ORMISTON SWB ACADEMY

Knowledge Organisers
Spring Term – Year 9

Name: _____

Please remember:

- It is to be kept inside your knowledge organiser book
- It is to be brought into school every day

Regular retrieval throughout a scheme of learning (daily, weekly and monthly) has been proven to **reduce the rate of forgetting**, supporting you to **retain more** in long term memory- making assessments/ exams way easier! The challenge for you as a student is to make sure you use your knowledge organiser for each subject properly to help you to know more and remember more over time. We've created this walk through to support you in using your knowledge organiser- for more support speak to your subject teachers.

Using your Knowledge Organiser

1	2	3	4	5
Look	**Cover**	**Write**	**Check**	**Repeat**
Start with a **small section of knowledge** that you want to remember *e.g Henry VIII's wives in History*. Read through this section of the knowledge organiser (a couple of times if it helps)	Now **cover up this section** of your knowledge organiser with a post it note or scrap paper.	**Self quiz- what can you remember** and rewrite? Make sure you do this without looking back at your knowledge organiser.	**Remove the post it and check for accuracy**- did you get the key terminology? Was it spelt correctly? Was the order correct? If you drew a diagram, how much of this did you get correct? Most importantly- what did you miss out?	After a short break away from your knowledge organiser repeat the look, cover, write, check **until you can recall all of the facts correctly without prompts.** This process can be used for any new knowledge that you want to acquire. It is good idea to do this on a regular basis, once a week.

Strategy 1- Look, cover, write, check – A really simple but effective way to use your knowledge organiser. Focus on a specific area of your knowledge organiser.

1	2	3	4	5
Focus	**Big ideas**	**Explain it**	**Link it**	**Record it**
Make it manageable by selecting an area of your KO where your learning is not secure. Don't waste time going off something you can already do!	Pick out the main points or the **big ideas** in this section.	**Explain what you know** about the main points (this could be written or shared verbally – a friend, a family member.	Now, see **how it links to other areas** within the subject. *E.g Eating meat – causes global warming. Cows produce methane which is a greenhouse gas.*	**Write down as many 'think it, link it' ideas** as you can in your book. See if you can beat others in you class!

Strategy 2- Think it, link it – Great for connecting the big ideas in your subject. How does 'x' relate to 'y'. What are the key factors which make an equation/ experiment/ process work? Challenge yourself to see how many links you can make!

1	2	3	4	5
Select topic	**Prepare quiz**	**Answer it**	**Self check**	**Repeat**
Decide **which area you want to be quizzed** on (this might build up over time)	Get someone else to **prepare 10 random questions** on that topic to challenge you.	**Set a time limit** (depending on the number of questions) and answer the questions without looking at your KO.	Now look at your KO to **self check**- make a note of your score. Celebrate your successes and make a note of anything you missed or got incorrect.	**Return to this section** in 2/3 weeks- see if you can improve your score! Re-do those questions that you missed or got incorrect.

Strategy 3- Knowledge quiz – You might try this after a few weeks of using your knowledge organiser. Get someone to set you 10 questions using your knowledge orgainser. These could be spellings, key words, processes, equations etc to see how much you can remember! Record your score and see if you can beat your personal best each half term!

Contents Page

Year 9 – English – Romeo and Juliet – Plot and Key Quotations

The Prologue

Two households, both alike in dignity,
In fair Verona, where we lay our scene,
From ancient grudge break to new mutiny,
Where civil blood makes civil hands unclean.
From forth the fatal loins of these two foes
A pair of star-cross'd lovers take their life;
Whose misadventured piteous overthrows
Do with their death bury their parents' strife.
The fearful passage of their death-mark'd love,
And the continuance of their parents' rage,
Which, but their children's end, nought could remove,
Is now the two hours' traffic of our stage;
The which if you with patient ears attend,
What here shall miss, our toil shall strive to mend.

1. The Montagues and the Capulets are families involved in a bitter feud. Under penalty of death, the Prince of Verona orders the families to stop fighting.
2. Romeo, a Montague, is lovestruck. His cousin, Benvolio, and best friend, Mercutio plan to cheer him up by gatecrashing a party at the Capulet house.
3. Meanwhile, Lady Capulet plans for her daughter, Juliet, to marry Paris, a wealthy gentleman.
4. At the party, Romeo and Juliet meet and fall in love at first sight.



1. After the party, Romeo sneaks back into the Capulet house and asks for her hand in marriage.
2. Friar Laurence agrees to marry the lovers in secret, hoping that it will end the fight.


1. Tybalt, Juliet's cousin, is enraged that Romeo snuck into his family party. He tries to fight Romeo, who will not fight back.
2. Mercutio dies defending his friend Romeo. Romeo then kills Tybalt.
3. Having heard of the violence, the Prince banishes Romeo from Verona.
4. Lord Capulet, in order to cheer his daughter up, arranges for her to marry Paris in two day's time.


1. Friar Laurence hatches a plan for Juliet to take a sleeping potion and appear dead, so she can meet Romeo and run away together. Juliet takes the potion, and funeral plans are made.

1. Romeo learns of Juliet's death, but not the secret plan. He fights his way back to Verona, buying poison on the way.
2. Romeo kills Paris in order to be the one lying next to Juliet's grave. He kills himself just as Juliet wakes up. She then uses Romeo's dagger to take her own life.
3. After the death of their children, the Montagues and Capulets end their fight.

A sonnet

"Two households, both alike in dignity."

"A pair of star-cross'd lovers take their life."

"The fearful passage of their death-mark'd love, And the continuance of their parents' rage."



Act 1

"O brawling love, O loving hate,
O anything of nothing first create!"

"My child is yet a stranger in the world."

"Palm to palm is holy palmers' kiss"



Act 2

"Deny thy father and refuse thy name."

"Wisely and slow. They stumble that run fast."

'So smile the heavens upon this holy act That after-hours with sorrow chide us not!'


Act 3

"Romeo, the love I bear thee can afford no better term than this: thou art a villain."

"Hath made me effeminate."

"O I am fortune's foo."


Act 4

"Shut the door, and when thou hast done so, Come weep with me- past hope, past cure, past help."

"Send for the county. go tell him of this . ill have this knot knit up tomorrow morning."

"Tomorrow night look that thou lie alone; let not the nurse lie with thee in my chamber."

Act 5

"Death, that hath sucked the honey of thy breath, Hath had no power yet upon thy beauty."

"…Here, here will I remain / With worms that are thy chambermaids"

"O brother Montague, give me thy hand. / This is my daughter's jointure, for no more / Can I demand?"

Year 9 – English – Romeo and Juliet – Context, Themes and Character map

Feuds and Conflict

The families hate each other, and within each family there are several different layers of conflict(b).

Religion

In the 1600s, religion dictated (L) strict rules– no sex before marriage, no divorce, and suicide sent you to hell.

Family

Fathers ruled the household. Disobeying (M) them was unheard of. Marriages were arranged for daughters in exchange for money or status.

Role of women

Women were subservient (H) to men and acted as a wives and mothers. They were seen as possessions by their fathers and husbands.

Love

Courtly love is a cold, distant way of admiring someone. Romeo and Juliet share the passion of real love.

Revenge

Revenge was used in Romeo and Juliet to show conflict (b). Shakespeare wanted to show that revenge often leads to disaster and problems.

Characters

Noble families who are feuding (A)

Montagues

Lord Montague
Romeo's father who, along with Lord Capulet, originated the feud between the families.

Lady Montague
Romeo's mother who is concerned for him.

Capulets

Lord Capulet
Juliet's father who is caring but also irrational and ill-tempered.

Lady Capulet
Juliet's cold mother who leaves the nurse to care for Juliet.

Romeo
In love with a girl called Rosaline first but then sets eyes on Juliet.

Fall in love at first sight during Act One

Juliet
. . beautiful girl whose parents want her to marry Paris

Benvolio
Romeo's peacekeeper and loyal cousin.

Friar Lawrence
A man of religion who marries Romeo and Juliet and helps Juliet with a plan after Romeo is banished.

Tybalt
Juliet's angry cousin who kills Mercutio and is killed by Romeo for revenge.

Paris
The Prince's cousin who Juliet's parents want her to marry. He is killed by Romeo.

Minor Characters

Mercutio
Funny and loyal friend of Romeo's who gets killed by Tybalt.

The Prince
Verona's leader who is frustrated with the fight and expels Romeo from Verona.

	Key terms	Definition
A	Feud	An ongoing and bitter disagreement.
B	Conflict	A serious disagreement or argument.
C	Masculinity	Qualities associated with a male.
D	Soliloquy	The act of speaking one's thoughts aloud alone to reveal inner thoughts.
E	Aside	A remark in a play that is intended to be heard only by the audience, not by other characters.
F	Conform	When you follow the rules.
G	Subvert	When you defy the rules.
H	Subservient	Obeying someone without questioning it.
J	Foreshadow	A warning or indication of a future event.
K	Dramatic Irony	When the audience has more knowledge of what is happening than a character.
L	Dictate	Giving orders which must be obeyed.
M	Disobey	Failing to follow the rules.

Year 9 – English - Discrimination – Non-Fiction Knowledge Organiser

Disability: 19th Century attitudes

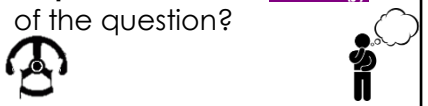
Greater separation of disabled people whom were dependent on medical treatments and cures and denied the experience of living and growing up with the non-disabled population.

Disability: 21st Century attitudes

Wider acceptance of the diversity (o) of physical and psychological needs (mental health (f)) due to a wider awareness and acceptance amongst the non-disabled.

How do I summarise?

Step 1: What is the steer (j) of the question?



Step 2: What are the similarities or differences (depending on the question) have you identified?

Step 3: What four quotations can I use to show the differences or similarities (depending on the question)?

Step 4: What inference (e) can you make about what the quotations suggest?

How do I write about language?

Step 1: What is the steer (j) of the question?

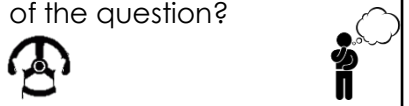
Step 2: What is the writer presenting? What's your area of focus?

Step 3: How are these ideas presented or developed? Introduce and use your quotations in the middle of the sentence. Identify the language feature or word class and then consider the connotations (D) of this.

Step 4: Why has the writer used these features/key words? Explore connotations (d) and link back to the focus of the question. What reaction may this evoke?

How do I write about the writer's attitude?

Step 1: What is the steer (j) of the question?



Step 2: What is the writer's perspective or attitude (b)?

Step 3: How are these ideas presented? (Identify methods (I) and quotations).

Step 4: Why has the writer used these methods (I)? Explore connotations (D) of key words. What do they suggest about the writer's attitude?

Key Vocabulary

	Key terms	Definition
A	Discrimination	Unfair treatment of a person from one particular group.
B	Perspectives/ Attitudes	A settled way of thinking/feeling about something.
C	Prejudice	Opinion based on no experience.
D	Connotations	A feeling or idea that is suggested by a word in addition to its basic meaning.
E	Inference	Work out from the information.
F	Mental health	A person's condition regarding their emotional and mental well-being.
G	Stereotypes	An idea of someone that does not correctly represent someone.
H	Child labour	Work that prevents children from their childhood, but also and their likelihood for success in the future.
I	Methods	The ways a writer achieves their aim.
J	Steer	Direction/focus of the question.
K	Exploitation	The action or fact of treating someone unfairly to benefit others.
L	Submissive	Willing to accept being controlled and receive orders.
M	Freak shows	An entertainment show featuring animals or people with unusual features.
N	Institutions	An organisation or building that follows a purpose. E.g. an 'insane' hospital.
O	Diversity	Understanding the differences between people and groups.

Year 9 – English - Discrimination – Non-Fiction Knowledge Organiser

The Elephant Man (Text 1a)

Joseph Merrick was born with a (P) physical disability in the 19th century.

Joseph lived alone without company and was a part of a 'freak show' (M).

In the 19th century, Victorians were interested in unusual examples of human life. 'Freak shows' were a form of entertainment and profit.

Although interesting to some, those with physical disabilities were rejected by society.

10 Days in a Madhouse (Text 2a)

In the 19th century, mental health treatment had not been developed so conditions were recognised as 'madness'.

Individuals displaying these symptoms of 'madness' were locked away from society and put into institutions (N).

The writer records day-to-day events and treatment of patients in the facility.

The Best Sewing Machine (Text 3b)

Women were seen as 'the weaker sex' in the 19th century and were submissive (L) to men. This particularly affected middle class women because they had no reason to leave the house or go to work.

In extract 3b, the writer is expressing their views on the value of a woman has in a household.

The writer of the article compares a woman/women in society at the time to a household object, a sewing machine.

Lord Shaftesbury's speech (Text 4a)

In 1842, children and women were forced to work in unclean conditions leading to further lack of basic needs in life, such as food and water.

No laws were in place to protect individuals from unsafe working environments.

Extract 4a focuses on the expectations and lack of regard to the health and safety of children when working in coal mines.

19th Century Texts ←

Modern Texts →

My Left Foot (Text 1b)

Christy was born in the 20th century with a physical disability.

Christy records his awareness of adapting to his physical disability

Disability is now regarded as a problem.

Little medical research regarding his condition restricted his opportunities in his early-life.

Demi Lovato: Living with Mental Health Issues (Text 2b)

In 21st century society, mental health awareness is a well discussed topic in many workplaces and is regarded as an important element to overall well-being.

There is a lack of acceptance, of regarding mental well-being having equal importance as physical wellbeing.
Wider medical understanding of mental health.
Demi praises the support she received to aid her recovery.

Emma Watson's HeForShe speech (Text 3a)

In the 21st century, it is widely believed that gender unfairness is a result of content in the media.

Men and women feel pressured to live up to the expectations of what is believed to be normal in the society.

In extract 3a, the writer expresses their views on gender stereotypes (G) and how this prejudice (C) has impacted individuals in society.

Child Labour: India's Hidden Shame (Text 4b)

Many children in poorer countries are forced into employment, trapping them in the cycle of poverty.

Child labour (H) restricts individuals of their education and future success.
In India, young girls will often be hired as domestic workers.

Extract 4b focuses on one account of child exploitation (K) and expresses the world-wide presence in India.

Possible attitudes of the writer(s)	
Fascinated	In the state of having a strong attraction or interest in a topic/idea.
Resentful	A feeling or expressing anger or disappointment over the belief of unfair treatment.
Subjective	Explaining a idea/topic with no indication of the writer's personal feeling or prejudice (c).
Sincere	Doing or feeling something with honest emotions.
Sympathetic	Expressing a sense of understanding of someone else's bad situation or suffering.
Mocking/Mockery	Being unimpressed by a situation or making fun/entertainment of for personal enjoyment. These actions are considered to be cruel.

Active Verbs (similar to" shows")

- Connotes
- Depicts
- Demonstrates
- Illustrates
- Portrays
- Reflects
- Conveys
- Exhibits
- Emphasises
- Implies
- Presents
- Suggests

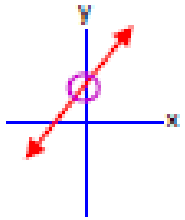
The writer _(active verb)___ the…

Year 9 Maths – Unit A10 – Advanced Linear Graphs and Equations

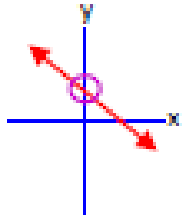
$y = mx + c$

m → **Gradient** c → **y-intercept**

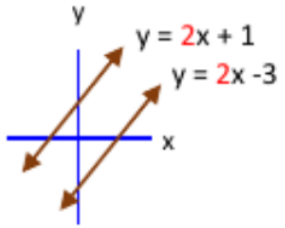
When gradient is positive.



When gradient is negative

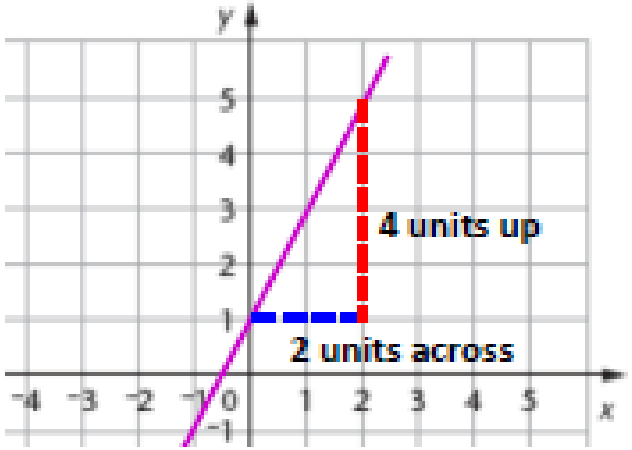


Parallel Lines have the SAME gradient.



How to find the gradient of a line.

$$gradient = \frac{change\ in\ y}{change\ in\ x} = \frac{4}{2} = 2$$

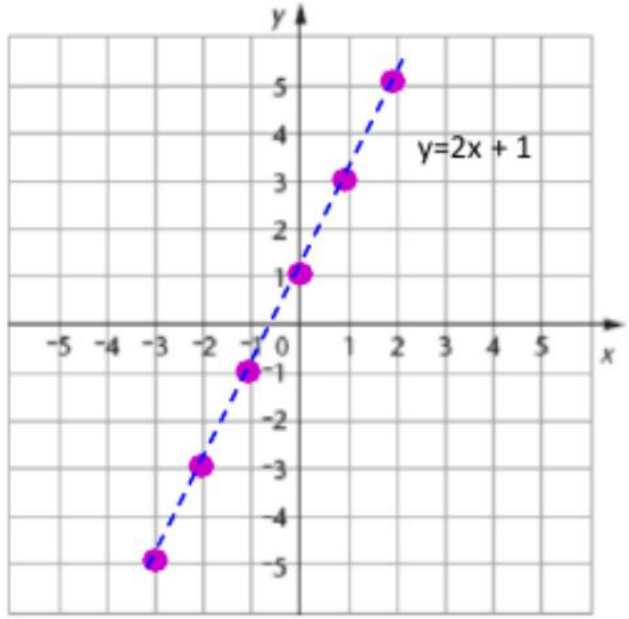


How to complete a table and plot a straight line graph.

1) Complete the table by substituting the x values into the equation y = 2x + 1.
(This will give you the corresponding y values)

X	-3	-2	-1	0	1	2
y	-5	-3	-1	1	3	5

2) Plot the co-ordinates: (2, 5) (1, 3) (0, 3) (-1, -1) (-2, -3) (-3, -5)



Keyword/Skill	Definition/Tips
Linear	A graph that makes a straight line. Often written in the form y = mx + c
Graph	A drawing or diagram used to show information.
Distance	A measurement of how far.
Time	Minutes, Seconds, Hours, Days, Weeks, Months etc.
Coordinate	Shown as a pair (2, 4) to show a position on a set of axes.
Quadrant	Any of the 4 areas created by the x and y axes.
Real-Life Graphs	A graph that shows events of real life – distance and time.
Gradient	How steep a line is.
Y-Intercept	Where the line crosses y-axis
Function	A mathematical relationship between two values.
Solution	A value that makes an equation true.
Parallel	When two lines are always the same distance apart and never meet.

<u>Other Topics/Units this could appear in:</u>

- Coordinate Geometry

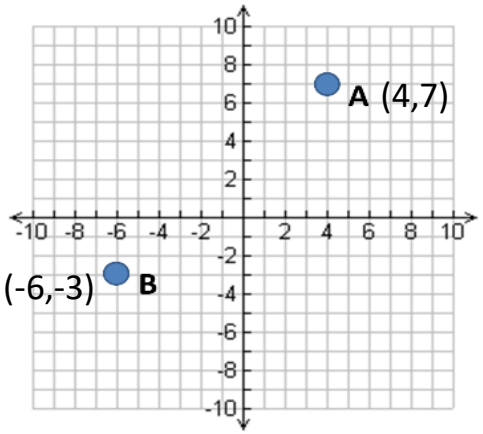
A-Level – Core:
- Algebra & Functions
- Coordinate Geometry in the xy plane

A Level – Statistics:
- Correlation

Year 9 Maths – Unit A10 – Advanced Linear Graphs and Equations

The Four Quadrants.

When plotting coordinates, (x,y), x represents how far along the x-axis (left or right) the point is, and y represent how far along the y-axis (up or down) the point is. See the co-ordinates labelled below.



How to Find the Midpoint of a Line Segment

Add the x coordinates and divide by 2.
Add the y coordinates and divide by 2.

Example:

Find the midpoint between (2, 1) and (6, 9)

$\frac{2+6}{2} = 4$ and $\frac{1+9}{2} = 5$

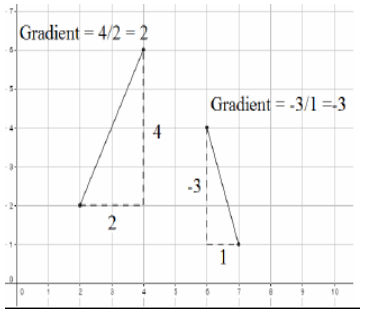
So the midpoint is (4, 5).

Using the Gradient of a Line.

The gradient of a line is how steep it is.

Gradient = $\frac{change\ in\ y}{change\ in\ x}$

The gradient can be positive (going up) or negative (going down).



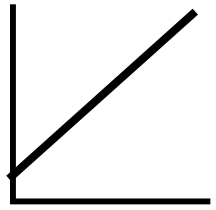
In the equation $y = 2x + 5$, the gradient is 2.
In the equation $y = -3x - 10$, the gradient is -3.

If two lines are parallel, they will have the SAME gradient.
Example:
$y = 2x + 5$ and $y = 2x - 6$ are parallel because they both have a gradient of 2

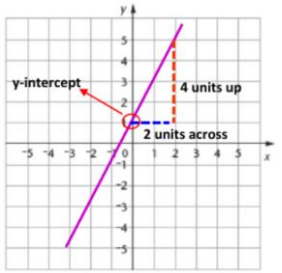
Finding the Equation of a Line

The general equation of a line looks like this:

y = mx + c
Gradient **y-intercept**



Example:
Find the equation of the line:



Gradient = $\frac{change\ in\ y}{change\ in\ x}$

Gradient = $\frac{4}{2} = 2$

y = 2x + c

The y-intercept is where the line crosses the y-axis, you can see this from the graph. Therefore the equation is:

y = 2x + 1

You may not be given the graph but instead get two points from the line.

Example:
A line passes through the points (4, 7) and (8, 19). Find the equation of the line.

Gradient = $\frac{change\ in\ y}{change\ in\ x}$

Gradient = $\frac{19-7}{8-4} = \frac{12}{4} = 3$ y = 3x + c

Then substitute in one of the points to find the value of c
Sub (4, 7): 7 = 3(4) + c
7 = 12 + c
c = -5

So the equation is: y = 3x - 5

Keyword/Skill	Definition/Tips
Linear	A graph that makes a straight line. Often written in the form y = mx + c
Graph	A drawing or diagram used to show information.
Coordinate	Shown as a pair (2, 4) to show a position on a set of axes.
Quadrant	Any of the 4 areas created by the x and y axes.
Gradient	How steep a line is.
Y-Intercept	Where the line crosses the y-axis
Function	A mathematical relationship between two values.
Solution	A value that makes an equation true.
Parallel	When two lines are always the same distance apart and never meet.
Midpoint	The point that is exactly mid way between to given points.

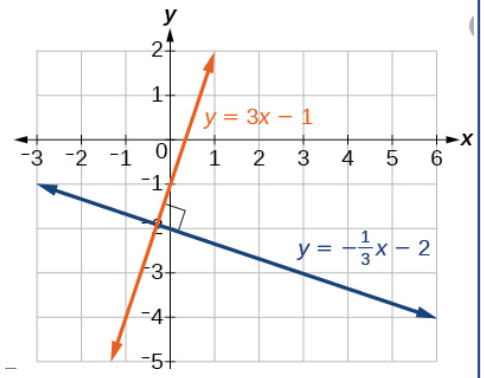
Other Topics/Units this could appear in:
- Coordinate Geometry

A-Level – Core:
- Coordinate Geometry in the xy plane

Year 9 Maths – Unit A10 – Advanced Linear Graphs and Equations

Perpendicular Lines

Lines that meet at 90degrees. Their gradients will be NEGATIVE RECIPROCALS of each other.



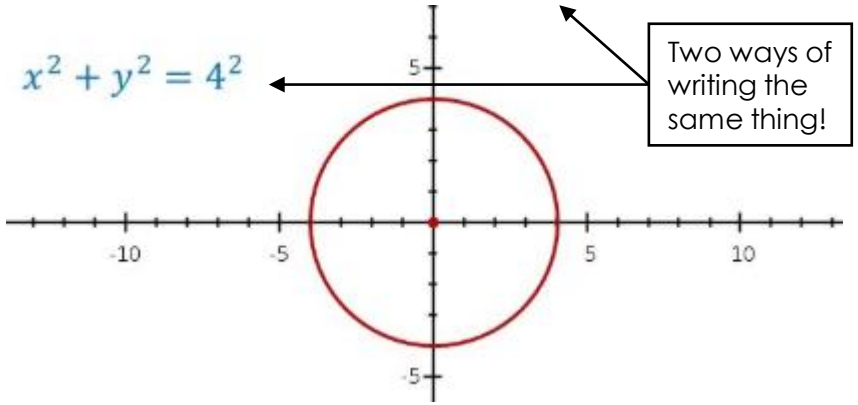
Parallel Lines

Lines that never meet. They will have the SAME gradient.

Circles

The equation of a circle is in the form $x^2 + y^2 = r^2$, where r is the radius, and the centre of the circle is at (0,0).

So a circle with equation $x^2 + y^2 = 16$ looks like this:



Graphs you need to be familiar with:

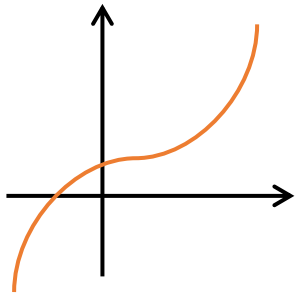
Quadratic:

When **a** is positive

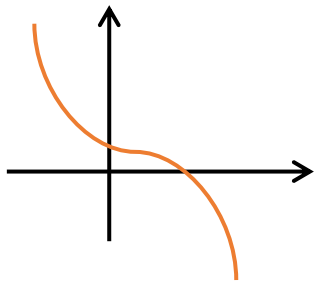
When **a** is negative

Cubic: **$ax^3 + bx^2 + cx + d$**

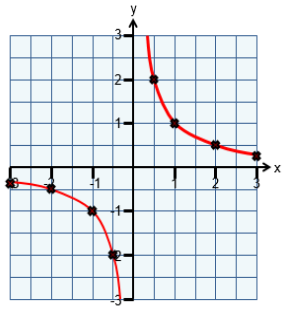
When **a** is positive



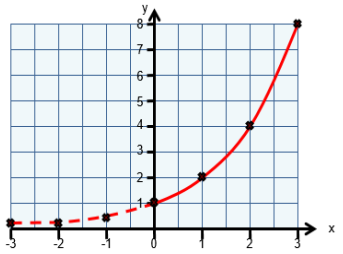
When **a** is negative



Reciprocal: $y = \frac{1}{x}$



Exponential: $y = 2^x$



Keyword/Skill	Definition/Tips
Coordinate	Shown as a pair (2,4) to show a position on a set of axes.
Quadratic	An equation that has an x^2 as the highest power.
Cubic	An equation that has an x^3 as the highest power.
Reciprocal	1 divided by the number. E.g. the reciprocal of 2 is ½ The reciprocal of 10 is 1/10 The reciprocal of x is 1/x
Circle	A 2D shape made from drawing a curve that is always the same distance from a center.
Perpendicular	When two lines meet at a right angle.
Parallel	When two lines are always the same distance apart and never meet.

Before starting this unit of work it may help to look back at the **Crossover Unit 31 – Coordinate Geometry** knowledge organiser.

Other Topics/Units this could appear in:

A-Level – Core:
- Graphs & Transformations
- Straight Line Graphs
- Circles
- Functions & Graphs

Year 9 Maths – Unit A10 – Advanced Linear Graphs and Equations

Elimination Method

Example 1

Solve the equation: 6x + y =15 and 4x + y =11

It is useful to label the equations to help with method.

6x + y = 15 (1)
4x + y = 11 (2)

The y-term in both equations has the same coefficient. (No need to balance them)

6x + y = 15 (1)
4x + y = 11 (2)

Equation (1) minus equation (2)

2x = 4

÷ 2

x = 2

Substitute x = 2 into one of the original equations. (Usually the one with the smaller numbers)

So substitute x = 2 into: 4x + y = 11

8 + y = 11

Solve

y = 3

You can then test the solutions by substituting values found back into the original equations

Example 2

5x + y = 22 (1)
2x – y = 6 (2)

Both equations have the same y-coefficient but with **DIFFERENT SIGNS**

As the signs are different you ADD the two equations to eliminate the y-terms. [Equation (1) + equation (2)]

5x + y = 22 (1)
2x – y = 6 (2)

Add

7x = 28

÷ 7

x = 4

Substitute x = 4 into one of the original equations, 5x + y = 22 which gives 20 + y = 22

Solve

y = 2

Sometimes you will have to change both equations to get identical terms.

Example 3

Solve these equations:

4x + 3y = 27 (1)
5x – 2y = 5 (2)

Both equations have to be changed to get identical terms in either x or y.

Equation (1) x 2
Equation (2) x 3

Here it will be best to make the y-coefficients the same so that we can add the equations. (Easier than subtracting)

8x + 6y = 54 (3)
15x – 6y =10 (4)

Label new equations (3) and (4)

Eliminate by adding (3) + (4)

23x = 69

÷ 23

x = 3

Substitute into equation (1)=

12 + 3y = 27

Solve

3y = 15

y = 5

Example 4- Apply to solve problems

Three chews and four bubblies cost 72p. Five chews and two bubblies cost 64p. What would three chews and five bubblies cost?

You need to set up two simultaneous equations in c and b and then solve them.

3c + 4b = 72
5c + 2b = 64

Solve the simultaneous equations as in example 1

c = 8
b = 12

Use these answers to calculate 3 chews = 3 x 8 = **24p**

5 bubblies= 5 x 12 = **60p**

Keyword/ Skill	Definition/tip
Simultaneous Equation	A pair of equations with two unknown variables. Both equations need to be solved at the same time (simultaneously)
Eliminate	To remove a variable in order to help solve the equation.
Substitution	When a letter in an equation, expression or formula is replaced by a number, we have substituted the number for the letter.
Variable	A symbol for a number that we don't know yet. Often this is a letter such as x or y.
Coefficient	The number in front of an unknown quantity (the letter) in an algebraic term.

<u>Other topics/Units this could appear in</u>:

- Simultaneous equations
- A-level
- Core – algebra and functions
- Statistics- statistical distributions

<u>Exam Tips</u>

- You will gain 1 mark by correctly starting a process to eliminate a coefficient.

Year 9 Maths – Unit A10 – Advanced Linear Graphs and Equations

Example

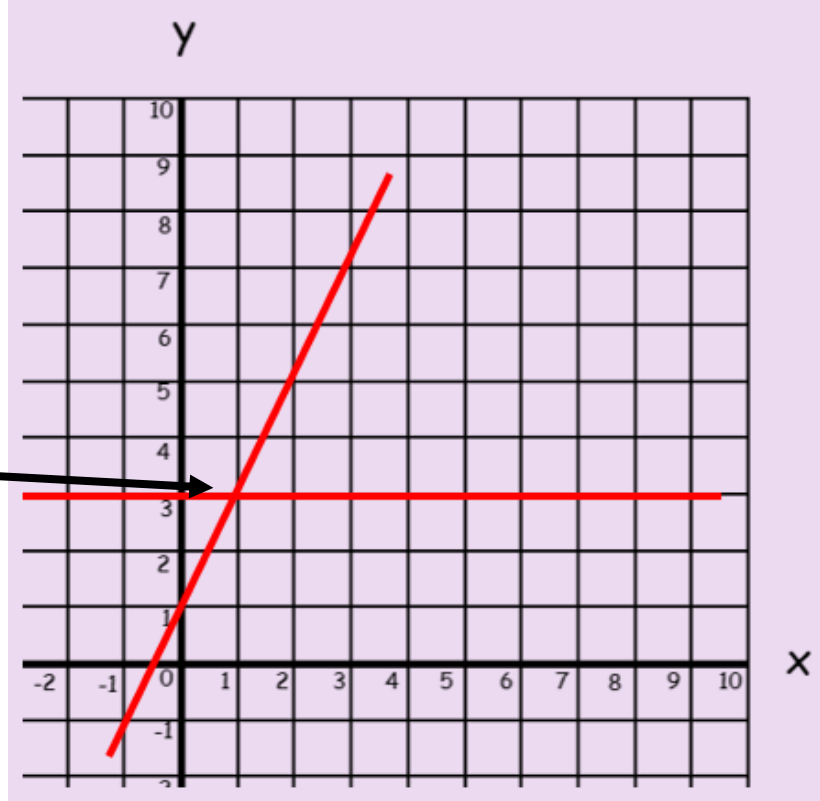
Solve the following simultaneous equations graphically

y = 2x + 1
y = y = 3

Step 1- Draw the line y = 2x + 1

Step 2- Draw the line y = 3

Step 3 - Your solution is the coordinates where the lines cross



Coordinates = (1, 3)

x = 1
y = 3

Keyword/ Skill	Definition/tip
Simultaneous Equation	A pair of equations with two unknown variables. Both equations need to be solved at the same time (simultaneously)
Eliminate	To remove a variable in order to help solve the equation.
Substitution	When a letter in an equation, expression or formula is replaced by a number, we have substituted the number for the letter.
Variable	A symbol for a number that we don't know yet. Often this is a letter such as x or y.
Coefficient	The number in front of an unknown quantity (the letter) in an algebraic term.

<u>Other topics/Units this could appear in</u>:

- Simultaneous equations
- A-level
- Core – algebra and functions
- Statistics- statistical distributions

Further questions relating to this topic may include solving simultaneous equations graphically when **one equation is linear and the other is quadratic**. As with the example above, you would draw the graph of the equations and look for where your straight line crosses two parts of the quadratic curve.

<u>Exam Tips</u>

- If you need to draw your own straight line graph you will gain marks for that
- If the graph has been drawn for you LOOK at where the lines cross.

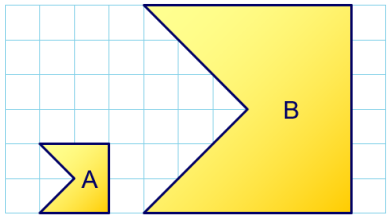
Year 9 Maths – Crossover Unit 46 - Similarity and Congruence

Before progressing through this section of work, you may find it useful to look back at **Crossover Unit 44 – Constructions** knowledge organiser.

DON'T FORGET

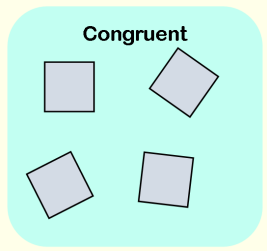
Enlargements make the object bigger or smaller.
Scale factors tell us how much bigger or smaller.

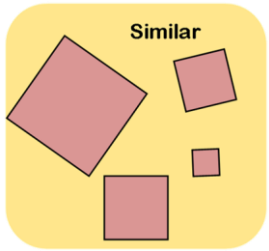
An enlarged shape will ALWAYS produce a **similar** pair of shapes.



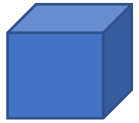
Shape A has been enlarged by a scale factor of 3 (al sides multiplied by 3) but all the angles will remain the same.

Similarity Vs. Congruence





Length, Area & Volume Scale Factor

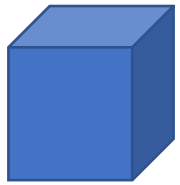


4cm

Linear scale factor = 3

Area scale factor = 3^2 = 9

Volume scale factor = 3^3 = 27

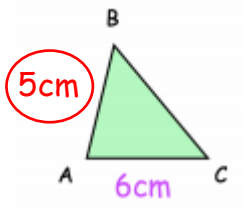


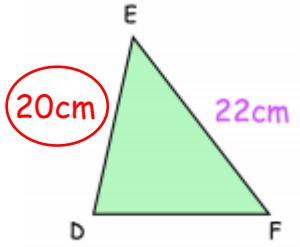
12cm

Example

Volume = 64cm^3 → 64 x 27 → Volume = 1728cm^3

Finding and Using a Scale Factor





In order to find length DF
Write two of the corresponding sides as a ratio = AB : DE
5 : 20
1 : 4

Simplify

With a scale factor of 4

This is the scale factor

To find DF- look at the corresponding length AC = 6cm
6 x 4 = **24cm**

Rules for Congruent Triangles

If each of the three identified measurements (in the diagrams below) are equal, then the triangles are congruent.

SSS *(Side – Side – Side)*

3 sides are respectively equal

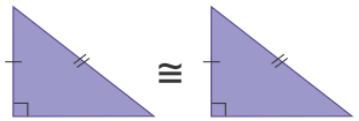
SAS *(Side – Angle – Side)*

2 sides and the included angle are respectively equal

ASA *(Angle – Side – Angle)*

2 angles and the included side are respectively equal

RHS *(Right angle – Hypotenuse – Side)*



Hypotenuse and one side are respectively equal

Keyword/ Skill	Definition/tip
Similar	Two shapes are **similar** when one can become the other after a **resize**, flip, slide or turn.
Congruence	Two shapes are congruent if they are exactly equal in size and shape.
Scale factor	The ratio by which a length or other measurement is increased or decreased.
Ratio	A ratio shows the relative sizes of 2 or more values.
Enlargement	When a shape/length changes size (bigger or smaller) using a scale factor.
Compass	Piece of mathematical equipment 
Construction	Use ruler, pencil, protractor and/or compasses to accurately draw a given shape.

Other topics/Units this could appear in:

- Transformation
- Construction

Exam Tips

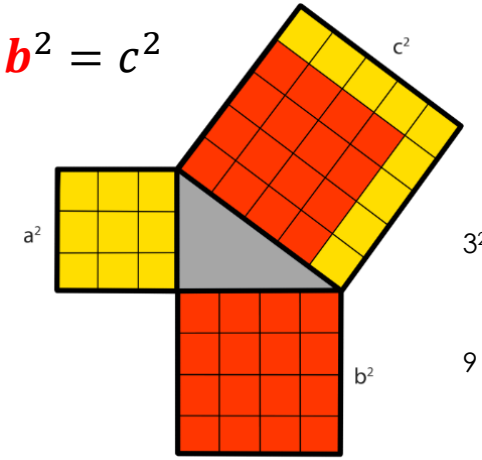
- To help you start similarity questions you will need to find the scale factor.
- You will gain a mark for recognising and using area and volume scale factor.

Year 9 Maths – Unit GM5 – Right-Angled Triangles

PYTHAGORAS

Pythagoras' Theorem: $a^2 + b^2 = c^2$ Where c is the hypotenuse.
a and b can be either of the two shorter sides.

$$a^2 + b^2 = c^2$$



$3^2 + 4^2 = 5^2$

$9 + 16 = 25$

You can use the theorem to calculate the length of the hypotenuse (the longest side)

$$a^2 + b^2 = c^2$$

You can rearrange the theorem to calculate the length of the shorter sides

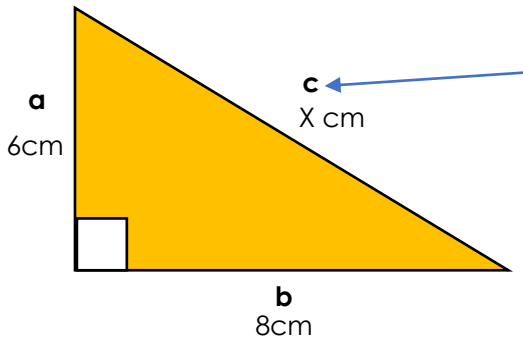
$$a^2 = c^2 - b^2$$

OR

$$b^2 = c^2 - b^2$$

Example of calculating the hypotenuse:

Calculate the value of x:



Label the sides of your triangle with a, b and c.
The hypotenuse must be labelled c.
The other sides can be labelled a and b (it doesn't matter which way round these are).

Substitute the lengths you have into this formula:

$a^2 + b^2 = c^2$

$6^2 + 8^2 = c^2$

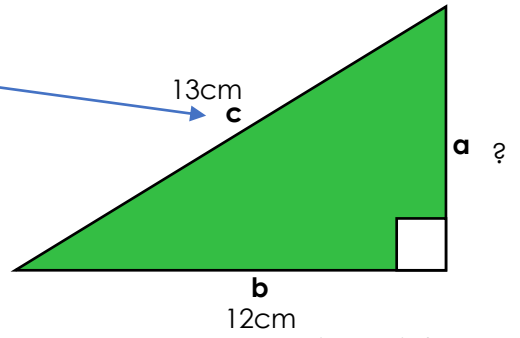
$36 + 64 = 100$

$100 = c^2 \Rightarrow \sqrt{100} = c \Rightarrow 10cm = c$

Don't forget, this is c^2. We want to calculate c so we need to square root!

Example of calculating the shorter sides:

Calculate the value of the missing side:



Substitute the lengths you have into this formula:

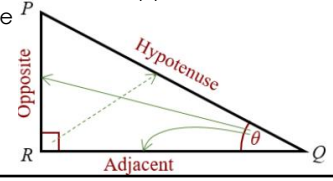
$a^2 = c^2 - b^2$

$a^2 = 13^2 - 12^2$

$a^2 = 169 - 144$

$a^2 = 25 \Rightarrow a = \sqrt{25} \Rightarrow a = 5cm$

Don't forget, this is a^2. We want to calculate a so we need to square root!

Keyword/Skill	Definition/Tips
Pythagoras	A Greek mathematician. He is famous for proving a theorem about the right-angle triangle.
Pythagoras' Theorem	In a right-angled triangle the square of the long side (**hypotenuse**) is equal to the sum of the squares of the other two sides.
Hypotenuse	The longest side of a right-angled triangle. It is always opposite the right angle.
Adjacent & Opposite	Adjacent side – Next to the marked angle Opposite side – Opposite the marked angle 
Trigonometry	Trigonometry is the study of triangles: their angles, lengths and more.
Trigonometric Ratios/Functions	The special measurements of a right-angled triangle: **Sin**/Sine **Cos**/Cosine **Tan**/Tangent
Inverse Trig Functions	You use these when calculating angles: $Sin^{-1}(x)$ $Cos^{-1}(x)$ $Tan^{-1}(x)$
Sin/Sine	The ratio of the length of the **opposite** side to the length of the **hypotenuse**
Cos/Cosine	The ratio of the length of the **adjacent** side to the length of the **hypotenuse**
Tan/Tangent	The ratio of the length of the **opposite** side to the length of the **adjacent** side

Other Topics/Units this could appear in:

- Graphs of trigonometric functions.
- Further trigonometry.
- Appears throughout A-Level in the Core and Mechanics Units

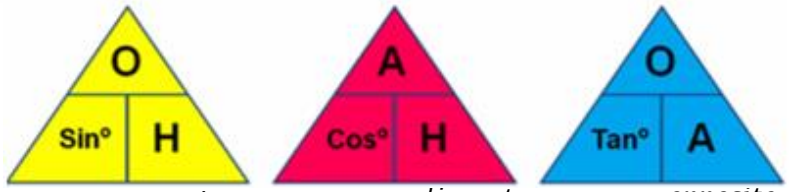
Year 9 Maths – Unit GM5 – Right-Angled Triangles

TRIGONOMETRY

Trig Ratios

Sin **Cos** **Tan**

SOH CAH TOA

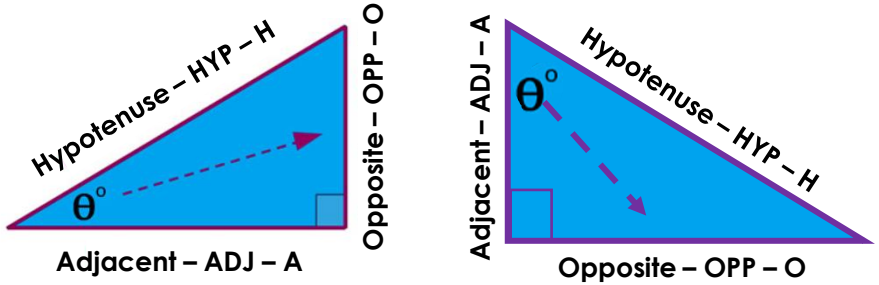


$$\sin(\emptyset) = \frac{opposite}{hypotenuse} \quad \cos(\emptyset) = \frac{adjacent}{hypotenuse} \quad \tan(\emptyset) = \frac{opposite}{adjacent}$$

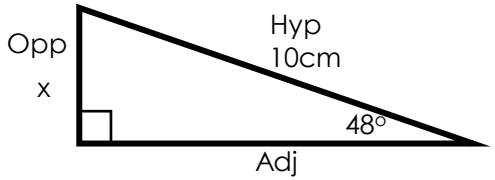
When you are calculating angles it will involve the inverse trig functions:

$Sin^{-1}(x)$ $Cos^{-1}(x)$ $Tan^{-1}(x)$

Your first step in a trigonometry question is to label the triangle's sides.
The three sides are the **hypotenuse, opposite & adjacent** sides.
The **hypotenuse** side is always the longest side.
The **opposite** and the **adjacent** depend on the given angle:

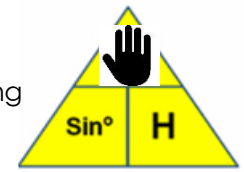


Ex1: Calculate the value of x:



Remember your first step is label the sides!

I am given an angle and a length. I have the hypotenuse and am looking for the opposite.
This means it involves **SOH**



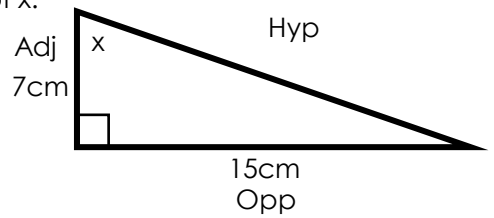
I then cover the O as I am looking for the opposite side.
This means I need to do:

$opposite = Sin(x) \times hypotenuse$

$opposite = Sin(48°) \times 10$ = 7.43cm (rounded to 2 d.p.)

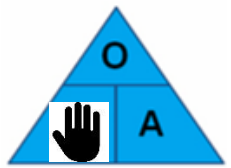
Ex2: Calculate the value of x:

Remember your first step is label the sides!



am given two lengths, the opposite and adjacent sides, and need to find an angle. This means it involves **TOA**

I then cover Tan° as I am looking for the angle.
This means I need to do:



$$Tan(x°) = \frac{opposite}{adjacent}$$

$$Tan(x°) = \frac{15}{7}$$

This is what Tan(x°) is equal to. We want just the angle. I need to use Tan^{-1}

$Tan^{-1}\left(\frac{15}{7}\right) = 64.98°$ (rounded to 2 d.p.)

Keyword/Skill	Definition/Tips
Pythagoras	A Greek mathematician. He is famous for proving a theorem about the right-angle triangle.
Pythagoras' Theorem	In a right-angled triangle the square of the long side(**hypotenuse**) is equal to the sum of the squares of the other two sides.
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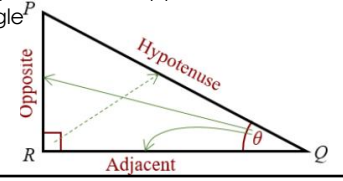
Adjacent & Opposite	Adjacent side – Next to the marked angle Opposite side – Opposite the marked angle 
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Other Topics/Units this could appear in:

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- Further trigonometry.
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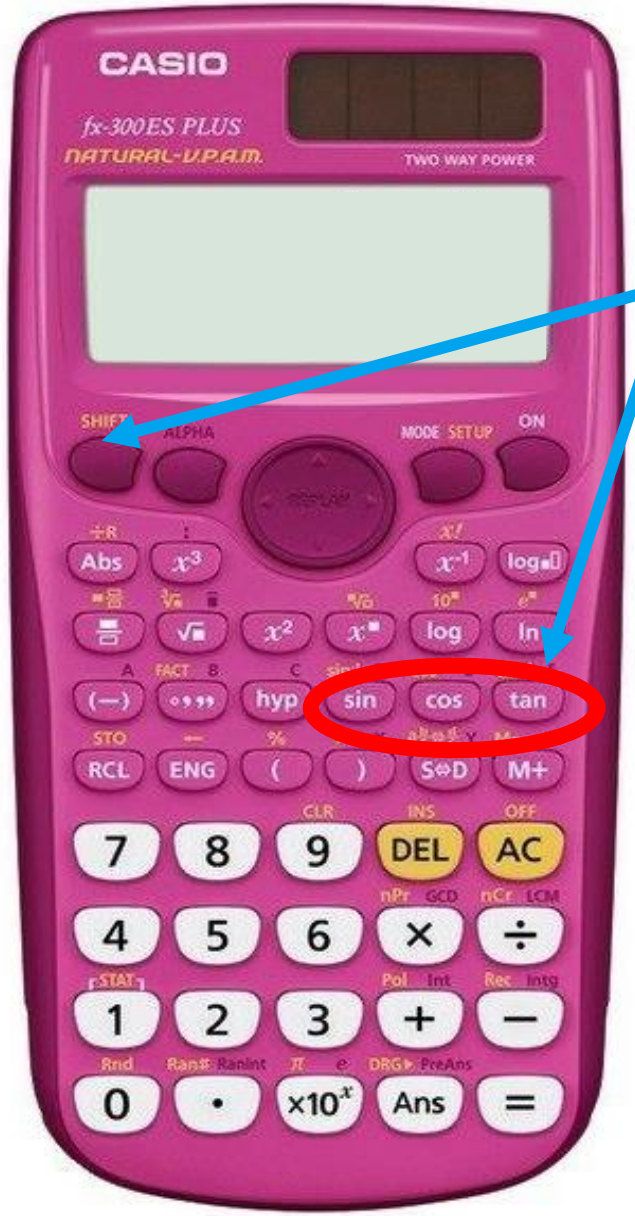
Year 9 Maths – Unit GM5 – Right-Angled Triangles

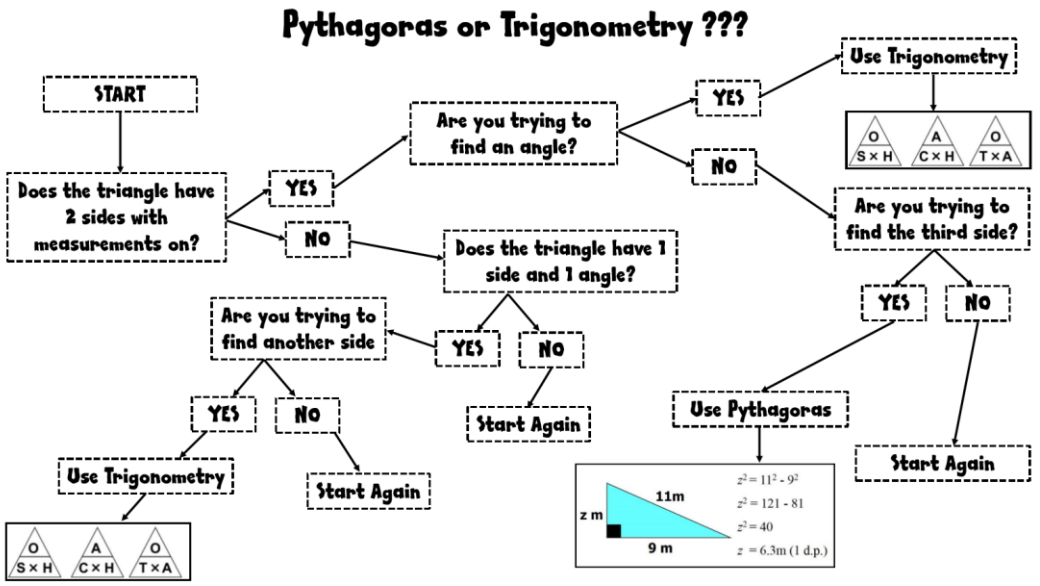


Calculator Help

Here are the **trig functions** on your calculator. You use these ones when you are finding a length.

To get the **inverse trig functions** you need to press the SHIFT button first before you press the function you need. You use these ones when you are finding an angle.

Pythagoras or Trigonometry



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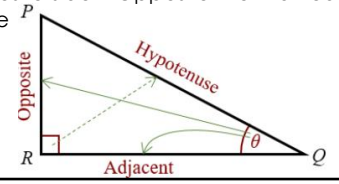
Adjacent & Opposite	Adjacent side – Next to the marked angle Opposite side – Opposite the marked angle 
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Year 9 – Science – Chemistry Topic 5-7 - Chemical Bonding

Ionic	Particles are oppositely charged ions	Occurs in compounds formed from metals combined with non metals.
Covalent	Particles are atoms that share pairs of electrons	Occurs in most non metallic elements and in compounds of non metals.
Metallic	Particles are atoms which share delocalised electrons	Occurs in metallic elements and alloys.

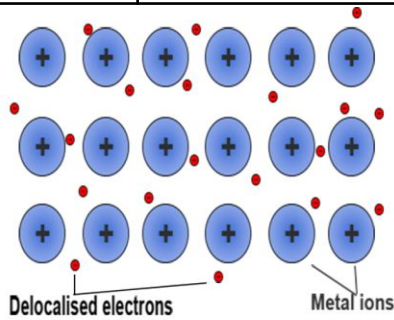
Keyword	Definition
Ionic bond	A strong electrostatic force of attraction between oppositely charged ions.
Covalent bond	The bond formed when a pair of electrons is shared between two atoms.
Metallic bond	The type of bonding found in metals. Positively charged ions in a 'sea' of negatively charged electrons.
Lattice Structure	An arrangement of many particles that are bonded together in a fixed, regular, grid-like pattern
Melting point	The temperature at which a substance changed fro the solid state to the liquid state when heated, or from the liquid state to solid state when cooled.
Boiling point	The temperature at which a substance changed from a liquid to a gas.
Charge	Also known as electric charge, is a characteristic of a unit of matter that expresses the extent to which it has more or fewer electrons than protons.
Electrical conductivity	Allowing electricity to pass through.
Aqueous solution	A mixture that is formed when a substance is dissolved in water.
Molten	A substance that has been liquefied by heat.
Electron pair	Two electrons occupying the same orbital in an atom or molecule, especially forming a nonpolar covalent bond between atoms.

Keyword	Definition
Ion	An atom with an electric charge, caused by the loss or gain of electrons.
Cation	A positively charged ion.
Anion	A negatively charged ion.
Electrostatic force	The attractive or repulsive force between two electrically charged objects.
Attraction	The electric force that acts between oppositely charged bodies, tending to draw them together.
Intermolecular force	Forces of attraction which act between molecules.
Atom	The smallest unit into which matter can be divided without the release of electrically charged particles.
Element	An element is a substance whose atoms all have the same number of protons.
Compound	A substance formed when two or more chemical elements are chemically bonded together.
Transfer	Movement of a particle from one place to another.
Share	Two bodies having equal portions distributed between the two.
Delocalised electron	An electron that is not associated with a particular atom within a shell, or held in a covalent bond.
Proton	A particle found in the nucleus of an atom, having a positive charge and the same mass as a neutron.
Neutron	A particle found in the nucleus of an atom having zero charge and a mass of 1.
Electron	A tiny particle with a negative charge and very little mass.
Shell	Area around a nucleus that can be occupied by electrons and usually drawn as circles.
Nucleus	The central part of an atom or ion.

Year 9 – Science – Chemistry Topic 5-7 - Chemical Bonding

Metallic bonding

Giant structure of atoms arranged in a regular pattern	Electrons in the outer shell of metal atoms are delocalised and free to move through the whole structure. This sharing of electrons leads to strong metallic bonds.

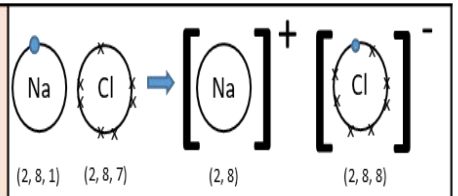
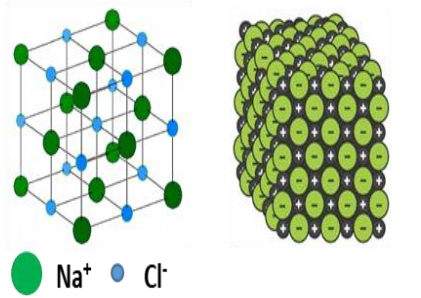


High melting and boiling points	This is due to the strong metallic bonds.
Pure metals can be bent and shaped	Atoms are arranged in layers that can slide over each other.
Good conductors of electricity and heat	Delocalised electrons transfer energy.

Ionic bonding

High melting and boiling points	Large amounts of energy needed to break the bonds.
Do not conduct electricity when solid	Ions are held in a fixed position in the lattice and cannot move.
Do conduct electricity when molten or dissolved	Lattice breaks apart and the ions are free to move.

Electrons are transferred so that all atoms have a noble gas configuration (full outer shells).	*Metal atoms lose electrons and become positively charged ions*	Group 1 metals form +1 ions Group 2 metals form +2 ions
	Non metals atoms gain electrons to become negatively charged ions	Group 6 non metals form -2 ions Group 7 non metals form -1 ions

Dot and cross diagram	
Giant structure	

Structure	• Lattices consist of a regular arrangement of atoms • Held together by strong electrostatic forces of attraction between oppositely charged ions • Forces act in all directions in the lattice

-ide	If a compound name ends in –ide, it usually contains only two elements.	For example: calcium + oxygen → calcium oxide
-ate	If a compound name ends in -ate, it usually contains three or more elements one of which is always oxygen.	For example: Calcium + carbon + oxygen → calcium carbonate

Year 9 – Science – Chemistry Topic 5-7 - Chemical Bonding

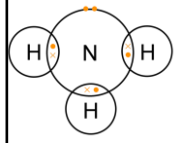
Covalent bonding

Simple molecular compounds

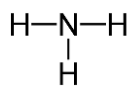
Low melting and boiling points	Small amounts of energy needed to overcome the intermolecular forces.
Poor conductors of electricity	No free electrons to transfer energy.
Size of atoms and molecules	Simple molecular structures consist of atoms joined by strong covalent bonds. This means that atoms are smaller than simple molecules.

Atoms share pairs of electrons

Can be small molecules e.g. ammonia



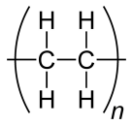
Dot and cross :
+ Show which atom the electrons in the bonds come from
- All electrons are identical



2D with bonds:
+ Show which atoms are bonded together
- It shows the H-C-H bond incorrectly at 90°

3D ball and stick model:
+ Attempts to show the H-C-H bond angle is 109.5°

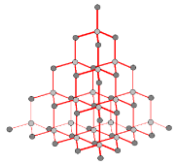
Can be giant covalent structures e.g. polymers



Simple polymers consist of large chains of hydrocarbons.

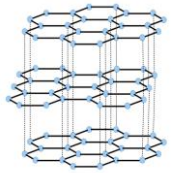
Giant covalent structures

Diamond

Each carbon atom is bonded to four others		Very hard.	Rigid structure.
		Very high melting point.	Strong covalent bonds.
		Does not conduct electricity.	No delocalised electrons.

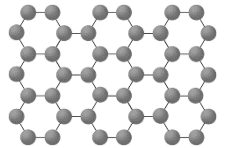
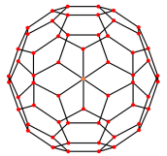
Used for cutting tools due to being very hard.

Graphite

Each carbon atom is bonded to three others forming layers of hexagonal rings with no covalent bonds between the layers		Slippery.	Layers can slide over each other.
		Very high melting point.	Strong covalent bonds.
		Does conduct electricity.	Delocalised electrons between layers.

Used for electrodes as is inert.

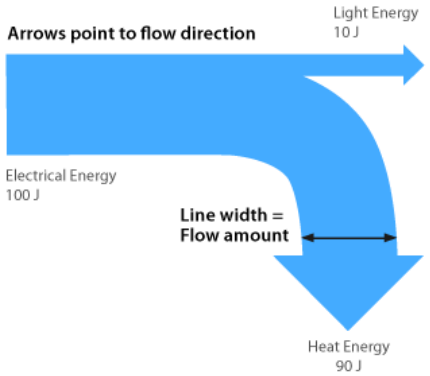
Graphene and fullerenes

Graphene	 Single layer of graphite one atom thick	Excellent conductor.	Contains delocalised electrons.
		Very strong.	Contains strong covalent bonds.
Fullerenes		Buckminsterfullerene, C_{60} First fullerene to be discovered.	Hexagonal rings of carbon atoms with hollow shapes. Can also have rings of five (pentagonal) or seven (heptagonal) carbon atoms.
Diamond, graphite, silicon dioxide		Very high melting points	Lots of energy needed to break strong, covalent bonds.

Year 9 Science – Physics – Topic 1 – Conservation of Energy

Energy Type	Example
Light Energy	Sun, light bulb, torch
Thermal Energy (heat)	Oven, electric fire
Sound Energy	Radio, speakers, TV
Electrical Energy	Electric car, laptop
Nuclear Energy	Nuclear power station, nuclear bomb
Chemical Energy	Food, batteries, coal
Gravitational Potential Energy	Book on a shelf, boulder on a cliff
Elastic Potential Energy	Bow, wind-up toy, stretch spring
Kinetic Energy (movement)	Person running, rolling ball

heating	Put more jumpers on and turn off central heating
Hot water	Take showers, only boil the amount of water you need
Electrical appliances	Turn off devices that are on standby
Washing clothes	Air dry clothes, wash on a lower temperature
Heat lost from home	Install insulation – double glazing, loft/floor insulation



Energy Efficiency = Useful energy / total energy input

Renewable Energy	Quickly replenishes its energy used. Infinite	Wind power, solar power, hydroelectric power, tidal power, geothermal power, biomass
Non-renewable Energy	Is finite (will run out). Does not quickly replace energy used	Fossil fuels – coal, oil and natural gas Nuclear power

Energy Source	Advantages	Disadvantages
Fossil Fuels	Cheap to set up, power stations already present	Limited (will run out), causes pollution – greenhouse gases and gases that make acid rain, running costs
Nuclear power	Does not produce carbon dioxide or sulphur dioxide	Finite (will run out) danger from radioactive material
Wind power	Infinite, cheap to run, no pollution, cheap to run	Costly to build, only works when windy, noisy and ugly
Tidal power	Good for islands, potential to generate lots of energy, reliable – tide will always go in and out, doesn't release pollution	Costs a lot to build, hard to find suitable locations, could damage environment
Solar power	Infinite, building can have their own power supply, doesn't release pollution, cheap to run	Expensive to set up, only works when sunny
Geothermal power	Doesn't create any pollution, potentially infinite	Expensive to set up, only works in volcanic areas, volcanic activity may stop making station useless
Hydroelectric power	Doesn't create pollution, creates water reserves	Costly to build, can cause flooding, can have major ecological impacts
Biomass	Cheap, if replaced can be sustainable	Burning releases atmospheric pollution, replanting required

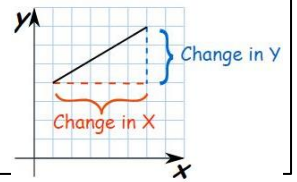
Keyword	Definition
Chemical	Energy store that is emptied during chemical reactions when energy is transferred to the surroundings.
Conduction	The transfer of heat by passing on energy (or electrical charge) to nearby particles.
Convection	The process by which heat travels through fluids (gases and liquids).
Elastic potential	An energy store that is filled when a material is stretched or compressed.
Electrical	Energy store resulting from the movement of electrical charge (electrons).
Energy	This is the ability to make something happen when it is transferred.
Gravitational potential	Energy store that is filled when an object is raised.
Joule	Unit of energy, represented by the symbol J.
Kinetic	An energy store filled when a moving object speeds up.
Light	A form of radiation that can transfer energy in a wave.
Non-renewable	An energy resource that will be used up, and not replenished in our lifetime.
Nuclear	An energy store associated with nuclear interactions.
Radiation	Radiation is the transfer of internal energy in the form of electromagnetic waves. This radiation lies in the infrared region of the electromagnetic spectrum. It does not require particles to move, it can travel through a vacuum.
Renewable	An energy resource that can be readily replenished in our lifetime.
Sound	A form of energy transferred by sound waves.
Thermal	An energy store that is filled when an object is heated.
Transformation	Energy transformation is the process of changing one form of energy to another.

Year 9 Science – Physics – Topic 3 – Motion

Scalar	Vector
Distance	Displacement
Speed	Velocity
Power	Momentum
Mass	Acceleration
Volume	Weight
Temperature	
Force	
Pressure	

Calculating a gradient

Gradient = $\frac{Change\ in\ y}{Change\ in\ x}$



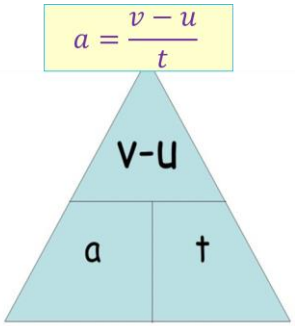
Calculating acceleration

Acceleration is the rate of change of velocity

Acceleration (m/s/s) = $\frac{Change\ in\ velocity\ \text{(m/s)}}{time\ taken\ \text{(s)}}$

$a = \frac{v-u}{t}$

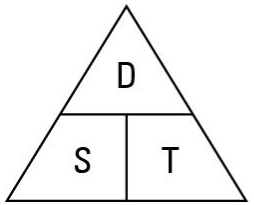
a= acceleration
v= final velocity
u= initial velocity
t= time



Calculating speed/velocity

Speed *(m/s)* = ***distance*** *(m)* ÷ ***time*** *(s)*

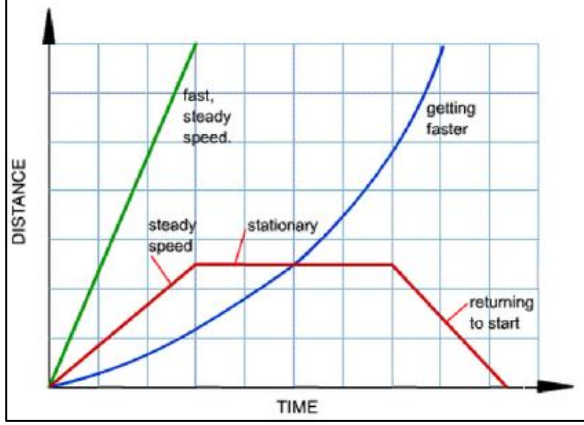
How to remember the equation?
"Don't Step on Turtles"



D = S × T
S = D ÷ T
T = D ÷ S

Distance-time graph

Key features:

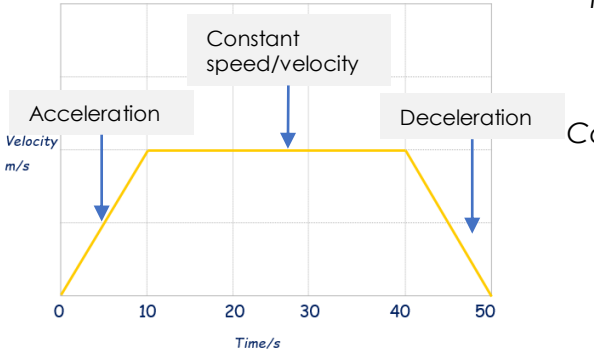


You can calculate speed from this distance-time graph.

Steeper gradient= faster speed.

Velocity-time graph

Key features:



You can calculate acceleration from this velocity-time graph.

*Calculating the **area beneath the lines**, is the same as the **overall distance travelled***

Steeper gradient= faster acceleration.

Speed	Scalar measurement that shows how fast an object is moving. Measure in m/s (meters per second).
Velocity	Vector measurement that shows how fast an object is moving in a specific direction. Measured in m/s (meters per second).
Distance	Measurement of how far an object is moving/has moved. Measured in m (meters).
Time	Measurement of time. Measured in s (seconds).
Acceleration	When an objects speed increases over time.
Conversion	Changing a measurement to another form.
Deceleration	When an objects speed decreases over time.
Scalar	A measurement that shows magnitude only.
Vector	A measurement that shows magnitude and direction.
Plateau	A straight horizontal line on a graph.
Gradient	Difference between two values, shown by a incline or decline on a line graph.
Constant	When something does not change. Shown by a straight line on a line graph.
Magnitude	Another term used for size.
Direction	The course which an object is moving. We show North, West, East, South or a combination of two.
Initial	The beginning.
Final	The end.
Displacement	A vector measurement to show the shortest distance to the final place an object ends up.

YEAR 9 Art - COLOUR INVESTIGATION KO

This half term focus – Endangered animals, colour theory, pattern– using a range of media and techniques

Key Knowledge 1 – AO1: Developing ideas.

- Looking at artist's designers and craftspeople to help inspire and develop your own work.
- Showing that you can analyse art using technical vocabulary and that you understand the cultural context to the art.

How do I present my work for assessment?
All work will be presented with care, accuracy and neatness.
(See high grade modelled example.)

Key Knowledge 2: AO2: Experiment and refine ideas.

- Using lots of different materials and media that relate to your theme.
- Experiment to find out what works and what doesn't.
- Use feedback effectively to Improve your work as it progresses.

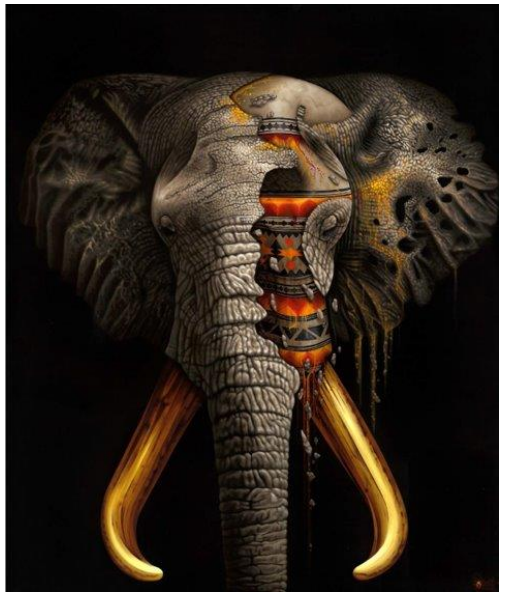
Key Knowledge 3: Record observations.

- Colour pencil drawing
- Watercolour painting
- Oil Pastel drawing
- Mixed media artist copy

Wider Thinking:
Endangered Animals Independent research task

Expert modelling example:

Pencil crayon observation

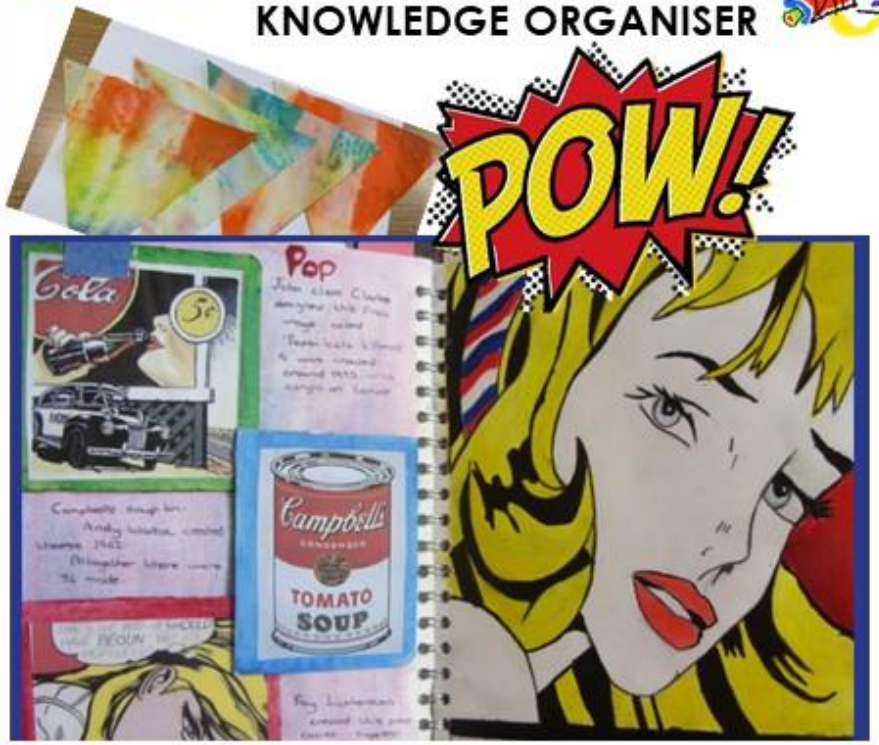


Artist reference image

Stretch and Challenge:
Use materials and techniques with a high level of skill and control. Record finer surface textures and details.

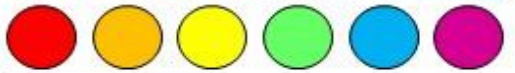
Keyword	Definition
Observational drawing	Drawing from looking at objects or photographs.
Colour	Colour has the strongest effect on our emotions. It is the element we use to create the mood or atmosphere of an artwork.
Directional	Shading that follows the contours of the form to create a 3D effect.
Describe	Give a clear description that includes all the main features – think of it as 'painting a picture with words'.
Gradient	Is a visual technique of gradually transitioning from one shade to another, or one texture to another.
Analyse	Finding out what the main features suggest and deciding why the artist used such features to convey specific ideas.
Investigate	Test the qualities of materials, techniques or processes through practical work.
Skilful	Apply materials, techniques and processes with a high level of understanding, ability and control.
Refine	Improve work taking into account feedback and aims.
Formal Elements: Shape, texture, tone, form, colour.	Key words that can be applied and used to describe 2D and 3D art and design.

Y9 TEXTILES POP ART KNOWLEDGE ORGANISER



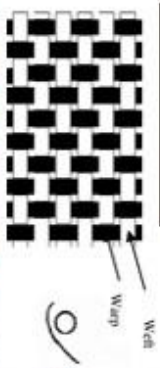
What is Shibori?
Shibori is a Japanese term for several methods of dyeing cloth and creating a pattern by binding, twisting, folding and compressing it. It can create interesting colours as well as textures.

Shading Techniques

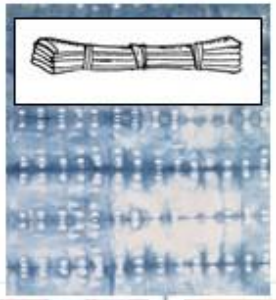


Watercolour and oil pastel

Weaving



Batik



Draw design onto fabric

Trace with wax *(glue)* using **Tjanting** tool.

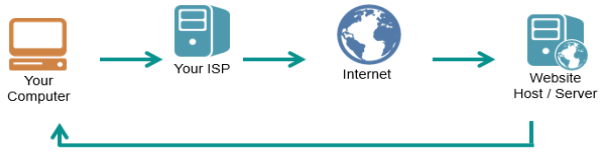
Paint with fabric dye.

Iron to melt wax away. *(Peel glue)*

Keyword	Definition
Influence	Something or someone that influences a person or thing, then, has an influence on that person or thing.
Texture	The feel, appearance or consistency of a substance, substance or fabric.
Batik	Method of producing coloured designs on textiles by dyeing them, having first applied wax to the parts to be left undyed.
Tjanting Tool	An arrangement of images, materials, pieces of text, etc. intended to evoke or project a particular style or concept.
Tie - Dye	A hand method of producing patterns in textiles by tying portions of the fabric or yarn so that they will not absorb the **dye**.
Fabric Pastel	Blending and mark making of pastels on fabric. Use water to blend colours and create gradients of colour.
Weaving	The craft or action of forming fabric by interlacing threads.
Artist Copy	Analyse an artists' work and replicate the piece using the same techniques, media, colours and style.

Year 9 – Computing – HTML: Web Design

The Internet



Possible Careers:
- Web designer
- Data Analyst
- Programmer

The Internet also known as WWW which stands for **World Wide Web** is a network of online content formatted in a code called HTML. These are interlinked HTML pages that can be accessed over the Internet.

It provides space for a wide range of information like documents, content and videos

(1) When connecting a computer to a website, the user needs to have an internet service provider which is also known as an ISP.
(2) The ISPs are responsible for making sure you can access the Internet, routing Internet traffic, resolving domain names, and maintaining the network infrastructure.
(3) The website host server stores the webpages for individuals and organisations. Websites are **hosted**, or stored, on special computers called **servers**

Hyperlinks

A **hyperlink**, or simply a link, is a link from a document to another document or part of the document that the user can follow by clicking or tapping on.

Keywords	Definition
Tag/s	are the hidden keywords within a web page that define how your web browser must be formatted and displayed e.g. **<title>**
Html	Stands for **Hypertext Markup Language** is the standard markup language for documents designed to be displayed in a web browser
Http	transfers web pages from web servers to the client. All web page addresses start with http
Code	Is the set of instructions forming a computer program which is executed by a computer
CSS	**Cascading style sheets** are used to format the layout of Web pages
Webpage	are HTML documents that present images, sound and text accessed through a web browser

Year 9 – Computing – HTML: Web Design

```
<!DOCTYPE html>
<html>
<head>
<title>My First Webpage</title>
</head>
<body>
<h1>My First Heading</h1>
<p>My first paragraph.</p>
</body>
</html>
```

CSS Script	Definition – What does it do?
Colour	Font colour
Text-align	Horizontal alignment
Background – Colour	Changes background colour
Background – Image	Change background image
Background - Repeat	Changes the background to stay in place or move when scrolled

HTML TAG	Definition – What does it do?
<html>	Root of a HTML document
<boy>	Content of the page
<head>	Information about a page
<title>	Tab title/ defines title
<h1>, <h2>, <h3>	Headings
<p>	Paragraphs
<img>	Image
<a>	Anchor (used in hyperlinks with href)
/	Ordered/unordered list
	List item
<table>	Creates and defines tables
<tr>	Table row
<td>	Table data
	Divider

Year 9 – Computing – Python Project

Analyse
- Inputs, Outputs, Processing
- Programming Techniques

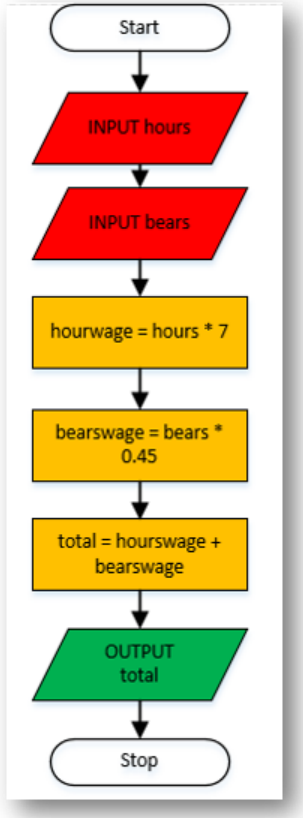
Design
- Flow Chart
- Pseudo Code

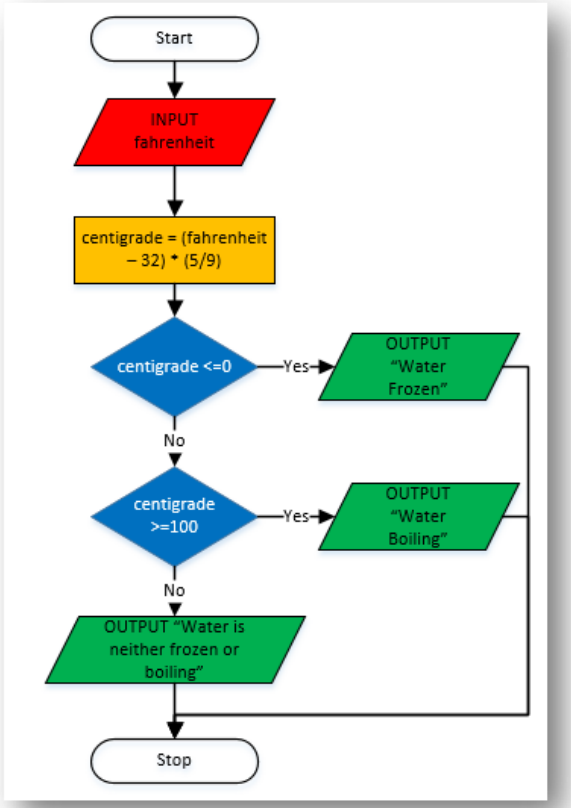
Develop
- Python Code
- Development Diary

Testing
- Testing Table

Evaluate
- Evaluation
- Code
- Bibliography

- **Inputs** (things user types in)
- **Processes/Calculations** (what the program works out)
- **Outputs** (what gets printed out)
- **Decisions** (what options or choices can the user/program make)





Year 9 – Computing – Python Project

Maintainable code: Code that is written in a way that can be easily maintained/edited be the author or other developers. Ways to do this are:

- Meaningful **variable names**
- Detailed code **comments**
- **Well laid out** code, grouped in sections
- Consistent use of **indentation**

Robust code: Code that is written in a way that makes it much harder for the user to crash/break the code. Ways to do this are:

- Clear **user instructions**
- Input **validation**
- User **logins**

Efficient code: This is where you try to make the code as efficient as possible using these guidelines:

- Code **isn't repeated** unnecessarily
- Make use of **subroutines**
- Use a **range of programming techniques**

Normal data - sensible, valid **data** that the program should accept and be able to process.

Boundary data - valid **data** that falls at the **boundary** of any possible **ranges**.

Erroneous data - invalid **data** that the program cannot process and should not accept.

Test tables are used to provide a structure to **testing**. Programmers will often create a **table** with a selection of normal, extreme and exceptional data that they intend to **use** during **testing**.

Test	What am I testing?	What data will I use?	Normal/ Boundary/ Erroneous?	Expected result	What happened?	Any changes ?
1	*the user has to enter their name*	*"Adam"*	*Normal*	*it asks the user "username:"*	*It worked*	*no*
2	*randomly picks the film*	-	*Normal*	*Three random films appear*	*It only showed 2*	*Check random loop*

Year 9 – Computing – Python Project

Variables

- Variables are for storing values in memory.
- A variable is declared (set up) and values are assigned.
- Variables are assigned a value using the = operator.
- It chooses the bets data type for the value.

- No spaces in names but can use under_score or camelCase.
- No numbers at start of variable names.

```
myvariable = 28

x = 3

name = "Bob"

my_wage = 3.5

favCol = "red"
```

Comments

- Comments are for explaining lines of code or while sections.

```
x = 3  #can comment at the side

#or comment above
house = "open"
```

Print

- Print information to the screen.
- Can be text, numbers or values in variables.

```
print("hello world")

print(12)

print(name)
```

Input

- Allows user to type in data and store in a variable.
- User prompt requires the " ".

- May need to convert data type.

```
variable = input("message")

name = input("please enter your name")

age = int(input("please enter your age"))
```

Data Types

Real /Float
Number with decimal Point

Integer
Number without a decimal Point

String
A series of characters/TEXT

Character
A single letter or symbol

Date/Time
Date and Time in any format

Boolean
Yes no, true false value

Comparative Operators

==	Equal to
!=	Not equal to
>	Greater than
<	Less than
>=	Greater than or equal to
<=	Less than or equal to

Year 9 – Computing – Python Project

If and elseif statement

- **Allows SELECTION of different paths.**
- **Use of THEN & ENDIF.**
- **MUST include indent of 4 spaces or TAB**
- **ELSE is optional.**

- **Conditions are set using different comparison operators.**

==	Equal to
!=	Not equal to
<	Less than
<=	Less than or equal to
>	Greater than
>=	Greater than or equal to

- **Can use more than 1 condition using Boolean operators.**

AND	Both conditions are True
OR	Either of the conditions is True
NOT	If condition not True

- **Use of ELSEIF allows for further selection.**
- **Can have as many as wanted.**
- **ELSE still optional.**

```
if password ==  "pa55word1":
    print("you may enter")
```

```
if score > 80:
    print ("grade A")
elif score > 70:
    print ("grade B")
elif score > 60:
    print ("grade C")
else:
    print ("redo")
```

```
if password !=  "password1" or tries < 3:
    print("you shall not pass")
else:
    print ("please enter")
```

Careers

- Software development
- Programing
- Software Engineering

Sequence: Completing steps in the order which they must happen

Selection: Where a choice is made in a program depending on a condition or outcome

Iteration: Act of repeating or lopping specific sections of code

Count controlled Iteration: Repeats a set number of times
Condition controlled Iteration: Repeats until a condition is met or something in the program changes

Year 9 – Computing – Python Project

While Loop

Will keep asking the user to type in a value.

```
#--while loop--
password = input("enter password:")

while password !=  "password1":
    password = input("try again")
```

While True (Break)

If the user types in a value that matches 7 the loop will break (end), if not they will be told to try again.

```
#--while True with break--
while True:
    guess = input("guess the number")
    if guess == "7":
        break
    else:
        print ("try again")
```

For Loop

Start at 0 and stop at 7 (up to 7 but not including), print hello each time (7 times).

```
#--for loop--
for i in range(0,7):
    print ("hello world")
```

For Loop (Break)

Start at 0 and stop at 4,
If the user types in a value that matches mypassword the loop will break (end), if not they will be told to try again and have an attempt recorded.

```
#--for with break--
for i in range(0, 4):
    if password  == "password1":
        break
    else:
        password = input("enter password")
```

- Loops are a way for python to do blocks of code more than once
- Without having to keep copying the code
- Blocks of code being repeatedly run is called **iteration**
- Python offers two ways of looping
  - **`while`** loop
  - **`for`** loop

Year 9 – Computing – Python Project

Empty list of 0 spaces.

Arrays with values. Use the , to split up space.

Can be different data types, strings need " ".

```
#--format--
mylist = [ ]

group = ["Tim", "Jane", "Bob"]

ages = [14,11,17,10.5,"Apple",True,False]
```

Print whole array.
Print 1st value in array.
Print 3rd value in array.
Prints from 1st value to 2nd value.

```
#--print--
print(group)
print(group[0])
print(group[2])
print(group[0:2])
```

Update a value to position 3 in array.

Update a value to position 0(start) in array.

```
#--update value--
group[2] = "Mike"

group[0] = "Destiny "
```

Add value to end of array.

Remove first instance of value from array.

Insert a value to a specific position in the array

```
#--adding/remove/insert--
group.append("Fred")

group.remove("Jane")

group.insert(2,"Miya")
```

- An array is like a variable that can hold more than 1 value at once
- Must all be the same data type
- Array can be as big as you want
- Sometimes called lists
- Will need a name/identify
- The index, are the position number
- Always starts at 0
- The spaces are called the elements
- These hold the values/items

Year 9 Drama: Devising – Romeo and Juliet

How to approach a script using prior context:

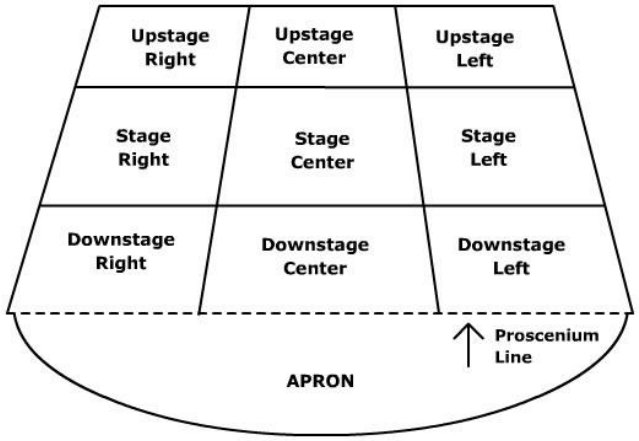
Ask yourself the following questions:

- Who is my character?
- What is their age?
- Where are they right now?
- Who are they with?
- Do you know what happened before this? If no, make an educated guess based on what is happening in the scene,

How to lift safely.

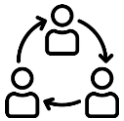
- Begin by deciding on who will lift
- Start slowly and decide on the intention of the lift
- Make sure everyone is safe and happy in the lift
- Ensure everyone is confident in what their role is before going faster.

Stage positions from the audience's perspective:



Steps to a good devised performance.

Collaborate as a group and discuss initial ideas and research



Use the script to decide what the theme of the piece is going to be

Decide which parts of the script you will use and which parts will be turned into physical theatre

Perform confidently

Keyword	Definition
Body Language	Using posture or movement to communicate how your character is feeling.
Collaboration	Working together as a group to create something new
Communication	Exchanging information through speaking, writing, or non-verbal communication.
Concentration	Focussing on the set task.
Elizabethan England	The time in which Shakespeare began writing plays when Queen Elizabeth 1 was on the throne.
Facial Expressions	Showing your emotion through your face.
Focus	Not laughing while you are on stage and staying in character.
Gestures	Using your hands to show the audience where to look through pointing, waving etc.
Physical Theatre	A style of theatre which is dance like and uses movement to convey an emotion
Projection	Using a loud volume to make sure you are heard.
Stage Positions	Where you stand on stage to determine your status at any given time.
Vocal Tone	Showing emotion through your voice.

Samba Music

Year 9 Knowledge Organiser

a. Key Words

Structure- How the sections of the music are put together.
Ostinato- A short repeated rhythmic or melodic pattern.
Ornamentation- Embellishing a melody.
Syncopation- Off beat.
Cross Rhythms- Two different rhythms at the same time.
Polyphonic Texture- More than two different rhythms at the same time.
Sambista- Leader of a Samba ensemble.
Rubato- Fluctuations in the tempo.
Son Clave- A syncopated rhythm in Samba music that has a 2:3 or 3:2 version.
Call and Response- A musical conversation where one instrument plays and another responds.

b. Artists

Bellini

Exaltasamba

Fundo de Quintal

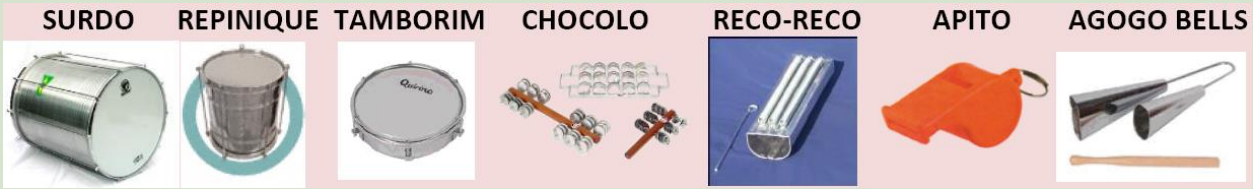
Shakira has been influenced by Samba music

c. History of Samba Music

Samba is a musical genre and dance style with its roots in Africa via the West African slave trade and African religious traditions. Samba is an expression of Brazilian cultural expression and is a symbol of carnival.

d. Typical Instruments in Samba

The instruments of Samba have been influenced by Portuguese colonies who imported slaves from Africa.



Samba Music

Year 9 Knowledge Organiser

e. Rhythm and Metre

Samba music is built around **OSTINATOS** usually 4 or 8 beats long (regular phrases). Each group of instruments can have their own ostinato featuring **OFFBEAT RHYTHMS** and **SYNCOPATION**. Often the **SON CLAVE SYNCOPATED** rhythm is used, either the **2:3** or **3:2**. Samba music is built up of lots of different sections. For each section, the **SAMBISTA** will need to know an **OSTINATO.**

f. Structure

Samba music often starts with an **INTRODUCTION** often featuring **CALL AND RESPONSE RHYTHMS** between the Samba Leader and ensemble. The main Ostinato rhythm of Samba is called the **GROOVE** when all the instruments of the Samba Band play their respective rhythms over-and-over again forming the main body of the piece. The **GROOVE** is broken up by **BREAKS** - 4 or 8 beat rhythms providing contrast and **MID SECTIONS** – one or two instruments change the rhythm of their ostinato and the others stay the same or stop. Sometimes **BREAKS** and **MID SECTIONS** feature a **SOLOIST** who "shows off" their rhythms. The **SAMBISTA** must signal to the group when to change to a different section which is normally done with an **APITO** (Samba Whistle – loud!). A piece of Samba can end with either a **CALL AND RESPONSE** pattern or a pre-rehearsed ending phrase of rhythm. The **FORM AND STRUCTURE** of a piece of Samba may look like the following:

Intro	Groove	Break 1	Groove	Break	Groove	Mid-Section 1	Groove	Break 1	Groove	End

g. Key Features

- Texture varies (monophonic, polyphonic, call and response, cross-rhythms).
- Dynamics are loud.
- Tempo is fast.
- Based on rhythms. Only the different timbres of percussion provide different pitches. No melody.

h. Questions

1. What is the role of the Sambista?
2. What are the two versions of the son clave?
3. What happens in the groove section?
4. Name an artist that has been influenced by Samba music?

Film Music

Year 9 Knowledge Organiser

a. Key Words

Genre - A style or category of art, music, or literature.
Leitmotif - A recurrent theme that is associated with a character.
Theme - A recurring melody that the music is based on.
Soundtrack - The music from a film.
Composer - A person who writes music.
Music Score - The notated version of music.
Cue Sheet - A sheet given to the composer with very precise timings for how they must plan the music to fit the film exactly.
Concords - Music that creates a feeling of resolution.
Discords - Music that creates a feeling of unease.
Storyboard - A sequence of drawings, typically with some directions and dialogue, representing the shots planned for a film or television production.

b. Film Composers


Jerry Goldsmith


John Williams


James Horner


Hans Zimmer


Danny Elfman


Bernard Hermann

c. History of Film Music

Early films had no soundtrack **("SILENT CINEMA")** and music was provided live, usually **IMPROVISED** by a pianist or organist. The first **SOUNDTRACKS** appeared in the 1920's and used existing music **(BORROWED MUSIC –** music composed for other (non-film) purposes) from composers such as Wagner and Verdi's operas and ballets. In the 1930's and 1940's Hollywood hired composers to write huge Romantic-style soundtracks. **JAZZ** and **EXPERIEMENTAL MUSIC** was sometimes used in the 1960's and 1970's. Today, film music often blends **POPULAR, ELECTRONIC** and **CLASSICAL** music together in a flexible way that suits the needs of a particular film.

Film Music

Year 9 Knowledge Organiser

d. Key Features

- **PITCH AND MELODY** – **RISING MELODIES** are often used for increasing tension, **FALLING MELODIES** for defeat. Westerns often feature a **BIG THEME**. **Q&A PHRASES** can represent good versus evil. The **INTERVAL OF A FIFTH** is often used to represent outer space with its sparse sound.
- **DYNAMICS** – **FORTE (LOUD)** dynamics to represent power; **PIANO (SOFT)** dynamics to represent weakness/calm/resolve. **CRESCENDOS** used for increasing threat, triumph or proximity and **DECRESCENDOS** or **DIMINUENDOS** used for things going away into the distance. Horror Film soundtracks often use **EXTREME DYNAMICS** or **SUDDEN DYNAMIC CHANGES** to 'shock the listener'.
- **HARMONY** – **MAJOR** – happy; **MINOR** – sad. **CONSONANT HARMONY OR CHORDS** for "good" and **DISSONANT HARMONY OR CHARDS** for "evil". **SEVENTH CHORDS** often used in Westerns soundtracks.
- **DURATION** – **LONG** notes often used in Westerns to describe vast open spaces and in Sci-Fi soundtracks to depict outer space; **SHORT** notes often used to depict busy, chaotic or hectic scenes. **PEDAL NOTES** – long held notes in the **BASS LINE** used to create tension and suspense.
- **TEXTURE** – **THIN/SPARE** textures used for bleak or lonely scenes; **THICK/FULL** textures used for active scenes or battles.
- **ARTICULATION – LEGATO** for flowing or happy scenes, **STACCATO** for 'frozen' or 'icy' wintery scenes. **ACCENTS (>)** for violence or shock.
- **RHYTHM & METRE** – 2/4 or 4/4 for Marches (battles), 3/4 for Waltzes, 4/4 for "Big Themes" in Westerns. **IRREGULAR TIME SIGNATURES** used for tension. **OSTINATO** rhythms for repeated sounds, *for example horses.*

e. Questions

1. **What is a cue sheet?**
2. **What was the music like in silent films?**
3. **What is a soundtrack?**
4. **When did soundtracks first appear in films?**
5. **How is duration of notes used in Sci-Fi films?**
6. **How are dynamics used in horror music?**

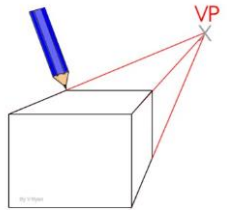
Year 9 What is Design Technology?

Design and technology gives young people the skills and abilities to engage positively with the designed and made world and to harness the benefits of technology.

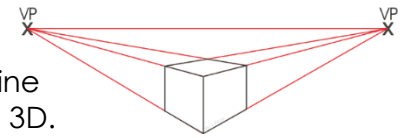
3d Drawing Techniques

3D drawings are used to present ideas so clients are able to understand features more clearly.

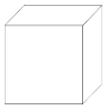
One-Point Perspective:
- Uses one vanishing point
- Used for Room interiors
- Front surface 2D and flat



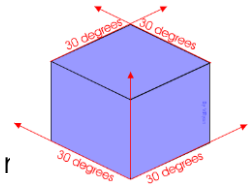
Two-Point Perspective:
- Uses two vanishing points
- Connected by a horizontal line
- Used for developing ideas in 3D.



Oblique Projection:
- Horizontal going backwards drawn at 45 degrees
- Front surface is drawn in 2D
- Looks out of proportion
- Simpler process to isometric drawing



Isometric Projection:
- 30 degree angle is applied to its sides
- In proportion
- All vertical lines parallel to paper
- Drawing Board and isometric set square r



Design Specification: A list of points to state what the product must have to meet the needs:

Possible Sections: Material, Safety, Ergonomics, Environmental, Costing, Manufacture, Finishes, Age Range, Functions,

Material Properties

- DURABLE: able to withstand wear, pressure, or damage; hard-wearing (Wood for a bench)
- STRENGTH: The ability of a material to stand up to forces being applied without it bending, breaking, shattering or deforming in any way (Metal when being shaped for a product)
- TOUGHNESS: A characteristic of a material that does not break or shatter when receiving a blow or under a sudden shock (Wood work bench)
- MALLEABILITY: The ability of a material to be reshaped in all directions without cracking (Metal when casted into a shape)

Design Brief: A Design Brief is a short paragraph explaining the situation you have been given and the problem you need to solve.

Purpose:
- Identify a Problem
- Identify the client
- How to go about solving the problem
- Solutions

Client Needs/Brief: What the client requires of a product, here are some examples:

- Function
- Disabilities
- Social
- Anthropometrics/Measurements
- Material/Finishes
- Health and Safety
- Costing

Keywords	***Tools and Machines***	***Materials***
Analysing Investigating Collate Develop Improve Manufacture Evaluate Explain Technical Dimension Tolerance Quality check	Metal files Pillar drill Wet & dry paper Vacuum former Wire wool Laser Cutter 2D Design Bench Vice Junior Hacksaw Safety ruler Pliers Engraver	Acrylic Aluminium Ferrous Non-ferrous Metal Alloy Polyvinyl chloride (PVC) High-density polyethylene ABS Copper Mild steel Polypropylene

Year 9 What is Engineering?

Engineering is the application of science and math to solve problems. Engineers figure out how things work and find practical uses for scientific discoveries.

Engineering definition

A general definition for engineering is 'the safe application of technical and practical knowledge to transform ideas and materials into products

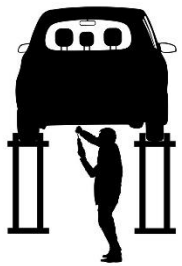
There are **four main engineering disciplines** of areas of study

Mechanical engineering studies the design, manufacture and use of machines

Electrical engineering studies the practical applications of electricity and magnetism

Civil engineering studies the design, planning and construction of large structures

Chemical engineering studies the process and equipment needed to manufacture chemical products on a large scale



Engineering Sectors

- A **sector** is a term used to describe a particular type of industry within the nation's overall economy
- The main **Engineering sectors** include the following – Aerospace, Automotive, Communications, Electrical/electronics, Mechanical, Environmental, Transport, Rail & Marine

Engineered Organisations

- **Research and development** – Improve existing ideas or develop ideas for new products
- **Design** – Sketching what the final product may look like, making models to visualise any problems
- **Planning** – Develop a plan so that the product can be made in a timely, cost-effective and safe manner.
- **Making** – Produce an engineered product that meets the requirements of the design

Engineered Products

- Engineering sectors & their Engineered products
- **Mechanical** – Gears, shafts and hydraulics
- **Automotive** - engines, gearbox, suspension and braking systems
- **Aerospace** – Engines, wings and rotor blades
- **Communications** – Satellite dishes, smartphones and wireless routers
- **Environmental** – Photovoltaic cells and wind turbines
- **Marine** – Ships, boats, submarines, yachts

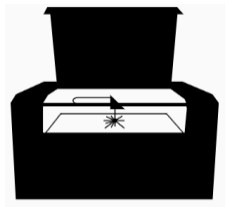
Engineered Job Roles

- Engineering organisations employ many different people with a variety of skills

- **Maintenance technician** – Service and repair mechanical and electrical equipment and systems
- **Machine operator** - Operate machinery, such as drills and lathes
- **Aircraft Fitter** – Employed in both aircraft manufacturing and aircraft maintenance
- Engines, wings and rotor blades

CAD

CAM



Keywords	*Tools and Machines*	*Materials*
Analysing Investigating Collate Develop Improve Manufacture Evaluate Explain Technical Dimension Tolerance Quality check	Metal files Pillar drill Wet & dry paper Vacuum former Wire wool Laser Cutter 2D Design Bench Vice Junior Hacksaw Safety ruler Pliers Engraver	Acrylic Aluminium Ferrous Non-ferrous Metal Alloy Polyvinyl chloride (PVC) High-density polyethylene ABS Copper Mild steel Polypropylene

Year 9 – Food Technology

There are **seven** major classes of nutrients: carbohydrates, fats, dietary fibre, minerals, proteins, vitamins, and water. These nutrient classes can be categorised a either **macronutrients** (needed in relatively large amounts) or **micronutrients** (needed in smaller quantities).

Macronutrients:

Carbohydrates provides the body with **energy**. There are two main types, complex and simple. **Complex carbohydrates** give **long lasting energy**. These are found in foods such as bread, pasta and cereals. **Simple carbohydrates** make blood sugar levels go up very quickly. This provides a **short burst** of **energy.** These are found in 'sugary; foods such as cakes, jams and sweets.

Protein is needed for **growth** and to **repair** cells. Protein is made up of amino acids. Proteins that are high in essential amino acids are called **high biological value (HBV)** proteins. These are found in milk, cheese, fish, eggs, meat and soya beans. Proteins that are low in amino acids are called **low biological value (LBV)** proteins. These are found in nuts, cereals and pulses.

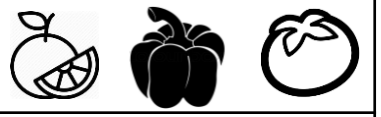
Fats are used by the body for **energy.** Fat also forms an insulating layer under your skin to keep us **warm** and **protect our organs,** such as our kidneys. There are two main types of fat, **saturated** and **unsaturated.** Foods such as meat, cheese and butter are high in saturated fats. Foods such as seeds, fish and vegetable oils are high in unsaturated fats. We should eat less saturated fats.

Fibre helps food to move through our bowels and prevent **constipation**. Foods such as vegetables, wholemeal bread and beans are high in fibre.

Water is needed for lots of reasons, keeping our body at the right **temperature**, **digesting** food, **lubricating** our bones and keeping us **hydrated**. Water is found in drinks, fruits and vegetables.

Keywords	Definition
Constipation	Difficulty empting the bowels
Cholesterol	A type of fat found in our blood
Immune System	A set of tissues which work together to resist infection
Diabetes	A disease that occurs when your blood glucose (blood sugars), is too high.

Micronutrients:

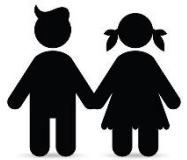
Vitamin	What we need it for	Examples of where we get it from
A	Good vision, especially when it is dark	
B Group	Releasing energy from carbohydrates	Meat 
C	Fighting diseases and helping the body to absorb iron	
D	Along with calcium, it helps our body make strong bones and teeth	Oily 
Minerals	**What we need it for**	**Examples of where we get it from**
Iron	To make red blood cells to carry oxygen around the body	Green leafy veg 
Calcium	Along with vitamin D, calcium helps make strong bones and teeth	

Consequences of a poor diet:

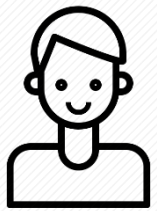
- Eating too many carbohydrates, fatty foods or sugary foods can lead to **obesity,** which can increase the risk of **type 2 diabetes** and **heart disease.**
- Eating too many salty foods can cause **high blood pressure.**
- Too much saturated fat can lead to **high cholesterol.**

Year 9 – Food Technology

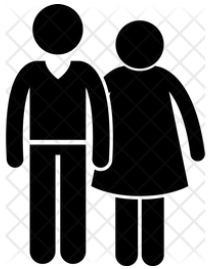
Nutritional needs according to age – Everyone should aim to follow the healthy eating guidelines, but our nutritional needs change throughout each stage of our lives.



Children, grow quickly and are very active. They need protein to help them grow and repair the body. Carbohydrates are needed for energy to support their physical activity. Calcium and Vitamin D are needed for healthy teeth and bone development.



Teenagers, should aim for a balanced diet. Rapid growth spurts happen around the early teens, girls usually start these earlier than boys. Protein is needed to cope with growth spurts, boys tend to need more due to muscular tissue development. Girls need more iron and Vitamin C as they lose these nutrients through a period. Teenagers also need Calcium and Vitamin D, to support the skeleton reach peak size and bone density.



Adulthood, at this stage growth and development stops. Men require more calories than women because they have more lean muscle and are generally taller and larger. Iron is important for adult women as they continue their periods. Calcium and Vitamin D to keep the skeleton strong as women tend to lode bone strength.

Late Adulthood, as we age our muscle is replaced with fat, so eating high in fat foods must be avoided. Calcium and Vitamin D is needed to help stop bones from becoming weak and brittle. Vitamin B12 is needed to keep the brain healthy and prevent memory loss. Fibre is needed to prevent constipation as the digestive system begins to weaken and Vitamin A is needed to help maintain good eyesight.

Diet and Lifestyle – You may have to plan a meal for someone with a dietary requirement (intolerances, allergies, ethical, religious beliefs and diet related health problems) all affect what people eat.

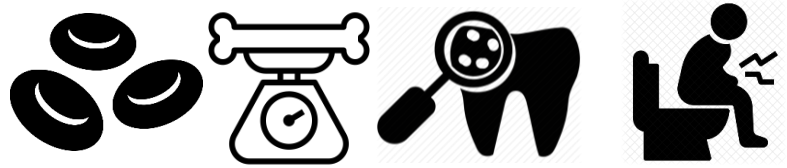
Vegetarians avoid eating meat and fish for a variety of reasons, including:
- Dislike the taste and texture of meat
- Religious beliefs
- Family influences

Vegans do not eat any foods from animal origin. This includes meat, fish, dairy and honey. To obtain a range of nutrients, vegetarians and vegans do eat:
- Wholemeal bread and flour
- Soya/ plant based products
- Fruit and vegetables

An **allergy** is a reaction to the immune system your body has to a particular food. The most common types are nuts and shellfish. Symptoms include a rash to swelling of the throat and mouth and difficulty breathing.

Food intolerance occurs when a person has difficultly digesting a particular food. Common examples include lactose (cow milk) and gluten (wheat).

Keyword	Definition
Diet	The type of food we eat and drink
Growth Spurt	Growing quickly and suddenly in a short period of time
Rickets	A disease in children from a lack of vitamin D and calcium, causing bones to soften and bend, particularly in legs
Osteoporosis	A medical condition in which the bones become brittle and fragile from a lack of calcium and vitamin D
Iron deficiency anaemia	A condition where a lack of iron in the body leads to a reduction in the number of red blood cells.
Bone density	The amount of bone mineral in bone tissue
Obesity	The state of being grossly fat or overweight
Diabetes	A disease in which the body's ability to produce or respond to the hormone insulin is impaired, resulting in abnormal metabolism of carbohydrates and elevated levels of glucose in the blood.
Tooth Decay	Damage to a tooth caused by dental plaque turning sugars into acid.
Constipation	Difficulty emptying the bowels



Year 9 French – Topic 2 – Health and relationships

A. Tu t'entends bien avec ta famille ? Do you get on well with your family?

Normalement Normally **Quelquefois** Sometimes **Souvent** Often	**je m'entends bien avec** I get on well with **je m'entends mal avec** I get on badly with **je me dispute avec** I argue with	**mon père** my dad **mon beau-père** my stepdad **mon grand-père** my grandad **mon frère** my brother **mon demi-frère** my stepbrother **mon oncle** my uncle	**car il est** because he is **puisqu'il est** as he is	**assez** quite **très** very **trop** too **un peu** a bit **vraiment** really	**amusant** fun **bavard** chatty **généreux** generous **patient** patient **tolérant** tolerant	**arrogant** arrogant **effrayant** scary **égoïste** selfish **méchant** nasty **têtu** stubborn
		ma mère my mum **ma belle-mère** my stepmum **ma grand-mère** my grandma **ma sœur** my sister **ma demi-sœur** my stepsister **ma tante** my aunt	**car elle est** because she is **puisqu'elle est** as she is		**amusante** fun **bavarde** chatty **généreuse** generous **patiente** patient **tolérante** tolerant	**arrogante** arrogant **effrayante** scary **égoïste** selfish **méchante** nasty **têtue** stubborn

PROFS

Quand j'étais plus jeune, je m'entendais bien avec When I was younger, I used to get on well with
Je me suis toujours bien entendu[e] avec I've always got on well with
J'aimerais m'entendre mieux avec I would like to get on better with

B. Qu'est-ce qu'il faut faire pour être en bonne santé ? What do you have to do to be healthy?

Pour être en bonne santé To be in good health **Pour rester en forme** To stay in shape	**il faut** you must **on doit** we must	**faire de l'exercice** do exercise **faire du sport** do sport **bien dormir** sleep well **boire de l'eau** drink water **manger sainement** eat healthily **se reposer** rest	**sinon on risque d'être** if not you risk being	**accro** addicted **malade** ill **obèse** obese **stressé** strict
			car c'est because it is **parce que c'est** because it is	**bon pour le corps** good for the body **bon pour le cœur** good for the heart **bon pour le mental** good for the mind **bon pour la santé** good for your health
	il ne faut pas you mustn't **on ne doit jamais** we must never	**boire trop d'alcool** drink too much alcohol **se droguer** take drugs **fumer** smoke		**dangereux** dangerous **illégal** illegal **inquiétant** worrying **mauvais pour la santé** bad for your health **nocif** harmful **une perte d'argent** a waste of money **une perte du temps** a waste of time

PROFS

en général – in general
en fait – in fact
à vrai dire – to be honest
évidemment – obviously
franchement – frankly
malheureusement – unfortunately
il faut que je dise que – I have to say that
autant que je sache – as far as I know
je dois avouer que – I must admit that
quel dommage! – what a shame!
quelle barbe! – how rubbish!
quelle horreur! – how awful!

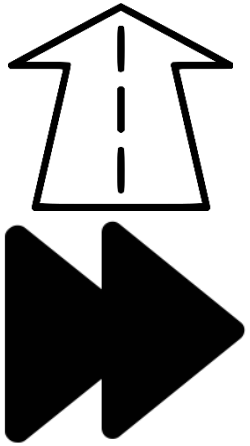
Year 9 French – Topic 3 – Future plans

A. Quel emploi vas-tu avoir dans le futur ? What job are you going to have in the future?

Quand je serai vieux/vieille When I'm older **Dans le futur** In the future **À l'avenir** In the future	**je vais être** I am going to be **je vais devenir** I am going to become	**agriculteur** **architecte** **avocat** **comptable** **électricien** **infirmier** **journaliste** **mécanicien** **médecin** **pilote** **professeur** **vétérinaire**	**agricultrice** **architecte** **avocate** **comptable** **électricienne** **infirmière** **journaliste** **mécanicienne** **médecin** **pilote** **professeure** **vétérinaire**	farmer architect lawyer accountant electrician nurse journalist mechanic doctor pilot teacher vet	**je crois que** I believe that **je pense que** I think that **sans doute** without doubt	**ce sera** it will be	**divertissant** entertaining **extraordinaire** extraordinary **fascinant** fascinating **génial** great **incroyable** incredible **passionnant** exciting **spectaculaire** spectacular **une bonne opportunité** a good opportunity **une expérience fantastique** a fantastic experience **un rêve devenu réalité** a dream come true

PROFS

Quand j'étais plus jeune, je voulais devenir When I was younger, I wanted to become
J'ai toujours voulu être I have always wanted to be
J'espère pouvoir devenir I hope to be able to become



B. Qu'est-ce que tu aimerais faire dans le futur ? What would you like to do in the future?

Quand je serai vieux/vieille When I'm older **Si j'avais de l'argent** If I had money **Si je gagnais à la loterie** If I won the lottery	**j'aimerais** I would like **je voudrais** I would like **mon rêve serait de/d'** my dream would be	**aller à l'université** to go to university **avoir des enfants** to have children **faire du bénévolat** to do volunteering **habiter à New York/en Californie** to live in New York/California **me marier** to get married **me pacser** to enter in a civil partnership **partir à l'aventure** to go on an adventure **prendre une année sabbatique** to take a gap year **voyager sac au dos** to go backpacking	**car** because **parce que** because	**ce serait** it would be	**complètement** completely **totalement** totally	**divertissant** entertaining **exaltant** exhilarating **incroyable** incredible **inoubliable** unforgettable **passionnant** exciting

PROFS

en général – in general
en fait – in fact
à vrai dire – to be honest
évidemment – obviously

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il faut que je dise que – I have to say that
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Year 9 – Geography – Extreme Weather

Air Masses

Air masses are huge bodies of air that can affect the weather conditions of a place.

There are different types of air masses:

Polar air masses come from the poles and bring cold air.

Tropical air masses come from the tropics and bring warm air.

Maritime air masses come from over the oceans and bring a wet weather.

Continental air masses come from over land and bring dry weather.

Tornadoes

A tornado is a vertical funnel of violently rotating (can reach 250mph) air that extends from a thunderstorm.

Tornadoes form where cold dry air and warm humid air collide.

Tornadoes are common in central USA (Tornado Alley) due to warm/cool air combining.

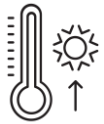
The UK has between 30 and 50 tornadoes each year – that's more tornadoes per land area than anywhere else in the world.

The Fujita Scale and the Enhanced Fujita Scale rate tornadoes by the damage caused. They are rated from F0 (not too bad) to F5 (very bad with lots of damage).

Tornados can result in a loss of life, property damage, habitats are destroyed, severe economic loss and flash flooding.

Since 1975, trends show a decline in the number of strong tornadoes recorded.

Global warming will lead to more conditions that tornadoes can be formed in.





Tropical Storms

Tropical cyclones are extreme low-pressure systems that form over warm water (26.5 degrees and above).

Tropical storms can also be known as typhoons, cyclones or hurricanes, their names depends on which part of the world they have formed in.

The middle of a tropical storm is called the eye and the area around this is called the eye wall.

Tropical storms cause storm surges, intense rainfall, high winds and coastal flooding. Very strong winds also destroy houses, buildings and uproot trees.

The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 rating based only on a hurricane's maximum sustained wind speed. This scale does not take into account other potentially deadly hazards.

Individuals and governments in developed countries are able to respond more effectively then developing/emerging countries. Strategies to respond include early warning systems, satellites to monitor and track cyclone path and evacuation strategies.







Keyword	Definition
Air mass	A large body of air that has certain characteristics e.g. polar maritime.
Arid	A dry climate that consists of hardly any rain.
Cyclone	A tropical storm that forms over the South Pacific and Indian Ocean.
Economic	Relating to money.
Environmental	Relating to the land, air or sea.
Deforestation	Cutting down trees.
Coriolis force	A 'spinning force' near the tropics that causes tropical cyclones to rotate.
Drought	A period of prolonged unusually low rainfall.
Fujita scale	A scale that measures the strength of tornadoes from F0 to F5.
Habitat	An animals home.
Hurricane	Tropical storms that form over the North Atlantic, central North Pacific, and eastern North Pacific.
Overgrazing	Too much grazing (animals eating grass) that causes damage to land.
Social	Relating directly to people.
Tornado	A violently rotating column of air.
Tropical storm	A rotating, low pressure storm system.
Typhoon	Tropical storms that form over the northwest Pacific.

Year 9 – Geography – Extreme Weather

Hurricane Harvey

Hurricane Harvey was a devastating Category 4 hurricane that impacted Texas and Louisiana in the USA in August 2017.

Nearly 780,000 Texans evacuated their homes and more than 42,000 Texans were housed in 692 temporary shelters.

The hurricane caused flooding and over 100 deaths.

More than $571.8 million was used for temporary housing, basic repairs to make homes safe and habitable and for other essential needs.

Cyclone Idai

Cyclone Idai has been one of the worst tropical cyclones on record to affect Africa and the Southern Hemisphere.

The storm caused a humanitarian crisis in Mozambique, Zimbabwe and Malawi, leaving more than 1,500 people dead and many more missing.

The countries relied on charities such as Oxfam to help them respond to the storm.

Almost one year after the storm, more than 8.7 million people do not have enough food or water and over 100,000 people in Mozambique are still living in temporary shelters.

Forest Fires

Forest fires are a natural and necessary part of a forest ecosystem, healthy forests contain decaying organisms and fires return the nutrients to the soil. However, they are not always a good thing.

Forest fires can lead to loss of life, health issues and biodiversity loss.

Forest fires in Australia are known as bushfires. The country experiences fires every year, but due to climate change the season has grown by almost a month.

The 2009 Black Saturday bushfires were the worst in Australia's history, killing 173 people. Almost 80 communities and entire towns were left unrecognisable. The fires burned more than 2,000 properties and 61 businesses.

As Australia are a developed country and experience the fires frequently, they are well-organised and well-resourced to respond to bushfires.

People around the world also respond to the bushfires and want to help. Australia are sent knitted blankets and protective pouches for animals which have lost their homes in the crisis.

Drought

Droughts are periods of time with below-average amounts of rainfall. Water supplies run low or run out during droughts.

Impacts include reduction in water supply levels, deaths, loss of crop yields, and strain on healthcare services. Impacts depend on level of development - subsistent farmers may face famine and death. Developed countries may suffer economic impacts due to reduce crop growth.

Sahel

Droughts in the Sahel are human caused. Over grazing and deforestation have caused this.

Impacts of the Sahel include the death of livestock and a lack of clean drinking water causing diseases such as cholera from contaminated water.

Attempted solutions are encouraging farmers to grow drought-resistant crops and improving knowledge and understanding of drought.

Europe

Solutions used to combat drought are more successful in developed countries due to technology and wealth.

During the summer of 2022, parts of Europe experienced drought conditions which were made worse by heat waves.

Droughts in Europe could become the norm by 2050 due to climate change.

Year 9 – Geography – Global Conflict

Water Conflict

Water is the most valuable resource on earth and access to water influences quality of life.

Although 71% of the Earth's surface is water, only 3% of this water is freshwater, and 0.4% of this is accessible to humans.

Many countries share a water source such as a river, this can cause conflict when it is not used fairly.

Ethiopia and Sudan have been experiencing conflict over water due to the construction of the Grand Ethiopian Renaissance Dam.

The dam will benefit Ethiopia's agricultural industry and help to relieve their energy shortage.

However, dams can alter the flow of water and Sudan are worried about their water supply – particularly as there is population growth and increased demand.

Energy Conflict

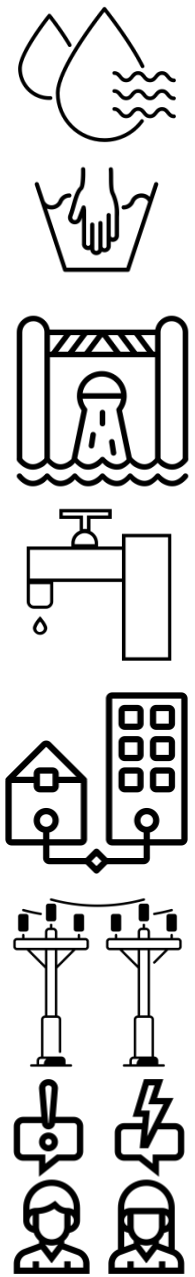
Energy resources are distributed globally, and many countries have access to multiple forms of resources.

Access to these energy resources is key to fulfilling basic social needs, increasing economic growth and fuelling human development.

Non-renewable energy resources are cheap and effective at producing a lot of energy – many emerging and developing countries rely on these for development.

This can lead to conflict between countries – such as the dispute in the South China Sea.

The South China Sea has huge amounts of gas and oil. Different countries have wanted claim to this territory, leading to high tensions.



Keyword	Definition
Agriculture	Farming.
Aid	Help, typically of a practical nature.
Border	A line that separates two countries.
Economic	Something relating to money.
Energy resources	Materials that can be used to produce a form of energy such as electricity.
Cultural	Relating to the ideas, customs and behaviours of a society.
Conflict	A disagreement.
Economic	Something that relates to money.
Environmental	Something that relates to the land, air and sea.
Geopolitics	The relationships between countries being influenced by geographical factors.
Military	Relating to the army.
Mitigation	The act of reducing the severity of something.
Multiple Hazard Zones	A location where two or more physical hazards can occur at any point.
Political	Relating to the government.
Risk	A situation involving danger.
Sectarian government	Sectarian democracies are multi-ethnic countries where the ethnic group with the greatest power has a democratic government that does not allow minorities to participate in the democratic process of that nation.
Social	Something directly relating to people.

Year 9 – Geography – Global Conflict

Living on a plate boundary

Countries such as Japan and the Philippines are 'multiple hazard zones' and often experience tectonic hazards.

This is because they are situated on plate boundaries (so they are at risk of earthquakes, tsunamis, and volcanic eruptions).

Both countries also experience typhoons.

There are different factors that can affect how severely these natural hazards affect a country – both Japan and the Philippines have mitigation techniques, such as evacuation drills.

However, if a country is wealthier, they often have more advanced technology to help them prepare. Japan are significantly better prepared than the Philippines.

Cerro Negro

Cerro Negro is one of the most active volcanoes in Nicaragua.

Many people may argue that living near a volcano is too dangerous, but the people here are provided with employment and economic gain because of the volcano.

The eruptions produce fertile soil which creates excellent agricultural opportunities in the area.

Volcano boarding is also an activity that many people pay to do. Visitors climb the volcano and then board down it.

There are many companies that charge to lead this and local people can increase their income by helping with such activities.

Superpowers

A superpower is a country with exceptional capacities that has global reach and power.

Different countries have different types of power, this includes political, military and natural resources.

Superpowers such as the USA, China and Russia have dominated global politics, economies and have substantial global influence.

China has already become the global powerhouse economically, and is expected to surpass the US as the world's biggest economy by 2028.

This global influence can be shown through many different ways: international aid, language, manufactured products (e.g. Apple), social media, food, and energy resources.

Keyword	Definition
Superpower	A country with exceptional capacities that has global reach and power.
Water Scarcity	When water supplies fall below 1000 cubic metres per person per year in a country or region.
Water Stress	A situation where there is not enough water to meet people's needs.
Water Surplus	A situation in which the usable water supply exceeds the demand.

Geopolitics

Borders are political boundaries and are not always physical barriers.

Many borders are 'disputed' such as the Indian-Pakistani border or borders within Africa.

Some borders can lead to conflict and violence.

Donald Trump wants to build a wall along the US-Mexican border to stop immigration from Mexico into California. However, government policies have allowed for violence carried out by security forces.

The Middle East: The region's very name is based on a European view of the world, and it is a European view of the region that shaped it. The Europeans used ink to draw lines on maps: they were lines that did not exist in reality and created some of the most artificial borders the world has seen.

China's borders are natural formations such as the Tibetan Plateau, Himalayas jungles deserts and Pacific Ocean even while it is able to reach out to other parts of the world through trade and military might.

Political instability in Lebanon has had many impacts included deaths, protests, landfill sites closing and unemployment to increase.

Year 9 History – Immigration

Why did people migrate after WWII?

After World War Two, mass **immigration** of people coming to work began in earnest. The 1948 British Nationality Act said that all **Commonwealth** citizens could have British passports and work in the UK. This included:
Poles
EU nationals
Commonwealth nationals
Refugees
Other groups
The government encouraged people to move to Britain due to severe labour shortages.

Positive effects on Britain

- Culture/customs,
- Economy
- Public Services

Negative effects on Britain

- Prejudice and discrimination
- Racism
- Population growth

The 'Rivers of Blood' in Birmingham

Enoch Powell was a former MP for Wolverhampton.
In April 1968 he made a famous speech in Birmingham called his 'Rivers of Blood Speech'.
His speech strongly criticised mass immigration, especially Commonwealth immigration to the United Kingdom and the proposed race relations bill.

European union

The European Union was set up with the aim of ending wars between neighbours, which culminated in the Second World War.
The E.U is the economic and political union of currently 27 countries located predominately in Europe.
The European Union influences migration (free right of movement in and across any member state, right to work in any member state without discrimination because of nationality)

Wind rush scandal

The Windrush Voyage was a ship that carried people from the Caribbean that sailed from Jamaica in June 1948 carrying migrants to come and live and work in Britain. They were invited by the government, prospect of jobs, money, better quality of life
But, the failure of government to grant those on Empire Windrush British citizenship as promised resulting in many being wrongly detained, denied legal rights, threatened with deportation, and, in some cases, wrongly deported from the UK.

What is Multi-cultural Britain like today?

- Britain, down to its deepest roots, has always been a diverse nation.
- Our diversity is a result of invasion, expansion, empire and Commonwealth, and being a safe haven for people fleeing danger.
- Our current population of over **60 million people** includes a mix of people from different racial, religious and **cultural** backgrounds. 7.5 million of those people were born outside the UK.
- For over 2000 years people have arrived in Britain, contributing their own cultural influence.

Food

Chicken Tikka Masala being one of Britain's most popular dishes came from Asia.

Music

We listen to Reggae music in the UK. It originated in Jamaica.

Sport

The sport of Sumo wrestling is enjoyed in the UK but came from Japan.

What impact did immigration have on Wolverhampton and the local area?

- West Park primary have a majority intake of pupils from ethnic minority background,
- Eleanor Smith first black MP for the midlands.
- look at immigration and racism in football)

Key Words

	coming to live permanently in a foreign country
Migration	the movement of either people or animals from one area to another.
Citizenship	the position or status of being a citizen of a particular country
Refugees	a person who has been forced to leave their country in order to escape war, persecution, or natural disaster.
Prejudice	preconceived opinion that is not based on reason or actual experience.
Diversity	The fact of many different types of things or people being included in something; a range of different things or people
Commonwealth	A group of countries previously part of the British Empire who share the Queen as their Head of State
Discrimination	unjust or prejudicial treatment of different categories of people, especially on the grounds of race, age, sex, or disability
Ethnic minority	a group within a community which has different national or cultural traditions from the main population
Culture	the way of life, especially the general customs and beliefs, of a particular group of people at a particular time
Inclusive	tries to include many different types of people and treat them all fairly and equally
Society	a large group of people who live together in an organized way, making decisions about how to do things and sharing the work that needs to be done.
Multicultural	including people who have many different customs and beliefs

Year 9 – History – American Civil Rights Movement

1955 Emmett Till murder

1955 Rosa refuses to give up her seat

1957 Little Rock Nine

1961 Freedom rides

1963 March on Washington

1964 Civil Rights Act

1965 Malcolm X Killed

1965 Bloody Sunday

1965 Voting Rights Act

1968 MLK killed

Emancipation Proclamation

President Abraham Lincoln issued the **Emancipation Proclamation** on January 1, 1863.
The proclamation declared "that all persons held as slaves" within the rebellious states "are, and henceforward shall be free."
This meant that for the first time since their transportation to the nation, African-Americans were **legally** free.

What was the American Civil Rights Movement?

The American Civil rights movement was a decades-long struggle by African Americans to end racial discrimination and racial segregation in the United States.
After the end of the American Civil War in 1865, black people were supposedly free from suppression.
However, African-Americans still faced hostility and persecution. This led to a movement against segregation.

The Black Panthers

The Black Panthers were a controversial group who also followed Malcolm X. They took part in shoot outs with police officers, but also provided breakfast clubs to children and free medical and legal advice to poor African-Americans.

What were the Jim Crow Laws?

States in America had introduced a series of laws to keep the races separated and the black population under control.
The black population was segregated from:

- Public transport waiting rooms
- Public places such as shops, hotels, cinemas, - theatres and libraries
- In education black children could be educated in separate schools

Who were the white supremacists?

Groups of people who thought they were superior and did not want equality, particularly the Ku Klux Klan.
They campaigned hate and violence against African Americans.
They used violence such as beatings, burnings, brandings, attacks with acid and lynching.

Little Rock Nine

In September 1957 Nine black students tried to attend an all white school.
The school Governor called in the National Guard to stop the black students' entering the school.
As a result, President Dwight D. Eisenhower sent in federal troops to escort the "Little Rock Nine" into the school.

Important figures

Martin Luther King

Martin Luther King Jnr was a campaigner for equality. Most known for his 'I have a dream' speech and the youngest person ever to win a Nobel peace prize.

Malcolm X

Malcolm X was a campaigner who did not rule out violence in self-defence and used the phrase 'by any means necessary'

Rosa Parks

Best known for her role in the Montgomery bus boycott where she refused to give up her seat on a segregated bus.

Emmitt Till

A fourteen-year-old murdered for supposedly flirting with a white woman. The nation was shocked by these events.

Key Words

Segregation	the action or state of setting someone or something apart from others.
Activists	a person who campaigns to bring about political or social change
Assassination	to kill someone suddenly or secretively
Abolished	formally put an end to
Prejudice	preconceived opinion that is not based on reason or actual experience
Equality	the state of being equal, especially in status, rights, or opportunities
Supremacists	a person who believes that a particular group, especially one determined by race, religion, or sex, is superior and should therefore dominate society.
Discrimination	the unjust or prejudicial treatment of different categories of people,
Legislation	laws, considered collectively.
Civil Rights Act	The **Act** outlawed discrimination on the basis of race, colour, religion, sex, or national origin
Brown V Board	decision of the U.S. Supreme Court that U.S. state laws establishing racial segregation in public schools are unconstitutional
Boycott	withdraw from commercial or social relations with as a punishment or protest
Lynching	When a of a group of people kill (someone) for an alleged offence without a legal trial

Year 9 Term 2A – PRE – What does it mean to be a Jew?

Key Words

Judaism: A religion based on one G-d who revealed himself to Abraham.
Jew: A member of the Jewish community.
Monotheistic: Belief in one God.
Covenant: A promise/ special agreement
Torah: Jewish holy scripture.
Synagogue: A building in which Jews meet for religious worship or instruction.
Shabbat: The day of rest which occurs on a Saturday. It also known as the Sabbath.
Kosher: Food that is prepared to satisfy the requirements of Jewish law.
Testimony: A formal written or spoken statement.
Forgiveness: The action or process of forgiving or being forgiven.
Yom Kippur: The day of atonement where Jews ask G-d for forgiveness of their sins.
Abraham: The first male head of the Jewish tribe.
Omni- benevolent: God is all-loving.
Omnipresent: God is everywhere.
Omnipotent: God is all- powerful.
Omniscience: God is all-knowing.
Orthodox Jew: A Jew who adheres faithfully to the principles and practices of traditional Judaism.
Reform Jew: A form of Judaism which has abandoned aspects of Orthodox Jewish worship and ritual in an attempt to adapt to modern changes in social, political, and cultural life.
Rites of passage: A ceremony of the passage which occurs when an individual leaves one group to enter another.
Kippah: A skull cap worn on the head.

How did the Jewish faith originate ?

Judaism is the world's oldest monotheistic religion, dating back nearly 4,000 years. Followers of Judaism believe in one G-d who revealed himself through ancient prophets.

Jews believe there is only one G-d who has established a covenant—or special agreement—with them. He declared that they were his chosen people. G-d communicates to believers through prophets, and rewards good deeds while also punishing evil.

According to scriptures, G-d revealed his laws, known as the Ten Commandments, to Moses at Mt. Sinai.

What are Jewish food laws?

Jews have food laws which means that all the food that they eat must be kosher.	
Seafood must have fins and scales, No shellfish.	
Only birds that do not eat other animals can be eaten, which means poultry is allowed.	
No pork is allowed.	
Meat and dairy cannot be eaten together	

Why is the Jewish holy book and building so important to Jews?

The synagogue 	The **Synagogue** allows Jews to come together & worship. Jews will also go to the Synagogue to study, celebrate different rites of passage and celebrate festivals. The synagogue is also a place for Jews to assemble as a community and is a place for social activities and gatherings.
The Torah 	The **Torah** makes up the first five books of the Jewish holy books. It contains the history of the Jewish people as well as laws to live by.

How and why do Jews celebrate Shabbat?

Shabbat is also known as the Jewish Sabbath. Every week from Friday sunset until Saturday sunset, Jews celebrate Shabbat. During this time period, it is forbidden to do any work. Shabbat is a time of rest to remember G-d & his 6-day creation which includes a traditional Jewish meal.

G-d commanded the Jewish People to observe the Sabbath and keep it holy as the fourth of the Ten Commandments.
The idea of a day of rest comes from the Bible story of Creation: G-d rested from creating the universe on the seventh day of that first week, so Jews rest from work on the Sabbath.

Shabbat is part of the deal between G-d and the Jewish People, so celebrating it is a reminder of the Covenant and an occasion to rejoice in G-d's kept promises.

Who is Abraham and why is he so significant to the Jewish faith?

G-d first revealed himself to a Hebrew man named Abraham, who became known as the founder of Judaism.

Jews believe that G-d made a special covenant with Abraham and that he and his descendants were chosen people who would create a great nation.

More than 1,000 years after Abraham, the prophet Moses led the Israelites out of Egypt after being enslaved for hundreds of years.

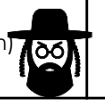
Abraham's sacrifice of Isaac.

Abraham's faith was tested when the Lord asked him to sacrifice Isaac on an altar. Abraham had strong faith in G-d's earlier promise that he would have many descendants so he set out to prepare an altar and kill his only son. At the last moment, when Abraham displayed this willingness to unconditionally obey G-d, an angel stopped the sacrifice and replaced Isaac with a goat.

This was the ultimate test of faith and obedience to God. This introduced the trust in G-d and how G-d would reward those who were willing and faithful.

Orthodox Jews

Orthodox Jews can be identified by their dress and family lifestyle. Orthodox men and women dress modestly by keeping most of their skin covered. Married women cover their hair, with either scarves or hats.
Orthodox men are expected to wear a ritual fringe called Tzitzts and a head-covering. Many men grow beards, and wear black hats with a skullcap (Kippah) underneath.



Reform Jews

Reform Judaism has no religious dress requirements. Style of dress involves cultural considerations distinct from religious requirements. Members of Reform synagogues may abide by dress codes generally ranging from business casual to informal.

Year 9 Term 2B – PRE – How has the Holocaust impacted Jewish identity?

Key Words

Anti- Semitism: Acting upon prejudice or hatred towards Jews.
Segregation: The action of setting someone apart from others.
Holocaust: Destruction or slaughter on a mass scale.
Shoah: The mass murder of Jews under the German Nazi regime during 1941–5.
Ghettos: A part of a city which is separate form the main city & often occupied by a minority group.
Deportation: The action of deporting a foreigner from a country.
Transportation: The action of transporting someone or something.
Moral Dilemma: A situation in which a difficult choice has to be made.
Concentration Camp: Places of imprisonment where people were forced to work, worked to death or were put to death.
Auschwitz: A concentration camp in Poland
Testimony: A formal written or spoken statement.
Forgiveness: The action or process of forgiving or being forgiven.
Just: Morally right and fair.
Dehumanised: All human qualities are taken away from a person.

April 1933- Anti-Semitism towards Jewish people started in the form of being banned from sports clubs
December 1938- A law is passed confiscating all Jewish businesses
April 1939- Jews can be thrown out of their homes at any time
1941-1945- Over 6 million Jews are murdered across Europe under Nazi Germany, this was approximately two thirds of Europe's Jewish population

How did Anti-Semitism start to rise in the 1930s?

Jews were segregated from the rest of society, they were banned from sports clubs, cinemas & swimming pools. Jewish children were only allowed to play with other Jewish children.

Jews were thrown out of their homes & forced to live in Ghettos. They had to carry around an identity card, their food was rationed, medical supplies were limited & all possessions taken from them.

Jews were transported to concentration camps. They were stripped of their identity. Their heads were shaven, they were tattooed with a number & forced to work if they were able or taken to a gas chamber if they weren't.

Upwards of 80 per cent of those Jews transported to Auschwitz-Birkenau were selected for immediate death.

The Nazis sent at least 1.3 million people to Auschwitz. About **1.1 million** of these people died or were killed at Auschwitz

Should all be forgiven?

The Torah states ***'Do not hate a brother in your heart… Do not seek revenge or bear a grudge against anyone among your people, but love your neighbour as yourself'*** so many Jews believe forgiveness is vital to move forward.	It could be argued that the perpetrators (people who carried out the harmful acts) were not brothers and do not deserve forgiveness.
Eva Kor (Holocaust Survivor) said ***'forgive your worst enemies & forgive everyone who has hurt you – it will heal your soul & set you free'***	The Torah states ***"Don't be afraid, the Judge is your Father"*** suggesting that only G-d can judge whether or not someone's actions deserve forgiveness.

Why might Jews have started to question G-d in the Ghettos?

Jews believe G-d gave humans free will (the ability to choose their actions) so humans were to blame not G-d.	***"If there is a G-d, he will have to beg for my forgiveness"*** was found carved into a camp wall suggesting some Jews lost faith in G-d.
A Rabbi once said the question 'where was G-d' is not what should be asked, the question 'where was mankind?' is the question that should be asked.	If G-d is **omnipotent** (all-powerful) & **omnibenevolent** (all loving/good) he could have/should have ensured it never happened or stopped it.
Jews are G-d's chosen people. Jewish people had been chosen by G-d to worship only him and to fulfil the mission of proclaiming his truth among all the nations of the world. Why would he allow his people to die if this was what G-d intended?	G-d would not have allowed this to take place if G-d was truly just. The Holocaust was not at all morally right or fair.

How was Jewish Identity compromised in the concentration camps?

In concentration camps, it would have been impossible for Jews to celebrate their faith and festivals. They would have been killed if they were even heard talking about their faith in anyway.
Jewish people were dehumanised in the camps. Their hair was shaved off, a number was tattooed on them and all of their belongings were taken. This means that Jewish people were stripped of their identity in the camps and were not allowed to continue with their Jewish practices.

How did different survivors respond to their time during the Holocaust?

Many Holocaust survivors used their voices in order to educate people on the Holocaust and use their own experiences to make sure that the Holocaust and those who suffered and died are still remembered today.

Solomon Perel is a Holocaust survivor who has become an author and motivational speaker. He was born to a German-Jewish family and managed to escape persecution by the Nazis by pretending to be an ethnic German. He has made several visits to various schools to tell his story of being a boy who came under rule of Hitler and survived the tragic event of the Holocaust.

Physical Education Pathways (Year 9)

Leadership

Warm up

Pulse Raiser	An activity which raises heart rate
Stretches	Static – Holding a stretch without moving Dynamic – Performing stretches whilst moving
Mobility	Moving joints through full ranges of movement Dynamic – Changing speed and direction
Skill Rehearsal	Practising skills used in the activity

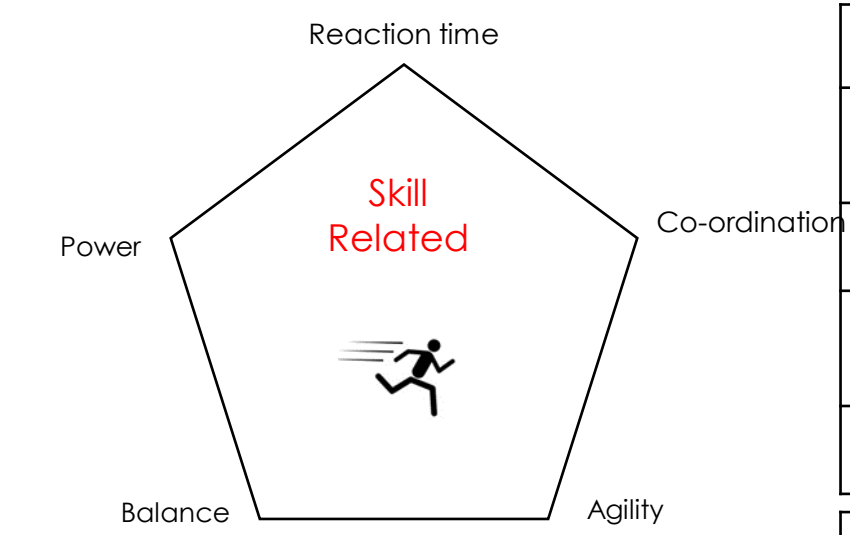
Cool Down

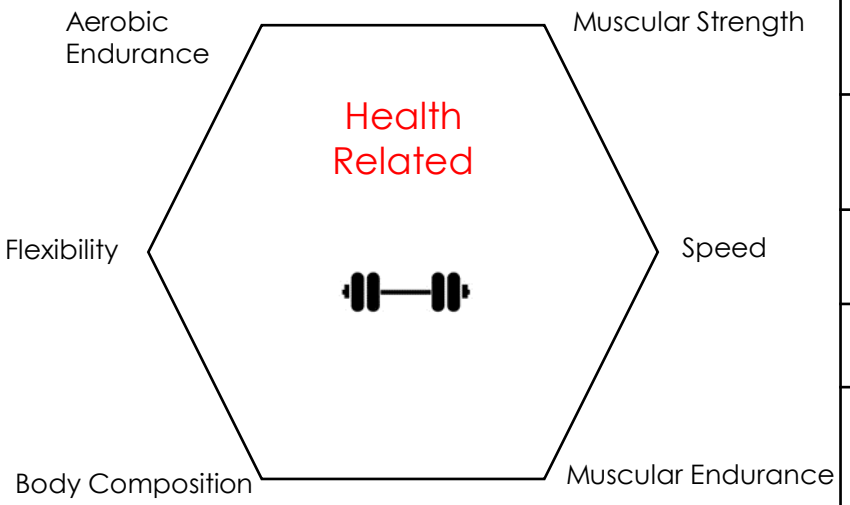
Lower Pulse	Light jogging/walking
Stretches	Static – Holding a stretch without moving

Top Tips:

1. **Confidence** – Act and look like the leader.
2. **Volume** – Be sure to speak loud and clear when leading, projecting your voice above all others.
3. **Be organised** – show you are ready!
4. **Body Position** – Be sure to positon yourself away from distractions. e.g. out of view of the sunlight, or other groups

Health & Fitness





Components of Fitness

Power	The ability to apply high force to an object
Balance	To hold the body's centre of mass above the support
Reaction Time	Time taken to react to a stimulus
Coordination	The ability to use 2 or more body parts together
Agility	The ability to change direction at speed

Strength	The amount of force a muscle can exert
Muscular Endurance	The ability to use muscles repeatedly without tiring
Body Composition	The percentage of body fat, muscle and bone
Flexibility	The range of movement at a joint
Speed	The ability to move quickly
Cardiovascular Fitness	The ability to transport oxygen to allow for long periods of activity without tiring

Physical Education Pathways (Year 9)

Creative

Key Terminology	
Choreography Devices	A specific way of manipulating movement to develop a routine.
Formation	Any dance in which a number of couples form a certain arrangement, such as two facing lines or a circle.
Unison	Dancers moving at the same time doing the same movements.
Cannon	A device where movements are repeated exactly by subsequent dancers in turn.
Repetition	A device in which movements or motifs are repeated.
Change of speed/, level or dynamic	Where movements are changed within a routine through changing the speed, level or execution.
Inversion	Inverting the movement phrase would mean executing it as if 'looking in a mirror'.
Cumulative Canon	Each dancer joins in with the lead dancer at various stages and all finish at the same time
Retrograde	A device whereby movements or a motif are performed backwards (like a rewound video).

Performance

Key Terminology	
What is a Rule?	Rules define what is allowed or not allowed to occur during the game, e.g. a game is played to 21 in badminton.
What is a Regulation?	A regulation usually gets set by the sports governing body and usually refer to the equipment, court or length of the game.
Scoring System	How the sport is scored, e.g. Wolves 2 Cardiff 1.
Sport Officials	Any person who acts in a sports contest as an umpire, referee, judge and enforces the games rules and regulations.
Technical Skills	These are the skills and techniques required for the sport, e.g., Overhead clear in badminton or instep pass in football.
Tactical Skills	These are skills such as decision making, knowing when to defend and attack, choice and use of shots or strokes, variation, conditions, use of space.
Isolated practice	An isolated practice is where you focus on one technique/skill at a time unopposed before moving on to the next one.
Conditioned practice	This is small-sided games, with restrictions such as, a limited number of touches or a set number of defenders or attackers.
Competitive situation	This refers to full-sided games, with appropriate opposition, with match officials.