ST. ANNE'S
R.C. HIGH SCHOOL

Year 8

NAME: _____

Form Group: _____

SUMMER TERM

SUBJECT KNOWLEDGE ORGANISERS

You will definitely enjoy what you've worked hard for—
you'll be happy; and things will go well for you

Proverbs 128:2

YEAR 8 - ART
African Culture / Masks

ST. ANNE'S R.C. VOLUNTARY ACADEMY

History / Information

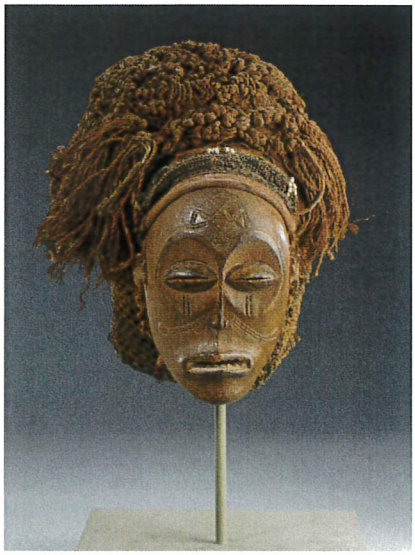
African tribal masks have deep cultural and spiritual significance. Traditionally made from wood, metal, or fabric, they are used in ceremonies, rituals, and celebrations. Masks often represent spirits, ancestors, or mythical beings. During dances, wearers embody these figures, seeking guidance, protection, or blessings. Each mask's design and symbolism vary by tribe, reflecting beliefs, history, and social values. Some masks are used in rites of passage, marking life stages like adulthood or marriage. Others honor deities or nature. African masks are also admired for their artistic beauty, influencing global art and inspiring modern artists like Pablo Picasso.

Key Words

1. **Symbolism** – African masks often carry deep symbolic meaning, representing spirits, ancestors, animals, or moral values within traditional beliefs.
2. **Ritual** – Masks are commonly used in ceremonies and rituals, such as initiations, funerals, and harvest festivals, to connect the physical and spiritual worlds.
3. **Stylisation** – Features on African masks are frequently exaggerated or simplified (e.g. elongated faces, large eyes) to emphasise spiritual qualities rather than realistic likeness.
4. **Cultural Identity** – Masks are unique to different African tribes and regions, reflecting the traditions, beliefs, and values of specific communities.
5. **Material** – Traditionally crafted from natural materials like wood, raffia, metal, fabric, and beads, each material adds meaning or status to the mask.
6. **Performance** – Masks are not just art objects; they are worn during dances and performances, bringing them to life through movement and sound.

African Masks Characteristics

1. **Abstract Design** – African masks often use simplified or exaggerated shapes instead of realistic features to convey deeper symbolic meanings.
2. **Symmetry** – Many masks are symmetrical, meaning both sides mirror each other, which creates balance and harmony in the design.
3. **Bold Patterns** – Masks frequently feature strong, repeated patterns such as lines, dots, and shapes, which often have symbolic or tribal meanings.
4. **Natural Materials** – Traditionally made from wood, raffia, animal skin, beads, shells, or metal, these materials reflect a close connection to nature.
5. **Expressive Features** – Masks often highlight certain facial features, such as large eyes, mouths, or elongated noses, to express specific traits or spiritual powers.
6. **Use of Colour** – Colours on masks are symbolic; for example, red may represent danger or power, while white could symbolise purity or the spirit world.
7. **Functionality** – African masks are designed to be worn or used in rituals and performances, not just for decoration, making them both artistic and practical.



Year 8 – Text Based Programming - Python

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Overview KEY VOCABULARY: LOOK COVER, WRITE AND CHECK!

Algorithm	An algorithm is set of instructions or rules that need to be followed in order to perform calculations or to solve a problem.
Sequence	The set of instructions or rules that an algorithm uses have to be in the right order. We call instructions in the correct logical order a 'sequence'.
Assign	When we set a variable to a given value – like my_var = 3 – we say that we are "assigning the value of 3 to the variable my_var." We try not to say 'equals' !
Data type	A data type is used to identify data that has common characteristics and purpose. For example, text and numbers are different data types because they are used for different purposes. Python has four data types: string (text), integers (whole numbers), floats (decimal numbers) and Boolean (either a 'true' value or a 'false' value).
Variable	A variable is a name given to an item of data so that the data can be stored in memory while your Python program is running. Variables enable you to input data from the keyboard and to change the data however you need to.
Casting	When we want to change the data types of a value (or the value assigned to a variable), we use casting. Python provides us with the code to do this. So for example, this code changes 43 from a string data type to an integer: **int("43")**
Syntax Error	A syntax error is a mistake in your Python program that prevents it from running (executing). Syntax errors are like spelling and grammar errors. There are also other types of error besides a syntax error: logic error and runtime error.
Input and output	With Python, we can print text and numbers to the screen, and we can also ask the user to input text or numbers using the keyboard.
Pseudocode	Pseudocode is instructions that are written in English (or a language of individual choice). Pseudocode is used to plan-out the correct sequence of instructions and to clarify the key features you may also need to use to make your program work correctly – such as loops and selection statements.
Condition/ Selection	A condition or selection statement is the name given to Python's if-elif-else statement that is used to decide which path a program will take. If a condition is 'true' then Python will choose to run specific lines of code, but if false Python will choose to run different lines of code.
Loops	Python loops allow you to keep revisiting previous lines of code until a certain condition is false. We can do this to use Python to count from one number to another, and then stop. We can also use loops to keep asking the user for input from the keyboard until the user enters particular text (such as 'quit') or a number (such as zero).

variable string

```
name=input("What is your name?")
print("Hi",name,", it's nice to meet you")
```

output concatenation string manipulatic

Selection (IF)

```
striker=input("Who is the best premier league striker 22/23? ").lower()
if striker=="haaland":
    print("No-one is going to beat Haaland's goal count now")
else:
    print("Whatever! No one is better")
```

Selection (ELIF)

```
strangerthings=input("Who is your favourite character in S Things?").lower()
if strangerthings=="elle":
    print("She was rather awesome!")
elif strangerthings=="will":
    print("He had a hard time!")
elif strangerthings=="joyce":
    print ("She is a tough Mother!")
else:
    print ("They weren't my favourite!")
```

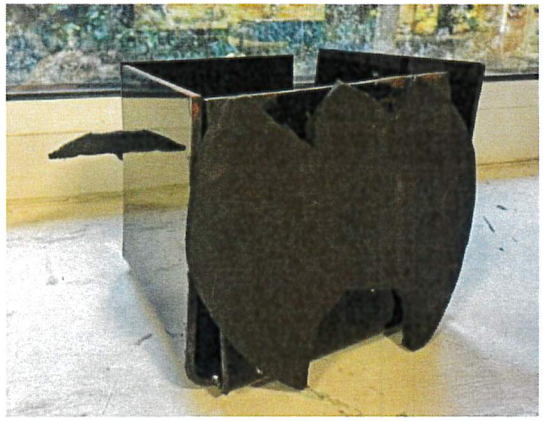
Iteration (WHILE/FOR)

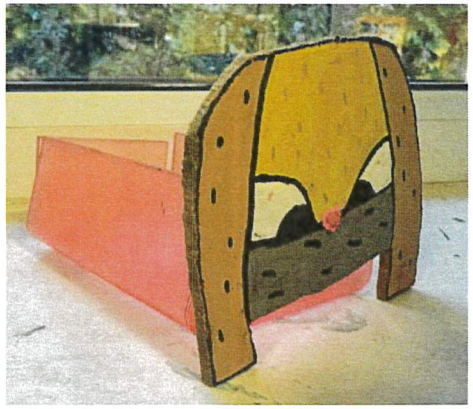
```
shopping = "y"
shoppinglist=[]

while shopping =="y":
    item=input("What item would you like to add to your list? ").lower()
    shoppinglist.append(item)
    shopping=input("Would you like to add another item? ").lower()

for x in shoppinglist:
    print(x)
```

Boolean Operator

== both sides equal	> Greater than	< less than	=> Equal to or greater than	=< equal to or less than

Y8 Construction
Knowledge Organiser





Postcard questions!

- What is the difference between all 3 stop buttons around the room?
- What is the machine called that we use for shaping the plastic?
- What does a Photochromic Material react to?

Ergonomics V Anthropometrics! Scan the QR code to revise some information -

Types of Job Production! Scan the QR code to revise some information -

Skills you will learn & develop
Marking and measuring
Cutting Skills (Coping/Tenon and/or Scroll Saw)
Drilling with the Pillar/Bench Drill
Accuracy in bending your plastic
Safety in the workshop
Painting your MDF
Theory work & drawing in isometric

Key words to know for Smart Materials –

Thermo – Temperature
Hydro – Water
Photo – Light
Phosphorescent – To glow

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Year 8 Drama – Physical Theatre

Overview
As an actor you will need to be able to explore methods of communication other than verbal. The use of movement and mime will enable you to appreciate the importance of body language and the unspoken word.

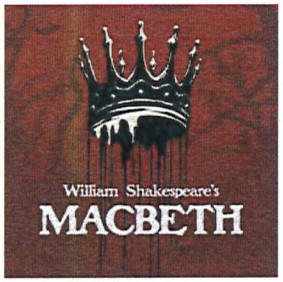
Keywords	History of Mime
Choreography - the sequence of steps and movements in dance or figure skating, especially in a ballet or other staged dance.	A mime artist is someone who acts out a story through body motions, without use of speech. The origins of mime can be traced back to the theatre of ancient Greece. The Romans carried on the tradition, most notably during the reign of Emperor Augustus. The Christian Church, declaring the art form indecent, closed down many theatres and excommunicated the actors involved. Mimes continued to work in traveling theatre groups throughout Europe, also appearing in the comic and religious plays of the Middle Ages
Objective Mime - This refers to illusions of objects and place; including the creation of weight, size, and space	
Subjective Mime - This covers the expression of feeling, thought, and motivation, again with the whole body, not just the face, hands, and arms.	
Mime - the theatrical technique of suggesting action, character, or emotion without words, using only gesture, expression, and movement.	
Movement - an act of moving in a non-naturalistic way	
Abstract mime - Usually doesn't have a main character or plot, but focuses on provoking thought about a particular subject	

What do you think?
Where did Mime flourish? Why do you think it was here?
Is mime a useful tool to communicate? Why do you think this?
Why do you think mime is so important in society today?
What other theatrical styles do you know which rely heavily on mime?

Support		
Mime Performance	History of Mime	Creating a Successful Mime

English Year 8 Knowledge Organiser – Macbeth

Key words
Supernatural
Prophecy
Subvert
Manipulate
Regicide

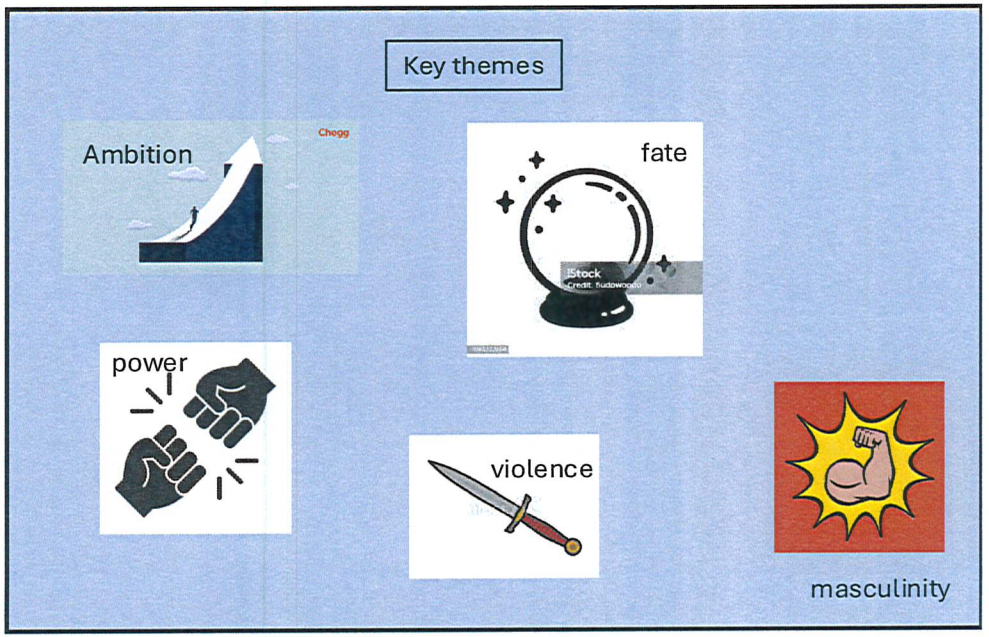


Unit Overview

Macbeth is a play by Shakespeare about a man and his greedy ambition to become king. Throughout the topic, we will discuss themes of gender, the supernatural and the idea of a tragic hero.
We will also produce a piece of persuasive writing on the topic of gender and societal expectations.

What do you think?
Are expectations of men and women restrictive in today's society?
Are the witches prophetic or is their intention to create chaos?
Why are tragic heroes so compelling?

Summary of Macbeth	
Key themes in Macbeth	
Lady Macbeth character analysis	
Macbeth character analysis	



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KEYWORDS

Versatile -Ability to be used for more than one purpose.

Eatwell guide -A healthy eating model showing the types and proportions of foods needed in the diet.

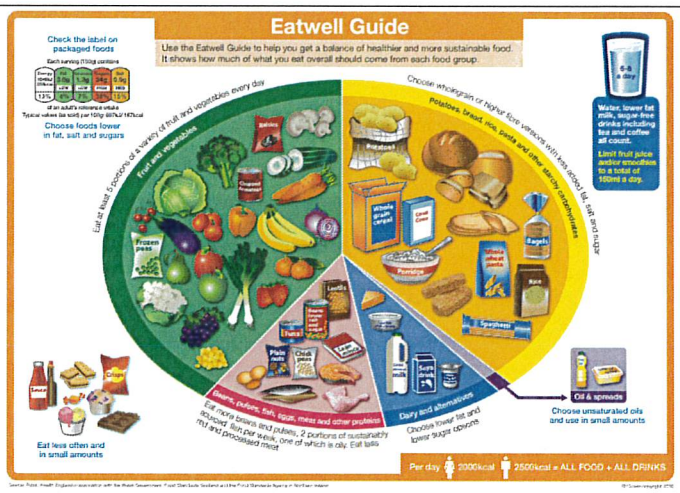
Hygiene- Cleanliness and clean conditions to maintain health and prevent disease spread.

Sensory-Human testing of the taste, smell, texture and appearance of a food product.

Modified -Making changes to something e.g. a recipe

Cross Contamination- The transfer of bacteria from one food to another, from humans, animals other food or equipment.

Heat Transfer – The way heat moves from one area to another through conduction, convection and radiation.



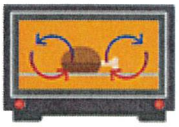
CLEANING	CHILLING
Cleaning kills bacteria • Wash hands before, during and after food preparation • Wash all worktops, utensils, chopping boards and equipment • Rinse unwashed salad, fruit and vegetables	Chilling prevents microbial growth. • Cool food to below 5 degrees Celsius as quickly as possible and defrost food in the fridge • Fridge =- 0 degrees – 5 degrees • Freezer – 15 degrees or below
COOKING	**CROSS CONTAMINATION**
Cooking kills bacteria Food needs to be heated till steaming hot with the core temperature reaching • 60 degrees Celsius for 45 minutes • 65 degrees Celsius for 10 mins • 70 degrees Celsius for 2 minutes • 75 degrees Celsius for 30 seconds • 80 degrees Celsius for 6 seconds	Bacteria are transferred from one object to another • Keep raw and cooked food separate • Never was raw meat • Keep raw meat and shellfish on the bottom shelf of the fridge

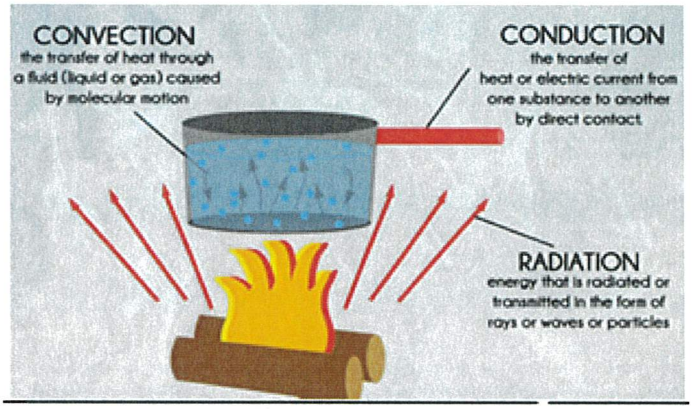
Support

QR CODE – Eatwell Guide

QR CODE – Sensory Testing in Food

QR CODE - Health and Safety / cross contamination





QR CODE: Methods of Heat transfer video/website

WHAT DO YOU THINK?
Why is Food hygiene and safety important in Food Technology?
Why are staple foods versatile? How can a recipe be modified?
What is sensory testing used for? Which sense are used?
What are the different methods of heat transfer? Can you identify which ones you have used in food technology?

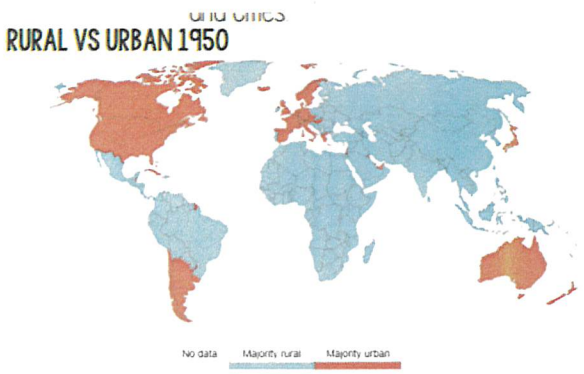
Urbanisation

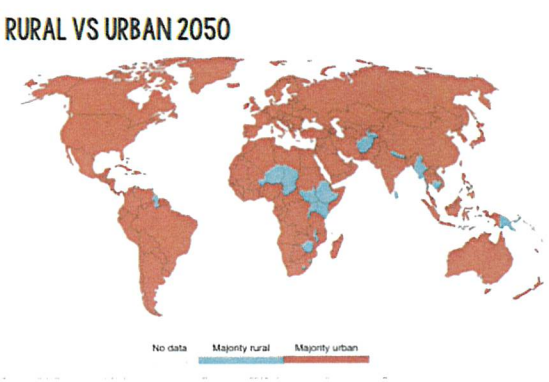
A megacity is defined as a city that has a population of over 10 million people. Today more than 50 per cent of the world's population live in urban areas. The number of cities with over 10 million people is increasing.

What is Urbanisation?

The process by which an increasing percentage of a country's population comes to live in towns and cities.

HICs were the first to urbanise and generally have the largest proportion of their population living in towns and cities. LICs currently have lower rates of urbanisation but are urbanising rapidly.

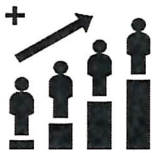




The population of cities usually changes in one of two ways:

1. Natural increase (or decrease) - this is the difference between the number of births and the number of deaths.

2. Migration - this is the movement of people into or out of the city.



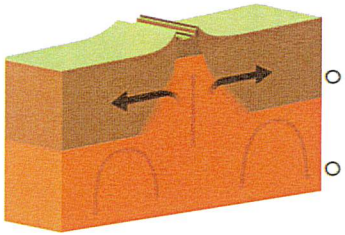
Rural-urban migration is the movement of people from rural areas to urban areas. People move because of push and pull factors.

- A push factor is a reason to leave an area e.g. harsh climate, lack of jobs.
- A pull factor is a reason to move into an area e.g. better facilities, more job opportunities.

Squatter settlements are any collection of buildings where the people have no legal rights to the land they are built upon. The people are living there illegally and do not own the land. They provide housing for many of the world's poorest people and offer basic shelter usually in LICs. They are often constructed with poor materials initially, including plastic sheeting, corrugated metal, wood and cardboard. These are all materials that are available either freely as waste or cheaply. Squatter settlements also often lack proper sanitation, water supply, electricity or telephone services.

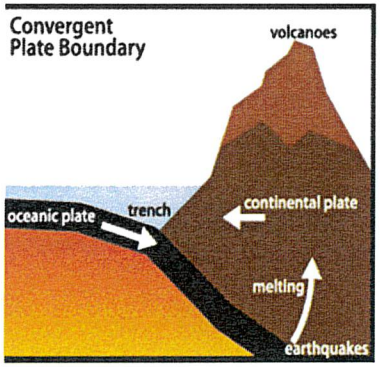
Year 8 Tectonic Hazards

CONSTRUCTIVE/DIVERGENT MARGIN



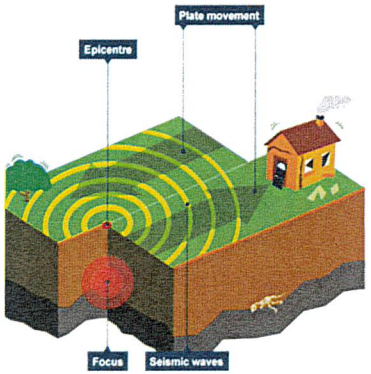
- At a **Divergent** plate boundary, two plates move apart.
- As the two plates move apart, magma rises up to fill the gap through cracks.
- This causes volcanoes. If the boundary is under the ocean, the lava cools when it reaches the surface and can construct new land.
- As the plates move apart, the friction may cause small earthquakes. These do not cause much damage.

CONVERGENT/DESTRUCTIVE MARGIN



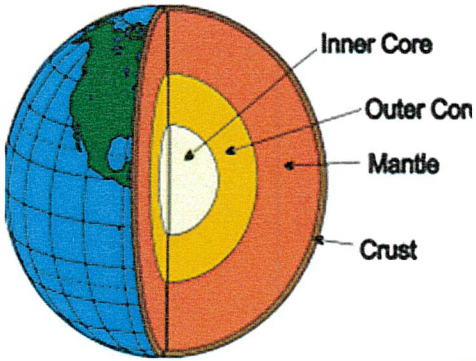
- An oceanic plate collides with a continental plate.
- The denser, or heavier, oceanic plate will sink into the mantle and melt. This is called **subduction**.
- When the plate melts, it releases energy.
- The crust becomes molten magma. This may be forced to the surface of the earth causing a violent volcanic eruption.

CONSERVATIVE/TRANSFORM MARGIN



- Two plates slide past one another due to the friction of convection currents in the mantle.
- The plates get caught or snagged on each other.
- The pressure continues to build between the plates.
- Eventually, the pressure becomes so great that they suddenly slip past each other.
- This releases huge amounts of energy and causes an earthquake.

The structure of the Earth.



Why do people live near volcanoes?

VOLCANIC SOIL

Fertile soil because of all the minerals. This means that it is good for growing crops

GEOTHERMAL ENERGY

A very cheap and environmentally friendly way to create energy.

TOURISM

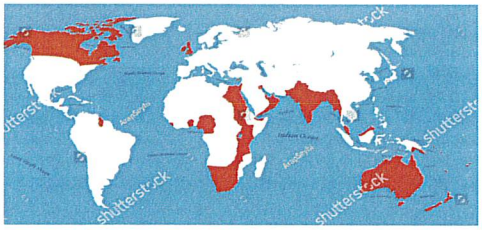
Volcanoes generate money and jobs for the people living near them

PREDICTION

Volcanologists and scientists monitor volcanoes for activity and put warning systems in place.

ST. ANNE'S R.C. VOLUNTARY ACADEMY

History – Year 8



The British Empire

Key Terms:

Empire - a group of countries or territories ruled by another Country or State

Colony – a country or area of land ruled by another Country.

Trade – the exchange of goods or services between people or countries usually for money.

Indigenous – the original people who live in a place before it is colonised.

Native – someone born in a country and belonging to it.

Massacre – the violent killing of a large number of people

Rebellion – organised resistance to authority.

The Raj – Ruler – in this case it refers to the British ruling in India.

Transportation – the transporting of criminals to another country to serve time doing (for example) hard labour.

Convicts – people who have broken the law.

Timeline

1607 – The first British colony is founded called Jamestown in Virginia, North America.

↓

1732 – Britain controls the 13 colonies of North America.

↓

1795 - Britain takes control of South Africa from Dutch settlers

↓

1858 - Britain takes control of india from East Indian trading company.

↓

Rebellions/massacres in India: Sepoy Rebellion 1857; Jallianwala Bagh Massacre 19 April 1919

↓

After **1901**, colonies gain their independence and some join the Commonwealth: **1910** South Africa; **1947** India and Pakistan; **1982** Canada

The Story: 1500-1700 has become known as the 'Age of Exploration' when ships set sail out of Europe to find and conquer land. This resulted in the British Empire. By 1913 the empire had grown to rule over 400 million people, making it the largest empire in history. British government and society benefitted economically from the empire. The indigenous people in the new colonies were presented to the British public as 'uncivilised', because their way of living was different from that of people in Europe. This meant people began to believe that the British should continue to grow their empire to bring 'civilisation' to these places, even by force. There were also *missionaries* who believed it was their duty to travel to new countries and convert people to Christianity. The people colonised by the British had British laws and customs imposed upon them, lost their ability to govern themselves and were, in many cases, violently oppressed.

Year 8 - Developing Angles in parallel lines and polygons geometry...

Basic angle rules and notation

Keyword: Angle: The figure formed by two straight lines meeting (measured in degrees)

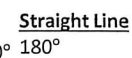
Acute Angles
0°< angle <90°

Right Angles
90°

Obtuse
90°< angle <180°

Right angle notation

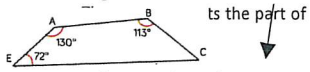
Reflex
180°< angle <360°



Straight Line
180°

Vertically opposite angles

Angles around a point
360°



The letter in the middle is the angle

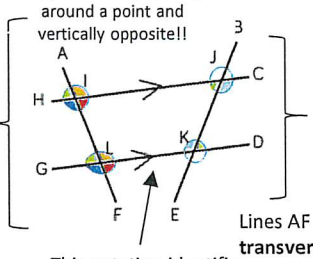
ts the part of

Angle Notation: three letters **ABC**
~~Line Notation: two letters~~
This is the angle at B = 113°
EC
The line that joins E to C.

Parallel lines

Keyword: Parallel – Straight lines that never meet

Still remember to look for angles on straight lines, around a point and vertically opposite!!



Corresponding angles often identified by their **"F shape"** in position.

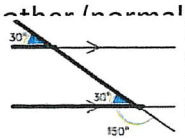
Alternate angles often identified by their **"Z shape"** in position.

Lines AF and BE are **transversals** (lines that bisect the parallel lines)

This notation identifies parallel lines

Alternate/ Corresponding angles

Keyword: Transversal: A line that cuts across two or more other (normally parallel)

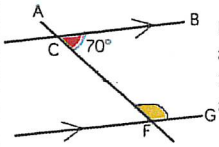


Because alternate angles are equal the highlighted angles are the same size

Because corresponding angles are equal the highlighted angles are the same size

Co-interior angles

Keyword: Interior - relating to the inside of something.



Because co-interior angles have a sum of 180° the highlighted angle is 110°

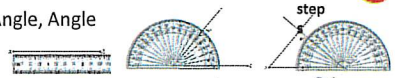
As angles on a line add up to 180° co-interior angles can also be calculated from applying alternate/ corresponding rules first

Triangles & Quadrilaterals

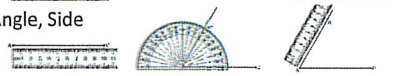
Keyword: Isosceles: Two equal size lines and equal size angles (in a triangle or trapezium)

Link to step

Side, Angle, Angle



Side, Angle, Side



Side, Side, Side

Properties of Quadrilaterals

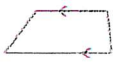
Keyword: Quadrilateral – a four-sided figure

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

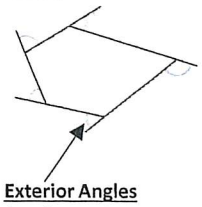


Trapezium
Co-interior angles
One pair of parallel lines

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

Sum of exterior angles

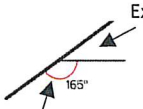
Keyword: Polygon: A 2D shape made with straight lines



Exterior Angles
Are the angle formed from the straight-line extension at the side of the shape

Exterior angles all add up to 360°

Using exterior angles



Exterior Angle

Interior Angle

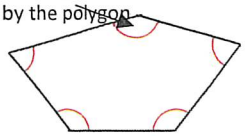
Interior angle + Exterior angle = straight line = 180°
Exterior angle = 180 – 165 = **15°**

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

Sum of interior angles

Keyword: Sum: Addition (total of all the interior angles added together)

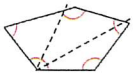
Interior Angles
The angles enclosed by the polygon



This is an **irregular** polygon – the sides and angles are different sizes

(number of sides – 2) x 180

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

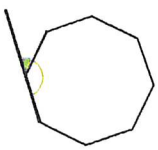


This shape can be made from three triangles
Each triangle has 180°
Sum of the interior angles = 3 x 180
= 540°

Remember this is **all** of the interior angles added together

Missing angles in regular polygons

Keyword: Regular polygon: All the sides have equal length; all the interior angles have equal size



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 = $\frac{(\text{number of sides} - 2) \times 180}{\text{number of sides}}$

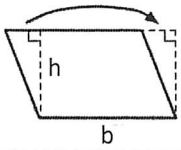
Year 8 - Developing geometry… Area of trapezia and Circles

Area – rectangles, triangles, parallelograms

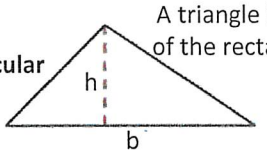
Keyword: Area: Space inside a 2D object

Rectangle
Base x Height

Parallelogram/ Rhombus
Base x Perpendicular height



Triangle
½ x Base x Perpendicular height



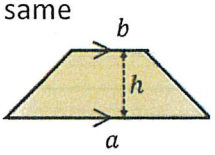
A triangle is half the size of the rectangle it would fit in

Area of a trapezium

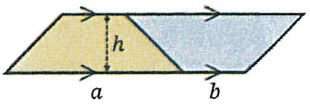
Keyword: Congruent: The same

Area of a trapezium

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



Why?



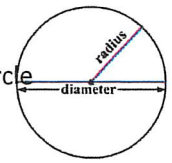
- Two congruent trapeziums make a parallelogram
- New length (a + b) x height
- ~~Divide by 2 to find area~~ of one

Area of a circle (Non-Calculator)

Keyword: Pi (π): The ratio of a circle's circumference to its diameter.

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

Area of a circle
π x radius²



Diameter = 8cm
∴ **Radius** = 4cm

π x radius²
$= \pi \times 4^2$
$= \pi \times 16$
$= 16\pi$ cm²

Find the area of one quarter of the circle

Radius = 4cm

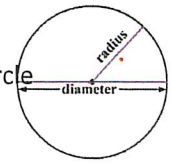
Circle Area = 16π cm²
Quarter= 4π cm²

Area of a circle (Calculator)

Keyword: Formula: A mathematical relationship/ rule given in symbols. E.g. b x h = area of rectangle/ square

SHIFT ×10ˣ

Area of a circle
π x radius²



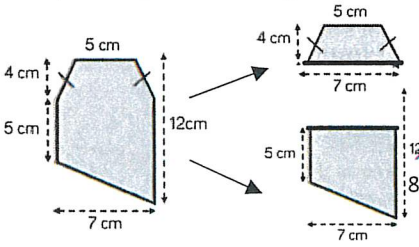
How to get π symbol on the calculator

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

Keyword: Perimeter: Length around the outside of a 2D object

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



Shape A - Isosceles trapezium

Shape B- nonstandard trapezium

Units

Shape A + Shape B = total area

$(5+7) \times 4 \div 2 + (5+8) \times 7 \div 2 = 24 + 45 = 69$ cm²

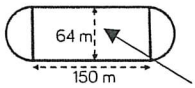
Compound shapes including circles

Keyword: Sector: A part of the circle enclosed by two radii and an arc.

Circumference
π x diameter

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

Spotting diameters and radii



This dimension is also the diameter of the semi circles.

Arc lengths = π x 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 = 501.1 m

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

Year 8 - Reasoning with data...

The data handling cycle

Set up a statistical enquiry

Keyword: Hypothesis: an idea or question you want to test

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

Keyword: Sampling: the group of things you want to use to check your hypothesis

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?

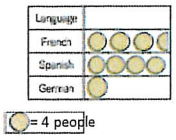
Zero option → £0 | £0.01 - £2 | £2.01 - £4 | more than £4 ← More option

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

Pictograms, bar and line charts

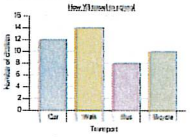
Keyword: Primary Data: data you collect yourself

Pictogram



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

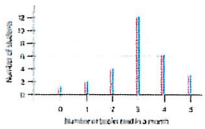
Bar Chart



- Gaps between the bars
- Clearly labelled axes
- Scale for the axes
- Title for the bar chart
- Discrete Data

Represents quantitative data

Line Chart



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

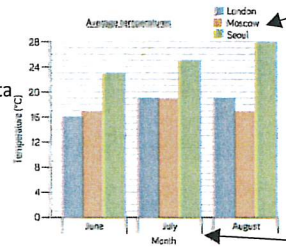
Multiple Bar chart

Keyword: Secondary Data: data you source from elsewhere e.g. the internet/ newspapers/ local statistics

Compares multiple groups of data

Key/ Colour code for separate groups of information

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



Gap between different categories of data

Draw and interpret Pie charts

Keyword: Discrete Data: numerical data that can only take set values

Remember a circle has 360°

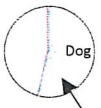
Type of pet	Dog	Cat	Hamster
Frequency	32	25	3

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°

Multiple method

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

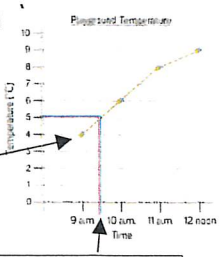
Represents quantitative, discrete data

Draw and interpret line graphs

Keyword: Continuous Data: numerical data that has an infinite number of values (often seen with height, distance, tim

- 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

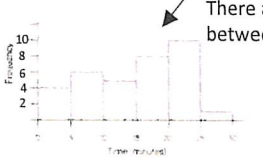
Grouped quantitative data

Keyword: Average: a measure of central tendency – or the typical value of all the data together

Time (minutes)	Frequency
$0 \leq t < 5$	4
$5 \leq t < 10$	6
$10 \leq t < 15$	5
$15 \leq t < 20$	8
$20 \leq t < 25$	10
$25 \leq t < 30$	1

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

This is a frequency diagram



There are no gaps between the bars

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

Keyword: Spread: the distance/ how spread out/ variation of data

The range is a measure of **spread**

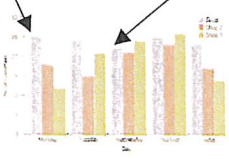
Difference between the biggest and smallest values

Shop 1 highest value

Shop 1 lowest value

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

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

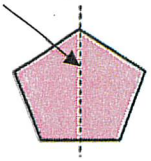
Year 8 - Developing geometry…

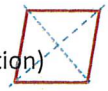
Line symmetry and reflection

Lines of symmetry

Keyword: Line of symmetry: same definition as the mirror line

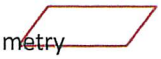
Mirror line (line of reflection)





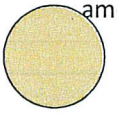
Rhombus
two lines of symmetry

Parallelogram
No lines of symmetry



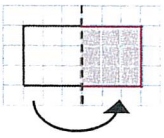
Shapes can have more than one line of symmetry....
This regular polygon (a regular pentagon has 5 lines of symmetry)

A circle has an infinite amount of lines of symmetry



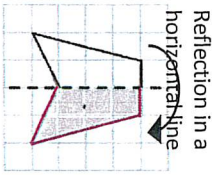
Reflect horizontally/ vertically (1)

Keyword : Mirror line: a line that passes through the centre of a shape with a mirror image on either side



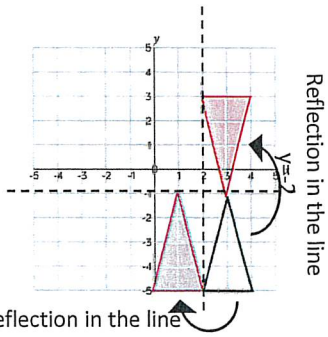
Reflection in a vertical line

Note: a reflection doubles the area of the original shape



Reflection in a horizontal line

Reflection on an axis grid



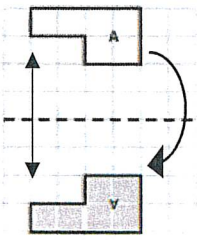
Reflection in the line y=-1

Reflection in the line x=2

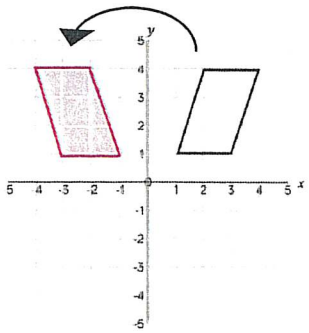
Reflect horizontally/ vertically (2)

Keyword: Reflect: mapping of one object from one position to another of equal given line

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



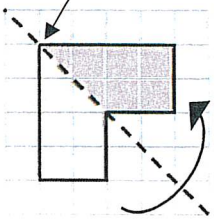
Lines parallel to the x and y axis
REMEMBER
Lines parallel to the x-axis are y =

Lines parallel to the y-axis are x =

Reflect Diagonally (1)

Keyword: Vertex: a point where two or more-line segments meet.

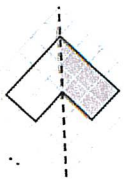
Points on the mirror line don't change position

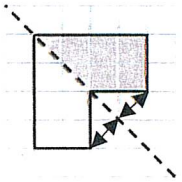


Fold along the line of symmetry to check the direction of the reflection

Turn your image

If you turn your image it becomes a vertical/ horizontal reflection (also good to check your answer this way)





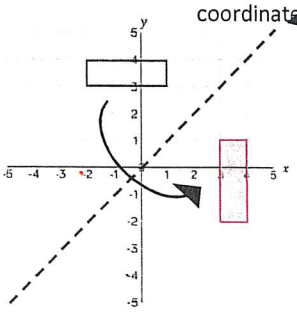
Drawing perpendicular lines

Perpendicular lines to and from the mirror line can help you to plot diagonal reflections

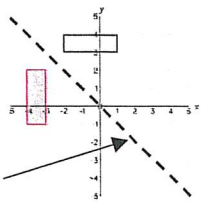
Reflect Diagonally (2)

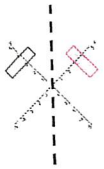
Keyword: Perpendicular: lines that cross at 90°

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)

Year 8 - Reasoning with data...

Measures of location

Mean, Median, Mode

Keyword: Average: a measure of central tendency – or the typical value of all the data together

The Mean

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

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

Keyword: Represent: something that show's the value of another

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

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 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

Keyword: Outlier: a value that stands apart from the data set

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

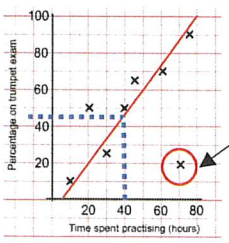
Outliers can have a big impact on range and mean. They have less impact on the median

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

Keyword: Spread: the distance/ how spread out/ variation of data

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 (1.d.p), **Median:** 38. **Mode:** no mode **Range:** 16

James

Mean: 41.8 (1.d.p), **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"

Yr8 Music

How the Musical Elements are used in Film Music

Dynamics

Forte (loud) = represent power
Piano (soft) =epresent weakness/calm/resolv.
Crescendos = increasing threat, triumph or proximity
Diminuendos used for things going away into the distance
Horror film soundtracks often use **extreme dynamics** or **sudden dynamic changes** to 'shock the listener'.

Rhythm

Long notes often used to describe vast open spaces
SHORT notes often used to depict busy, chaotic or hectic scenes.
IRREGULAR TIME SIGNATURES used for tension.
OSTINATO rhythms for repeated sounds *e.g. horses.*
Time Signatures:
2/4 or 4/4 for Marches (battles)
3/4 for Waltzes
4/4 for "Big Themes"

Melody

RISING MELODIES increasing tension
FALLING MELODIES for defeat.
Q&A PHRASES can represent good versus evil.
The **INTERVAL OF A FIFTH** is often used to represent outer space with its sparse sound.

Instruments

Brass + Lower Strings = usually represent evil sinister characters
Woodwind + upper strings = good characters
ARTICULATION – LEGATO for flowing or happy scene
STACCATO for 'frozen' or 'icy' wintery scenes.
ACCENTS (>) for violence or shock.

Texture

Thin/Sparse = bleak or lonely scenes
Thick/Sparse = active scenes or battles

Tonality

MAJOR = happy
MINOR = sad

Harmony

ONSONANT HARMONY OR CHORDS for "good"
DISSONANT HARMONY OR CHORDS for "evil".
EDAL NOTES – long held notes in the **BASS LINE** used to create tension and suspense

History of FIlm Music

Early films had no soundtrack **- known as "SILENT CINEMA". Music for these films** was provided live - usually **IMPROVISED** by a pianist or organist.

The first **SOUNDTRACKS** appeared in the 1920's and used existing music.
In the 1930's and 1940's Hollywood hired composers to write huge Romantic-style soundtracks.
JAZZ and **experimental MUSIC** was sometimes used in the 1960's and 1970's.
Today, film music often blends **POPULAR, ELECTRONIC** and **CLASSICAL** music together in a flexible way that suits the needs of a particular film.

LEITMOTIF – A frequently recurring short music idea associated with a character, place or object.

Leitmotifs can be changed through **SEQUENCING, REPETITION** or **MODULATION** giving a hint as to what may happen later in the film or may be heard in the background giving a "subtle hint" to the listener *e.g. the "Jaws" Leitmotif*

The purpose of Film Music

Film music is a type of **descriptive music** that represents a **mood, story, scene** or **character** through music. it is designed to **support the action and emotions of the film on screen.**
Film music can be used to:

- create or enhance a mood
- function as a **leitmotif**
- to emphasise a gesture **(mickey-mousing)**
- provide unexpected juxtaposition/irony (using music the listener wouldn't expect to hear)
- link one scene to another
- influence the pacing of a scene making it appear faster/slower
- give added commercial energy - music is released as a soundtrack
- describe the location or historical period

Key Words

- **Soundtrack** – The music and sound recorded on a film. It can also mean a collection of music and songs from a film sold individually as a CD or download.
- **Music Spotting** – A meeting/session where the composer meets with the director and decides when and where music and sound effects are to feature in the finished film.
- **Mickey-Mousing –** when the music fits precisely with a specific part of the action in a film
- **Storyboard** – A graphic organiser with images displayed in sequence to help the composer plan their soundtrack.
- **Cuesheet**– A detailed listing of **MUSICAL CUES** matching the action of a film so that composers can time their music accurately.
- **Diegetic Music**– Music within the film for both the characters and audience to hear *e.g. a car radio, a band in a nightclub or sound effects.*
- **Non-diegetic Music** – Music which is put "over the top" of the action of a film for the audience's benefit and which the characters within a film can't hear – also known as **UNDERSCORE** or **INCIDENTAL MUSIC.**

ST. ANNE'S R.C. VOLUNTARY ACADEMY

PE Knowledge Organiser- Athletics

Sprints

When sprinting drive knees high, keep eyes close to the body and move them hip lip. Look forwards with chest up and shoulders relaxed. When finishing dip forwards slightly as you cross the line.

SCAN ME

Long Distance

Remember to breathe in through your nose and out through your mouth. Run in a fashion, with shoulders relaxed, taking nice long strides to cover more
Build up distances to try and run continuously.

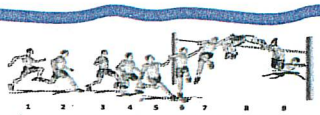
SCAN ME

Long Jump

Measure run up- start with dominant foot on the board, run 7, 9 or 11 steps at a sprint. Take off- plant foot on (but not over the board), eyes up, hips up and focus on driving up into the air. Flight- stretch both legs forwards and reach towards your feet with hands. Landing- aim to land feet together, and body forwards/sideways (not backwards).

SCAN ME

High Jump



Run up- a curved run up which brings you sideways to the mat. This should be a sprint. Take off- drive knee closest to the mat up high. Lift hips, lean back, and flick heels into the air as you go over the bar. Landing- land on your back, lifting feet into the air to avoid hitting the bar.

SCAN ME

Shot Putt

Sideways stance with weight on back leg- toe, knee and chin all in alignment.
Shot held in fingers, not touching palm, and pushed into neck with elbow raised.
Transfer weight from back leg to front, twisting torso. Push shot up and out at a 45-degree angle.

SCAN ME

Discus

Sideways stance with weight on the back leg, discuss held with very ends of fingertips. Non discus hand outstretched at 45-degree angle. Swing discus (palm towards the ground) up to reach non discus hand several times. As discus reaches 45-degree angle straight back leg. After 3-4 wind up swings release the discus forwards off your index finger.

SCAN ME

PE Knowledge Organiser- Cricket

KEYWORDS

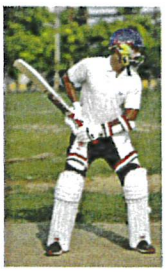
Bat- a flat, wooden piece of equipment used by the batter to strike the ball and attempt the score runs.

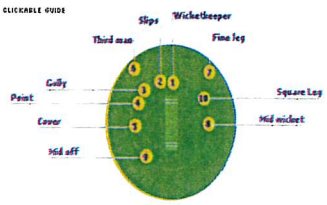
Wicket- consists of three stumps and two bails. It is a target for the bowler to hit and the batter must protect. Knocking this off means the batter is out.

Bowler- the player delivering the ball with the aim of trying to get the batter out.

Run- the main way of scoring in cricket. Runs are made by two batters running between the wickets after hitting the ball.

Over- a set of six legal deliveries bowled by one bowler. After one over, a different bowler takes over from the opposite end of the pitch.

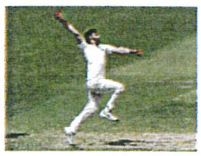




Rules of Play

- Cricket is played between two teams each made up of eleven players.
- Games comprise of at least one innings wh ere each team will take turns in batting and fielding.
- The fielding team will try to get the batsmen out by trying to hit the wicket with the ball when bowling, catching a shot from the batter, hitting the batsman's leg in front of the wicket or hitting the wicket before the batter gets to the wicket.
- The batmen try to score as many runs as p ossible before getting out by
- Each time you run one full length of the pi tch it equals 1 run. Hitting the ball to the boundary along the ground is 4 runs. Hitti ng the ball over the boundary on the full equals 6 runs. The fielding tea m must get 10 batsmen out before they ca n change over and start batting.
- The aim of the game is to score as many r uns as possible before the fielding team t akes 10 wickets. The team with the most r uns wins.

Bowling



- **Place your thumb and index finger on the seam of the ball, on opposite sides of the ball. Place your middle finger on the other edge of the seam near your index finger.**
- **Carry the call close to your chin. Coil your body then lean back, drop your elbow as you plant your leading leg. Straighten your elbow and your arm then shift your weight to the lead leg.**
- **Thrust your bowling arm forward and rotate your arm past your ear, snapping your wrist to release the ball.**

Batting

1. **Stand side on the bowler, feet should width apart with knees slightly bent. Hold the bat with both hands close together on the handle, maintaining a firm but relaxed grip.**
2. **As the bowler approaches, the bat should be close to the body. Move the front foot towards the ball, keeping the back leg straight and foot planted.**
3. **Make sure your head and eyes are aligned with the ball throughout the swing. The bat should be angled so the face is towards the ground. When swinging, keep the elbows bent and locked. Follow through and strike the ball by swinging in a straight line.**

Wicket keeping

To be an effective wicket keeper, the sportsperson needs to master catching and stumping techniques (presenting their hands in a way which maximises catching, quick reaction time to the batsman's movement), develop proper footwork and body positioning (crouched position, ready to move quickly whilst maintaining stability behind the stumps), and practice clear and effective communication with the bowler (allows for coordinating strategies and making necessary adjustments).

Overarm throw

Step One

Stand shoulder width apart, sideways to the target with the throwing arm taken back behind the head at a 90-degree angle. Point the non-throwing arm at the target.

Step Two

Transfer weight from back foot to the front foot by rotating hips and torso towards target. Pull throwing arm towards the target, leading with the elbow. Release the ball in front of head. Follow through with your throwing arm pointing toward the target.

Breakdown of Cricket Rules

SCAN ME

Where would be best to hit the ball to outwit my opponents?

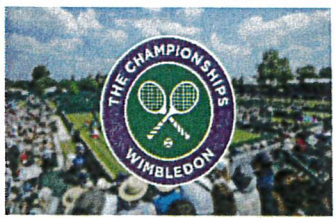
Why would I want to use different bowls when bowling?

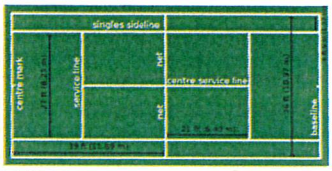
Why is spacing so important to consider when fielding?

PE Knowledge Organiser- Tennis

KEYWORDS

Backhand- a stroke in which the ball is struck on the opposite side of the body to the racquet hand.
Drop shot- a gentle shot that just lands over the net.
Forehand- a shot hit from the racket arm side of the body.
Serve- the shot that begins each point, in which the server hits the ball after tossing it into the air. The serve must go diagonally across the court and bounce in the serving box.
Rally- a long series of shots.
Grip- how to hold the racket in tennis that is hit in a high arc, usually over the opponent's head.





Scoring

A player or team has to win four points to win a game. Any game starts at 0-0 and the zero point in tennis is called love. The progression of points occurs as follows:

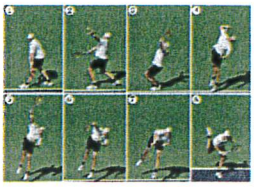
First point - 15
Second point - 30
Third point - 40
Fourth point - Game

However, if both players win three points each in a game (i.e score is 40-40), then it's called a deuce.

After deuce, the player who wins the next point has advantage. If the player/team who has advantage wins the next point, then they win the game.

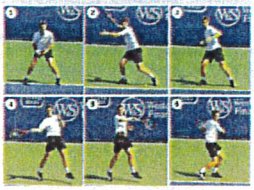
However, if the opposing player wins the next point after advantage, then the score moves back to deuce. A player/team needs to win two consecutive points after deuce to win a game.

Serving



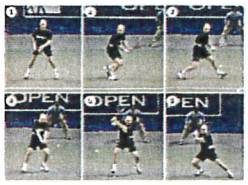
1.Face sideways at an angle to the baseline. Fully extend the elbow down so the racket is pointing to the floor and fully extend the other elbow downwards and hold the ball in the palm of your hand facing up.
2. Separate the arms, extending the right elbow backwards and left elbow upwards whilst transferring body weight from front to back foot.
3.The left arm throws up the ball and arm stay straight with the ball slightly in front of you.
4.When the ball reaches the highest point, accelerate the racket head at the ball in a throwing action, strike the ball as the elbow is fully extended and aim the racket downwards.

Forehand



Step One- stand on the balls of feet with the knees slightly bent whilst facing sideways with shoulder and arm pointing towards opponent. The racket arm should be at a 45-degree angle with the face of the racket at head height.
Step two- transfer body weight from back to front foot and rotate the body quickly to face forwards. The racket head lowers and the forward swing travels from low to high, aiming to hit the ball at its highest point.
Step three- contact ball around waist height, beginning to rotate the racket at impact then follow through with the racket.

Backhand



The weaker hand should be on the top of the racket handle whilst racket is at waist height. Hands and trunk should turn to the side, so the shoulder of right arm is pointing to the ball. The right elbow should be fully extended whilst you transfer body weight from front to back foot.
The body should rotate quickly facing forward, transferring weight from back to front foot and the racket head should lower as accelerating forward. The swing should be low to high aiming to hit the ball at its highest point.
Make contact with the ball at around waist height and begin rotating the racket at impact. The racket should follow through to finish at the right shoulder.

Ready Position

Both hands start on the racket. Feet should be shoulder width apart with head forwards into the court. The knees should be slightly bent so centre of gravity is lowered. When the opponent hits the ball, go onto toes for extra spring in legs. Always return to the centre of the court when striking the ball.

Breakdown of Tennis Rules

SCAN ME

Where would be best to hit the ball to outwit my opponents?

Why is it important to go back to the middle of the court when hitting the ball?

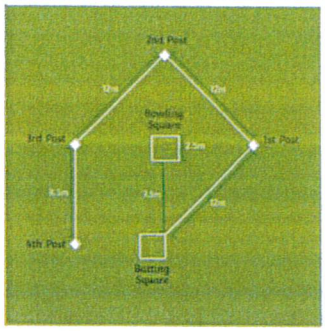
What happens during a serve if the ball hits the net but goes over, landing in the service e box?

ST. ANNE'S R.C. VOLUNTARY ACADEMY

PE Knowledge Organiser- Rounders

KEYWORDS

Underarm- technique of throw when you are bowling to the batter.
Batting-the player trying to score rounders for their team. They do this by hitting a bowled ball and running around the bases without stopping.
Overarm Short- A throw that is used between the bases. This is when the fielding team are trying to get a player out by stumping the base.
Overarm Long- A throw that is from the field to someone at a post or the bowler. It is travelling a further distance than overarm short.
Long Barrier- a technique to control a rounders ball that is travelling along the ground.
No Ball- the ball has been bowled above the batter's head, below the knee, wrong side of the body, too wide or too close to the body.



Rules of Play

1. You must start in the batting box and not step out of it.
2. You only get 1 ball bowled at you, after which you must run whether you hit it or not.
3. You must keep in contact with a post once you have decided to stop running.
4. A no ball means you get another attempt at hitting the ball.
5. You must run around the outside of the post to the last post where you must hit the stump to get all the way round.
6. If you get to the second post you score half, if you get all the way past the fourth post, you get a full rounder.

Batting

- Stand sideways on to the bowlder with the bat up and behind you. The arm will be on a 90-degree angle.
- Step in with the opposite leg.
- Swing through with the hips and follow through with the bat to contact the ball.
- Move body and arm position to hit the ball in a different direction but always in front of you.
- DO NOT DROP THE BAT, unless the umpire shouts no ball you must run.

Underarm Throw

Hand ball in dominant hand, step forward with the opposite leg, swing arm and release the ball before shoulder height. The ball must reach the batter between their knee and head. Aim for the backstop's hands.
Types of bowls- straight bowl, donkey drop, spin bowl

Long Barrier

STEP ONE:
Approach the ball at speed and as you get into line with the ball, twist your upper body, leading with the shoulder furthest from the ball.
STEP TWO:
Bend both knees, so that the knee of the leg nearest to the ball touches the group, but it is also next to the back of the heel of the other leg.
STEP THREE:
With fingers down and head forward, pick up the ball and then stand back up ready to deliver an overarm throw.

Catching

- You can get someone out by catching their hit or by stumping them at a post after catching the ball.
- Get into position under the ball, hands in a cup shape. Bring the ball closer to the body to ensure it is not dropped.

Breakdown of Rounders Rules

SCAN ME

Where would be best to hit the ball to outwit my opponents?

Why would I want to use different bowls when bowling?

Do I have to run on the inside of outside of the posts when batting?

ST.ANNE'S
R.C. VOLUNTARY ACADEMY
RELIGIOUS EDUCATION DEPARTMENT

Year 8 HT5: Ends of the Earth

Knowledge Organiser

Keywords:

Keyword	Definition
Resurrection	Christian belief in the rising of Christ from the dead and the rising of the dead at the Last Judgement
Requiem	A Catholic Mass for the repose of the soul of the dead
Purgatory	Place of cleansing for souls still preparing to go to heaven
Judgement	Belief that God will judge humanity on their beliefs and actions and determine whether souls will go to Heaven or to Hell.
Soul	The eternal part of the human being which lives on after the death of the body
Heaven	Ultimate aim for all Christians where they are united with God
Death	Permanent ending of vital processes leading to the end of the life
Eternal	To live for ever
Sabbath	Day of rest kept by Jewish people from Friday sunset until Saturday sunset

Key Concepts:

The Tomb: On Friday night as it was the Sabbath and no work was to be done, the body was quickly wrapped in a cloth and put in a tomb. The Romans put a large rock against the tomb and an armed guard was placed outside. After the Sabbath, on Sunday morning the family planned to go to the tomb to perform the funeral rites.

Baptism:
God's grace in the sacrament brings sanctifying grace to the soul, cleanses original sin, and links the soul to God's love. Baptism washes away sin and the person who is baptized is made into a Christian, a member of Christ's body. Baptism leaves an indelible sign on a person's soul, as they are claimed for Christ.

Easter Sunday Morning: Now on the first day of the week Mary Magdalene came to the tomb early, while it was still dark, and saw that the stone had been taken away from the tomb. And Mary stood weeping outside the tomb, and as she wept she stooped to look into the tomb; and she saw two angels in white sitting where the body of Jesus had lain, one at the head and one at the feet. They said to her, "Woman, why are you weeping?" She said to them, "Because they have taken away my Lord, and I do not know where they have taken him." Saying this, she turned round and saw Jesus standing, but she did not know that it was Jesus.

The 3 aims of the Catholic Funeral Rite:

1. Communion with the deceased – to support the person into the next life with efficacious prayer.

2. Communion of the Community – to show how people gathered are still connected to the deceased person in the Church, the Body of Christ.

3. Proclamation of eternal life to the community – to remind people that death is not the end of life, but the passage from this world to life with God.

Jesus' first appearance: Jesus said to her, "Woman, why are you weeping? Whom do you seek?" Supposing him to be the gardener, she said to him, "Sir, if you have carried him away, tell me where you have laid him, and I will take him away." Jesus said to her, "Mary." She turned and said to him in Hebrew, "Rabboni!

Eschatology: Refers to religious beliefs about death, judgement and life after death. All Christians believe that this life is not all there is. They believe God will reward the good and punish the bad in some form of life after death. However, there are different attitudes in Christianity about the nature of life after death.

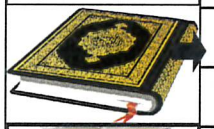
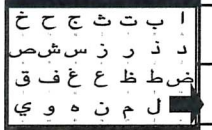
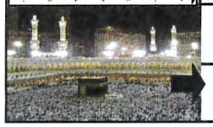
ST.ANNE'S R.C. VOLUNTARY ACADEMY

RELIGIOUS EDUCATION DEPARTMENT

Year 8: Islam

Knowledge Organiser

Keywords:

	Keyword	Definition
	Qur'an	Holy Book of Islam
	Makkah	Holy place of Islam
	Islam	Religion followed by Muslims
	Minbar	Platform in a mosque
	Sawm	Fasting from dawn until dusk
	The prophet Muhammed	Founder of Islam
	Allah	Muslim God
	Mosque	Place of worship
	Wudu	Washing before prayer
	Ramadan	Ninth month of the Muslim year where strict fasting is observed
	Crescent Moon	Symbol of Islam
	Angel Jibrl	Messenger of Allah
	Mihrad	Area in the mosque that people pray towards
	Salah	Prayer
	Eid	Muslim festival
	Muslim	Follower of Islam
	Arabic	Language often associated with Islam
	Imam	Muslim leader
	Hajj	Pilgrimage to Makkah

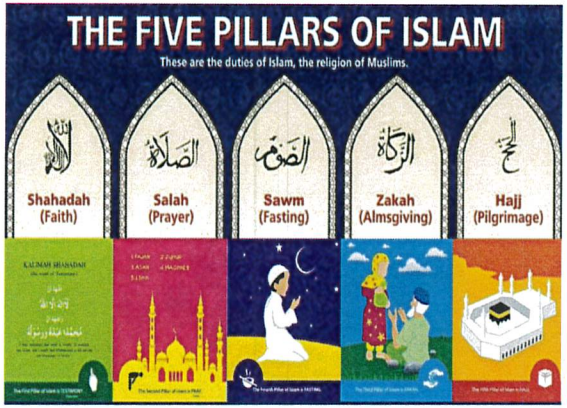
Key Concepts:

The Prophet Muhammad

- Muhammad was born in Mecca in Saudi Arabia in 570.
- He was a deeply spiritual man, and often spent time in meditation on Mount Hira.
- The traditional story of the Qur'an tells how one night in 610 he was meditating in a cave on the mountain when he was visited by the angel Jibreel who ordered him to recite.
- Once Jibreel mentioned the name of Allah, Muhammad began to recite words which he came to believe were the words of God.

The Qur'an

- The Muslim scripture is the Holy Qur'an. Muslims believe it is 'the word of God'.
- Muslim beliefs and practices are rooted in the Qur'an. Muslims treat the Qur'an with great respect because they believe that the Qur'an is from Allah, and every word and every letter is sacred. Muhammad (pbuh) memorized and wrote down the words.
- Muhammad (pbuh) interpreted the words in his daily life. Therefore many of the things which Muhammad (pbuh) did and said were remembered and carefully recorded.
- The stories and sayings help Muslims to understand the Quran and put what it teaches into practice in their daily lives.



Mosque

- Muslims believe that they can worship Allah anywhere, and they do not have to be in a special building.
- However, like members of most religions, many Muslims feel that it is important to have a special place for worship. This place is called a Mosque.
- Many Muslim men go to the mosque several times a week, but the most important time in the lunch-time prayers on a Friday, the Muslim holy day.
- Women are expected to pray too, either at the mosque or at home. When they go to the Mosque they are kept separate from the men.
- Muslims believe this allows both men and women to concentrate on Allah, without any distractions. It's a place to pray, study, and learn how to be a good human being from the Iman (holy man).
- They pray towards a niche in the wall that faces in the direction of Mecca.

Ramadan

- Ramadan is in the ninth month of the Islamic lunar calendar, as it was during this month that Muhammad received the first revelation of the Qu'ran.
- During this time Muslims fast for 30 days only eating and drinking before the sun rises and after the sun sets.

Islamic art and calligraphy

Islamic art focuses on the *spiritual* representation of objects and beings, and not their physical qualities. Islamic art has generally focused on the depiction of patterns and Arabic calligraphy, rather than on figures, because it is feared by many Muslims that the depiction of the human form is **idolatry** and thereby a sin against God, forbidden in the Qur'an.

Muslims in the UK

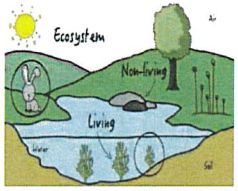
- There have been Muslims in Britain for at least 200 years. Many of the earliest Muslims who made their homes in Britain were traders from the Middle East.
- After World War II, many industries in Britain were short of workers, and people came to Britain from other countries to help.
- Many Muslims living in Britain were born here and have never lived in the countries from which their family have come from.

EYWORDS

DAPTATION – Characteristics that helps on rganism to survive in its environment	**EVOLUTION –** Development of a species over time
IOACCULUMULATION – The build up of toxic hemical inside organisms in a food chain	**EXTINCT –** Where no more of a species are alive anywhere in the world
OMPETITION – Happens when there are not nough resources to go round	**HABITAT –** The area in which an organism lives
COSYSTEM – The name given to the interaction f animals, plants and their habitats in a location	**NATURAL SELECTION –** Where an organism with the characteristics most suited the environment, survives and reproduces, passing on their genes

ST.ANNE'S
R.C. VOLUNTARY ACADEMY

Ecosystems and Adaptations



UNIT OVERVIEW

Science Year 8 – Ecosystems

Knowledge Understanding Equipped

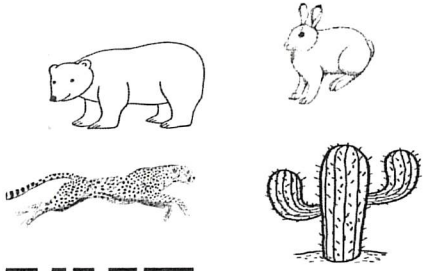
In this unit you will learn:

- Feeding relationships
- Food chains and food webs
- Bioaccumulation
- Interdependency
- Predator-prey relationships
- Adaptations
- Competition

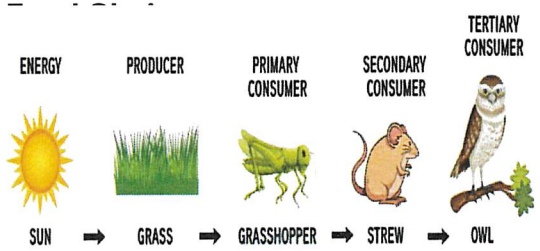
Link to Kerboodl

SUPPORT

ompetition and Adaptations

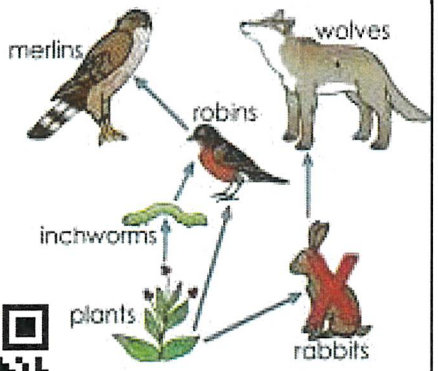


Must know some examples of plants and animals and how they are adapted



Must know food chains always start with a producer, and arrow mean consume

Food Webs



Must know food webs contain more than one food chain

Habitats

Know that different habitats give rise to different adaptations

WHAT DO YOU THINK?

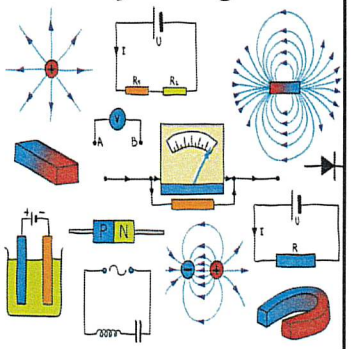
What are the adaptations of the polar bear for its environment?	What is the primary consumer in the food chain above?	What is meant by the term interdependence?	What do animals compete for?	What do plants compete for?

EYWORDS

ONDUCTOR – A metal that conducts charge or nergy well like graphite or copper	**MAGNET –** A material with a north and south pole and its own magnetic field
URRENT – The flow of charge (electrons) around a ircuit	**OHM –** The unit of resistance. Symbol Ω
LECTROMAGNET – A temporary magnet produced sing a current	**REPEL –** To push away from each other like the two same poles of a magnet
LECTRON – Negatively charged particle found in toms, that flow through circuit wires when it is on	**RESISTANCE –** How difficult is for current to flow through a circuit

ST.ANNE'S
R.C. VOLUNTARY ACADEMY

Electricity and Magnetism



UNIT OVERVIEW

Science Year 8 - Electricity and Magnetism

Knowledge Understanding Equipped

In this unit you will learn about:

Charge
Circuits and current
Resistance
Components
Series and parallel circuits
Magnets and magnetic field

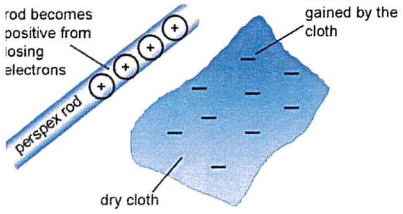
Link to Kerboodle

SUPPORT

tatic electricity

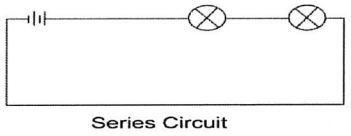
Moving charges

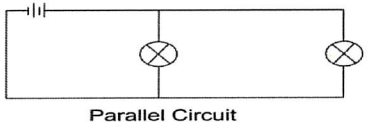
When you rub two different materials against each other, they become electrically charged.



Circuits

A circuit is a closed path which allows current or charge to flow from one place to another. In a series circuit there is only one pathway for the current, in a parallel circuit there are multiple pathways

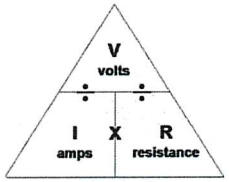




Resistance

Resistance is anything that reduces the flow of current in a circuit

Resistance acts to slow down current. The components in a circuit offer resistance



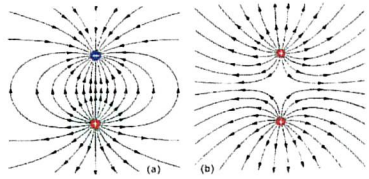
Magnets and Magnetic fields

Electric fields

We represent electric fields using diagrams (just like with magnetic fields):

- each field line has an arrow from **positive to negative**;
- the field lines are more concentrated where the field is strongest.

Field lines also show what happens to the electric fields during attraction or repulsion.



WHAT DO YOU THINK?

How do you make a material electrically charged?	What is the difference between a series and a parallel circuit?	What is meant by resistance and what causes it?	Are all metals good conductors of electricity?	What is a magnetic field?

KEYWORDS

AMPLITUDE – The distance from the middle to the top or the bottom of the wave	**PITCH** – A property of a sound (high or low) which depends on the frequency of the sound wave
FREQUENCY – The number of waves that pass a point in one second	**TRANSVERSE WAVE**- Where the direction of the wave is perpendicular (right angles) to the energy transfer
LONGITUDINAL WAVE– A wave where the direction of the wave is parallel to the energy transfer	**ULTRASOUND** – Sound with a frequency greater that 20000Hz (above range of human hearing)
OSCILLATION – Something that moves backwards and forwards, a vibration.	**WAVELENGTH** – The distance from the point on one wave to the same point on the next wave

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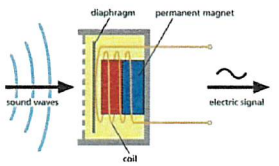
Microphones

Microphones work as sound waves hit a flexible plate called a diaphragm which vibrates, and a coil moves backwards and forwards producing a signal



UNIT OVERVIEW

Science Year 8 - Sound

Knowledge Understanding Equipped

In this unit you will learn

Waves
Sound
Loudness and Pitch
Detecting Sound
Echoes and Ultrasound

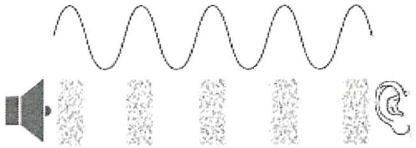
Link to Kerboodle

SUPPORT

How Sound is Produced

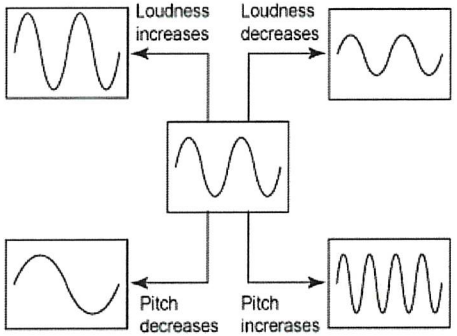
Sound is produced by oscillations (vibrations) that move particles **backwards and** Forwards forming a wave.

Sound needs a medium to travel though and travels faster in solids than in gases as the particles are closer and the oscillations pass to the next particle faster.



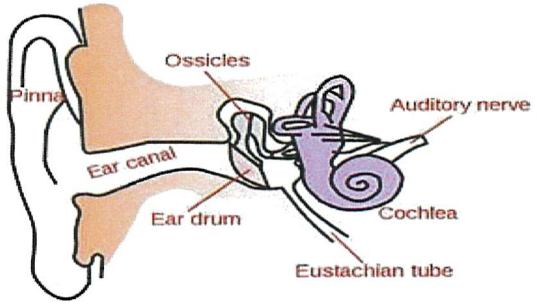
Pitch and Volume of Soun

The pitch of a sound is determined by the wave frequency. The volume of a sound depends on the amplitude of the wave.



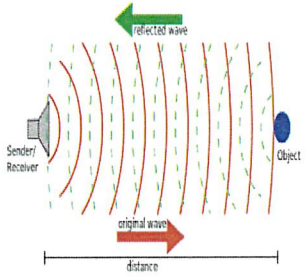
Ears , The Detectors of Sound.

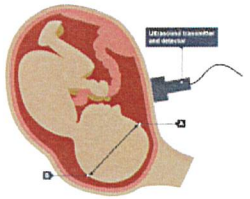
The vibrating air particles hit the eardrum which makes the small ear bones vibrate, and these hit the cochlea in which turns the vibrations into an electrical signal that is sent to the brain via the auditory nerve



Echoes and Ultrasound

An echo is a reflection of a sound wave and ultrasound is a sound with a frequency over 20000Hz. Echoes and ultrasound can be used for measuring distances, neo-natal images and mapping.





WHAT DO YOU THINK?

Can you explain why we see lightening before we hear the thunder?	Can you explain on a particle level, why sound travels faster in solid than in gases?	Can you compare sound intensities and what is a safe sound intensity for human?	Can you draw wave diagrams showing loud sounds with a high pitch and a quiet sound with a low pitch?	Can you compare the similarities and differences between an ear and a microphone?	Could you explain how ships at sea use SONAR to detect where the seabed is?

ST.ANNE'S
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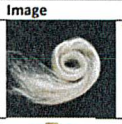
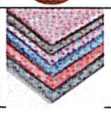
Year 8 Knowledge Organiser-Textiles.

KEYWORDS

Stitching-The process of joining 2 fabrics together
Eye-The hole in the needle
Analysing-Looking at existing products to see what works/could be improved
Weaving-Forming fabrics by interlacing threads
The industrial revolution-The transition from hand production to machine production
Sew on the spot/tie of-A technique to stop work unravelling
Seam-A line where 2 pieces of material are sewn together

Key word	Description	Image
Fibre	Fine hair like structure	
Yarn	Fibres which are twisted together to create a yarn/ thread	
Fabric	Cloth made from fibres or yarns	

Unit Overview

Create an Ugly Doll, adding additional features such as hair, clothes etc.

You will use the running stitch or blanket stitch to hand sew your work.

The puppet must be aimed at a particular target audience.

WHAT DO YOU THINK?

Which stitch would work best for this project and why?
What would be the steps you would use to teach another person how to weave?
What can analysing existing products tell us?

SUPPORT

Textiles and sustainability	SCAN ME
Textiles and the industrial revolution	SCAN ME
Machine weaving	