. |
| Quantitative Data | Factual and numerical research to provide statistically reliable results, for example a survey of 500 people aged 15-24 years. |
| Secondary Research | When a company uses research that has already been carried out by another organisation. |

13. Market Segmentation – How is the market segmented

| Ways the market is segmented | Explanation |
|------------------------------|--|
| Location | Customers located in the same area will share tastes and habits. The menu for McDonalds is different in every country considering national tastes |
| Income | Customers with different incomes will have different tastes and desires. Customers with high incomes are more likely to purchase more luxury items |
| Lifestyle | Whether rich or poor, young or old some people are simply different. Different lifestyles manifest different needs. |
| Age | People of different ages have different preferences and different desires. |
| Demographic Factors | Demographics are the characteristics of a population – different parts of a population have different needs e.g. gender, race and religion etc. |

14. Market Mapping (Key Terms)

| Term | Definition |
|--------------------------|---|
| Competition | Rival businesses operating in your market or market sector. |
| Gap in the market | An area on a market map where few or no existing brands operate, implying a business opportunity to fill an unmet consumer need |
| Market Map | Measuring where existing brands sit on a two-factor grid, for example young/old compared with high price/low price. |

15. Why Map a Market?

| Why? | Explanation |
|--|--|
| Helps you find a gap in the market | A market map can help a potential entrepreneur find an area within a market to exploit |
| Helps you find where you competitors are placed with a market | A market map can help a potential entrepreneur see where competitors are positioned within a market and furthermore ensure their own product is sufficiently unique. |

16. The Competitive Environment

| |
|---|
| Why is competition good for markets? |
| Firms will need to provide good products and good services |
| Keeps prices competitive. |
| The market will provide more innovative products or services to break away from fierce competition from other firms |

12. Market Research – Methods of Research

| Term | Definition |
|--------------------|------------|
| Focus Group | |
| Primary Research | |
| Qualitative Data | |
| Quantitative Data | |
| Secondary Research | |

13. Market Segmentation – How is the market segmented

| Ways the market is segmented | Explanation |
|------------------------------|-------------|
| Location | |
| Income | |
| Lifestyle | |
| Age | |
| Demographic Factors | |

14. Market Mapping (Key Terms)

| Term | Definition |
|-------------------|------------|
| Competition | |
| Gap in the market | |
| Market Map | |

15. Why Map a Market?

| Why? | Explanation |
|---|-------------|
| Helps you find a gap in the market | |
| Helps you find where you competitors are placed with a market | |

16. The Competitive Environment

| |
|--------------------------------------|
| Why is competition good for markets? |
| |
| |
| |

17. Business Aims & Objectives**Businesspeople like to use the term SMART objectives**

| Which Objective? | Explanation of Objective |
|--------------------|--|
| Specific | Businesses set very specific targets that are very clear and to the point |
| Measurable | Businesses set measurable targets that can be measured. For example: Business set themselves specific sales targets over a set period. |
| Achievable | Businesses set realistic targets that are ambitious yet achievable. |
| Realistic | Businesses set realistic targets that will motivate employees at the same time they will be achievable |
| Time- Bound | Businesses set their targets over a period of time as this creates a sense of excitement and urgency. |

18. Aims and Objectives in Business**Businesses have both financial and non-financial aims**

| Type of Objectives | Explanation |
|---------------------------------|---|
| Financial Objectives | Profit. Sales. Market Share. Reduce costs. |
| Non-Financial Objectives | Social objectives. Independence. Control. |

19. Business Revenue, Costs & Profits

| Term | Definition |
|---------------------------|---|
| Fixed Costs | Costs that don't vary just because output varies for example 'rent'. |
| Profit (gross/net) | The difference between revenue and total costs; if the figure is negative the business is making a loss |
| Revenue | The total value of the sales made within a set period, such as a month. |
| Total Costs | All the costs for a set period, such as a month |
| Variable Costs | Costs that vary as output varies such as raw materials |

20. Business Revenue, Costs & Profits

| Term | Formulae |
|-----------------------|-------------------------------------|
| Sales Revenue | Price x Quantity Sold |
| Total Costs | Variable costs + Fixed Costs |
| (Gross) Profit | Total Revenue – Total Costs |

21. Breaking Even

| Term | Definition |
|-------------------------|---|
| Break - Even | The level of sales at which total costs are equal to total revenue. At this point the business is making neither a profit nor a loss. |
| Break-even Chart | A graph showing a company's revenue and total costs at all possible levels of output |
| Margin of Safety | The amount by which demand can fall before the business starts making losses |

17. Business Aims & Objectives**Businesspeople like to use the term SMART objectives**

Which Objective? Explanation of Objective

Specific

Measurable

Achievable

Realistic

Time- Bound

19. Business Revenue, Costs & Profits

Term

Definition

Fixed Costs

Profit
(gross/net)

Revenue

Total Costs

Variable Costs

20. Business Revenue, Costs & Profits

Term

Formulae

Sales Revenue

Total Costs

(Gross) Profit

18. Aims and Objectives in Business**Businesses have both financial and non-financial aims**

Type of Objectives

Explanation

Financial
ObjectivesNon-Financial
Objectives**21. Breaking Even**

Term

Definition

Break - Even

Break-even Chart

Margin of Safety

22. The Importance of Cash

| Question | Answer |
|---|--|
| Why does Cash matter to a Business? | Cash matters because, without it, bills go unpaid and a business can fail. If you have no cash, you can't pay suppliers or employees. |
| Why is cash important to a business? | Cash is required to pay suppliers, employees or other costs. Typical overheads include: Salaries/ Rent and Rates/ Utilities and Bills |
| What is the difference between cash and profit? | Cash flow shows the immediate impact of a transaction on a company's bank account; profit shows the longer-term impact after costs have been taken into account. |

23. The Importance of Cash (definitions)

| Term | Definition |
|--------------------|---|
| Cash | The money the firm holds in notes and coins, and in its bank accounts |
| Cash Flows | The movement of money into and out of the firm's bank account. |
| Insolvency | When a business lacks the ability to pay its debts |
| Overdraft | A short-term form of credit. A bank will allow a business to spend more money than it actually has. |
| Overdraft Facility | An agreed maximum level of overdraft |

25. Short Term Sources of Finance

| Term | Definition |
|----------------|--|
| Bank Overdraft | If a company requires some short term finance they can negotiate to extend their overdraft facility with the bank |
| Trade Credit | When a supplier provides goods without immediate payment – This gives the business time to sell products in order to pay off the debt. |

24. Cash Flow Forecasts

Cash flow forecasting means predicting the future flows of cash into and out of a Business.

Successful cash flow forecasts require:

- Accurate prediction of monthly sales
- Accurate predictions of when customers will pay for the goods they have bought
- Careful allowance of operating costs and the timing of payments
- Careful allowance for in flows and outflows of cash

| Key Term | Definition |
|--------------------|---|
| Opening Balance | The amount of cash in the bank at the start of the month |
| Net Cash Flow | Cash inflow minus cash outflow over the course of a month |
| Negative Cash Flow | When cash outflows are greater than cash inflows |
| Closing Balance | The amount of cash left in the bank at the end of the month |

26. Long Term Sources of Finance

| Term | Definition |
|-----------------|---|
| Crowdfunding | Raising Capital online from many small investors (but not through the stock market). |
| Share Capital | Raising finance by selling a share of the business, Shareholders have the right to question the directors and take profit out the firm. |
| Venture Capital | A combination of share capital and loan capital, provided by an investor. |
| Retained Profit | Profit kept within the Business that is used for business growth. |

22. The Importance of Cash

| Question | Answer |
|---|--------|
| Why does Cash matter to a Business? | |
| Why is cash important to a business? | |
| What is the difference between cash and profit? | |

24. Cash Flow Forecasts

Cash flow forecasting means predicting the future flows of cash into and out of a Business.

| Key Term | Definition |
|--------------------|------------|
| Opening Balance | |
| Net Cash Flow | |
| Negative Cash Flow | |
| Closing Balance | |

23. The Importance of Cash (definitions)

| Term | Definition |
|--------------------|------------|
| Cash | |
| Cash Flows | |
| Insolvency | |
| Overdraft | |
| Overdraft Facility | |

26. Long Term Sources of Finance

| Term | Definition |
|-----------------|------------|
| Crowdfunding | |
| Share Capital | |
| Venture Capital | |
| Retained Profit | |

25. Short Term Sources of Finance

| | |
|----------------|--|
| Bank Overdraft | |
| Trade Credit | |



Year 10 Food & Nutrition Term 2



What we are learning this term:

A. Healthy Eating Guidelines B. Nutritional Needs of Different Age Groups C. Energy Needs and Portion Sizes D. Diet-Related Health Problems

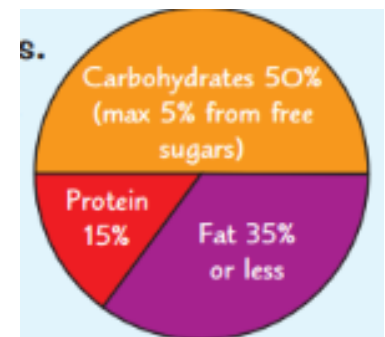
| A. Healthy Eating Guidelines | |
|------------------------------|---|
| | 5 portions of fruit and vegetables a day – making up 1/3 of daily food intake |
| | Using unsaturated oils and spreads , and not often |
| | Protein: lean cuts and unprocessed meat best, plus 2 portions of fish per week (1 oily) |
| | Having some dairy or alternatives and trying lower fat options |
| | 1/3 of daily food intake being starchy carbs . Go for higher fibre/wholegrain options |
| | 6-8 glasses of fluids a day (but no more than 1 being fruit juice) |
| | Eat less sugary, salty and fatty foods. |

| B. Nutritional Needs of Different Age Groups | |
|--|--|
| | <ul style="list-style-type: none"> • Still growing so need a lot of energy • Young children need small and frequent meals • Lots of calcium • Stress during teenage years can affect eating habits |
| | <ul style="list-style-type: none"> • Stop growing and nutritional needs don't vary much • Should focus on maintaining a balanced and healthy diet |
| | <ul style="list-style-type: none"> • Muscle decreases and exercising is harder – diet may change • Taste and smell changing can affect the enjoyment of food |
| | <ul style="list-style-type: none"> • Males usually bigger/taller = more daily kcal needed • Iron is lost during menstruation = higher iron requirements • Bone density can be lost after the menopause = important to get lots of calcium and Vitamin D • Towards the end of pregnancy, the body needs 200 more kcal per day to support baby's growth • Active humans will need more kcal and protein |

| C. Energy Needs & Portion Sizes | |
|---|---|
| BMR | Basel Metabolic Rate is the amount of energy needed to live e.g. breathing . It's affected by many factors; age, sex, weight, exercise |
| PAL | Physical Activity Level measures how active you are. A higher PAL means more active . |
| Daily energy requirement (kcal) = BMR x PAL | |
| To maintain a healthy weight, energy intake must be balanced: | |
| Energy in > energy out = weight gain Energy in < energy out = weight loss | |
| Portion size: prepare the right amount e.g. | |
| <p>1 meat portion = size of palm 1 veg portion = size of fist</p> <p>Use scoops, dividers & cutters to portion meals</p> | |

| D. Diet-Related Health Problems | | |
|---------------------------------|---|--|
| | Example of cause | Health Problems |
| Obesity | Eating lots of sugary and fatty foods | High blood pressure and cholesterol |
| Coronary Heart Disease | Eating lots of saturated fats | Blood clots and heart attacks |
| Anaemia | Not eating enough iron-rich food | Tiredness, heart palpitations |
| Type 2 Diabetes | Being overweight or obese / too much sugar | Kidney failure, poor eyesight |
| Rickets (children) | Not enough Vitamin D or Calcium | Soft bones may lead to lowed legs |
| Osteoporosis (old age) | Malnutrition and not enough Calcium | Loss of bone density, brittle bones break easily |
| Tooth Decay | Plaque build-up from eating too many sugary foods | Fillers, loss of teeth |

Recommended ratio for energy sources:













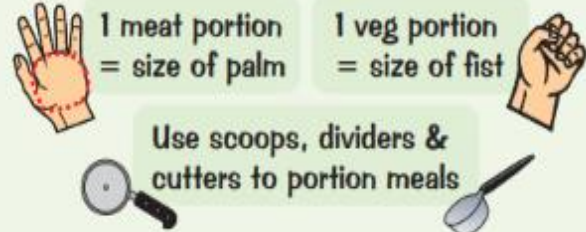


Year 10 Food & Nutrition Term 2



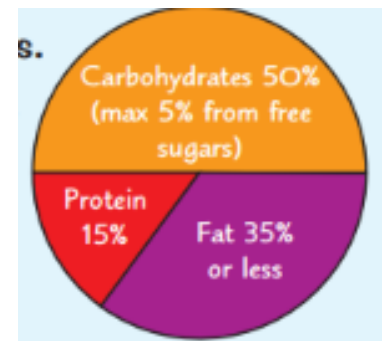
What we are learning this term:

A. Healthy Eating Guidelines B. Nutritional Needs of Different Age Groups C. Energy Needs and Portion Sizes D. Diet-Related Health Problems

| A. Healthy Eating Guidelines | B. Nutritional Needs of Different Age Groups | C. Energy Needs & Portion Sizes | |
|--|--|---|--|
|  | <div style="text-align: center;">Children & Teens</div>  <div style="text-align: center;">Adults</div>  <div style="text-align: center;">Elderly Adults</div>  <div style="text-align: center;">Other Factors</div> | BMR | |
|  | | PAL | |
|  | | Daily energy requirement (kcal) = BMR x PAL | |
|  | | To maintain a healthy weight, energy intake must be balanced: | |
|  | | Energy in > energy out = weight gain Energy in < energy out = weight loss | |
|  | | Portion size: prepare the right amount e.g. | |
|  | |  <p>1 meat portion = size of palm 1 veg portion = size of fist</p> <p>Use scoops, dividers & cutters to portion meals</p> | |

| D. | Diet-Related Health Problems | |
|-------------------------------|---|--|
| | Example of cause | Health Problems |
| Obesity | Eating lots of sugary and fatty foods | High blood pressure and cholesterol |
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| Type 2 Diabetes | Being overweight or obese / too much sugar | Kidney failure, poor eyesight |
| Rickets (children) | Not enough Vitamin D or Calcium | Soft bones may lead to bowed legs |
| Osteoporosis (old age) | Malnutrition and not enough Calcium | Loss of bone density, brittle bones break easily |
| Tooth Decay | Plaque build-up from eating too many sugary foods | Fillers, loss of teeth |

Recommended ratio for energy sources:





Year 10 PRODUCT DESIGN Term 2



What we are learning this term:

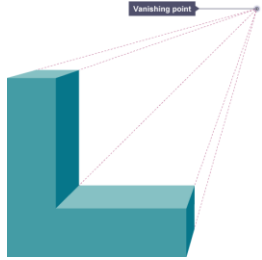
- A. One-Point Perspective B. Two-point Perspective C. Isometric Drawing
D. Exploded Drawing E. Oblique Drawing F. CAD G. Orthographic Drawing

Design Strategies Introduction.

Design strategies are used to create technical drawings, to show an object in 3D on a 2D page. Perspective drawings show an object getting smaller in the distance. The rest are done to scale.

A. One-point Perspective Drawing

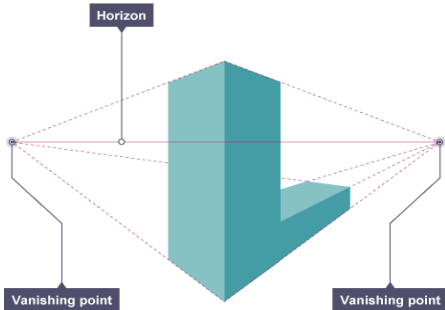
Single-point perspective shows an object from the front in a realistic way. The front view goes back towards a vanishing point on the horizon.



Commonly used by interior designers to show a view into a room.

B. Two-point Perspective Drawing

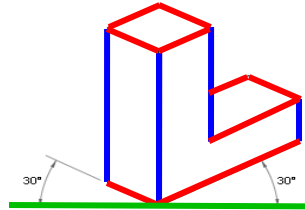
Two-point perspective shows an object from the side with two vanishing points. It gives the most realistic view of a product as it shows the item edge on, as we would see it. It is often used to produce realistic drawings of an object.



Commonly used by architects to show realistic building ideas.

C. Isometric Technical Drawing

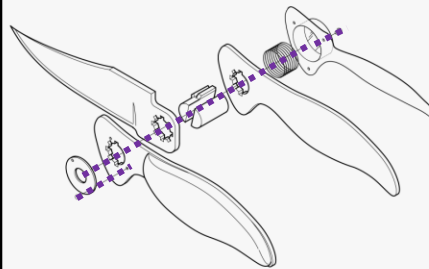
Made up of a series of parallel **vertical lines** and parallel **30-degree lines**. But no **horizontal lines**.



Used by architects and engineers to communicate their ideas to the client and manufacturer.

D. Exploded Technical Drawing

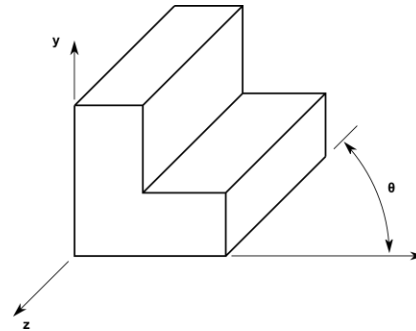
Exploded technical drawing is an Isometric drawing of all the parts and components of an object.



All parts are shown separately so you can see all aspects. **Dashed lines** indicate where everything goes and in what order.

E. Oblique Technical Drawing

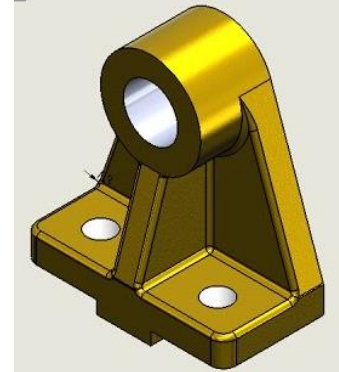
Consists of an object where the front view is drawn flat with height and width of the object drawn to the correct lengths. Diagonal lines are drawn at 45-degrees.



Commonly used by engineers for drafting ideas.

F. CAD (Computer Aided Design)

This is designing using a computer using a software such as 2D Design or Solidworks.



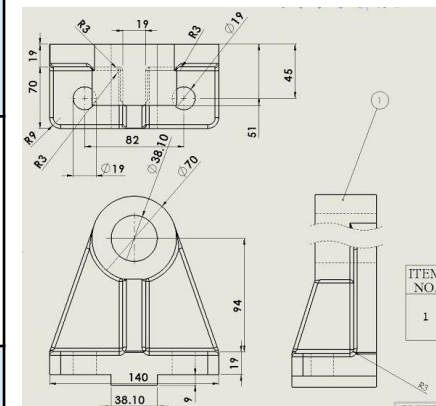
Commonly used to model, test and develop an idea before manufacture.

G. Orthographic Projection – 2D NOT 3D Drawing Strategy!

This shows 2D views of a 3D object from different angles – front, plan and end. Lines are dimensions have specific meaning to avoid confusion.

- Object Line
- Hidden Line
- Center Line
- Dimension Line
- Construction Line

Commonly used in industry to help the manufacturer understand the design.



ITEM NO. 1



Year 10 PRODUCT DESIGN Term 2



What we are learning this term:

- A. One-Point Perspective
- B. Two-point Perspective
- C. Isometric Drawing
- D. Exploded Drawing
- E. Oblique Drawing
- F. CAD
- G. Orthographic Drawing

Design Strategies Introduction.

Design strategies are used to create technical drawings, to show an object in 3D on a 2D page. Perspective drawings show an object getting smaller in the distance. The rest are done to scale.

A. One-point Perspective Drawing

C. Isometric Technical Drawing

E. Oblique Technical Drawing

F. CAD (Computer Aided Design)

B. Two-point Perspective Drawing

D. Exploded Technical Drawing

G. Orthographic Projection – 2D NOT 3D Drawing Strategy!

- Object Line
- - - Hidden Line
- - - Center Line
- Dimension Line
- Construction Line



| What we are learning this term: | |
|---------------------------------|--|
| A. | How media can increase exposure of minority sports |
| B. | How it provides an increase in promotional opportunities |
| C. | How it educates its audience |
| D. | How media increases income for sports |
| E. | How the media inspires people to participate |
| F. | How it provides competition between sports |


| A. | Key question from Assessment objectives? |
|---------------------------|--|
| Key word | Key definition |
| Minority sport | A sport that is not very popular |
| Promotional opportunities | The opportunity to promote a brand or business |
| Income | Money generated |
| Participation | Taking part in sport |
| Exposure | Greater publicity from the media |
| Media rights | The rights to share media |
| Investment | Money invested into projects/equipment |
| Role models | A person looked to by others as an example |

| A. | What sports are minority sports in the UK but maybe not in other parts in the world? |
|----|--|
| | American football- USA Table tennis- China Badminton- Asia Ice Hockey- Canada |



| Main assessment objectives | |
|--|--|
| Learning outcome: Understand the positive effects that media can have on sport | |

| C. | How might a club get more spectators? | |
|---|---|---|
| | 1. Cheap tickets for children or older people 2. Alternative formats of the game | |
| How may the media increase participation? | | How might the media educate people? |
| 1. Success in Olympics 2. When certain sports are on- Wimbledon 3. Creation of positive role models | | 1. Develop a better understanding about rules and tactics |




| A. | Give 5 examples of minority sports in the UK |
|----|--|
| | 1. Archery 2. Squash 3. Ultimate frisbee 4. Lacrosse 5. Water polo |




| A. | How can clubs promote themselves through the media? |
|----|--|
| | 1. Many clubs now have social media accounts 2. Some football clubs have their own TV channels 3. Increased interaction with fans. |




| G. | How can an increased income improve a sport or club | |
|----------|--|--|
| Sport(3) | 1. Bigger prize money for tournaments 2. More teams in tournaments 3. Higher participation levels | |
| Club (4) | 1. Build new facilities 2. Invest in new equipment 3. Buy better players 4. Employ more coaches/experts | |



| Key information | |
|-----------------------------|--|
| Sky sports channels | Skysports Golf Skysorts Cricket Skysports F1 |
| Social media accounts | Real Madrid FC have 200+million followers on Twitter |
| Educating the audience | Through a analysis in highlights |
| Increase income | Through media rights |
| Rises in participation | Cycling participation rises around the time of the Olympics |
| Positive role models | Usain Bolt Nicola Adams Mo Farah |
| Exposure of minority sports | Increased TV time. Highlights on BBC Sport |
| MNF | Monday night football provides key analysis to help educate people |
| Jargon Buster | ITV racing explain specific words related to horseracing |
| Ashes Zone | Give demonstrations on how to play shots properly and different bowling techniques |
| Golf swing analysis | Allows you to track your ball and an analysis your swing |
| Serve Analysis | Gives a slow-motion analysis of how to serve effectively |



What we are learning this term:


- A. *How media can increase exposure of minority sports*
- B. *How it provides an increase in promotional opportunities*
- C. *How it educates its audience*
- D. *How media increases income for sports*
- E. *How the media inspires people to participate*
- F. *How it provides competition between sports*

| | |
|-----------|---|
| A. | Key question from Assessment objectives? |
| | Key definition |
| | A sport that is not very popular |
| | The opportunity to promote a brand or business |
| | Money generated |
| | Taking part in sport |
| | Greater publicity from the media |
| | The rights to share media |
| | Money invested into projects/equipment |
| | A person looked to by others as an example |

A. What sports are minority sports in the UK but maybe not in other parts in the world?


American football- USA
 Table tennis- China
 Badminton- Asia
 Ice Hockey- Canada




| Main assessment objectives | |
|---|---|
| Learning outcome: Understand the positive effects that media can have on sport | |
| C. | How might a club get more spectators? |
| | <ol style="list-style-type: none"> Cheap tickets for children or older people Alternative formats of the game |
| How may the media increase participation? | How might the media educate people? |
|  | |

A. Give 5 examples of minority sports in the UK

- Archery
- Squash
- Ultimate frisbee
- Lacrosse
- Water polo


A. How can clubs promote themselves through the media?




MUTV

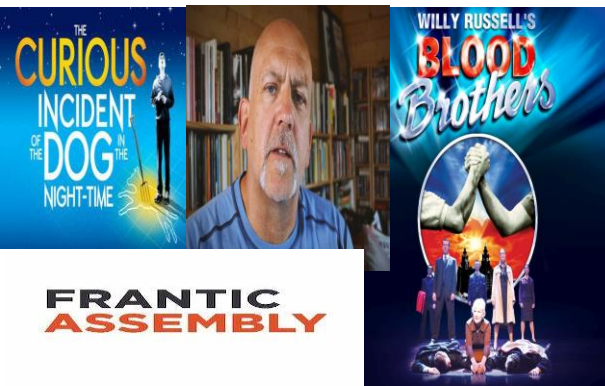
G. How can an increased income improve a sport or club

Sport(3)

Club (4)



| Key information | |
|-----------------|--|
| | Skysports Golf Skysorts Cricket Skysports F1 |
| | Real Madrid FC have 200+million followers on Twitter |
| | Through a analysis in highlights |
| | Through media rights |
| | Cycling participation rises around the time of the Olympics |
| | Usain Bolt Nicola Adams Mo Farah |
| | Increased TV time. Highlights on BBC Sport |
| | Monday night football provides key analysis to help educate people |
| | ITV racing explain specific words related to horseracing |
| | Give demonstrations on how to play shots properly and different bowling techniques |
| | Allows you to track your ball and analysis your swing |
| | Gives a slow-motion analysis of how to serve effectively |



What we are learning this term:

- A. Understanding professional works
- B. What is a professional work
- C. What is a practitioner
- D. How do we analyse a performance
- E. What are physical skills
- F. What are interpretive skills
- G. Three different performance styles / genres

G. Key learning aims from Component 1

Learning aim A: Examine professional practitioners' performance work

A1: Professional practitioners' performance material, influences, creative outcomes and purpose
Examine live and recorded performances in order to develop understanding of practitioners' work with reference to influences, outcomes and purpose. Focus on thematic interpretation of particular issues and how artists communicate their ideas to an audience. How do the different roles and responsibilities in theatre collaborate to produce shows?

Learning aim B: Explore the interrelationships between constituent features of existing performance material

- Processes used in performance
- Responding to stimuli to generate ideas for performance material.
 - Exploring and developing ideas to develop material.
 - Discussion with performers.
 - Setting tasks for performers.
 - Sharing ideas and intentions.
 - Providing notes and/or feedback on improvements.



| E. | Keywords |
|----------------------|---|
| Practitioners | A professional theatre maker who creates in a specific style led by a specific theatre ideology. |
| Performance material | The practical work that a practitioner creates for performance. |
| Creative Intentions | The ideas behind the choreography, why the choreographer choose to create the work. |
| Review | Look over your current work and the work of others and be able to review and comment on your own and others practice |
| Analyse/ Evaluate | Watch and then analyse your own performance and the work of others and giving comments and judgements on what you see |
| Influences | How the practitioner has been influenced by others, their experiences, their training and how this has affected the work they create. |
| Physical skills | The physical attributes that an actor uses, stamina, strength, flexibility, control, to dance with technical accuracy. |

A. Key question – What is the artistic purpose of a performance work?

When watching a professional performance, the key questions you need to think about are the following...
How do we Explore artistic purpose?
Explore artistic purpose (across all three disciplines/styles) including:
to educate
to inform
to entertain
to provoke
to challenge viewpoints
to raise awareness
to celebrate.

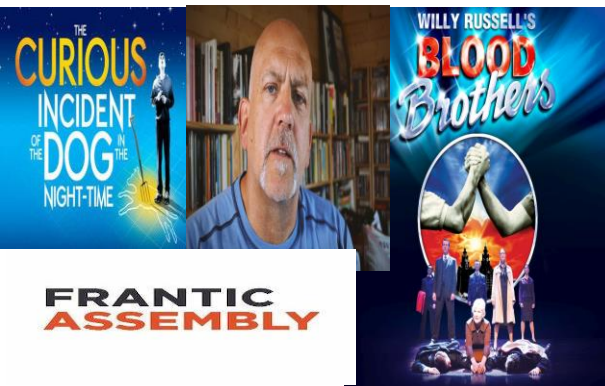
A. Component 1 – Key focus

In this component, you will develop your understanding of drama by examining the work of the practitioners: Willy Russel, Frantic Assembly, John Godber and Stephen Haddon. The practitioners cover the genres: Epic Theatre, Comedy and physical visual storytelling. You will explore the processes used to create performance by working through the processes yourselves. At the same time you will research the job roles and responsibilities within the industry that enable shows to happen.

You will experience a range of work across the discipline of drama by viewing recorded and/or live work. We will aim to go to live shows in Bristol, London and the surrounding area in order to absorb as many different styles as possible. While this is primarily a theoretical study of the performing arts practical investigations, students will be working at developing practical skills through workshops and links with Component 2 Developing Skills and Techniques in the Performing Arts, to engage in primary exploration of specific repertoire.

C. Key question from Assessment objectives

- | | |
|---|---|
| <ul style="list-style-type: none"> 1. What are physical skills 2. What are interpretive skills 3. How do we use these skills practically? 4. How do we IMPROVE on these skills? | <ul style="list-style-type: none"> 1. What is a professional work 2. What is a practitioner 3. How do we analyse a performance 4. What are a practitioner's creative intentions |
|---|---|



FRANTIC ASSEMBLY

A. Component 1 – Key focus

In this component, you will develop your understanding of drama by examining the work of the practitioners: Willy Russell, Frantic Assembly, John Godber and Stephen Haddon. The practitioners cover the genres: Epic Theatre, Comedy and physical visual storytelling. You will explore the processes used to create performance by working through the processes yourselves. At the same time you will research the job roles and responsibilities within the industry that enable shows to happen.

You will experience a range of work across the discipline of drama by viewing recorded and/or live work. We will aim to go to live shows in Bristol, London and the surrounding area in order to absorb as many different styles as possible. While this is primarily a theoretical study of the performing arts practical investigations, students will be working at developing practical skills through workshops and links with Component 2 Developing Skills and Techniques in the Performing Arts, to engage in primary exploration of specific repertoire.

What we are learning this term:

- A. Understanding professional works
- B. What is a professional work
- C. What is a practitioner
- D. How do we analyse a performance
- E. What are physical skills
- F. What are interpretive skills
- G. Different performance styles / genres

G. Key learning aims from Component 1

Learning aim A: Examine professional practitioners' performance work

A1: Professional practitioners' performance material, influences, creative outcomes and purpose
Examine live and recorded performances in order to develop understanding of practitioners' work with reference to influences, outcomes and purpose. Focus on thematic interpretation of particular issues and how artists communicate their ideas to an audience. How do the different roles and responsibilities in theatre collaborate to produce shows?

Learning aim B: Explore the interrelationships between constituent features of existing performance material

- Processes used in performance
- Responding to stimuli to generate ideas for performance material.
 - Exploring and developing ideas to develop material.
 - Discussion with performers.
 - Setting tasks for performers.
 - Sharing ideas and intentions.
 - Providing notes and/or feedback on improvements.

E. Keywords

Practitioners

Performance material

Creative Intentions

Review

Analyse/ Evaluate

Influences

Physical skills

A.

Key question – What is the artistic purpose of a performance work?

When watching a professional performance, the key questions you need to think about are the following...
How do we Explore artistic purpose?
Explore artistic purpose (across all three disciplines/styles) including:



C. Key question from Assessment objectives

- | | |
|--|--|
| 1. What are physical skills | 1. What is a professional work |
| 2. What are interpretive skills | 2. What is a practitioner |
| 3. How do we use these skills practically? | 3. How do we analyse a performance |
| 4. How do we IMPROVE on these skills? | 4. What are a practitioner's creative intentions |



What we are learning this term:

A. Health & Safety

B. Manufacturing processes

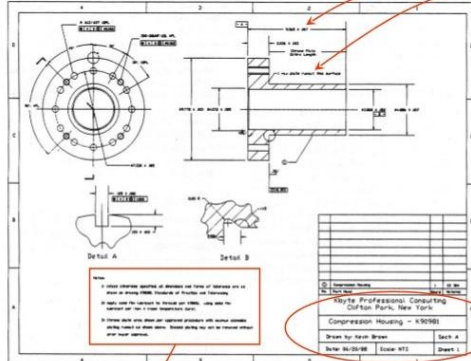
C. reading technical drawings

D. Tools & Equipment



| A. Health & Safety | |
|--|---|
| Risk Assessment | A risk assessment is the analysis of the risks involved when using equipment or performing a process. |
| Hazard – something that may harm someone. Risk – how likely a hazard is to happen. Control measure – actions taken to reduce the risk of harm | |
| Ejection hazard – material being thrown out of the machine toward the user | Entrapment hazard – the user being caught and pulled into the moving parts of the machine |
| Inhalation hazard – people in the vicinity of the hazard breathe in harmful dust or chemicals | Sharp force hazard – the user is cut, stabbed or scraped by the sharp material. |
| Slip, trip and fall hazards – common hazards caused by unclean or cluttered workspaces. | Blunt force hazard – a victim is crushed, hit or bruised by the blunt object. Major blunt trauma can cause fractures or internal bleeding. |

C. Reading technical drawings



Dimension & Notes


Technical drawings always include a border and title block to identify them and give the reader important information. You may also write notes on a technical drawing, if relevant.

Notes

Notes:
 1. When drawing objects in elevation and front or isometric view, all hidden or missing lines should be drawn or indicated as hidden or missing.
 2. Lines used to indicate the location of features are shown with the standard 'on' or 'off' line convention.
 3. Lines used to show the location of features are shown with the standard 'on' or 'off' line convention.
 4. Lines used to show the location of features are shown with the standard 'on' or 'off' line convention.

Lec. Bhuiyan Shameem Mahmood

The scale factor shows how big the real product is compared to the drawing.

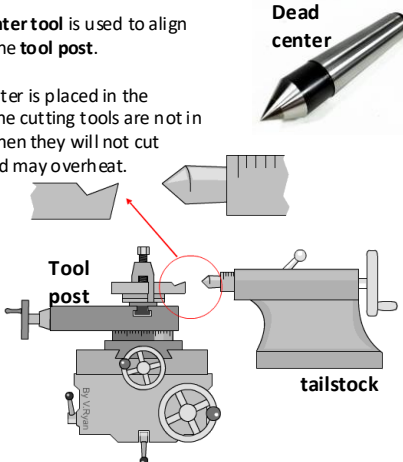
| | |
|---|---|
| TITLE WHEEL BEARING | |
| NAME John Smith | CHECKED <i>[Signature]</i> |
| VERSION 1.1 | DATE 16/10/98 |
| NO NEED TO MEASURE - ALL MEASUREMENTS IN MM | SCALE 1:1 |
| ITI ENGINEERING |  |

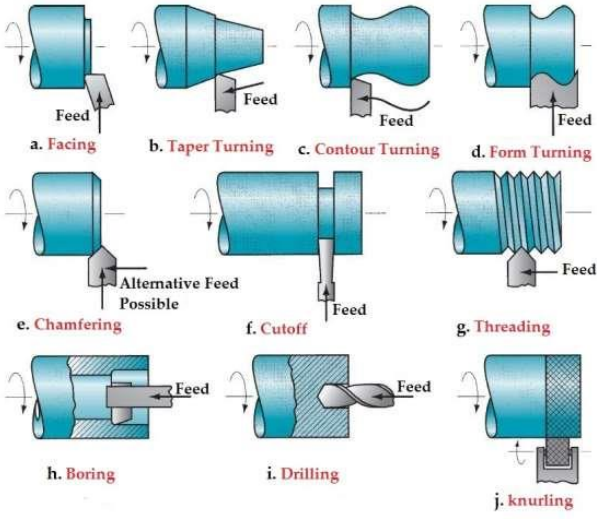
The type of orthographic drawing is shown by this symbol.

B. Manufacturing processes





The **dead center tool** is used to align the tools in the **tool post**.

The dead center is placed in the **tailstock**. If the cutting tools are not in line with it, then they will not cut efficiently and may overheat.





D. Tools & Equipment

External calliper – used for measuring the external dimensions of a workpiece

Lathe tools – cutting tools for a range of functions.
From left to right; Parting tool, right-hand cutting tool, threading tool, left-hand cutting tool

Knurling tool - an attachment for the lathe that allows you to impress a diamond pattern into the material. Example shown here.

Tap and die set – these tools are attached to wrenches and allow you to cut an internal or external thread (spiral) in a hole. The hole must be pre-drilled 0.5mm smaller than the intended size of the final hole.



What we are learning this term:

A. Health & Safety

B. Manufacturing processes

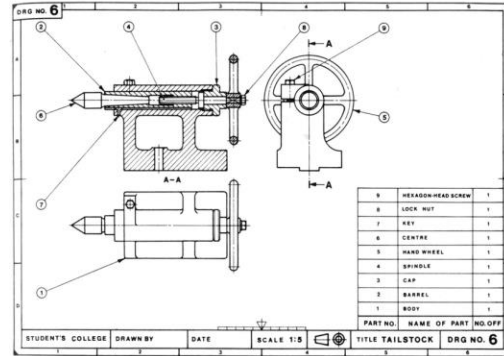
C. reading technical drawings

D. Tools & Equipment



| A. Health & Safety | |
|--|---|
| Risk Assessment | A risk assessment is the analysis of the risks involved when? |
| Hazard – Risk – Control measure – | |
| Give an example of an Ejection hazard – | Give an example of an Entrapment hazard – |
| Give an example of an Inhalation hazard – | Give an example of a Sharp force hazard – |
| Give an example of Slip, trip and fall hazards – | Give an example of a Blunt force hazard – |

C. Reading technical drawings

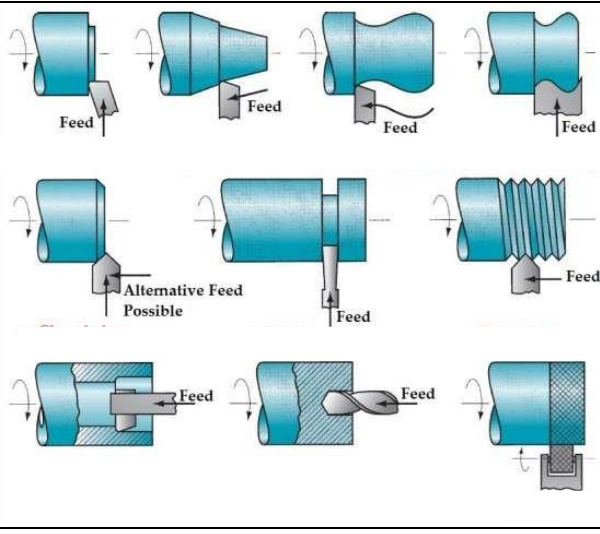


Task -Annotate this technical drawing

B. Manufacturing processes

The tools in the ... I used to ... ?

The dead center is placed in the ... If the cutting tools are not ... then they will not cut efficiently and may ...







D. Tools & Equipment

| | |
|--|--|
| | – used for measuring the external dimensions of a workpiece |
| | – cutting tools for a range of functions. From left to right; tool, tool, cutting tool, cutting tool |
| | - an attachment for the lathe that allows you to impress a pattern into the material. Example shown here. |
| | – these tools are attached to wrenches and allow you to cut an internal or external (spiral) in a hole. The hole must be pre-drilled smaller than the intended size of the final hole. |





| What we are learning this term: | |
|---------------------------------|--|
| A. | Key words |
| B. | What are the main life stages |
| C. | What are the 4 areas of growth and development (PIES)? |
| D. | How do Humans develop physically (P)? |

| A. Key words for this Unit | |
|-----------------------------|--|
| Characteristics | Something that is typical of people at a particular life stage. |
| Life stages | Distinct phases of life that each person passes through. |
| Growth | Increased body size such as height, weight. |
| Development | Involves gaining new skills and abilities such as riding a bike. |
| Gross motor development (G) | Refers to the development of large muscles in the body e.g. Legs |
| Fine motor development (F) | Refers to the development of small muscles in the body e.g. Fingers |
| Language development | Think through and express ideas |
| Contentment | An emotional state when people feel happy in their environment, are cared for and well loved |
| Self-image | How individuals see themselves or how they think others see them |
| Self-esteem | How good or bad an individual feels about themselves and how much they value their abilities. |
| Informal relationships | Relationships formed between family members |
| Friendships | Relationships formed with people we meet in the home or in situations such as schools, work or clubs |
| Formal relationships | relationships formed with non-family/friends – such as teachers and doctors. |
| Intimate relationships | romantic relationships. |






| B | What are the main life stages? | | C | What are the 4 areas of growth and development (PIES)? | |
|-------------|--------------------------------|---|---|---|--|
| Age Group | Life Stage | Developmental Characteristics and Progress |  Physical Development (P) | P = growth patterns and changes in the mobility of the large and small muscles in the body that happen throughout life. | |
| 0-2 years | Infancy | Sill dependent on parents but growing quickly and developing physical skills. | | | |
| 3-8 years | Early Childhood | Becoming increasingly independent, improving thought processes and learning how to develop friendships. | |  Intellectual Development (I) | I = how people develop their thinking skills, memory and language. |
| 9-18 years | Adolescence | Experiencing puberty, which bring physical and emotional changes. | | | |
| 19-45 years | Early Adulthood | Leaving home, making own choices about a career and may start a family. | |  Emotional Development (E) | E = how people develop their identity and cope with feelings. |
| 46-65 years | Middle Adulthood | Having more time to travel and take up hobbies as children may be leaving home; beginning of the aging process. | | | |
| 65+ years | Later Adulthood | The aging process continues, which may affect memory and mobility. |  Social Development (S) | S = describes how people develop friendships and relationships. | |






| D. | How do humans develop physically (P)? |
|--------------|---|
| 0-2 | <ul style="list-style-type: none"> Gross Motor Development (G) = life head, roll over, sit unaided, walk holding onto something, walk unaided, climb stairs, kick and throw, walk upstairs, jump. Fine Motor Development (F) = hold a rattle for short time, reach for an item, pass item from one hand to other, hold between finger and thumb, scribble, build a tower, use a spoon, draw lines and circles, turn page of a book. |
| 3-8 | <ul style="list-style-type: none"> G = ride a tricycle, catch a ball with two hands, walk backwards and step to the side, bounce a ball, run on tiptoes, ride a bike, catch a ball with one hand, balance along a thin line. F = hold a crayon to make circles and lines, thread small beads, copy letters and shapes with a pencil, make detailed models with construction bricks, joined up writing, use a needle to sew. |
| 9-18 | <ul style="list-style-type: none"> Girls = puberty starts at 10-13 years, breasts grow, hips widen, menstruation begins, uterus and vagina grow. Boys = voice deepens, muscles and strength increase, erections, facial hair, produce sperm. Both = pubic and underarm hair, growth spurts. |
| 19-45 | <ul style="list-style-type: none"> Physically mature, sexual characteristics are fully formed, peak of physical fitness, full height, women at most fertile. Later in the life stage people may put on weight, hair turn grey and men may lose hair, women's menstrual cycle was slow down |
| 46-65 | <ul style="list-style-type: none"> People may put on weight, hair turn grey and men may lose hair, women's menstrual cycle was slow down. Women go through the menopause – when menstruation ends and they can no longer become pregnant. Men may continue to be fertile throughout life but decrease in sperm production in this life stage. |
| 65+ | <ul style="list-style-type: none"> Women's hair becomes thinner, men may lose most of their hair, skin loses elasticity and wrinkles appear, nails hard and brittle, bones weaken, higher risk of contracting infections disease and illness. Stamina, reaction time, muscle and senses (hearing, sight, taste) all reduce. |

| What we are learning this term: | |
|---|-------------------------|
| A. Key words B. What are the main life stages C. What are the 4 areas of growth and development (PIES)? D. How do Humans develop physically (P)? | |
| A. | Key words for this Unit |
| Characteristics | |
| Life stages | |
| Growth | |
| Development | |
| Gross motor development (G) | |
| Fine motor development (F) | |
| Language development | |
| Contentment | |
| Self-image | |
| Self-esteem | |
| Informal relationships | |
| Friendships | |
| Formal relationships | |
| Intimate relationships | |

| B | What are the main life stages? | | C | What are the 4 areas of growth and development (PIES)? Explain them. |
|-------------|--------------------------------|--|---|--|
| Age Group | Life Stage | Developmental Characteristics and Progress | | |
| 0-2 years | | | Physical Development (P)  | |
| 3-8 years | | | | |
| 9-18 years | | | Intellectual Development (I)  | |
| 19-45 years | | | Emotional Development (E)  | |
| 46-65 years | | | | |
| 65+ years | | | Social Development (S)  | |

| D. | How do humans develop physically (P)? |
|-------|---------------------------------------|
| 0-2 | |
| 3-8 | |
| 9-18 | |
| 19-45 | |
| 46-65 | |
| 65+ | |





| What we are learning this term: | | F. How do humans develop emotionally (E)? | |
|---|---|---|--|
| E. How do humans develop intellectually (I)? F. How do humans develop emotionally (E)? G. How do humans develop socially (S)? | | | |
| E. How do humans develop intellectually (I)? | | | |
| Infancy  | At birth brains are already well developed. Infants use all of their senses to learn about the world around them. Infancy is a time of rapid intellectual development. At 3 months infants can remember routines. At 9-12 months infants are developing their memory. At 12 months to 2 years infants understand processes and how things work. Language begins to develop during this stage. | <u>Bonding and Attachment</u> Bonding and attachment describe the emotional ties an individual forms with others. It starts in the first year of life between infants and their main carer because that person fulfils the infants needs which makes them feel safe and secure. | <u>Self-image and Self-esteem</u> Self-image is heightened during adolescence because of the physical changes we experience. Our self-esteem can change from day to day based on a variety of factors including employment and health status. |
| | | <u>Security</u> For infants and young children, security is mainly the feeling of being cared for, being safe and loved – it is closely linked with attachment. | <u>Security</u> Adolescence may feel insecure because of puberty. Adults may feel insecure about relationships, job security of income. Later in life adults may feel insecure about staying in their own home or going into a care home. Feeling secure helps us cope better with everyday situations. |
| | | <u>Contentment</u> Infants and young children are content if they have had enough food, love, are clean and dry and all other needs are met. | <u>Contentment</u> When people feel discontented with aspects of their life – for example, relationships or work – their emotions can be negatively affected. |
| Early childhood  | At 3-4 years of age children become more inquisitive and enjoy exploring objects and materials. They ask lots of questions and enjoy solving simple problems. At 5-6 years old children's memory is becoming well developed. This helps them to talk about the past and anticipate the future. | <u>Independence</u> Independence is to care for yourself and make your own decisions. Infants are completely dependent on their carer. As children enter early childhood they develop more independence – feed self and get dressed. However, children still need a lot of help from their carer. | <u>Independence</u> Adolescence are dependent on their parents but are beginning to enjoy more independence and freedom to make their own choices. Adults enjoy living independently and controlling their own lifestyle and environment. Later in adulthood people become more dependent on others again. |
| | | G. How do humans develop socially (S)? | |
| | | Life Stage | Types of relationships and social development |
| Adolescence  | During this time abstract thought is developed – thinking logically and solving complex problems are possible by the end of this life stage. Adolescents may find it difficult to understand the consequences of their actions but they are developing empathy – seeing things from another's point of view. | Infancy | <ul style="list-style-type: none"> • Solitary Play - From birth to 2 years, infants tend to play alone although they like to be close to their parent or carer; they may be aware of other children but not play with them. |
| | | Early childhood | <ul style="list-style-type: none"> • Parallel Play - From 2 to 3 years, children enjoy playing next to other children but are absorbed in their own game; they are not socialising or playing with other children. • Cooperative or social play – from 3 years upwards, children start to play with other children; they have developed social skills that help them to share and talk together; they often make up games together, such as being a shopkeeper and customer. |
| | | Adolescence | <ul style="list-style-type: none"> • People become more independent and build more informal and formal relationships. • Social development closely linked to emotions. • Often strongly influenced by peers – 'peer group pressure'. |
| Early and Middle Adulthood  | By these life stages most adults have a good range of general knowledge. They use this knowledge and experience to solve problems that they come across in their personal and work lives. | Early adulthood | <ul style="list-style-type: none"> • Increased independence means greater control of decisions about informal relationships. • People may be developing emotional and social ties with partners and their own children. • Social life often centred on the family but social skills are required to build and maintain formal relationships. |
| | | Middle adulthood | <ul style="list-style-type: none"> • Children have often left home, but there are likely to still be strong family relationships. • Social circles may expand through travel, spending more time on hobbies or joining new groups. |
| Later adulthood  | During this life stage people continue to learn and develop intellectually, however, their speed of thinking and memory may decline. This may affect their ability to think through problems and make logical decisions. | Later adulthood | <ul style="list-style-type: none"> • Retired by this stage and so may enjoy more social time with family and friends or join new groups. • However, later in the life stage people may begin to feel isolated if they struggle to get out or if partners and friends pass away. |

| What we are learning this term: | | F. | How do humans develop emotionally (E)? Explain each. | |
|---|--|------------------------------------|--|-------------------------------------|
| E. How do humans develop intellectually (I)? F. How do humans develop emotionally (E)? G. How do humans develop socially (S)? | | <u>Infancy and Early Childhood</u> | | <u>Adolescence and adulthood</u> |
| E. <i>How do humans develop intellectually (I)?</i> | | <u>Bonding and Attachment</u> | | <u>Self-image and Self-esteem</u> |
| Infancy  | | <u>Security</u> | | <u>Security</u> |
| | | <u>Contentment</u> | | <u>Contentment</u> |
| | | <u>Independence</u> | | <u>Independence</u> |
| Early childhood  | | <u>G.</u> | | How do humans develop socially (S)? |
| | | <u>Life Stage</u> | Types of relationships and social development | |
| Adolescence  | | Infancy | | |
| | | Early childhood | | |
| Early and Middle Adulthood  | | Adolescence | | |
| | | Early adulthood | | |
| Later adulthood  | | Middle adulthood | | |
| | | Later adulthood | | |

| What we are learning this term: | |
|---------------------------------|--|
| H. | Key words |
| I. | How do physical factors affect development? |
| J. | How does lifestyle affect development? |
| K. | How do social and cultural factors affect development? |
| L. | How do relationships and isolation affect development? |
| M. | How do economic factors affect development? |

| H | Key words: |
|----------------------|--|
| Genetic inheritance | Genes the person inherits from their parents |
| Genetic disorders | Health conditions that are passed on from parent to child through their genes. e.g. cystic fibrosis |
| Lifestyle Choices | Include the food you eat and how much exercise you do. They also include whether you smoke, drink alcohol or take illegal drugs. |
| Appearance | The way that someone or something looks |
| Factor | A circumstance, fact, or influence that contributes to a result |
| Gender role | The role and responsibilities determined by a person's gender. |
| Culture | ideas, customs, and social behaviour. |
| Role models | Someone a person admires and strives to be like. |
| Social Isolation | Lack of contact with other people |
| Material possessions | Things that are owned by an individual |
| Economic | To do with person's wealth and income. |



| I. | How do physical factors affect development? | |
|--------------------------|---|---|
| | Genetic Disorders | Disease and Illness |
| Physical Development | A person's physical build can affect physical abilities. Inherited diseases may affect strength and stamina needed to take part in exercise. | May affect the rate of growth in infancy and childhood. Could affect the process of puberty. Could cause tiredness and/or mobility problems. Could limit of prevent participation in physical activity. |
| Intellectual Development | Some genetically inherited diseases may result in missed schooling, or have a direct impact on learning – conditions such as Edward's syndrome impact learning. | School, college, university, work or training could be missed. Memory and concentration could be affected. |
| Emotional Development | Physical appearance affects how individuals see themselves (self-image), and how others respond to them impacts on their confidence and wellbeing. | May cause worry and/or stress. Individuals may develop negative self-esteem. Could lead to feelings of isolation. |
| Social Development | Physical characteristics or disease may affect opportunities or confidence in building friendships and becoming independent. | May cause difficulty in having opportunities to socialize with other and build wider relationships. |

| J. | How does lifestyle affect development? | |
|--|--|--|
| Lifestyle choices include; diet, exercise, alcohol, smoking, sexual relationships and illegal drugs, appearance. | | |
| Positive lifestyle choices lead to: <ul style="list-style-type: none"> • Healthy hair, skin, nails and teeth • Positive self-image • Energy and stamina • Good health • Emotional security  | | Negative lifestyle choices lead to: <ul style="list-style-type: none"> • Being overweight or underweight • Lack of energy • Ill health • Negative self-image • Sexually transmitted diseases (STDs) • Unplanned pregnancy  |
| Our appearance includes: body shape, facial features, hair and nails, personal hygiene and our clothing. Our appearance can affect the way we view ourselves- self-image | | |
| Positive self-image: <ul style="list-style-type: none"> • Feel good about yourself. • Healthy hair, skin, nails and teeth • Big social circle. • High self-esteem. • High self-confidence.  | | Negative self-image <ul style="list-style-type: none"> • Low self-esteem • Low self-confidence • Can lead to eating disorders e.g. anorexia • Can lead to anxiety or depression • Can lead to self-harm • Negative impact on building relationships- social circle decreases.  |

| What we are learning this term: | |
|---------------------------------|--|
| H. | Key words |
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| J. | How does lifestyle affect development? |
| K. | How do social and cultural factors affect development? |
| L. | How do relationships and isolation affect development? |
| M. | How do economic factors affect development? |

| H | Key words: |
|----------------------|------------|
| Genetic inheritance | |
| Genetic disorders | |
| Lifestyle Choices | |
| Appearance | |
| Factor | |
| Gender role | |
| Culture | |
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| Social Isolation | |
| Material possessions | |
| Economic | |

| I. | How do physical factors affect development? | |
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| Intellectual Development | | |
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| Social Development | | |

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| Lifestyle choices include; diet, exercise, alcohol, smoking, sexual relationships and illegal drugs, appearance. | | |
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| <ul style="list-style-type: none"> • • • • • | | <ul style="list-style-type: none"> • • • • • |
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| Positive self-image: |  | Negative self-image |
| <ul style="list-style-type: none"> • • • • • | | <ul style="list-style-type: none"> • • • • • |



K How do social and cultural factors affect development

Development can be influenced by the persons **culture or religion** because it affected their:

- **Values:** how they behave
- **Lifestyle choices:** diet, appearance

Positive affects of a persons culture/religion:

- A sense of security and belonging from sharing the same values and beliefs with others.
- Good self-esteem through being accepted and valued by others

Negative affects of a persons culture/religion:

- Feeling discriminated against by people who do not share their religion/culture which leads to low self-image
- Feeling excluded and isolated because their needs like diet, are not catered for.

Community refers to: local area where people live, school, religious group or hobby clubs. They have common values and goals.

Belonging to a community:

- Brings sense of belonging essential for emotional development.
- Building and maintaining relationships- social development
- Feeling of security.
- Increases self-image and self-confidence

Not belonging to a community:

- Minimal contact with others- isolation
- Anxiety leading to depression
- Making negative lifestyle choices
- Feeling less secure
- Difficulty in building relationships
- Slow self-image and self-confidence

Traditionally, men and women had distinctive responsibilities and expectations which for their gender called **gender roles**. However, nowadays UK equality legislation stops people being discriminated against because of their gender.

What happens when people face discrimination because of gender:

- They might be excluded from a group
- They may be refused promotion at work
- They may be expected to carry out a particular role
- They may be paid less.

What we are learning this term:

- K. How do social and cultural factors affect development?
- L. How do relationships and isolation affect development?
- M. How do economic factors affect development?

L How do relationships and isolation affect development?

- 1 In adolescence, young people often argue with parents because they want more independence- negative affect on family relationships- can lead to isolation from them.
- 2 In later life, older people might need to rely on their children for support. This then has a positive affect on their development because all their need are catered for.
- 3 Relationships are important because they provide emotional security, contentment and positive self- esteem.
- 4 The breakdown of personal relationships can have a negative effect on persons PIES development:
Low self-esteem, loss of confidence, stress.
- 5 Isolation can happen when individuals do not have the opportunity of regular contact with others. They have no one to share their feelings, thoughts and worries with resulting in feeling insecure and anxious.
- 6 Isolation can happen because they live alone, are unemployed or retired, are discriminated against or have an illness or a disability.
- 7 People have role models- infants learn by copying others, and adolescence base their identity on their role models. Role models can influence how people see themselves compared to others and their lifestyle choices can be positive or negative.

M How do economic factors affect development

- | | |
|---|--|
| Having enough money gives individuals and their families feeling of content and security | Not having enough money causes stress and anxiety. |
| Having enough money means that the whole family is eating healthy. | Not having enough money can mean that the family is not about to eat well balanced diet, and this has a negative effect on their physical development |
| Elderly people rely on state pension to live which is not enough and have to cut down on travel, shopping, bills, therefore it speeds their aging process and lead to health decline. | |
| <u>Living in good housing with open spaces:</u> | <u>Living in a poor housing with cramped and damp conditions:</u> |
| <ul style="list-style-type: none"> • Feeling good about themselves • Be more likely to stay healthy, • Space to take exercise • Feel safe ad secure • Warmth | <ul style="list-style-type: none"> • Have low self-esteem and self-image • Be more likely to experience ill health • Be lessson likely to exercise • Anxious and stressed. |
| Material possession like a new phone or coat has a positive effect on the persons development because they might have more friends as they look nicer, high self-image. | Not having a phone or the newest trainers can have a negative affect in the persons self-image and self-esteem. They might feel isolated from others. |



K How do social and cultural factors affect development

Development can be influenced by the persons **culture or religion** because it affected their:

- **Values:** how they behave
- **Lifestyle choices:** diet, appearance

| | |
|--|--|
| <u>Positive affects of a persons culture/religion:</u> | <u>Negative affects of a persons culture/religion:</u> |
| • | • |
| • | • |

Community refers to:

| | |
|----------------------------------|--------------------------------------|
| <u>Belonging to a community:</u> | <u>Not belonging to a community:</u> |
| • | • |
| • | • |
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Traditionally, men and women had distinctive responsibilities and expectations which for their gender called **gender roles**. However, nowadays UK equality legislation stops people being discriminated against because of their gender.

What happens when people face discrimination because of gender:

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What we are learning this term:

- K. How do social and cultural factors affect development?
- L. How do relationships and isolation affect development?
- M. How do economic factors affect development?

L How do relationships and isolation affect development?

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| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |

M How do economic factors affect development

| | |
|---|---|
| Having enough money.... | Not having enough money |
| • | • |
| • | • |
| → | → |
| Having enough money means that.... | Not having enough money can mean that... |
| • | • |
| • | • |
| → | → |
| Elderly people rely on state pension to live which is not enough and have to cut down on travel, shopping, bills, therefore it speeds their aging process and lead to health decline. | |
| <u>Living in good housing with open spaces:</u> | <u>Living in a poor housing with cramped and damp conditions:</u> |
| • | • |
| • | • |
| • | • |
| • | • |
| • | • |
| Material possession like a new phone or coat has a positive effect on the persons development because..... | Not having a phone or the newest trainers can have a negative affect on.... Because.... |
| • | • |
| • | • |
| • | • |
| • | • |
| • | • |

| What we are learning this term: | |
|---|--|
| <p>N. What are life events? O. How do people deal with life events? P. How is dealing with life events supported?</p> | |
| N. | What are life events? |
| Life Events | Life events are expected or unexpected events that can affect development. Examples include starting nursery, getting married or becoming ill. |
| Expected Life Events | Expected life events are life events that are likely to happen. Examples include starting primary school aged four and secondary school aged 11. |
| Unexpected Life Events | Unexpected life events are events which are not predictable or likely to happen. Examples could include divorce and bereavement (the death of a loved one). |
| Physical Events | Physical events are events that make changes to your body, physical health and mobility. Examples include illnesses such as diabetes and injuries and accidents such as car accidents. |
| Relationship Changes | Relationship changes could be new relationships such as the birth of a sibling, a new friendship or romantic relationship. Relationship changes can also be changes to existing relationships such as divorce. |
| Life Circumstances | Life circumstances are different situations that arise in our life that we must deal with. Examples include redundancy (losing a job), moving house or retirement (finishing work in later adulthood). |

| O. | How do people deal with life events? |
|------------|---|
| Individual | <ul style="list-style-type: none"> The effects of life events vary from person to person based on how they deal with their new situation. Some people react to able to react to life events positively, others find it more difficult due to a range of factors. |
| Factors | <ul style="list-style-type: none"> Factors that may affect how people cope with life events: age, other life events happening at the same time, the support they have, their disposition (their mood, attitude and general nature), their selfesteem, their resilience (how quickly they recover). |
| Adapting | <ul style="list-style-type: none"> Adapt – to adjust to new conditions or circumstances. Expected on unexpected life events can often force people to make changes to their lives. Individuals must find their own way to adapt to the changes that life throws at them. |
| Resilience | <ul style="list-style-type: none"> Resilience – a person’s ability to come to terms with, and adapt to, events that happen in life. Resilience is stronger in people who have a positive outlook on life, accept that change happens, has supportive family and friends and plans for expected life events. |
| Time | <ul style="list-style-type: none"> Sometimes people need a long time to adapt to unexpected life events. It can take time for people to move on from and accept difficult changes in their life. |

| P. | How is dealing with life events supported? |
|------------------------|--|
| Types of Support | How this helps individuals deal with life events |
| Emotional Support | Emotional support is needed to help individuals deal with all life events – expected and unexpected. Having someone to talk to helps people feel secure and adapt to change. Sometimes individuals can find this support in family and friends or professionals to process difficult life events – such as bereavement. |
| Information and Advice | Life events, particularly unexpected ones, can cause people to feel like they do not know what to do. Information and advice can help people to have a better understanding of their situation, which allows them to deal with it more successfully. Information and advice help them know where to go for help, the choices than are available to them and how to make healthy choices. |
| Practical Help | <ul style="list-style-type: none"> Financial help – an individual may need money to help them adapt to a life change i.e. money to pay for a stair lift if their mobility has been affected. Childcare – an individual may need support looking after their children i.e. a lone parent after a divorce that needs to go to work. Transport – an individual may need support with transport if they have mobility problems i.e. a car could be adapted to support a person who has had an accident and can no longer walk. |
| Informal Support | Informal support is the support an individual receives from partners, family and friends. It is usually the first form of support an individual experiences after and expected or unexpected life event. Informal support can provide reassurance, encouragement, advice, a sense of security, someone to talk through options with and practical help. |
| Professional Support | Formal support may be provided by statutory care services (the state), private care services and charitable organizations. Professional support may include counsellors, teachers, careers advisers, occupational therapists, social workers and health specialists. Professional support may be needed to help people with a health condition, regain mobility, deal with life changes and emotions, get advice and information or change their lifestyle. |
| Voluntary Support | Organizations offering voluntary support are charities, community groups and religious groups. At voluntary support services, many staff are volunteers (they work for free), but they also employ qualified people who are paid by donations. Community groups work at a local level to meet the needs of people living in a specific neighbourhood i.e. foodbanks. Religious groups are formed by people who share the same religious or spiritual beliefs but they help all people in need regardless of their beliefs and background i.e. a church run soup kitchen for the homeless. |

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| What we are learning this term: | |
| N. What are life events? O. How do people deal with life events? P. How is dealing with life events supported? | |
| N. | What are life events? |
| Life Events | |
| Expected Life Events | |
| Unexpected Life Events | |
| Physical Events | |
| Relationship Changes | |
| Life Circumstances | |

| | |
|-------------------------|---|
| O. | How do people deal with life events? |
| Individual | |
| Factors | |
| Adapting | |
| Resilience | |
| Time | |
| P. | How is dealing with life events supported? |
| Types of Support | How this helps individuals deal with life events |
| Emotional Support | |
| Information and Advice | |
| Practical Help | |
| Informal Support | |
| Professional Support | |
| Voluntary Support | |

SWINDON ACADEMY READING CANON

Year 7



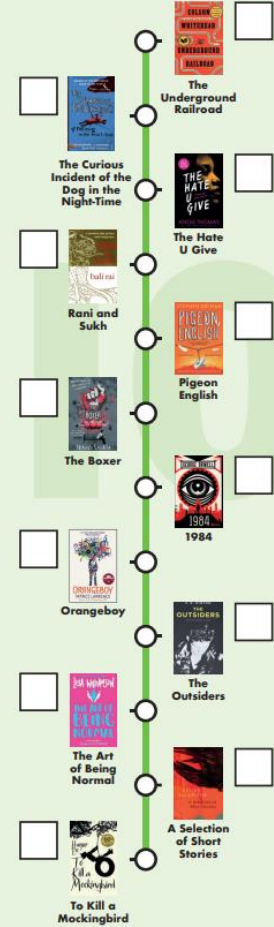
Year 8



Year 9



Year 10



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