Year 8 Learning Journal

Learning Cycle 3

Student Name:_____

Contents Page

Home Learning Timetable Year 7 -11

	Monday	Tuesday	Wednesday	Fortnightly	Half Termly
Year 7	English ◎ TASSOMAI	Science ◎ TASSOMAI	Sparx Maths	Spanish/French Vocab Checks Quizlet	
Year 8	English ◎ TASSOMAI	Science ◎ TASSOMAI	Sparx Maths	Spanish/French Vocab Checks Quizlet	Geography History Computer Science
Year 9	English ◎ TASSOMAI	Science ◎ TASSOMAI	Sparx Maths	Spanish/French Vocab Checks Quizlet	Geography History Computer Science Art Drama Music

NT

Home Learning In School Support

Break Time

Every day with a Maths teacher

G36

Afterschool

Tuesday Wednesday and Thursday

with an English/Science/Maths Teacher

G33

SORT

Revision Focus Fortnight

Week 1

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Time	Saturday	Sunday
8.30am - 4pm						8.30am - 4pm		
4pm - 5pm						4pm - 5pm		
5pm - 6pm						5pm - 6pm		
6pm - 7pm						6pm - 7pm		
7pm - 8pm						7pm - 8pm		
8pm - 9pm						8pm - 9pm		

Revision Focus Fortnight

Week 2

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Time	Saturday	Sunday
8.30am - 4pm						8.30am - 4pm		
4pm - 5pm						4pm - 5pm		
5pm - 6pm						5pm - 6pm		
6pm - 7pm						6pm - 7pm		
7pm - 8pm						7pm - 8pm		
8pm - 9pm						8pm - 9pm		

Learning Cycle 3 Assessment Timetable

Year 8 Learning Cycle 3 Knowledge Check Draft Timetable

Lesson	Class	23/06/25 Blue Mon	24/06/25 Tue	25/06/25 Blue Wed	26/06/25 Thu	27/06/25 Fri	30/06/25 Yellow Mon	01/07/25 Tue	02/07/25 Yellow Wed	03/07/25 Thu	04/07/25 Fri	07/07/25 Blue Mon
1	8Y1	INSET DAY			Maths							
	8Y2				Computing							
	8Y3				Maths			Music	History			
	8Y4				Maths							
	8Y5				Science			History				
	8Z1						Computing				English	
	8Z2									History	English	
	8Z3			DT							English	
	8Z4		Science	DT	Drama					History		
	8Z5			DT							English	
	8Z6		Drama	DT				Computing			English	
2	8Y1			Science								
	8Y2			Science							English	
	8Y3			Science		Computing						
	8Y4			Science			Computing	Music			History	
	8Y5			Maths		Computing						
	8Z1		Maths					History				
	8Z2		Science			Drama		Music	Computing			
	8Z3		Maths	Geography						Music		
	8Z4		Maths							Music		
	8Z5		Science					Music		Drama		
	8Z6		Maths									
3	8Y1		Drama	Geography						MFL	History	
	8Y2		Geography	Drama					Music	MFL		
	8Y3			Geography						MFL	Drama	
	8Y4		Geography		Drama				DT	MFL		
	8Y5					Drama			DT	MFL	English	
	8Z1		Science						DT	Music		
	8Z2		Maths	Geography					DT			
	8Z3		Computing		Science					History		
	8Z4		Computing									
	8Z5		Maths							History		
	8Z6		Science	Geography					Music			
4	8Y1			DT			Music		Computing		English	
	8Y2		Maths	DT							History	
	8Y3			DT							English	
	8Y4										English	
	8Y5		RE				Geography				Music	
	8Z1		Geography		Drama				MFL			
	8Z2								MFL			
	8Z3				Drama				MFL			
	8Z4			Geography					MFL		English	
	8Z5			Geography		Computing			MFL			
	8Z6								MFL		History	

4 simple steps

S O R T

Summarise

Summarise your class notes, handouts and wider reading to **condense and transform** them **as you go along** (saves time and stress closer to exams).

40%

Organise

Organise your notes and revision using PLCs (or Exam Specifications) and create **Revision Timetables**, to **focus** time and effort **on weaknesses**.

10%

Recall

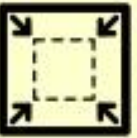Use **active recall** and **spaced repetition** to **memorise** the information.

30%
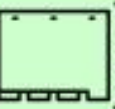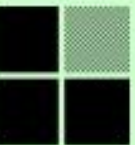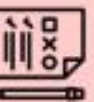
Test Yourself

Test Yourself using **low stakes and high stakes** questions to check you can **apply knowledge and understanding**.

20%

4 Steps to Success with your Studies

NEWQUAY TRETHERRAS

Test Yourself

Low Stakes
- Online Quiz or App
- Multiple Choice
- Write Qs using PLC

High Stakes
- Past Paper Questions
- BUGS the Question

Write Plans & Mark Schemes
- Traffic Light (RAG) Qs

Recall

Active Recall (Testing Effect)
- Blurt - Blank Page Retrieval
- Look Say Cover Write Check
- Memory Journey

Mnemonics
- Group Games
- Leitner System (Flash Cards)
- Spaced Repetition

Organise

- Traffic Light (RAG)
- PLCs or Exam Specs
- Organise Folders (Weekly)
- Revision Timetable (Weekly Review)
- Chunk
- Interleave

Summarise

Transform
- Condense
- Flash Cards
- Mind Maps or Organisers
- Revision Clocks
- Sketchnotes
- Dual Code
- Cornell Notes

Find out more at: tretherras.net/nt-revision-resources/

How to Summarise using ...

Cornell Notes

Notes   Keywords, Comments   Summary

What is the idea?

Using a sheet divided into 4 sections, take notes and create 'cues' and an overall summary of the topic.

What is it useful for?

- Condensing large amounts of text into smaller notes.
- Using in lectures and then reviewing your notes after.
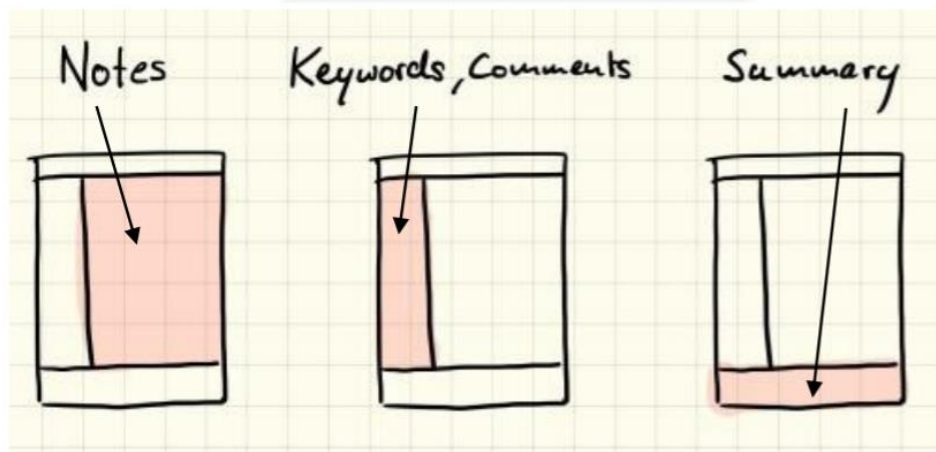
How do I make one/use one?

1. Divide a sheet of paper into 4 sections (see example above)
2. Put the title, key questions or specification link in the very top section
3. Make your main notes in the large section (diagrams as well as words!)
4. Some time afterwards review the main notes and create 'cues' (key words or questions) to indicate what different parts of the notes are about.
5. Review your notes a third time and write an overall summary.
6. Use look, cover, say, write, check to see if you can RECALL the main notes or summary using the cues.

Pros	Cons
The sheet encourages you to revisit the notes more than once. Condensing notes several times aids long term memory.	Several sheets might be needed for a topic, so you don't see the 'big picture'.
The cues can be used like a flashcard (cover the main notes section and try to RECALL).	Doesn't help you make links between areas of a topic.
Can include images and written detail which helps your visual and verbal memory (dual coding) - more detail than a mind map.	

How to Recall using ...

Pair or Group Games

Cowboy Shoot Out

Students pair up and face each other. The teacher or another student asks a question. The first in each pair to 'draw' the correct answer (could write it on a mini whiteboard or shout it) wins. *Could have two teams and one person from each team makes the pair. The team that still has a player left at the end wins.*

Nightmare Before the Exam

Students pair up and try to create a 'nightmare' exam paper/question for the other. Students must then swap and try to answer each others questions.

Hot Seating/Just a Minute

Students in teams - take turns to put someone in the 'Hot Seat' and either have to guess the key word using clues from their team mates or speak on a topic for 1 minute with hesitation, deviation or repetition.

Revision Pong

Students in teams – head to head. Plastic cups are set out on the table with questions in. Take in turn to bounce a ping pong ball into a cup. Answer the question it lands in. If they get it correct they take the cup. *If they lose they could do a forfeit.* The team with the most cups is the winner.

Charades, Pictionary or Rapidough

Students in teams – act out, model or draw a concept for their team mates to guess. *In rapidough the winning team takes some of the losing teams dough each time.*

Knowledge Trading

Students are given or create 30 flash cards (10 green, 10 yellow, 10 red) each colour represents a different level of difficulty. Students must trade their cards (they can set a value for the different colours) and aim to get the most points/cards.
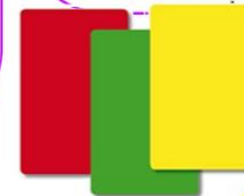
How to Recall using ...

Quiz Quiz Trade or Fan n Pick

Quiz,Quiz, Trade

Look for a classmate.

#2 Pair Up with a high five

#3 Each person reads their question while the other answers.

#4 Trade Cards Repeat!
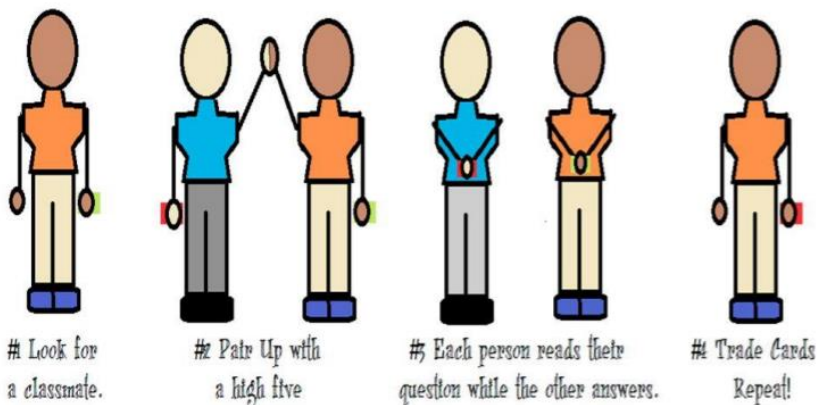
Quiz Quiz Trade YouTube Tutorial Video Link

How do I use this method?

Quiz Quiz Trade

1. Create a series of flash cards (question and answers)
2. Stand up, hand up, pair up.
3. Exchange greetings.
4. Partner A quizzes
5. Partner B answers
6. Partner A coaches or praises
7. Switch roles
8. Partners trade cards
9. Repeat

What is the idea?

Students in a group revise together by pairing up and quizzing each other with flash cards, then trading these cards before moving to a new partner.
Or
In groups of 4 quizzing each other from a selection of flashcards rotating roles.

Fan-N-Pick

3 Answer
Answer the question or solve the problem.

4 Respond
Check & tutor • paraphrase • praise

2 Pick
Pick a card and read it aloud.

1 Fan
Fan cards for your teammate.

SPORT

English Personal Learning Checklists

Lord of the flies	S	O	R	T
Explain the difference between a Utopia and Dystopia.				
How does Golding use symbolism in the opening of the novel?				
How does Golding use foreshadowing in the opening of the novel?				
How does Golding make the island seem like a utopia at the start of the novel?				
How does Golding use contrast and characterisation?				
What is the significance of the conch? What is the significance of the beast?				
How, where, and why does Golding make references to Darwin's Theory of Evolution?				
How does Golding use his novel to highlight his views on society at the time?				
What is the significance of the fire going out?				
How does Roger and Maurice's behaviour display savagery?				
How is anarchy explored at the end of Chapter Five?				
"Maybe it's only us" explain what Simon means by this quote? What is mankind's essential illness?				
Why does Golding refer to the war happening outside the island? How does it mirror events on the island?				
What effect does hunting have on Ralph? Is this surprising? Why?				
How are civilisation and savagery juxtaposed?				

Lord of the flies	S	O	R	T
How does the mock killing of Robert show the increasing savagery of the boys?				
What does the conversation with the LOTF reveal about Simon's understanding of 'why things are what they are'?				
How is a sense of foreboding created at the start of Chapter Nine?				
How does Golding present the power of a pack?				
The final section of Chapter Nine (from 'towards midnight' to the end) is often described as one of the finest pieces of literature. Why?				
How and why is the island an example of a microcosm?				
How do Ralph and Piggy react to their involvement in Simon's murder? Why?				
How is Piggy's role developed in Chapter Eleven?				
Why is the conch destroyed at the same time as Piggy's death?				
What does the treatment of Ralph teach us about civilisation?				
How is the ending, where Ralph is rescued, significant?				
Despite the rescue at the end, is LOTF still a dystopian story? Why?				
What is Golding's ultimate message(s) for humanity?				

English Knowledge Organiser – Lord of the Flies

1	TIER THREE VOCABULARY
Narrative Hook	The aspects of a story that 'hook' the reader into the story or interest them so they want to read to the end. These are usually at the beginning of a story and can be peppered throughout a story.
Dystopia	The worst possible version of the world
Utopia	The best possible version of the world
Symbolism	When something, usually a physical item, is used to represent a concept or idea that is important to the story.
Motif	An item, usually a physical item, that is referred to throughout a story which represents something. A motif is usually linked to symbolism or theme
Setting	The place that story takes place
Juxtaposition	When two things that are opposites are put together

2 Utopia and Dystopia

3 Darwin's Theory of Evolution
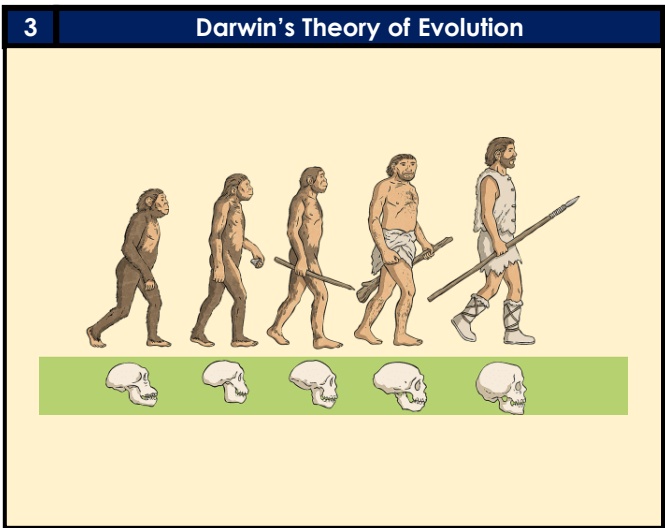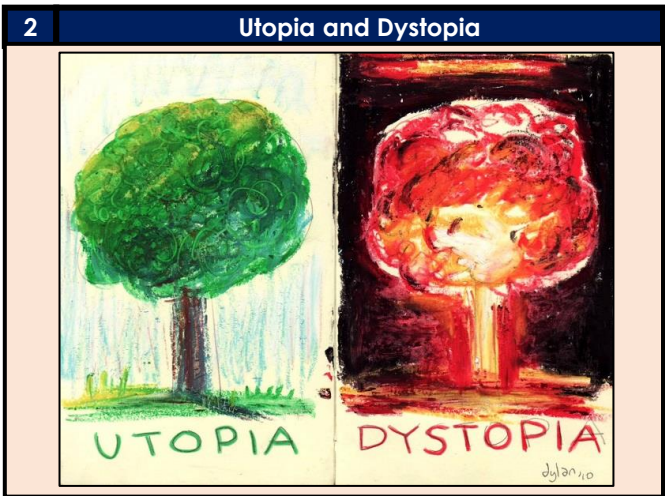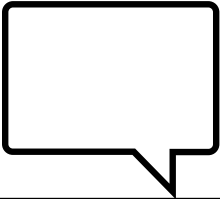
4 Freud's Structure of the Human Psyche

Freud's Structure of the Human Psyche

Id:	Ego:	Superego:
Instincts	Reality	Morality

5 Speech Writing

Watch famous speeches from the likes of Martin Luther King and Winston Churchill to support your understanding of speech writing.

Key Characters	Purpose & Summary
Ralph	Ralph is the story's protagonist. He is elected leader on the island before it descends into chaos. Ralph represents human beings' civilizing instinct, as opposed to the savage instinct that Jack embodies.
Jack	The novel's antagonist, one of the older boys stranded on the island. Jack becomes the leader of the hunters but longs for total power and becomes increasingly wild, barbaric, and cruel as the novel progresses. He represents the ID.
Piggy	Piggy represents the scientific, rational side of civilization. Piggy is bullied for his physical vulnerability in a world that requires strength. Piggy holds onto the order from his previous life and therefore has lots of parallels to the Super-Ego.
Simon	Simon is the only character whose sense of morality does not seem to have been imposed by society. Simon represents a kind of natural goodness, as opposed to the unbridled evil of Jack and the imposed morality of civilization represented by Ralph and Piggy. He is the only pure character and shows connections to the natural world.

Key Symbols	What They Represent
The Island	The Island serves as a microcosm for humanity when
The Conch	The conch represents democracy. As it begins to be forgotten, so does order.
Piggy's Glasses	Piggy's Glasses represent the power of science.
The Beast	The beast represents fear. It leads to further chaos and begins to symbolise the boys themselves.

1	TIER THREE VOCABULARY
Pathetic Fallacy	When the weather is used to reflect the mood or feeling in a story
Foreshadowing	When the reader is given a hint of something to come later in the story
Imagery	Descriptive or figurative language that helps the reader visualize the story (i.e. metaphors and similes are forms of imagery)
Allegory	A story that is representative or symbolic of something much bigger and has a political, moral or social message.
Microcosm	When the characters and events in a story are representative of something much larger. The writer will usually use a microcosm to comment on an aspect of society.
Tragedy	A type of literature that is usually ends in the death of the main characters
Villain	A character who the deliberately challenges the hero. Can also be called the 'antagonist'

2 Democracy vs Dictatorship
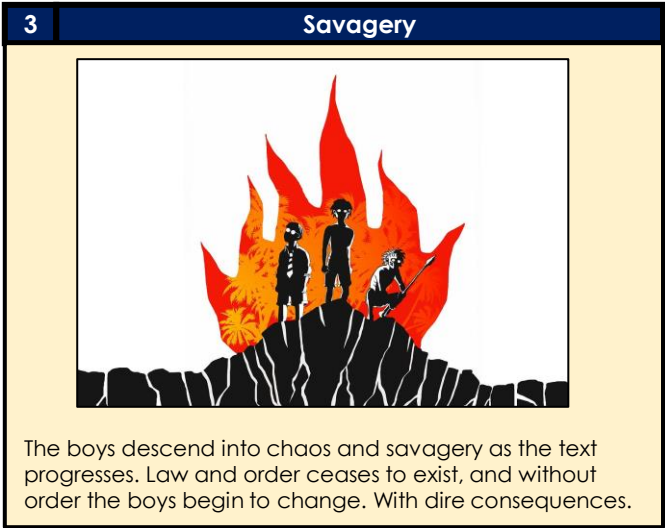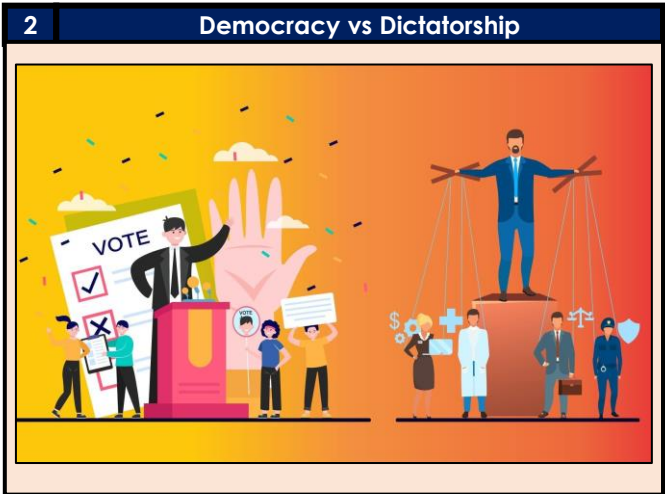
3 Savagery

The boys descend into chaos and savagery as the text progresses. Law and order ceases to exist, and without order the boys begin to change. With dire consequences.

4 Essay Writing

Begin to explore what makes a good Literature Essay with a Thesis Led approach.

1. A really clear and perceptive argument, driven through a thesis.
2. Analysis of the text – the characters, the structure and the language used in order to support our argument.
3. Demonstrating an understanding of what the writer aimed to achieve with their story.

5 Context

Explore how writers are influenced by other texts. Golding was inspired by utopian texts such as Coral Island and Treasure Island.

Maths Personal Learning Checklists

Key Ideas: Angles in parallel lines	Sparx Code	S	O	R	T
Understand and use basic angles rules and notation	M818				
Identify and calculate angles in parallel lines	M606				
Construct triangles and special quadrilaterals	M565				
Recognise properties of special quadrilaterals	M276 M618				
Calculate the sum of exterior & interior angles of polygons	M653				
Prove simple geometric facts (H)	U866				
Construct an angle bisector (H)	M232				
Construct a perpendicular bisector of a line (H)	M239				

Key Ideas: Area of Trapezia & Circles	Sparx Code	S	O	R	T
Calculate the area of triangles, rectangles & parallelograms	M610 M996				
Calculate the area of a trapezium	M705				
Calculate the area and perimeter of compound shapes	M755 M231				
Calculate the area of circles and parts of circles	M231				

Key Ideas: Lines symmetry & reflection	Sparx Code	S	O	R	T
Recognise line symmetry	M523				
Reflect a shape in a horizontal or vertical line	M290				
Reflect a shape in a diagonal line	M290				

Key Ideas: The Hnadling Data Cycle	Sparx Code	S	O	R	T
Design and criticise questionnaires	M493				
Draw and interpret pictograms, bar charts and vertical line graphs	M460 M644 M738				
Draw and interpret multiple bar charts	M644				
Draw and interpret pie charts	M574 M165				
Draw and interpret line graphs	M460 M738				
Represent and interpret grouped, quantitative data	M945 U120				
Find and interpret the range	M328				
Identify misleading graphs	U162				

Key Ideas: Measures of location	Sparx Code	S	O	R	T
Understand and use the mean, median and mode	M841 M940 M934				
Choose the most appropriate average	M440				
Find the mean from ungrouped frequency tables (H)	M127				
Find the mean from grouped frequency tables (H)	M287				
Identify outliers	M769 M596				

Maths Personal Learning Checklists

Parallel: Straight lines that never meet
Transversal: A line that cuts across two or more other (normally parallel) lines
Isosceles: Two equal size lines and equal size angles (in a triangle or trapezium)
Polygon: A 2D shape made with straight lines
Sum: Addition (total of all the interior angles added together)
Regular Polygon: All the sides have equal length; all the interior angles have equal size

Perimeter: Length around the outside of a 2D object
Pi (π): The ratio of a circle's circumference to its diameter.
Perpendicular: At an angle of 90°
Formula: A mathematical relationship/ rule given in symbols. E.g. b x h = area of rectangle/ square
Sector: A part of the circle enclosed by two radii and an arc.

Line of symmetry: same definition as the mirror line
Reflect: mapping of one object from one position to another of equal distance from a given line.

Hypothesis: an idea or question you want to test
Sampling: the group of things you want to use to check your hypothesis
Primary Data: data you collect yourself
Secondary Data: data you source from elsewhere e.g. the internet/ newspapers/ local statistics
Discrete Data: numerical data that can only take set values
Continuous Data: numerical data that has an infinite number of values (often seen with height, distance, time)
Spread: the distance/ how spread out/ variation of data

Average: a measure of central tendency – or the typical value of all the data together
Frequency: the number of times the data values occur
Represent: something that show's the value of another
Outlier: a value that stands apart from the data set
Consistent: a set of data that is similar and doesn't change very much

Properties of Quadrilaterals

Square
All sides equal size
All angles 90°
Opposite sides are parallel

Rectangle
All angles 90°
Opposite sides are parallel

Rhombus
All sides equal size
Opposite angles are equal

Parallelogram
Opposite sides are parallel
Opposite angles are equal
Co-interior angles

Trapezium
One pair of parallel lines

Kite
No parallel lines
Equal lengths on top sides
Equal lengths on bottom sides
One pair of equal angles

Sum of exterior angles

Exterior angles all add up to 360°

Using exterior angles
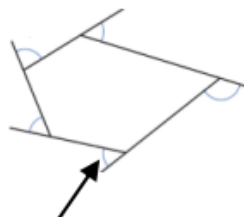
Exterior Angles
Are the angle formed from
the straight-line extension
at the side of the shape
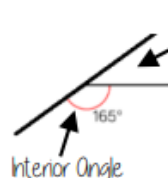
Exterior Angle

Interior angle + Exterior angle = straight line = 180°
Exterior angle = 180 – 165 = 15°

Number of sides = 360° ÷ exterior angle
Number of sides = 360 ÷ 15 = 24 sides

Sum of interior angles

(number of sides – 2) x 180

Interior Angles
The angles enclosed by the
polygon

Sum of the interior angles = (5 – 2) x 180

This shape can be made from
three triangles
Each triangle has 180°

Sum of the interior angles = 3 x 180
= 540°

Remember this is **all** of the interior angles added together
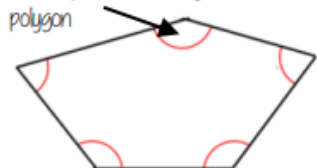
This is an **irregular** polygon
– the sides and angles are
different sizes

Missing angles in regular polygons
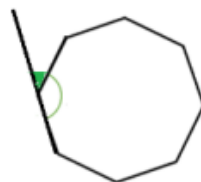
Exterior angle = 360 ÷ 8 = 45°

Interior angle = $\frac{(8-2) \times 180}{8}$ = $\frac{6 \times 180}{8}$ = 135°

Exterior angles in regular polygons = 360° ÷ number of sides

Interior angles in regular polygons = $\frac{\text{(number of sides – 2) x 180}}{\text{number of sides}}$

Area – rectangles, triangles, parallelograms

(R)

Rectangle
Base x Height
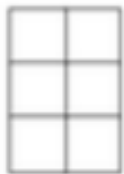
Parallelogram/ Rhombus
Base x Perpendicular height

h

b

Triangle
½ x Base x Perpendicular height

h

b

A triangle is half the size of the rectangle it would fit in
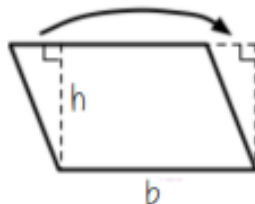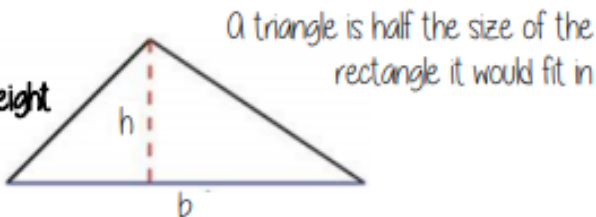
Area of a trapezium

Area of a trapezium

$$\frac{(a+b) \times h}{2}$$

b

h

a

Why?

h

a b
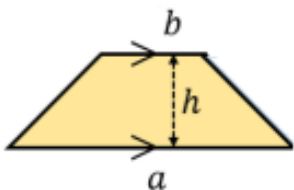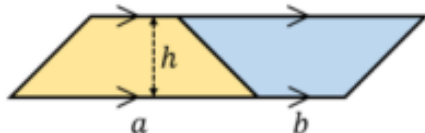
- Two congruent trapeziums make a parallelogram
- New length (a + b) x height
- Divide by 2 to find area of one

Compound shapes

To find the area compound shapes often need splitting into more manageable shapes first. Identify the shapes and missing sides etc. first.

5 cm

4 cm

5 cm

5 cm

7 cm

12cm

5 cm

4 cm

7 cm

Shape A - Isosceles trapezium

5 cm

12cm

8cm

Shape B- nonstandard trapezium

7 cm
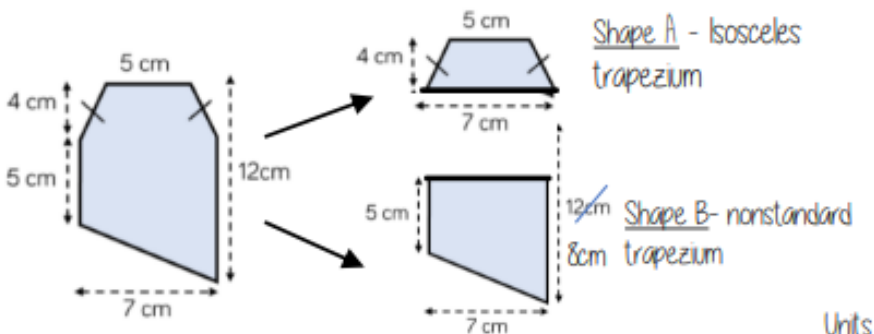
Units

Shape A + Shape B = total area

$$\frac{(5+7) \times 4}{2} \quad + \quad \frac{(5+8) \times 7}{2} \quad = 24 + 45.5 = 69.5cm^2$$

19

Area of a circle (Non-Calculator)

Read the question – leave in terms of π or if $\pi \approx 3$ (provides an estimate for answers)

Area of a circle
$\pi \times radius^2$
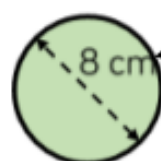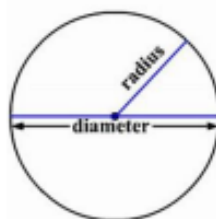
Diameter = 8cm
∴ Radius = 4cm

8 cm

$\pi \times radius^2$
$= \pi \times 4^2$
$= \pi \times 16$
$= 16\pi$ cm²

Find the area of one quarter of the circle

Radius = 4cm

4 cm

Circle Area = 16π cm²
Quarter = 4π cm²

Area of a circle (Calculator)

SHIFT ×10ˣ

Area of a circle
$\pi \times radius^2$

How to get π symbol on the calculator

It is important to round your answer suitably – to significant figures or decimal places. This will give you a decimal solution that will go on forever!
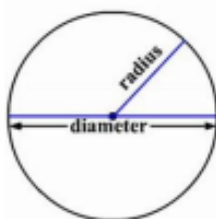
Compound shapes including circles

Circumference
$\pi \times diameter$

Compound shapes are not always area questions. For Perimeter you will need to use the circumference

Spotting diameters and radii

64 m
150 m
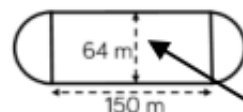
This dimension is also the diameter of the semi circles.

Arc lengths = $\pi \times 64$
$= 64\pi$

Don't need to halve this because there are 2 ends which make the whole circle

Arc lengths + Straight lengths = total perimeter

$= 64\pi + 150 + 150$
$= (300 + 64\pi)$ m
OR $= 5011$ m

Still remember to split up the compound shape into smaller more manageable individual shapes first

20

Lines of symmetry

Mirror line (line of reflection)

Rhombus
two lines of symmetry

Parallelogram
No lines of symmetry
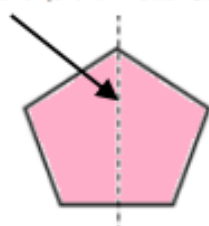
Shapes can have more than one line of symmetry....
This regular polygon (a regular pentagon has 5 lines of symmetry)

A circle has an infinite amount of lines of symmetry

Reflect horizontally/ vertically (1)

Note: a reflection doubles the area of the original shape

Reflection on an axis grid
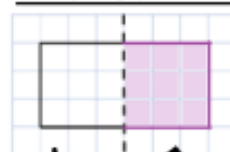
Reflection in a vertical line
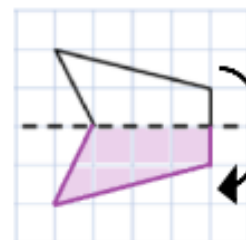
Reflection in a horizontal line

Reflection in the line y=-2
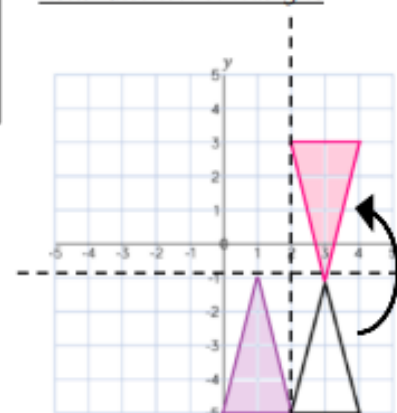
Reflection in the line x=2

Reflect horizontally/ vertically (2)

All points need to be the same distance away from the line of reflection
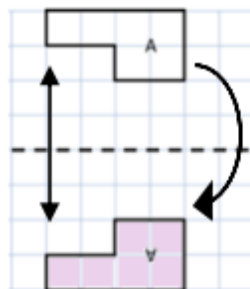
Reflection in the line y axis – this is also a reflection in the line x=0
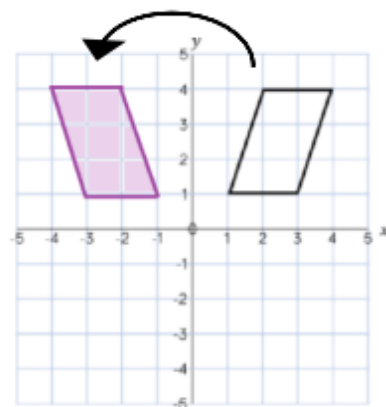
Lines parallel to the x and y axis
REMEMBER
Lines parallel to the x-axis are y = _____
Lines parallel to the y-axis are x = _____

Reflect Diagonally (1)

Points on the mirror line don't change position
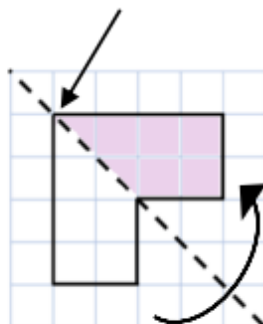
Fold along the line of symmetry to check the direction of the reflection

Turn your image
If you turn your image it becomes a vertical/ horizontal reflection (also good to check your answer this way)
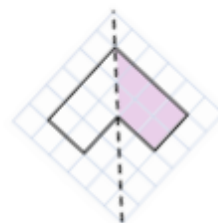
Drawing perpendicular lines
Perpendicular lines to and from the mirror line can help you to plot diagonal reflections
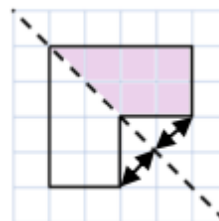
Reflect Diagonally (2)

This is the line $y = x$ (every y coordinate is the same as the x coordinate along this line)
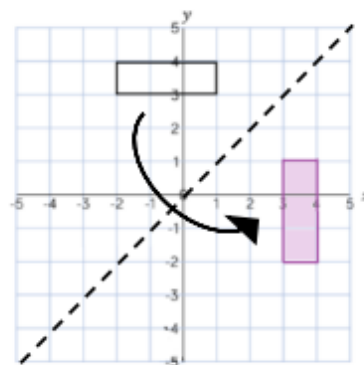
This is the line $y = -x$
The x and y coordinate have the same value but opposite sign
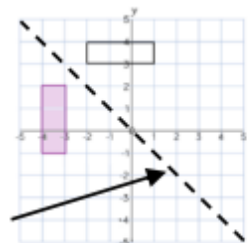
Turn your image
If you turn your image it becomes a vertical/ horizontal reflection (also good to check your answer this way)

22
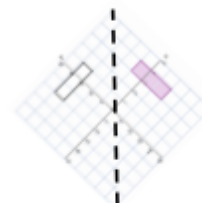
Set up a statistical enquiry

Write a suitable hypothesis → Design a data collection sheet → Pros/Cons of sampling → Pros/Cons primary or secondary data → Discrete or continuous data?
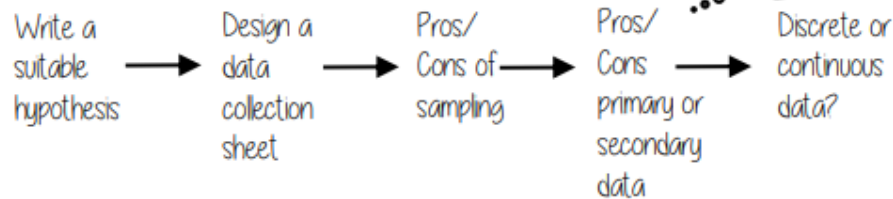
Features of a data collection sheet

Grouped or ungrouped categories

Data Title	Tally	Frequency
	⣿⣿	

Total number of that group observed

Design and criticise a questionnaire

The Question - be clear with the question - don't be too leading/ judgemental

e.g. How much pocket money do you get a week?

Responses – do you want closed or open responses? – do any options overlap? – Have you an option for all responses?

Zero option → ☐ £0 ☐ £0.01 - £2 ☐ £2.01 - £4 ☐ more than £4 ← More option

NOTE: For responses about continuous data include inequalities $< x \leq$

Pictograms, bar and line charts Ⓡ

Represents quantitative data

Pictogram

Language	
French	
Spanish	
German	

◯ = 4 people

- Need to remember a key
- Visually able to identify mode

Bar Chart

How Y8 travel to school
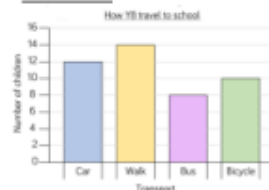
- Gaps between the bars
- Clearly labelled axes
- Scale for the axes
- Title for the bar chart
- Discrete Data

Line Chart
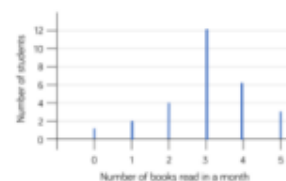
- Gaps between the lines
- Clearly labelled axes
- Scale for the axes
- Discrete Data

Multiple Bar chart

Compares multiple groups of data

- Clearly labelled axes
- Scale for axes
- Comparable data bars drawn next to each other

Average temperatures

Key: London, Moscow, Seoul

Key/ Colour code for separate groups of information

Gap between different categories of data
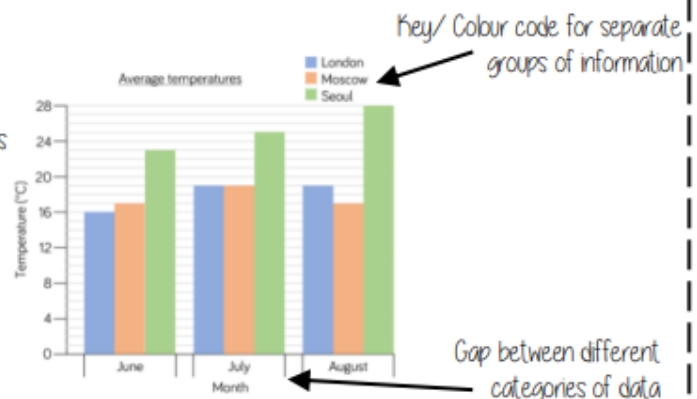
Draw and interpret Pie Charts (R)

Remember a circle has 360°

Type of pet	Dog	Cat	Hamster
Frequency	32	25	3

There were 60 people asked in this survey (Total frequency)

$\frac{32}{60}$ "32 out of 60 people had a dog"

This fraction of the 360 degrees represents dogs

$\frac{32}{60}$ X 360 = 192°

Use a protractor to draw
This is 192°

Dog

Multiple method
As 60 goes into 360 – 6 times
Each frequency can be multiplied by 6 to find the degrees (proportion of 360)

Represents quantitative, discrete data

Draw and interpret line graphs

Playground Temperature

- Commonly used to show changing over time
- The points are the recorded information and the lines join the points

Line graphs do not need to start from 0

More than one piece of data can be plotted on the same graph to compare data
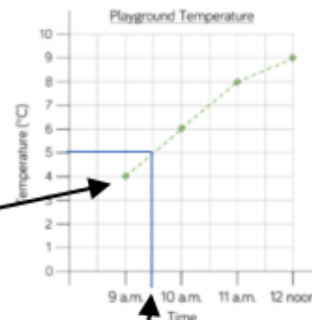
It is possible to make estimates from the line e.g temperature at 9.30am is 5°C

Grouped quantitative data

Time (minutes)	Frequency
0 ≤ t < 5	4
5 ≤ t < 10	6
10 ≤ t < 15	5
15 ≤ t < 20	8
20 ≤ t < 25	10
25 ≤ t < 30	1
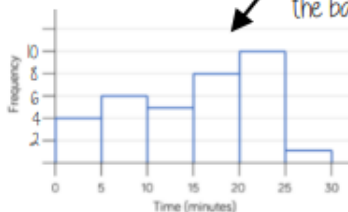
This is a frequency diagram
There are no gaps between the bars

"More than or equal to 25 and less than 30 minutes"

The use of inequalities shows that this will be a frequency diagram

Grouping the data is useful if there is a large spread of data to begin with

Find and interpret the range

The range is a measure of **spread**

Difference between the biggest and smallest values

A smaller range means there is less variation in the results – it is more consistent data

A range of 0 means all the data is the same value

Shop 1 has the smallest range – this indicates it has a more consistent flow of customers each week.

Shop 1 highest value

Shop 1 lowest value
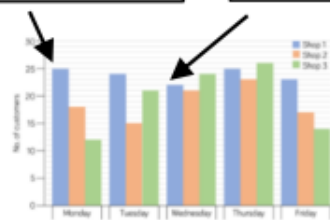
Range of customers = 25 – 22 = 3
(Shop 1)

Mean, Median, Mode

The Mean

A measure of average to find the central tendency... a typical value that represents the data

24, 8, 4, 11, 8

Find the sum of the data (add the values) **55**

Divide the overall total by how many pieces of data you have   **55 ÷ 5**

Mean = 11

The Median

The value in the center (in the middle) of the data

24, 8, 4, 11, 8

Put the data in order   **4, 8, 8, 11, 24**

Find the value in the middle   **4, 8, 8, 11, 24**

Median = 8

NOTE: If there is no single middle value find the mean of the two numbers left

The Mode (The modal value)

This is the number OR the item that occurs the most (it does not have to be numerical)

24, 8, 4, 11, 8

This can still be easier if it the data is ordered first

4, 8, 8, 11, 24

Mode = 8

Choosing the appropriate average

Here are the weekly wages of a small firm

| £240 | £240 | £240 | £240 | £240 |
| £260 | £260 | £300 | £350 | £700 |

Which average best represents the weekly wage?

The average should be a representative of the data set – so it should be compared to the set as a whole – to check if it is an appropriate average

The Mean = £307

The Median = £250

The Mode = £240

Put the data back into context

Mean/Median – too high (most of this company earn £240)

Mode is the best average that represents this wage

It is likely that the salaries above £240 are more senior staff members – their salary doesn't represent the average weekly wage of the majority of employers

Identify outliers

Outliers are values that stand well apart from the rest of the data

Outliers can have a big impact on range and mean
They have less impact on the median and the mode

Sometimes it is best to not use an outlier in calculations

Height in cm
152 150 142 158 (182) 151 153 149 156 160 151 144

Where an outlier is identified try to give it some context.
This is likely to be a taller member of the group.
Could the be an older student or a teacher?
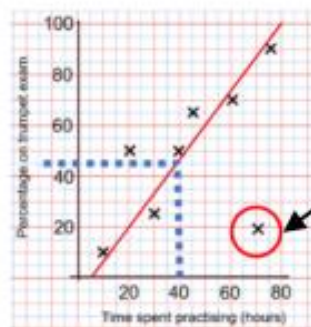
Outliers can also be identified graphically e.g. on scatter graphs

Comparing distributions

Comparisons should include a statement of average and central tendency, as well as a statement about spread and consistency

Here are the number of runs scored last month by Lucy and James in cricket matches

Lucy: 45, 32, 37, 41, 48, 35
James: 60, 90, 41, 23, 14, 23

Lucy
Mean: 39.6 (1dp), **Median:** 38 **Mode:** no mode, **Range:** 16

James
Mean: 41.8 (1dp), **Median:** 32, **Mode:** 23, **Range:** 76

James has two extreme values that have a big impact on the range

"James is less consistent that Lucy because his scores have a greater range. Lucy performed better on average because her scores have a similar mean and a higher median"

Science Personal Learning Checklists

Biology	S	O	R	T
Food chains and food webs				
Interdependence				
Biomass				
Bio-accumulation				
Energy flow				
Competition habitats and ecosystems				
Biotic and abiotic factors				
Species				

Chemistry	S	O	R	T
Elements, atoms compounds				
Mixtures				
Filtration				
Evaporation				
Distillation				
Chromatography				

Physics	S	O	R	T
Pressure in solids				
pressure in liquids				
Pressure in gases				
Floating and sinking				
Density				

Science Knowledge Organiser

Key word	Definition
Chloroplast	The part of a plant cell where photosynthesis happens.
Photosynthesis	The process where plants make their own food using sunlight, carbon dioxide, and water.
Producer	A plant or algae that makes its own food and starts a food chain.
Consumer	An animal that eats plants or other animals for energy.
Biodiversity	The variety of living things in an environment.
Food Security	Having enough food for people to eat, now and in the future.
Deforestation	Cutting down trees, which destroys habitats and reduces biodiversity.
Pollution	Harmful substances released into the air, water, or land that can harm living things.
Bioaccumulation	The build-up of harmful chemicals in a food chain, which affects top predators the most.
Interdependence	How different organisms rely on each other for survival.

Science Knowledge Organiser

Matter

Pure Substances — Separation Methods ← Mixtures

Pure Elements
Examples:
oxygen
hydrogen
potassium

Chemical Reactions

Pure Compounds
Examples:
water
sodium chloride
carbon dioxide

Homogenous Mixtures
Examples:
Salt water
Mouthwash
Alloys

Heterogenous Mixtures
Examples:
Pizza
Salad Dressing
Landfill
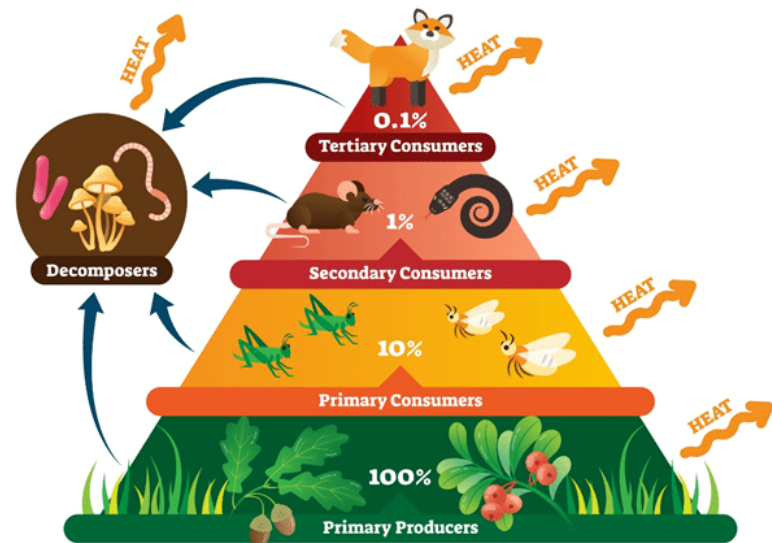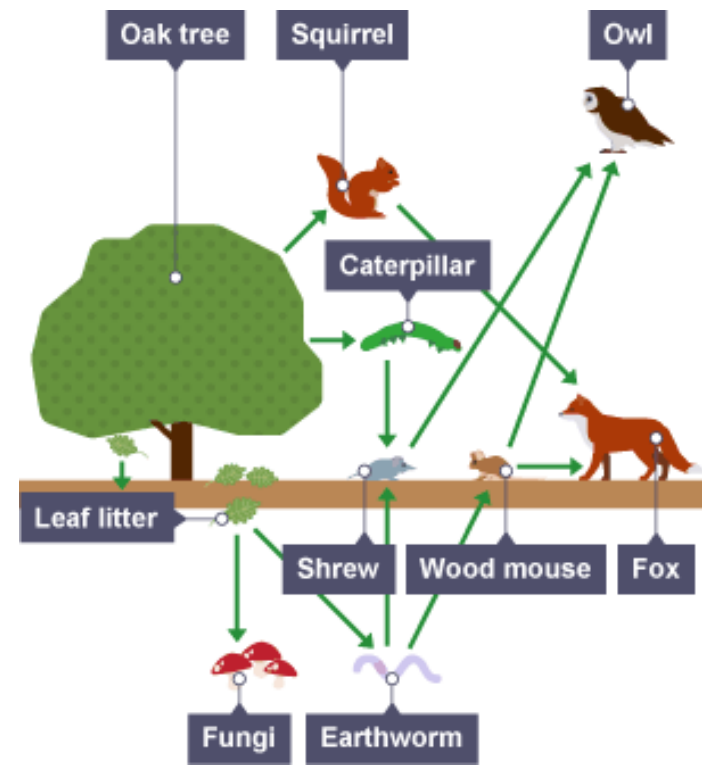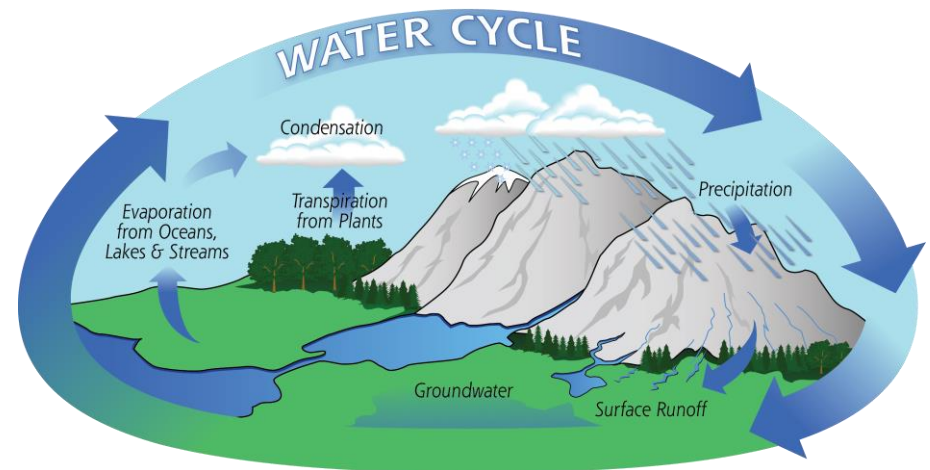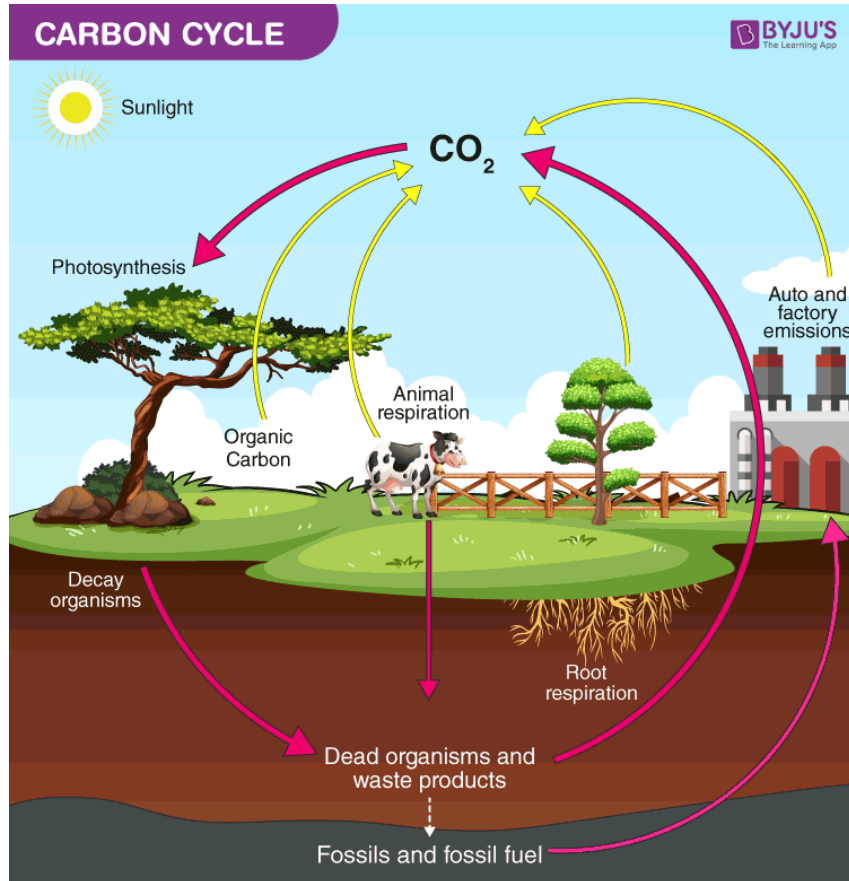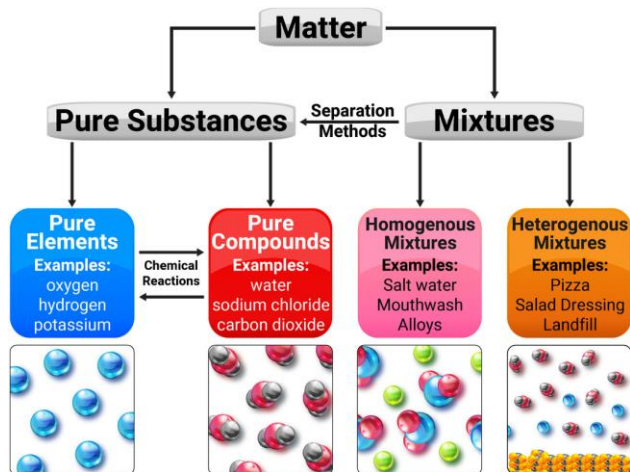
Blob diagrams to show different types of substance:

Element
Atoms of the element argon exist on their own.

Element
Oxygen atoms join in pairs.
Argon and oxygen are elements

Compound
Carbon and oxygen atoms are joined together in carbon dioxide.

Mixture
Air is a mixture of elements and compounds

Insoluble Solid (residue)
Filter Paper
Conical Flask
Filter Funnel
Liquid Solvent (filtrate)

PAPER CHROMATOGRAPHY

Lid
Solvent front
Paper
Solvent

BYJU'S
The Learning App

Solvent front
Blue
Purple
Red
Origin
10 cm
8 cm
6 cm
2 cm

100°C
Cooling water out
Vapour condenses in the condenser
Cooling water in
Water
Pure water vapour
Salty water
Pure water
Heat

gas pressure

gas molecules

volume 2

Pressure Water

Small forces on the top

Weight of box

water

Large forces on the bottom

whack!

ouch

thump

whack!

yes!

Pressure = force / area

Large area
Low pressure

Small area
High pressure

Computing Personal Learning Checklists

Understanding Computers	S	O	R	T
Distinguish between hardware and software.				
Give examples of computer hardware and software.				
Understand the purpose of the CPU				
Explain the different factors affecting the performance of the CPU				
Explain the different parts of the CPU				
Show how numbers can be represented in binary.				
Perform simple binary arithmetic				
Explain how characters are encoded using the ASCII system				
Describe how pixels are represented in binary				
Understand how sound is represented in binary				
Be able to distinguish between lossy and lossless compression				
Understand the concepts of decomposition, abstraction and pattern recognition				
Understand concepts of sequence, selection and iteration in use in algorithms				
Understand what is an algorithm and how they can be used to describe a process				
Understand Boolean logic NOT, AND, OR				

Interactive Media	S	O	R	T
Understand the types of interactive digital media				
Understand the Content of interactive digital media				
Understand the different types of devices that are used to view interactive media				
Be able to describe what house style is and where it is used				
Learn about linear and non-linear reading patterns				
Describe target audience and how it plays a role in design				
Understand how different colours are used in marketing				
Understand the importance of white space				
Understand the UI of apps				
Understand the use of pre-production documents for app design				
Create Pre-production and planning documentation				

1 TIER THREE VOCABULARY

Abstraction	Abstraction is the gathering of the general characteristics we need and the filtering out of the details and characteristics that we do not need.
Algorithm	A sequence of logical instructions for carrying out a task. In computing, algorithms are needed to design computer programs.
Analogue	Continuous data which can have a range of values.
Ascii	American Standard Code for Information Interchange. A 7-bit character set used for representing English keyboard characters.
Binary	A number system that contains two symbols, 0 and 1. Also known as base 2.
Bit	The smallest unit of data in computing represented by a 1 in binary.
Boolean Logic	A form of logical algebra which works only with two values, true or false.
Colour Depth	The amount of bits available for colours in an image.
Compression	A method of reducing file sizes, particularly in digital media such as photos, audio and video.
CPU/Processor	Central processing unit - the brain of the computer that processes program instructions.
Data	Units of information.
Decomposition	Is breaking down a complex problem or system into smaller parts that are more manageable and easier to understand.
Denary	The number system most commonly used by people. It contains 10 unique digits 0 to 9. Also known as decimal or base 10.
Digital	Information stored as discrete values usually represented as numbers.
Downloading	To copy a file from the internet onto your computer or device.
Flowchart	A flowchart is a type of diagram that represents a workflow or process.
Input	Data which is inserted into a system for processing and/or storage.

2 Factors affecting the CPU

Clock speed
Cycles per second measured in hertz

Number of cores
The number of duplicate processors linked together on a single chip

Cache size
Superfast working memory

- Fetch the instruction
- Decode the instruction
- Execute the instruction

4 Binary Addition Rules

		Carry Over	Result
1.	0 + 0	0	0
2.	0 + 1	0	1
3.	1 + 0	0	1
4.	1 + 1	1	0
5.	1 + 1 + 1	1	1
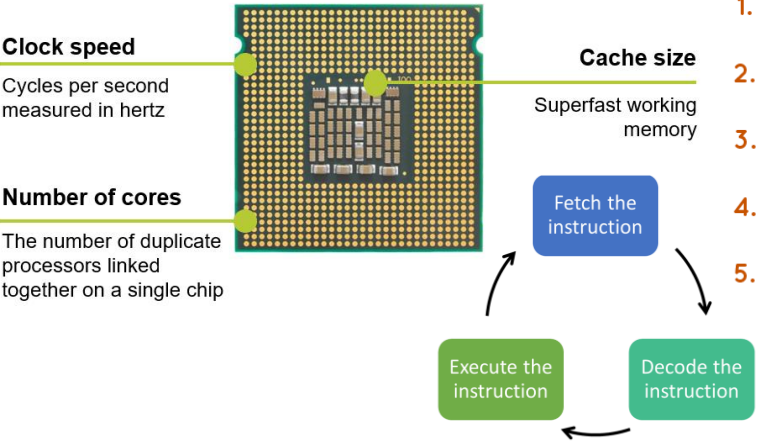
3 Binary Representation

Decimal	Binary	Decimal	Binary
0	0	10	1010
1	1	11	1011
2	10	12	1100
3	11	13	1101
4	100	14	1110
5	101	15	1111
6	110	16	10000
7	111	17	10001
8	1000	18	10010
9	1001	19	10011

5 Images, Sound & Text

Binary	01100111	01101111	01101111	01100100	01100010	01111001	01100101
Decimal	103	111	111	100	98	121	101
Letter	g	o	o	d	b	y	e

goodbye
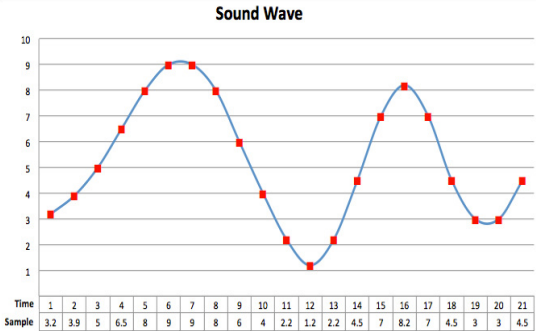
Sound Wave

Time	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Sample	3.2	3.9	5	6.5	8	9	9	8	6	4	2.2	1.2	2.2	4.5	7	8.2	7	4.5	3	3	4.5

Computing Knowledge Organiser – Understanding Computers

1 — TIER THREE VOCABULARY

1	TIER THREE VOCABULARY
Iteration	In computer programming, this is a single pass through a set of instructions.
Jpeg	Joint Photographic Experts Group - a digital image format which uses lossy compression.
Metadata	Data about data, eg photo image files have data about where the photo was taken and which camera took the picture.
Mp3	A standard audio file format which uses lossy compression.
Output	Data which is sent out of a system.
Pattern recognition	Finding the similarities or patterns among small, decomposed problems that can help us solve more complex problems more efficiently.
Pixel	Picture element - a single dot of colour in a digital bitmap image or on a computer screen.
Ram	Random access memory. This is volatile memory that is constantly being written to and read from. It does not retain its contents without a constant supply of power. When a computer is turned off, everything stored in its RAM is lost.
Resolution	The number of pixels in an image- the higher the resolution of an image, the more detail it holds.
Sample Rate	How many samples of data are taken per second. This is normally measured in hertz,
Selection	A decision within a computer program when the program decides to move on based on the results of an event.
Sequencing	Creating a set of instructions to complete a task.
Unicode	A system of encoding text in computing widely used on the internet.
Upload	To add data to a server on the internet, eg you can upload videos to social media websites.

6 Decomposition
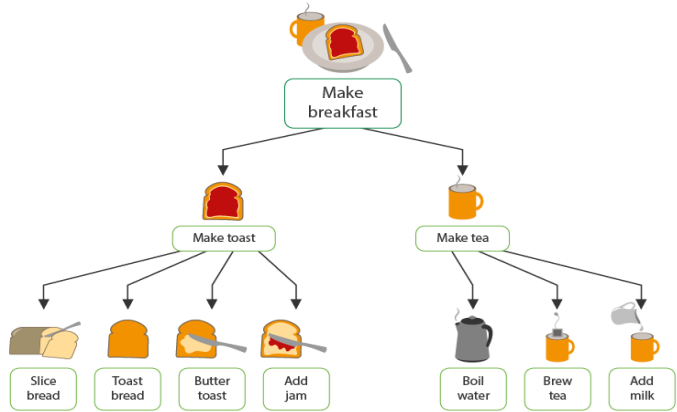
8 Abstraction

THE ABSTRACT-O-METER

too realistic   just right   too abstract
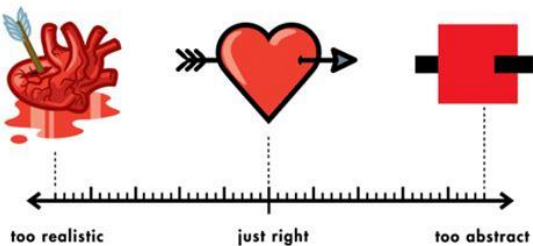
7 Programming Constructs

SEQUENCE   SELECTION   ITERATION
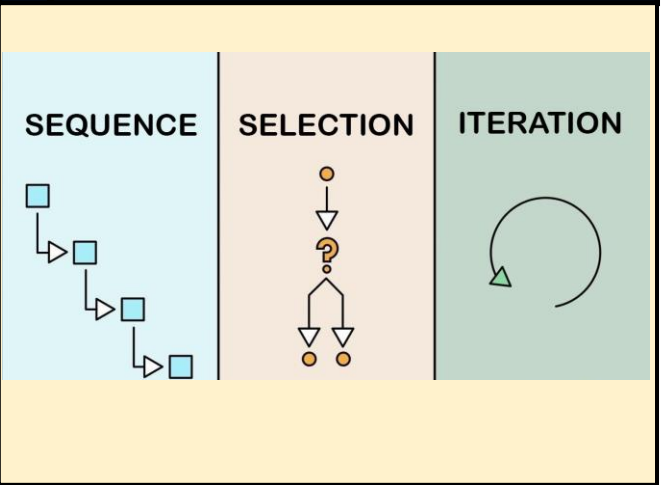
9 Flowcharts

Symbol	Usage
Start/Stop	The beginning and end points in the sequence.
Process	An instruction or a command.
Decision	A decision, either yes or no.
Input/Output	An input is data received by a computer. An output is a signal or data sent from a computer.

Computing Knowledge Organiser – Interactive Media

Audience	The specific group of people for whom a media product is intended.
Brief	A document that outlines the requirements and objectives of a project.
Colour Contrast	The degree of difference between colours in a design, used to create visual interest and legibility.
Colour Theory	The study of colours and their relationships in art and design.
Colour Wheel	A circular representation of the colour spectrum, shows relationships between colours.
Copyright	Legal protection given to the creator of an original work.
Design	The process of creating and arranging visual elements in a media product.
Digital art	Artistic creations that are produced or displayed using digital technology.
Digital media	Content in a digital format that is designed for distribution and consumption through digital devices
Evaluation	The process of assessing and analysing the effectiveness and success of a media product.
Graphic design	The art and practice of creating visual content using typography, imagery, and layout techniques to communicate messages and solve visual problems.
Graphics	Visual elements such as images, illustrations, or icons used in media products.
Hardware	The physical components and devices used in media production, such as computers or cameras.
Interactive media	Media that users to actively participate and engage with the content, such as clickable buttons, drag-and-drop
Multimedia	The combination of different media types, such as text, images, audio, and video.
Production	The process of creating a media product, including planning, designing, and implementation.
Review	A critical assessment or commentary on a media product.
Software	Programs or applications used in media production
Target audience	The specific group of people a media product is primarily designed to appeal to.
Typography	The art and technique of arranging and styling text in a visually appealing manner.
User Interface (UI)	The visual elements and controls through which a user interacts with a software or application.
Video	Moving images recorded or created for use in media.
Web design	The process of designing and creating the visual layout, user interface, and overall user experience of websites,
Wire Frame Diagram	Is a visual guide that represents the skeletal framework of a website or app

2 Methods of showing information

Text – To be able to read content
Images – help to visualise content
Video's – moving images to show more detail
Button's – Allow to users to interact with website
Audio – Can give information through sounds
Animations – Interactive objects with moving parts

Interacting devices

Keyboard   Mouse   Joy Stick

Mic   Barcode Reader   Stylus/Pen   Web Camera

Touch pad   Touch Screen   Finger Print reader

4 Design Elements

WHITESPACE

House Style

Typography

5 Wire Frame Diagram
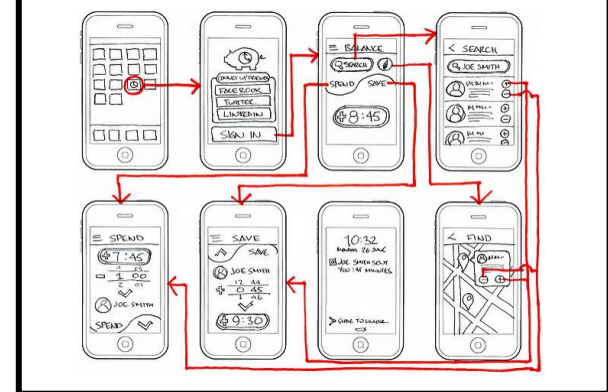
Can we use our natural environment (ecosystems) sustainably	S	O	R	T
Describe the location of the major world biomes (Large scale ecosystems)				
Explain how latitude affects the location of world biomes				
Describe and explain the location of the world's Tropical Rainforests				
Analyse the climate of the Tropical Rainforests and explain the patterns seen				
Describe and explain the structure of vegetation in the Tropical Rainforests				
Describe and explain plant and animal adaptations in the Tropical Rainforests				
Describe and explain the characteristics of the Tropical Savannah				
Analyse the climate of the Hot Deserts and explain the patterns seen				
Explain the history and adaptations of the Australian Aboriginals				
Describe and explain the population distribution of Australia				
Describe and explain the characteristics of the Polar biome				
Evaluate the impact of tourism on Antarctica				
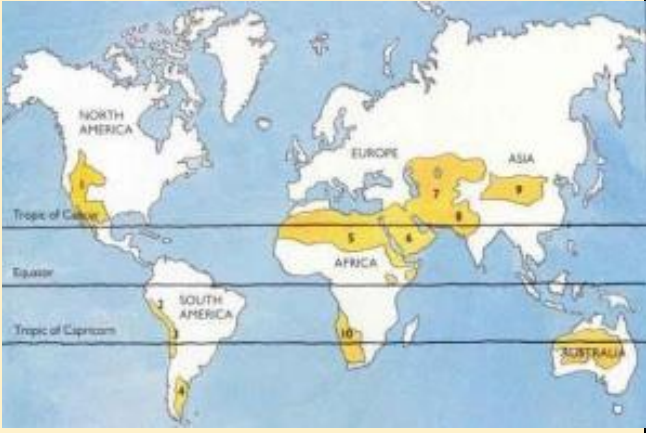
Geography: 8.5 Can we use our natural environment (ecosystems) sustainably?

1 — TIER THREE VOCABULARY

Biome	**A biome is a large geographical area of distinctive plant and animal groups, which are adapted to that particular environment. The climate and geography of a region determines what type of biome can exist in that region.**
Desert	**An area of land with little or no rainfall and very vegetation (plants), typically one covered with sand**
Latitude	Imaginary lines that form a grid on the earth's surface to show how far north or south a place is.
Climate	The average weather conditions in a place, including how hot and rainy it is each month.
Ecosystem	Plants and animals that live together in an environment.
Deforestation	The cutting down of trees or the destruction of forests
Soil erosion	The removal of soil by wind or water
Biodiversity	The variety of plant and animal life in a habitat
Buttress roots	Roots that stand above the ground to support large trees.

2 — Components of an ecosystem

What is an Ecosystem?

An ecosystem is a system in which organisms interact with each other and with their environment.

Ecosystem's Components

Abiotic	These are non-living, such as air, water, heat and rock.	
Biotic	These are living, such as plants, insects, and animals.	
	Flora	Plant life occurring in a particular region or time.
	Fauna	Animal life of any particular region or time.

3 — Structure of the Tropical Rainforest

Tropical Rainforest Biome: Tropical rainforest cover about 2 per cent of the Earth's surface yet they are home to over half of the world's plant and animals.

Layers of the Rainforest

Emergent	Highest layer with trees reaching 50 metres.
Canopy	Most life is found here as It receives 70% of the sunlight and 80% of the life.
Under Canopy	Consists of trees that reach 20 metres high.
Shrub Layer	Lowest layer with small trees that have adapted to living in the shade.

4 — Hot Desert Biomes

Most of the world's hot deserts are found in the subtropics between 20 degrees and 30 degrees north & south of the Equator. The Tropics of Cancer and Capricorn run through most of the world's major deserts.

5 — Amazon Tribes and uncontacted people

Tropical rainforests are centred along the Equator between the Tropic of Cancer and Capricorn. Rainforests can be found in South America, central Africa and South-East Asia. The Amazon is the world's largest rainforest and takes up the majority of northern South America, encompassing countries such as Brazil and Peru.

Amazon Tribes
The Amazon is the world's largest rainforest. It is also the ancestral home of 1 million Indians. They are divided into about 400 tribes, each with its own language, culture and territory. Many have had contact with outsiders for almost 500 years. Others – 'uncontacted' tribes – have had no contact at all. Brazil's Amazon is home to more uncontacted tribes than anywhere in the world. There are thought to be at least 100 isolated groups in this rainforest,

History & REP Personal Learning Checklists

History	S	O	R	T
The Battle of Britain				
What happened at Pearl Harbour				
D-Day				
Should the bomb be dropped on Hiroshima				

History	S	O	R	T
Why Hitler hated the jews				
How did Nazi's treat jews before the war				
Treatment of the Jews in WW2				
What was life like in the ghettos				
The Pianisdt				
Consequences of the final solution				

REP Buddhism	S	O	R	T
Describe the early life of the Buddha				
State the Four Signs of Being				
Explain what is meant by ascetic meditation				
Identify what Mara represents				
Describe what Enlightenment means to Buddhists				
State what the Sangha is				
Describe what the Three Universal Truths are				
Explain what Attachment is and why it is a problem for Buddhists				
Describe what the Four Noble Truths are				
State the parts of the Noble Eightfold Path and explain how it is used				
Describe what a Buddhist Monk/Nun is				
Describe what Karma is				
Explain what Samsara is and how it relates to Karma and Nirvana				
Explain the purpose of mindfulness and meditation				
Describe what Samatha and Vipassan are				
Explain the difference between a chant and a mantra				
Describe what a mandala is and how it is used in meditation				
State who the Dalai Lama is				
Describe what Zazen means and how Zen Gardens encourage it				

History Knowledge Organiser

Allies	The Allies, formally referred to as the United Nations from 1942, were an international military coalition formed during World War II (1939–1945) to oppose the Axis powers
Axis powers	The Axis powers, originally called the Rome–Berlin Axis and also Rome–Berlin–Tokyo Axis, was a military coalition that initiated World War II and fought against the Allies.
Fascism	An authoritarian and nationalistic right-wing system of government and social organization.
Totalitarianism	Totalitarianism is a political system and a form of government that prohibits opposition political parties, disregards and outlaws the political claims of individual and group opposition to the state, and controls the public sphere and the private sphere of society.
Manhattan Project	The Manhattan Project was a research and development program undertaken during World War II to produce the first nuclear weapons.
Atomic Bomb	The only nuclear attacks in war, which killed over 200,000 people in Japan in 1945.
Kamikaze	Japanese Special Attack Units of military aviators who flew suicide attacks for the Empire of Japan against Allied naval vessels
Internment Camps	Camps to hold prisoners during the war
Operation Overload	Operation Overlord was the codename for the Battle of Normandy, the Allied operation that launched the successful liberation of German-occupied Western Europe during World War II.
VE Day	VE Day marks the end of fighting in Europe against Nazi Germany in World War Two.
VJ Day	Victory over Japan Day (also known as V-J Day, Victory in the Pacific Day, or V-P Day) is the day on which Imperial Japan surrendered in World War II, in effect bringing the war to an end.
Rationing	When World War II began in September 1939, petrol was the first commodity to be controlled. On 8 January 1940, bacon, butter, and sugar were rationed. Meat, tea, jam, biscuits, breakfast cereals , cheese, eggs, lard, milk, canned and dried fruit were rationed subsequently, though not all at once.
Cold War	a period of geopolitical tension between the United States and the Soviet Union and their allies from 1947 to 1991.

2 | Attack on Pearl Harbour 1941

The surprise military strike by the Imperial Japanese Navy against the United States naval base at Pearl Harbor, Hawaii, resulted in the deaths of over 2,400 Americans and the destruction of numerous ships and aircraft. The attack prompted the United States to enter World War II. President Franklin D. Roosevelt famously described December 7, 1941, as "a date which will live in infamy."

4 | Dropping the A-bomb

Dropping of the Atomic Bomb on Hiroshima (1945):

The United States dropped an atomic bomb, codenamed "Little Boy," on the Japanese city of Hiroshima, resulting in unprecedented destruction and loss of life. Approximately 70,000 people were killed instantly, with tens of thousands more dying later due to injuries and radiation exposure. The decision to use atomic weapons was made by President Harry S. Truman, and Hiroshima was chosen as a target due to its military significance and lack of previous bombing damage. The bombing of Hiroshima and later Nagasaki led to Japan's surrender and the end of World War II.

3 | D-Day landings

Codenamed Operation Overlord, the D-Day landings were the largest amphibious invasion in history. Allied forces, primarily American, British, and Canadian troops, landed on the beaches of Normandy, France, to begin the liberation of German-occupied Western Europe. General Dwight D. Eisenhower led the operation, which involved extensive planning and coordination. The successful invasion marked a turning point in the war

LINKS & FURTHER READING

https://www.bbc.co.uk/bitesize/topics/zk94jxs/articles/z6vff82#z46mm39

Bitesize: Hiroshima, Dunkirk & WWII

History Knowledge Organiser

1	TIER THREE VOCABULARY
Anti-Semitism	Prejudice, discrimination, or hostility directed against Jewish people. against Jewish people.
Nazi Party	The political party led by Adolf Hitler, which held power in Germany from 1933 to 1945.
Holocaust	The systematic, state-sponsored persecution and murder of six million Jews by the Nazi regime and its collaborators.
Genocide	The deliberate killing of a large group of people, especially those of a particular ethnic group or nation.
Persecution	Hostility and ill-treatment, especially because of race or political or religious beliefs.
Ghetto	A section of a city, especially a densely populated slum area, inhabited by a minority group or groups.
Kristallnacht	Also known as the "Night of Broken Glass," a pogrom against Jews throughout Nazi Germany and parts of Austria on November 9-10, 1938.
Concentration camp	A place where large numbers of people, especially political prisoners or members of persecuted minorities, are detained and confined under harsh conditions.
Death camp	A concentration camp designed for the systematic extermination of prisoners.
Resistance	The act or instance of opposing or fighting against an occupying force or authority, often through underground movements or sabotage.
Anne Frank	A Jewish girl who kept a diary while hiding with her family from the Nazis in Amsterdam during World War II. Her diary, published posthumously, became one of the most famous accounts of life during the Holocaust.
Righteous Among the Nations	Non-Jewish individuals who risked their lives during the Holocaust to save Jews from extermination by the Nazis.
liberation	The act of setting someone free from imprisonment, slavery, or oppression, often referring to the freeing of concentration camp prisoners by Allied forces at the end of World War II.

2 Anti-Semitism grows

1. Anti-Semitism in Europe Before WW2: Anti-Semitism is the term used to describe prejudice or hatred against Jewish people. Unfortunately, it has a long history in Europe. For centuries, Jews faced discrimination, violence, and exclusion from society in many European countries. They were often blamed for problems like economic troubles or diseases, even though these accusations were not true.

2. Increased Persecution of Jews in Germany Before WW2: In the early 20th century, Germany faced economic difficulties and political unrest. During this time, a political party called the Nazi Party, led by Adolf Hitler, gained power. The Nazis believed in a hateful ideology that blamed Jews for Germany's problems. They passed laws that restricted the rights of Jewish people, like banning them from certain jobs and places.

3 Treatment of Jews during WWII

3. Treatment of Jews During World War 2: When World War 2 began in 1939, Germany invaded many countries in Europe. The Nazis used the chaos of war to carry out their terrible plans against Jewish people. They rounded up Jews from their homes and sent them to concentration camps, where they were forced to work hard labor and endure terrible living conditions. Millions of Jews, along with others deemed "undesirable" by the Nazis, were killed in these camps.

4 Lodz Ghetto, Poland

4. Life and Conditions in the Polish Ghettos: In occupied Poland, the Nazis set up ghettos, which were small areas of cities where they forced Jewish people to live. These ghettos were overcrowded and had very poor living conditions. Food and resources were scarce, and diseases spread quickly. Many people died from starvation and illness in these ghettos.

4 LINKS & FURTHER READING

https://www.bbc.co.uk/bitesize/topics/zk94jxs/articles/zt48dp3
BBC Bitesize – The Holocaust

REP Knowledge Organiser: Buddhism

Lesson 1 - Life of the Buddha

Siddhartha Gautama:
The given name of the Buddha.

The Four Signs of Being:
Old age, disease, death and a Holy Man

Ascetic:
Living a deliberately harsh life to overcome suffering.

Mara:
The demon-king who challenges Siddhartha.

Enlightenment:
A state of being free from suffering.

Sangha:
Buddhist monastic community.

Lesson 2 - Three Universal Truths and the Four Noble Truths

Annica:
Impermanence, nothing lasts forever.

Anatta:
No-self, you have no fixed identity.

Dukkha:
Life involves suffering.

Craving:
Wanting something you don't have.

Attachment:
Having an emotional connection to someone or something.

Lesson 3 - Noble Eightfold Path

Wisdom:
Having experience, knowledge and good judgement

Morality:
Choosing to do the right thing.

Mental Training:
Practicing awareness, meditation and mindfulness.

Monk/Nun:
Someone who has devoted their life to their religion.

Bikkhu:
A Buddhist monk.

Lesson 4 - Karma and Enlightenment

Karma:
The universal law of moral causation.

Samsara:
Buddhist belief in rebirth.

Nirvana/Nibbana:
The state of enlightenment that is free from suffering.

Arahat:
A monk who achieves Nirvana.

Buddha Nature:
The capacity for everyone to achieve Nirvana.

Lesson 5 - Meditation and Mindfulness

Mindfulness:
Deep awareness of your thoughts, feelings and those of others.

Meditation:
Activities that allow for states of mindfulness.

Samatha:
Breathing exercises designed to help start meditation.

Vipassana:
Traditional sitting meditation.

Chanting and Mantras:
Repeated recitation of the Buddha's teachings.

Lesson 6 - Mandalas

Mandala:
Visual representation of an aspect of the Buddha's teachings, traditionally made from sand.

Symbolism:
Images, shapes and colours carry certain meanings and significance that let an image convey an understanding.

Tibet:
A region in the Himalayan mountains.

Dalai Lama:
The spiritual leader of Tibetan Buddhism.

Lesson 7 - Zen Gardens

Zen:
A denomination of Buddhism that focuses on achieving *Zazen*.

Zazen:
A state of peace and contentment achieved by focusing on the moment.

Tranquility:
A calm and peaceful atmosphere.

Contemplation:
Looking thoughtfully at something for a long time.

Bonsai:
The art of growing ornamental and artificially dwarfed plants, trees and shrubs.

French Personal Learning Checklists

French **Sortir en France** **(*Go out in France*)**	S	O	R	T
List places in a town				
Invite people to go out using vouloir and aller in the present tense				
Make excuses				
List time phrases and prepositions				
Recognise and describe clothing items				
Form the near future tense				
Use the verb 'porter' say what I am wearing and going to wear				
Use adjectives of colour and texture to describe clothes				
Perform a shop role play on buying clothes				
List a range of shops				
Say phrases to buy souvenirs				
To use expressions to complain				
Form and use the conditional tense to say what I would buy if I could				
Use your vocab booklet to sort your learning				

French **Mon Monde** **(*My World*)**	S	O	R	T
Discuss music in france				
Learn a french song and sing along to it				
Use the online dictionary to translate song lyrics				
Say the names of different musical instruments				
Talk about what happens at 'la fête de la musique'				
Describe a music event revising the perfect tense				
Say which french music festival I would go to and where I would stay				
Say what I am going to do in the holidays				
Study a french singer during a research lesson				
Revise transport and accommodation				
Write a 40-word piece on festivals and holidays in 3 tenses				
Give information about the french revolution				
Use your vocab booklet to sort your learning				

Spanish Personal Learning Checklists

Sobrevivir en España *(Surviving in Spain)*	S	O	R	T
Invite people out				
Use the conditional tense				
List places in a town				
Describe your favourite place in newquay				
Use the near future tense to say where you are going to go				
Revise time phrases and prepositions				
Reject and accept invites				
Use *poder* and *querer*				
Discuss getting ready to go out				
List a range of clothes & use colours to describe them				
Use demonstrative pronouns *este, esta, estos* and *estas*				
Do a role play in a shop				
Use three tenses to describe outfits				
Use three tenses to describe a visit				
List a range of shops				
Say phrases to buy souvenirs				
Make complaints				
Give information about el cinco de mayo				
Use your vocab booklet to sort your learning				

Mi Mundo (My world)	S	O	R	T
Talk about music				
Give extended opinions on music				
Say what music you listen to and use the comparative				
Find out about music in spanish speaking countries				
Develop my knowledge of spanish popular culture				
Find out about music and art festivals in spanish speaking countries				
Give extended opinions about festivals				
Describe a holiday home using the comparative				
Revise transport				
Say where you stay when you go on holiday (revision)				
Say what you can do when you go on holiday				
Use se puede+infinitive				
Ask for directions				
Learn about summer camps				
Use 3 tenses to describe events				
Use your vocab booklet to sort your learning				

Music and Drama Personal Learning Checklists

Songs of concern	S	O	R	T
Develop your understanding of the importance of lyrics in Popular music				
Discuss the meaning behind the lyrics to 'Another day in Paradise'				
Research and identify other songs that have used lyrics to convey a message				
Develop your ability to learn and perform the components that make up a pop song				
Describe the use of riffs, structure, lyrics and melody in songs, using appropriate musical vocabulary.				
Understand the structure 'Pop song Form'				
Develop your ensemble and communication skills through rehearsing as a band.				
Develop your arrangement skills by rehearsing 'Another day in Paradise' in the style of your choice, adding an introduction and ending				
Enhance your performance skills through performing 'Another day in Paradise' as a complete band				
Extend both your arrangement and performance skills with an instrumental section/middle 8				

Waltz and march	S	O	R	T
Develop your understanding of time signatures and how to count in 3/4 and 4/4				
Recognise the elements and features of a Waltz and March including: Instrumentation, Time signature , Occasion and purpose , Tempo				
Enhance your understanding of traditional notation - both treble and bass clef				
Recognise and use a variety of different note values including semibreves, minims, crotchets, quavers and semiquavers				
Input a waltz or march accompaniment into the notation software 'Sibelius'				
Compose a melody that fits with the accompaniment and input this using the 'software' Sibelius				
Compose a second melody using a new instrument on Sibelius				
Build on the structure of my composition using Binary and Ternary form				
Extend your composition with expressive markings including articulation and dynamics				

Drama	S	O	R	T
Understand some basic mime techniques				
Understand and rehearse the click technique				
Understand and use a double take in performance				
Understand the importance of exaggeration when miming				
Understand the importance of stage positioning when creating a narrative using mime and music				

KEYWORDS

Time signature

¾

4/4

Waltz

March

Composition

Sibelius

Notation

Stave

Treble & Base Clef

Dotted Notes

Semibreve

Minim

Melody
Articulation
Dynamics
Texture
Structure & Form
Harmony
Instrumentation
Rhythm
Time Signature

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Music Knowledge Organiser

Waltz

- A waltz has 3 beats in a bar therefore its time signature is 3/4.
- The instrumentation of a Waltz normally features instruments from the string family (Double Bass, Cello, Viola, Violin, Harp).
- A Waltz is played to accompany the dance of the same name.

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
March

- A march has 4 beats in a bar therefore its time signature is 4/4.
- The instrumentation of a Waltz normally features instruments from the Percussion Family (Snare Drum, Bass Drum) and the Brass Family (Trumpet, Trombone, Tuba).
- A March is commonly played by a military band.

Note Values

Note	Name		Value	Rest
𝅝	Semibreve	Whole Note	4 Beats	
𝅗𝅥	Minim	Half Note	2 Beats	
♩	Crotchet	Quarter Note	1 Beat	𝄽
♪	Quaver	Half Note	½ Beat	
♫	Semi Quaver	Quarter Note	¼ Beat	

Time Signature

The top number tells us how many beats are in the bar.

The bottom number tells us the type of note one beat is worth (crotchet = 4 / quaver = 8 etc.)

Music Knowledge Organiser

Technology

Amplified	Made louder (with an **amplifier**).
Synthesized	Sounds created electronically.
Panning	Moving the sound between left and right speakers.
Phasing	A delay effect.
Sample	A short section of music that is reused (e.g. looped, layered).
Reverb	An electronic **echo** effect.

Features and techniques found in popular music

Riff	A short, repeated pattern.
Hammer on	Finger brought sharply down onto the string.
Pitch bend	Altering (bending) the pitch slightly.
Power chords	A guitar chord using the root and 5th note (no 3rd).
Distortion	An effect which distorts the sound (creates a 'grungy' sound).
Slap bass	A percussive sound on the bass guitar made by bouncing the strings on the fret board.
Fill	A short, improvised drum solo.
Rim shot	Rim and head of drum hit at same time.
Belt	A bright, powerful vocal sound, high in the chest voice.
Falsetto	Male voice in a higher than usual range.
Syllabic	One note sung per syllable.
Melismatic	Each syllable sung to a number of different notes.
A cappella	Voices singing without instrumental accompaniment.

The structure of a pop/rock song may include:

INTRO: short opening section, usually instrumental.

VERSE: same music but different lyrics each time.

CHORUS: repeated with the same lyrics each time (refrain).

MIDDLE EIGHT: a link section, often eight bars, with different musical ideas.

BRIDGE: a link/transition between two sections.

OUTRO: an ending to finish the song (coda).

*You may also hear a pre-chorus, instrumental interlude or instrumental solo.

*Strophic songs, 32 bar songs (AABA) and 12 bar blues are also found in popular music.

A typical rock ballad in verse-chorus form could follow the pattern:

- Intro
- Verse 1
- Chorus
- Verse 2
- Chorus
- MiddleEight
- Chorus
- Outro

Instruments

ELECTRIC GUITAR:
- Lead guitar: plays the melody/solos/riffs
- Rhythm guitar: plays the chords/accompaniment.

BASS GUITAR: plays the bass line.

DRUM KIT: provides the beat.

LEAD SINGER: the main vocalist.

BACKING VOCALS: singers who provide harmony.

Pop/rock groups may also include **acoustic** (not electric) instruments e.g. trumpet, trombone, saxophone and/or electronic keyboards/synthesizers.

Drama Key Terminology

DRAMA KEY WORDS		ADJECTIVES		
VOCAL SKILLS		• abrupt • angry • anxious • assured • cold • controlled • deep	• enthusiastic • firm • forceful • gentle • harsh • hesitant • loud	• sarcastic • sly • soft • stutter • timid • trusting
Tone Pitch Pace Intonation Silence	Pause Projection Inflection Accent Emphasis			

PHYSICAL SKILLS		• aggressive
		• defiant
		• dismissive
		• distraught
		• distressed
		• eager
			• eye contact:
			  direct,
			  focused,
			  avoiding,
			  accusing
			• fearful
			• gentle
			• rapid
				• relaxed
				• slow
				• sluggish
				• smooth
				• smug
				• strong
				• thoughtful

Body Language Facial Expressions Gestures Stillness Eye-Contact	Posture Movement Gait Stage Presence Interaction			
SPACE PERFORMANCE CONVENTIONS		• anger • anti-climax • appreciation • believable • delight • development • disappointment	• emotional response • empathy • emphasis • engagement • feeling • focal point • horror	• interest • intrigue • irritation • light-relief • realistic • sympathy • understanding
Levels Proxemics Stage Left/Right Centre Stage Transition Blocking **Cannon** Duologue Sound scape	Freeze Frame Narration Split Scene Thought-Track Mime Improvisation Physical Theatre Unison Monologue	**Other Useful Vocabulary:** Hot-seating Character Motivation Warm-Up Role-on-the-Wall Genre	**Other Useful Vocabulary:** Rehearsal Sound Effects Naturalistic Abstract Minimalistic	

Drama Knowledge Organiser

Mime is a stylised form of movement which creates an illusion of reality.

The French mime artist Marcel Marceau made a name for himself as the silent Bip the Clown, whose performance was comedic and tragic at the same time, echoing life itself in its mixture of happiness and sadness. What is far less known about Marcel Mangel, who changed his name to Marceau during the German occupation of France in World War II, was that he was an active participant within the French resistance, who managed to evacuate an entire orphanage full of Jewish children just before they were to be deported to a concentration camp.

This will help you improve: SPECS

Slow
Precise
Exaggerated
Clear
Simple

Remember to always face the front.

• Mime is considered one of the earliest mediums of self-expression.

• Before there was spoken language, mime was used to communicate what the primitive people needed or wanted.

• It developed into a true theatrical form in ancient Greece, where performers enacted everyday scenes with the help of elaborate gestures.

Mime continued to entertain in sixteenth century Italy, in the form of **Commedia dell' Arte**. Commedia dell' Arte originated in the market places of the Italian streets, where performers wore masks with exaggerated comical features to draw attention to themselves and to complement their acrobatic skills.

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Art & DT Personal Learning Checklists

Art **Colour and landscape: Abstract Collage**	**Evidenced**	**Refined**
I am building on my prior knowledge of…..		
Analysing artists' styles to influence my own work		
Using secondary sources to develop ideas		
Looking carefully at shape and proportion when modelling.		
Working in 3D to create a sculpture with an interesting form and composition.		
Using scissors and knives with control to create shapes and 3D forms.		
I am developing my skills in…..		
Exploring the properties of paper and card to create a 3D form.		
Using a 3D form to create tone and contrast.		
Taking a detailed image and simplifying to develop 3D development.		
Refining ideas to develop a final outcome from 3D to 2D.		

DT **Food and Nutrition**	S	O	R	T
I understand how to ensure a hygienic and safe kitchen				
I can explain the importance of knife safety and knife skills to prevent injury				
I can identify the five different sections of the eat well guide				
I understand the importance of a healthy diet				
I can name and describe a number of common pieces of equipment in the kitchen				
I can describe the difference between the bridge hold and claw grip				

DT **Fan Project**	S	O	R	T
I can recall and define the tier three vocabulary in this unit				
I can name tools and equipment				
I can use hand tools and power tools with precision				
I can join materials using an appropriate method				
I can evaluate the finish of my work and link this to how precisely I have used the tools				

DT **Textiles**	**Evidenced**	**Refined**
Use textile equipment safely		
Use the sewing machine successfully		
Design to a set brief		
Cut and shape fabrics		
Make a successful final product		

Art Knowledge Organiser

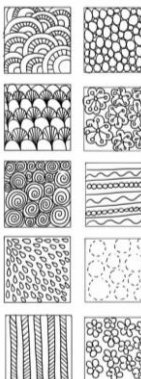| 1	TIER THREE VOCABULARY
Analyse	Analyse is to examine (something) methodically and in detail, typically in order to explain and interpret it.
Architecture	A general term to describe buildings and other physical structures
Composition	Composition is the arrangement of elements within a work of art
Designs	Designs are plans to explain your ideas in a visual way.
Techniques	skills and methods employed to create a piece of art.
Form	In relation to art the term form has two meanings: it can refer to the overall form taken by the work – its physical nature; or within a work of art, it can refer to the element of shape among the various elements that make up a work.
Influence	To be inspired by the style of art styles and movements.
Perspective	The term perspective refers to the representation of objects in three-dimensional space (i.e. for representing the visible world) on the two-dimensional surface of a picture
Scale	Scale refers to the overall physical size of an artwork or objects in the artwork. We always relate scale to the size of the human body – how big or small the piece is in relation to us.
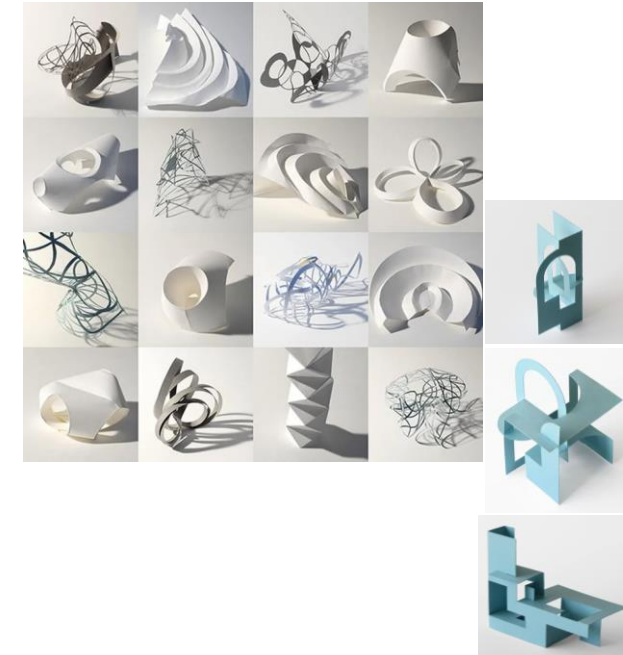
Explore joining techniques

Develop sculptural pieces inspired by Architecture

Umemoto

Explore and experiment with the style of Pawel Baron – develop pattern skills

Art Knowledge Organiser

| 1 Continued	TIER THREE VOCABULARY
Maquette	A maquette is model for a larger piece of sculpture, created to visualise how it might look and to work out approaches and materials for how it might be made.
Sculpture	Three-dimensional art made by one of four basic processes: carving, modelling, casting, constructing
Proportion	Proportion is the relationship of one part of a whole to other parts.
Record	If you record something, you keep an account of it through drawing or photography so that it can be referred to later.
Proportion	Proportion is the relationship of one part of a whole to other parts
Pen	Pen is used for creating fine linear drawings and expressive textural drawings.
Mark making	Mark making describes the different lines, dots, marks, patterns and textures created in a drawing. It can apply to any drawing materials.
Refine	Refine is to improve your artwork.
Pattern	A pattern is a design in which lines, shapes, forms or colours are repeated. The part that is repeated is called a motif. Patterns can be regular or irregular.

3 Artists and Artwork-

Calatrava

Zaha Hadid

Llyod Wright
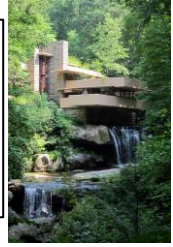
O'Gehry

Bauhaus

Pawel Baron

2 Extension tasks to develop skills & ideas

Explore creating a template that can be lit from behind. Develop your skills by creating a series of photographs of your piece.

4 LINKS & FURTHER READING

Explore the work of David Umemoto

Explore the work of Frank Llyod Wright at the V&A

DT Knowledge Organiser: Fan Project

1. Tier Three Vocabulary

| Key Words	Definitions
Deciduous	Deciduous trees lose their leaves in winter. The word is from the Latin word decidere, meaning "to fall off."
Coniferous	Coniferous trees are cone bearing and do not have leaves - they have needles.
Hardwoods	Hardwoods come from deciduous trees - they take over 100 years to mature, have a variety of colours and grains and are expensive to buy.
Softwoods	Softwoods come from coniferous trees and are fast growing taking 35 years to mature. They are sustainable.
Manufactured Boards	Manufactured boards are timber products made by compressing and gluing timber fibers.
MDF	MDF - medium density fibre board is a manufactured board made from Pine
Thermoplastics	A type of plastic that can be reshaped when heated to 180 degrees C
Acrylic	A plastic thermoplastic that is clear and can come in a range of colours.
Pilot Hole	The first small hole to drill when joining two items together.
Countersink	A cone shape drill that is used to keep screw heads flush with the surface.
Jigs	A tool used to help manufacture several parts/holes to the same size/location

2. Skills in the workshop

Marking out	Using a try square, steel rule and pencil to mark out accurately on material.
Cutting and shaping	Using coping saw and electric sander to cut and shape material accurately.
Drilling	How to change dril bits, secure work ready for drilling - Pilot holes, clearance holes and countersinks.
Forming	Using Jigs to drill holes and form thermoplastics int the correct shapes..
Soldering	Creating electric circuits to power a motor with a battery pack and switch. Using a soldering iron to solder and join wires together.

3. Assembly/Testing

When the components are produced they will have to be assembled correctly to work.
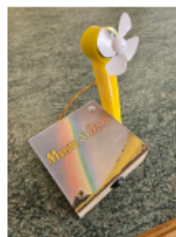
After you have made all the component parts of the fan project you will need to assemble them togeter in the correct sequence (order) using hand tools. After assembly testing needs to be done and any faults identified and rectified.

4. Workshop Safety

- Leave your bags in the bag space so that people don't trip over them.
- Never run in a workshop.
- Don't play with the vice on the workbench as it can easily pinch your skin.
- Tell the teacher if there is sawdust/metal ilings on your workbench – Don't blow them or brush away with your hand.
- Don't touch tools without permission from the teacher
- Only use equipment you have been trained to use
- Make sure you know where the emergency stops are
- Tie back long hair and loose clothing in the workshop
- Put extraction on when sawing/drilling/ soldering

5. Links and Further Reading

Materials:
https://www.bbc.co.uk/bitesize/topics/zh4cqyc/articles/zmgrdnb#zt49qyc

Safety:
https://www.bbc.co.uk/bitesize/topics/zh4cqyc/articles/zq89qyc#zxqwxg8

Revise:Mindmap Maker
is.gd/mindmapmaker

DT Knowledge Organise: Food and nutrition

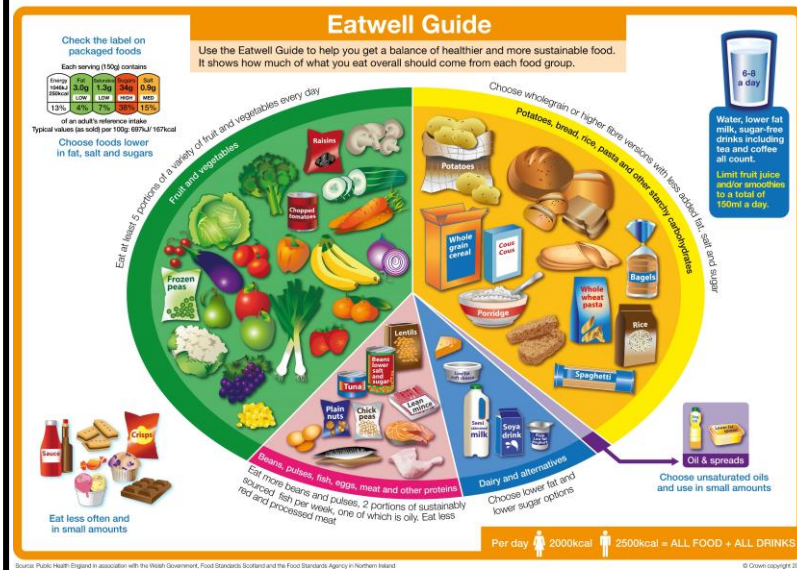## 1 TIER THREE VOCABULARY

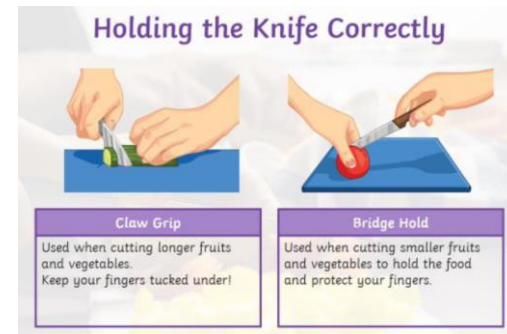|	
Hygiene	Keeping things clean and germ-free, especially when it comes to food and cooking.
Safety	Taking precautions to make sure that no one gets hurt or sick while working with food or in the kitchen.
Bridge Hold	A way of holding a knife where you grip the handle with your hand and rest your index finger on the blade for better control.
Claw Grip	Holding food with your fingers curled like a claw to keep it stable and stop your fingers from getting cut while cutting or chopping.
Knife/Knives	Sharp tools with a blade used for cutting and slicing food.
Nutrients	Important stuff found in food that gives our bodies energy and helps us grow and stay healthy.
Balanced Diet	Eating different types of food in the right amounts to get all the nutrients our bodies need.
Protein	A nutrient found in foods like meat, fish, eggs, and beans that helps our bodies build and repair tissues.
Fat	A type of nutrient that gives us energy, keeps us warm, and helps our bodies absorb certain vitamins, found in foods like butter, oil, and meat.
Carbohydrates	A type of nutrient found in foods like bread, pasta, and potatoes that gives our bodies energy to do stuff.

2 THE EATWELL GUIDE

The Eatwell Guide is a great way of ensuring that you get a balance of healthier and more sustainable food. It shows how much of what you eat overall should come from each food group.

4 SAFETY IN THE KITCHEN

Safety is extremely important when it comes to working in the kitchen. There are a few key things to keep in mind to ensure that everyone stays safe while cooking. First, always wash your hands with soap and water before handling any food to prevent the spread of germs. It's also essential to handle knives and other sharp objects with caution, using proper techniques and focusing on what you're doing. When using the stove or oven, be mindful of hot surfaces and use oven mitts or potholders to protect your hands. Additionally, make sure to turn off appliances and unplug them when you're finished using them. Lastly, be aware of potential hazards like spills, cords, and loose clothing that can cause accidents, and keep a clean and tidy workspace to avoid trips and falls.

5 PREPARING THE FOOD HANDLER

It is important to make sure that if you are about to handle food that you prepare yourself. You need to make sure that your hands are cleaned and surfaces where food will touch is clean too. It is important to make sure that the chopping boards you use to prepare meat is on a separate chopping board. Any food needs to be stored at the right temperature as well.

3 KNIFE SKILLS

There are different ways of cutting food depending on the type of food you are cutting. Below are two of the most common methods: the Claw Grip, and the Bridge Hold.

6 LINKS & FURTHER READING

Video:
The Eatwell Guide
http://y2u.be/7MlE4G8ntss

Article:
Safety in the Kitchen
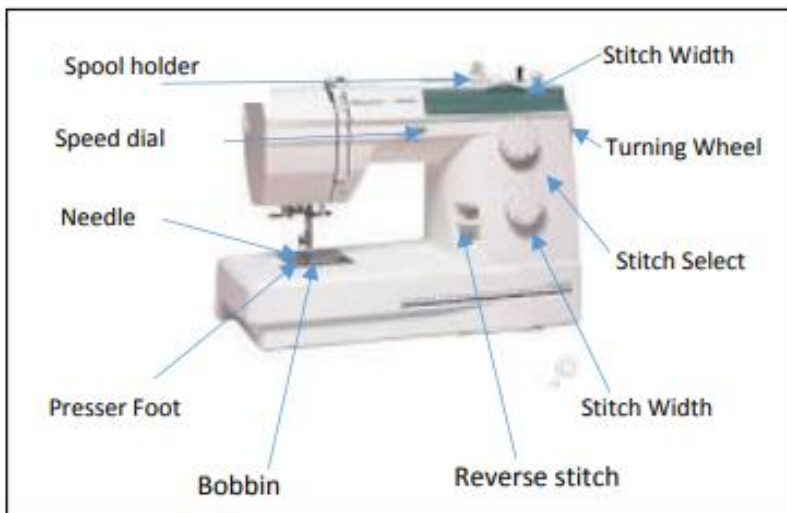https://cpdonline.co.uk/knowledge-base/safeguarding/kitchen-safety-rules-for-children/

Revise:
Mindmap Maker
is.gd/mindmapmaker

DT Knowledge Organiser: Textiles

Sewing machine diagram labels:
- Spool holder
- Speed dial
- Needle
- Presser Foot
- Bobbin
- Stitch Width
- Turning Wheel
- Stitch Select
- Stitch Width
- Reverse stitch

Applique

Key Words and Definitions:

Pins	a piece of metal with a point at one end for holding fabric together	Stitch	A thread that passes through fabric	Tie dye	Resist method of dying- created by tying string/ elastic bands around areas of the fabric.
Scissors/shears	Used for cutting fabric	Sew/Sewing	Done by machine of hand to join fabric or add decoration	Applique	Applying 1 fabric to another to create a design
Sewing Machine	A machine used to produce stitches in fabric	Tacking	Temporary stitching to hold fabric in place	Reverse Applique	cutting away a layer of fabric to reveal a shape appliquéd underneath
Needle	a piece of metal with a point at one end and a hole or eye for thread at the other, used in sewing	Hem	The finishing off at the edge of fabric	Embroidery	Decorative stitching by hand or machine
Thread	a strand of cotton, used in sewing or weaving	Seam	Joining two fabrics together	Design	A drawing to show the look of your idea
Tailors chalk	Chalk used to mark fabric	Seam Allowance	Distance between the edge of fabric and the stitching line (1.5 cm)	Annotation	Labelling to explain your design
Fabric	Cloth produced by weaving or knitting textile fibres.	Pattern	A template used to cut out the fabric	Evaluation	Making a judgement about your product
Unpicker	A small piece of equipment with a sharp pointy end used to unpick stitches	Components	Buttons, zips, sequins	Specification	A list of requirements that a product must meet.

Glue your timetable here