

KNOWLEDGE ORGANISER



Spring Term 2021
Year 8



Name: _____ **Form:** _____

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How to use your Knowledge Organiser for Home Learning

- Knowledge Organisers contain critical knowledge that you must know
- It will help you recap, revisit and revise what you learn in lessons so that you remember it in the long term
- You will use your Knowledge Organiser for most of your homework, but you can also do extra self-study to develop your long term memory
- You **MUST** have your book with you every day and in every lesson as it will be used alongside your learning

For homework:

- You will need to follow the homework timetable so you do the correct subjects on the correct day.
- You will be asked to look at a specific section of your Knowledge Organiser
- Your homework will be **cover – write – check**

This should take about 15 – 20 mins per subject.

- You must write the subject and date in your homework book
- You need to underline the subject and title as per lessons
- The knowledge learnt will be assessed throughout each cycle in lesson time
- Your form tutors will check that the work has been completed
- There will be rewards for excellent work and sanctions for work not completed



HOME LEARNING PLAN:

- Your homework will be set **every Monday** on Class Charts
- Your homework book will be checked by your tutor **every Monday** after each week's homework to check you have evidence of your home learning
- Evidence can be highlighted notes, mind-maps, diagrams, flashcards
- The section of homework you need to learn from your Knowledge Organiser will be on Class Charts as normal
- Your tutor will give rewards for excellent home learning evidence, but there will also be a consequence for not completing the work or not having your book
- There will be an after school detention set for the **Tuesday evening** to complete your work if it has not been done
- You will be tested on what you have learnt by your subject teachers in your lessons
- Completing your home learning is **YOUR** responsibility



Literacy Knowledge Organiser

Books to read this term –

Northern Lights by Philip Pullman
The Red Scrolls of Magic by Casandra Clare
The Sleeper and the Spindle by Neil Gaiman

“The more that you read, the more things you will know. The more that you learn, the more places you’ll go.”

Dr Seuss

SPAG Reminder for the term –

Sentences provide us with the framework for the clear written expression of our ideas. The aim in writing is always to write in complete sentences which are correctly punctuated. Sentences always begin with a capital letter and end in either a full stop, exclamation or question mark.

A complete sentence always contains a verb, expresses a complete idea and makes sense standing alone.

To check that you are writing in complete sentences, try reading your sentences aloud, pausing as indicated by the punctuation. Can each sentence stand alone as a complete thought? If further information is needed to complete the idea, then it is not a complete sentence.

Homophones are words that sound the same but are spelt differently and have different meanings. 'Their', 'they're' and 'there' are homophones that often confuse people.

‘Their’ means it belongs to them, eg "I ate their sweets."

‘They're’ is short for 'they are' eg "They are going to be cross."

‘There’ refers to a place, eg "I'm going to hide over there."

Punctuation

Full Stop

Used at the end of a complete sentence.



Example:
And that is how the story ends.

Exclamation Mark

Used to end a sentence to show a strong feeling or emotion like surprise, anger or shock.



Example:
'Look up there!' she yelled.

Comma

Used to separate parts of a sentence. It can also be used to separate items in a list.



Example:
We had apples, cheese and water.

Question Mark

Used to end a sentence that asks a question.



Example:
What is the date today?

Parenthesis / Brackets

Use to add additional information.



Example:
He gave me money (£10).

Dash

Can be used to add information / clarity instead of a colon or brackets.



Example:
These people have the same responsibility - to serve to public.

Ellipsis

Indicates that something has been left out / it is not finished.



Examples:
I don't know... I'm not sure.

Ampersand

Used to represent the word "and".



Example:
At the zoo we saw lions, zebras, bears & monkeys.

Colon

Use after a complete statement to introduce a list or example.



Example:
You know what to do: practice.

Speech Marks

Used to show that someone is speaking.



Example:
The boy said "I don't know".

Apostrophe

For contraction - used to show that some letters have been taken out of a word to shorten it.
For example: Can not = Can't.

For possession - shows the object belongs to someone.
For example: The dog's tail.



Semicolon

Used to link two independent clauses that are closely related.



Example:
My dad has a red car; he likes to wash it.

NUMERACY

Times Tables

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Spelling Numbers

1	One	11	Eleven	30	Thirty
2	Two	12	Twelve	40	Forty
3	Three	13	Thirteen	50	Fifty
4	Four	14	Fourteen	60	Sixty
5	Five	15	Fifteen	70	Seventy
6	Six	16	Sixteen	80	Eighty
7	Seven	17	Seventeen	90	Ninety
8	Eight	18	Eighteen	100	One hundred
9	Nine	19	Nineteen	1000	One thousand
10	Ten	20	Twenty	1,000,000	One million
				0	Zero or nought

Prime numbers

2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97
...

Square numbers

$1 \times 1 = 1$
 $2 \times 2 = 4$
 $3 \times 3 = 9$
 $4 \times 4 = 16$
 $5 \times 5 = 25$
 $6 \times 6 = 36$
 $7 \times 7 = 49$
 $8 \times 8 = 64$
 $9 \times 9 = 81$
 $10 \times 10 = 100$

Cube numbers

$1 \times 1 \times 1 = 1$
 $2 \times 2 \times 2 = 8$
 $3 \times 3 \times 3 = 27$
 $4 \times 4 \times 4 = 64$
 $5 \times 5 \times 5 = 125$
 $6 \times 6 \times 6 = 216$
 $7 \times 7 \times 7 = 343$
 $8 \times 8 \times 8 = 512$
 $9 \times 9 \times 9 = 729$
 $10 \times 10 \times 10 = 1000$

Symbols

= Equals, the same as
 \neq Not equal to
 \approx Approximately equal to
 \equiv Identically equal to
 $<$ less than
 $>$ greater than
 \leq less than or equal to
 \geq greater than or equal to

Key Concept A square root is the opposite of a square number, so 10 is the square root of 100

Key terms

Sum – the answer to an **addition** question

Difference – the answer to a **subtraction** question

Product – the answer to a **multiplication** question

Quotient – the answer to a **division** question

Useful words

Factors – the numbers that divide exactly into a given number

Multiples – the times tables of a number

Double – multiply by 2

Halve – divide by 2

Treble/triple – multiply by 3

Even – divisible by 2

Odd – not divisible by 2

Key Concept: Place Value Table

Hundred Millions	Ten Millions	Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Units/Ones	Decimal (,)	Tenths	Hundredths	Thousandths	Ten Thousandths
						3	2	5					
			1	5	6	3	7	.	0	4	2		

NUMERACY

Order of Operations

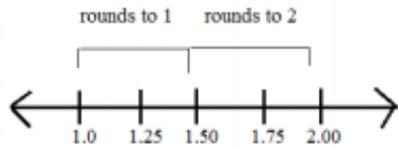
B	Brackets	$10 \times (4 + 2) = 10 \times 6 = 60$
I	Indices	$5 + 2^2 = 5 + 4 = 9$
D	Division	$10 + 6 \div 2 = 10 + 3 = 13$
M	Multiplication	$10 - 4 \times 2 = 10 - 8 = 2$
A	Addition	$10 \times 4 + 7 = 40 + 7 = 47$
S	Subtraction	$10 \div 2 - 3 = 5 - 3 = 2$

Key Concept: Rounding to units, tens, hundreds and thousands

Round 5468.9
 to the nearest whole number = 5469
 to the nearest ten = 5470
 to the nearest hundred = 5500
 to the nearest thousand = 5000

Key Concept: Rounding to nearest whole numbers

Place the number you are rounding on a decimal number line. Which whole number is it closer to?



Describing numbers

- Numerals** – a number written down not in words (e.g. 3 or 40)
- Digit** – the numerals 0 to 9
- Integer** – whole numbers (e.g. 2 or 64)
- Decimals** – numbers between two whole numbers on a number line (e.g. 4.7 or 3.59)
- Place value** – The position of the digit in the number that tells you how much it is worth (e.g. the 4 in the number 432 is worth four hundred)

Scale and metric

measurements

- Millimetre (mm)** – the thickness of a credit card
- Centimetre (cm)** – the width of a fingernail
- Metre (m)** – the length of a guitar
- Kilometre (km)** – the distance you can go in around 12 minutes walking

#WHAT'S THE TIME?

6 A.M. TO 12 P.M.
IN THE MORNING

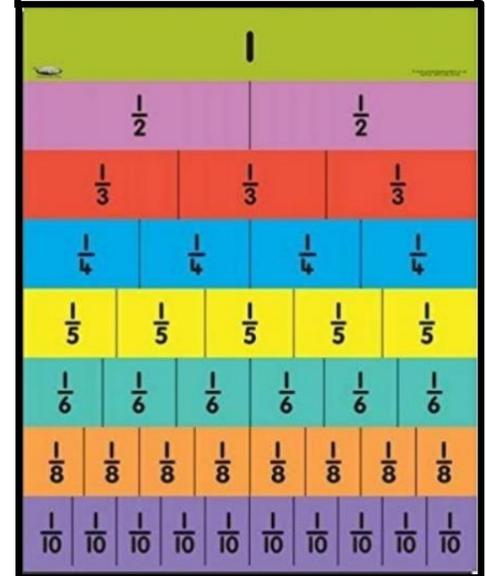
12 P.M. TO 6 P.M.
IN THE AFTERNOON

6 P.M. TO 12 A.M.
IN THE EVENING

12 A.M. TO 6 A.M.
IN THE NIGHT

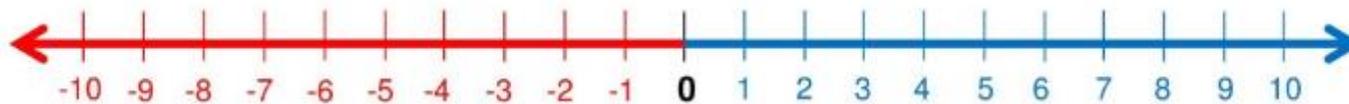
Fractions

- Fraction** – part of a whole number or item
- Denominator** – how many parts the whole thing is split into (bottom)
- Numerator** – the number of those parts you have (top)
- Equivalent** – has the same value



Negative

Positive



← Decreasing/descending/getting smaller

Increasing/ascending/getting bigger →

Command words

- Calculate/evaluate/find/work out/give** mean find the answer
- Simplify** means write in a different, more simple way
- Estimate/approximate** means use appropriate rounded values to find an

Plot Summary

ENGLISH



The Tempest (I.i)

Alonso, the King of Naples, is on a ship with his son Ferdinand and his companions Sebastian, Antonio, Stephano and Trinculo. They are struck by a terrifying, howling storm. They abandon ship and swim to a nearby island but are washed ashore in different places. The island seems to be abandoned.

After the Storm (I.ii)

From a nearby island, Miranda watches the huge tempest. She lives with her father Prospero and has little memory of her life before the island. Prospero tells his daughter of their past: he was the Duke of Milan twelve years ago, but he was so involved with his books and secret studies that he did not realise his brother Antonio was stealing power from him. One night, Antonio ordered soldiers to take Prospero and Miranda and put them on a boat to their death. But they were washed ashore this island safely and have lived there ever since. Prospero has been ruler of the island. Prospero has created the storm to bring his brother to the island.

Ariel and Caliban (I.ii. cont./II.i)

Prospero is a powerful magician who controls the spirit Ariel who completes tasks for him. Prospero has agreed to release Ariel after this last mission. Caliban is a deformed savage slave who is also under Prospero's control. He is the son of an old witch, Sycorax, and is a native of the island. Prospero taught Caliban how to speak but Caliban resents the control Prospero has over him.

Kind Alonso (II.i)

King Alonso and his younger brother Sebastian, as well as Antonio (the usurping Duke of Milan), wander around the island. King Alonso weeps as he believes his son Ferdinand is dead. Sebastian and Antonio plot to kill Alonso so that Sebastian can be king. They are stopped by Ariel's magical intervention.

Caliban, Stephano and Trinculo (II.ii, III.ii)

The monster Caliban is found by Stephano and Trinculo. They give him alcohol to drink and he gets drunk. Caliban offers to serve Stephano because he believes he is a god because of the heavenly drink! Caliban explains to them how Prospero has treated him and that he will be their guide on the island if they overthrow him. The three drunks go to find and kill Prospero.

Ferdinand and Miranda (I.ii, III.i)

Ferdinand has survived the storm. He is safely on the island and is found by Miranda. They fall instantly in love. Prospero wants to test that the love is real. Ferdinand has to endure hard labour to prove his intentions are honourable. Miranda pities Ferdinand and wants to marry him. Prospero blesses their marriage.

The End (IV.i, V.i)

A marriage for Ferdinand and Miranda is arranged and celebrated with a masque attended by spirits. It is interrupted when Prospero recalls the threat from Trinculo, Stephano and Caliban. Prospero and Ariel send spirit dogs to scare them away. King Alonso, Sebastian and Antonio meet Prospero. He explains what has been happening on the island. He shows them Ferdinand and Miranda who are now married. King Alonso is filled with regret and asks forgiveness from Prospero which he grants.



Epilogue

Prospero declares that he will be giving up his magic. Ariel is released from his service. The party travel back to Milan. We do not know what has happened to Caliban.

Characters

Alonso – King of Naples

Sebastian – Alonso's brother

Ferdinand – Alonso's son

Antonio – Prospero's brother.
Antonio stole Prospero's title as Duke of Milan.

Gonzalo – the old counsellor to the King of Naples

Trinculo – a jester

Stephano – a drunken butler

Prospero – the rightful Duke of Milan

Miranda – Prospero's daughter

Ariel – an airy spirit; a slave of Prospero's who earns his freedom

Caliban – a savage and deformed slave of Prospero's; a native of the island

Keywords

colonialism – when one country establishes itself in another country. When someone **colonises** a new country, they are called a **coloniser**. The original inhabitants of the land are called **natives**.

usurp – to take control of someone else's power when you do not have the right to. Someone who usurps is called a **usurper**.

tempest – a violent storm.

treason – a crime that harms your country or government. Someone who commits treason is a **traitor**.

callous – when someone is cruel and does not care about other people.

pathos – a situation that makes us feel sympathy or sorrow.

dual nature – having two sides.

nurture – to encourage or support the development of someone or something.

Tragicomedy – a play that has some features of a tragedy and some features of a comedy.

'The Tempest' Knowledge Organiser

Background Information

Shakespeare was born in the Elizabethan era, named after Elizabeth I. After she died, James I became king. This period of history is called the **Jacobean** era, because Jacob is the Latin for James. Shakespeare lived and worked in both eras.

Italian city states - A city-state is an area that is ruled by a major city. During the Elizabethan and Jacobean era, Italy wasn't one unified country, but a number of small independent city-states.

Sea exploration was booming in the Elizabethan era as people 'discovered' new parts of the world. Queen Elizabeth I was obsessed with their discoveries and was happy to pay for their travels. Led by her example, the rest of the country were also fascinated by their stories and goods.

Maths Year 8

Spring - Foundation

Decimals and Ratio

In the **unitary method** you find the value of one item before finding the value of more. You can **compare ratios** by writing them as **unit ratios**. In a unit ratio, one of the two numbers is 1. For example 7:1

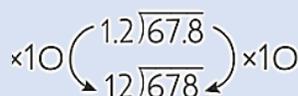
You can make the numbers in a ratio as small as possible by **simplifying**. You **simplify** a ratio by dividing the numbers in the ratio by the **highest common factor (HCF)**



To **round** to the nearest 10,000, look at the digit in the thousands column. To round to the nearest 100,000, look at the digit in the ten thousands column

To **round** a decimal to two decimal places (**2 d.p.**), look at the digit in the third decimal place

To divide by a decimal, multiply both numbers by a power of 10 until you have a whole number to divide by. Then work out the division.



When ordering decimals, look at the place value of each digit. $0.3 = \frac{3}{10}$, $0.03 = \frac{3}{100}$. So 0.3 is larger than 0.03.

You can make the numbers in a ratio as small as possible by **simplifying**. You **simplify** a ratio by dividing the numbers in the ratio by the **highest common factor (HCF)**



Write the proportion as a fraction.

$$\frac{9}{10} = \frac{\square}{100} = \square\%$$

You can compare **proportions** using **percentages**

Convert the fraction to a percentage.

Lines and Angles

A **diagonal** is a line that joins opposite **vertices** of a shape. When **diagonals bisect** each other, they cut each other in half.

It is not enough to show that a theory works for a few values. You need to prove it works for all values. A **proof** uses logical reasoning to show a theory is true

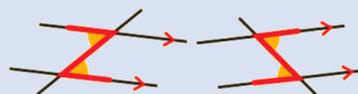
Irregular polygon sides are not equal lengths and angles are not equal

You can solve a problem by setting up an **equation** and solving it. The phrase '**in terms of**' tells you which letter to use.

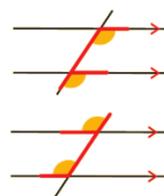
We show parallel lines using arrows



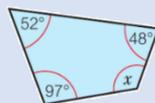
When a line crosses two parallel lines it creates a 'Z' shape. Inside the Z shape are **alternate angles**. Alternate angles are equal



When a line crosses two parallel lines it creates an 'F' shape. There are **corresponding angles** on an F shape. Corresponding angles are equal. Corresponding angles are on the same corresponding side of the diagonal



In an **irregular polygon** sides are not equal lengths and angles are not equal



The sum of the exterior angles is 360 degrees

A **polygon** is a closed shape with straight sides. In a **regular polygon**, the sides and angles are all equal.



The sum of **interior angles** of an **n-sided polygon**:
 $S = (n-2) \times 180$

Calculating with Fractions

To add or subtract fractions, write them as equivalent fractions with the same denominator. Use LCM as the denominator.

$$\frac{3}{10} + \frac{1}{5} = \frac{3}{10} + \frac{2}{10}$$

In maths, $\frac{3}{4}$ of 100 is the same as $\frac{3}{4} \times 100$.

To multiply two fractions, multiply their numerators and multiply their denominators

$$\frac{2}{3} \times \frac{1}{2} = \frac{2}{6} = \frac{1}{3}$$

The line in the fraction means 'divide by'. To write $\frac{3}{4}$ as a decimal, work out 3 divided by 4.

$$\frac{0.75}{1} = \frac{75}{100} = \frac{3}{4}$$

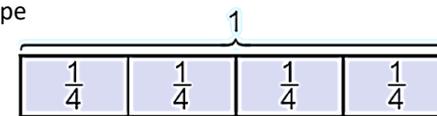
In recurring decimal, a dot over the beginning and end of a sequence shows **For example** 0.11111111 is $0.\dot{1}$ and it recurs. 4.185185185 is $4.\dot{1}8\dot{5}$

You can use a **multiplier** to work out a percentage, by using the decimal equivalent of the percentage.

You can write integers (whole numbers) as fractions with a denominator of 1. Dividing by 1 doesn't change the number

The **reciprocal** of a fraction is the 'upside down' fraction. A number multiplied by its reciprocal is always 1.

A fraction is a type of division. It divides a shape into equal parts



Dividing by a fraction is the same as multiplying by its reciprocal

$$4 \div \frac{2}{9} = 4 \times \frac{9}{2}$$

It is usually easier to write mixed numbers as improper fractions before doing the calculation.

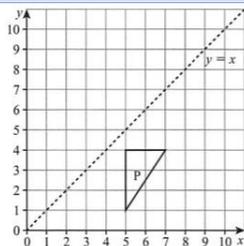
Maths Year 8

Spring - Higher

Transformations

You can use a **column vector** to describe a translation. The top number describes a movement to the left or right, and the bottom numbers describes the movement up or down. For example:

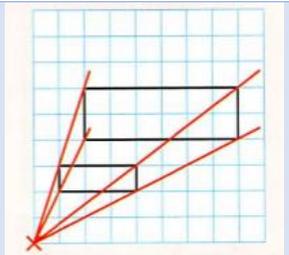
To describe a reflection on a coordinate grid you need to give the equation of the **mirror line**



You rotate a shape by turning it around a point called the **centre of rotation**.

To enlarge a shape you multiply all the side lengths by the same number. The number that the side lengths are multiplied by is called the **scale factor**

When you enlarge a shape using a **centre of enlargement**, you multiply the distance from the centre to each vertex by the scale factor



To describe fully an enlargement, you need to give the scale factor and the centre of enlargement

A **reflection** is a type of transformation. You can reflect a shape in a mirror line. All points of the object are the same distance from the mirror line as the points in the image but on the opposite side.

The image is the shape after the transformation.

Shapes are **congruent** if they are the same shape and size. In congruent shapes, **corresponding sides** and **corresponding angles** are equal

Fractions decimals and percentages

You can calculate the **percentage change** using the formula. **Percentage change** = $\frac{\text{actual change}}{\text{original amount}} \times 100$

You can calculate an amount after n years **compound interest** using the formula.

$$\text{amount} = \text{initial} \times \left(\frac{100 + \text{interest rate}}{100} \right)^n$$

In **compound interest**, the interest earned each year is added to the money in the account and earns interest in the next year. Most interest rates are **compound interest**

You can calculate an amount after n years' compound interest using the formula:

$$\text{Amount} = \text{Initial amount} \times \left(\frac{100 + \text{Interest rate}}{100} \right)^n$$

To round a **decimal** to the nearest whole number, look at the digit in the first decimal place. If the digit is less than 5, round off. If the digit is 5 or more, round up.

Digits after the decimal point are fractions.

$0.1 = \frac{1}{10}$
 $0.01 = \frac{1}{100}$
 $0.001 = \frac{1}{1000}$

To round a **decimal** to one decimal place (**1.d.p**), look at the digit in the second decimal place. If the digit is less than 5, round down. If the digit is 5 or more, round up.

To round to two decimal places (2 d.p), look at the digit in the third decimal place.

To multiply two fractions, multiply their numerators and multiply their denominators

$$\frac{2}{3} \times \frac{1}{2} = \frac{2}{6} = \frac{1}{3}$$

The line in the fraction means 'divide by'.
 To write $\frac{3}{4}$ as a decimal, work out 3 divided by 4.

$$\begin{array}{r} 0.75 \\ 4 \overline{)3.00} \end{array}$$

In recurring decimal, a dot over the beginning and end of a sequence shows For example 0.11111111 is $0.\dot{1}$ and it recurs. 4.185185185 is $4.\dot{1}8\dot{5}$

You can use a **multiplier** to work out a percentage, by using the decimal equivalent of the percentage.

You can write integers (whole numbers) as fractions with a denominator of 1. Dividing by 1 doesn't change the number

The **reciprocal** of a fraction is the 'upside down' fraction. A number multiplied by its reciprocal is always 1.

Constructions and loci

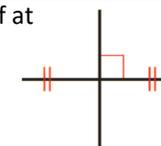
A **scale** of 1cm to 10cm means that 1cm on the **scale drawing** represents 10cm in real life

Scale drawing: 1 cm is 10 cm
 Real life: 10 cm is 120 cm

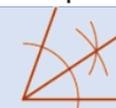
$\times 12$ (arrow from 10 to 120)
 $\div 12$ (arrow from 120 to 10)

To **construct** means to draw accurately using a ruler and compass

A **perpendicular bisector** cuts a line in half at right angles



An **angle bisector** cuts an angle exactly in half



A **locus** is the set of all points that obey a certain rule. Often the locus is a path

Points that are **equidistant** from points A and B are the same distance away from points A and B

Points equidistant from points A and B lie on the perpendicular bisector of line AB

Science

B8 Organisms

Key words		
1	Oesophagus	A muscular tube that squeezes food from the mouth to the stomach. (Also known as the gullet.)
2	Stomach	A muscular organ that churns up the food. Enzymes and stomach acid are added here.
3	Small intestines	Absorption of nutrients into the blood stream happens here.
4	Villi	Finger like structures that line the small intestines. These give a larger surface area for absorption.
5	Protein	Needed for growth and repair.
6	Carbohydrates	Needed for energy.
7	Fats	Needed for insulation of nerve cells and body insulation.
8	Fibre	Needed to provide the "bulk" for faeces (poo). Keeps the intestines working properly.
9	Vitamins and minerals	Help maintain general health and fitness.
10	Enzymes	Biological catalysts that speed up the rate of a reaction. Enzymes help speed up digestion.
11	Denatured	Enzymes can be altered in shape if exposed to high temperatures or pH.
12	Deficiency	Diseases can be caused by a lack of nutrients. E.g scurvy, anaemia.
13	Obesity	Being excessively overweight. Can result in type 2 diabetes, CHD, high blood pressure
14	Digestion	The break- down of large insoluble molecules into smaller soluble molecules.]

	Protein	Building and repairing cells	Beans, fish and dairy products
	Fat	Energy and for cell membranes	Dairy products, vegetable and animal oils
	Roughage	Add bulk to food to help digestion	Fruit, cereals, vegetables beans, including baked beans
	Water	Fills cells up, and dissolves chemicals	Any beverage or soft drink, water, in foods, etc.
	Carbohydrate	Used for energy	Bread, sweets, vegetables, pasta, rice, fruit and so on
	Minerals	Calcium-healthy bones Iron for blood	In a variety of foods, such as meat, dairy, fruits, etc.
	Vitamins	Used to make enzymes in small amounts	Small amounts found in fresh fruit, vegetables, cereal etc.

Food tests

Test for food groups	
Starch test	Iodine is orange. It will turn black in a positive test
Sugar	Benedicts solution is blue. When heated with sugar it will turn "brick red".
Protein	Biuret solution is blue. When heated with protein it will turn purple.

A **balanced diet** is one that contains the correct amounts of all the necessary nutrients needed for healthy growth and activity. An imbalanced or poor diet can contain too much or too little of a particular nutrient. If you have too little of a particular nutrient, we say that you have a **deficiency** in that nutrient. For example, fibre is needed to keep food moving through the intestines easily, and people who have a fibre deficiency in their diet may get constipation.

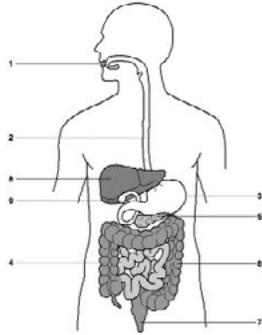
Vitamin deficiencies: You only need small amounts of the different vitamins in your diet to stay healthy, but you become ill if you do not get enough. For example:
 vitamin A deficiency can cause blindness
 vitamin C deficiency causes scurvy, which makes the gums bleed
 vitamin D deficiency causes rickets, which makes the legs bow outwards in growing children

Mineral deficiencies: You only need small amounts of the different minerals in your diet to stay healthy, but mineral deficiencies can make you ill. For example:
 iron deficiency can cause anaemia, where there are too few red blood cells

B8 Organisms

The digestive system

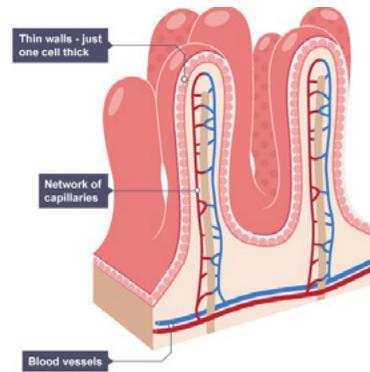
1. Mouth
2. Oesophagus
3. Stomach
4. Small intestines
5. Pancreas
6. Large intestines
7. Rectum
8. Liver
9. Gall Bladder



The inner wall of the **small intestine** has adaptation so that substances pass across it quickly and efficiently:

it has a thin wall, just one cell thick

it has many tiny **villi** to give a really big **surface area**



Products of digestion

Amino acids	Proteins are broken down into amino acids using protease enzymes.
Fatty acids	Fats are broken down into fatty acids and glycerol using lipase enzymes.
Simple sugars	Carbohydrates are broken down into simple sugars using carbohydrase enzymes e.g Amylase in saliva.

Digestion and enzymes

Our teeth break food down into small pieces when we chew. This is only a start to the process of digestion, as chewed pieces of food are still too large to be absorbed by the body. Food has to be broken down chemically into really small particles before it can be absorbed. Enzymes are the biological catalysts needed to make this happen quickly enough to be useful.

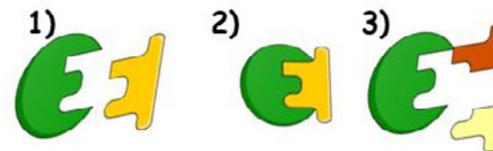
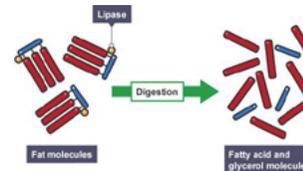
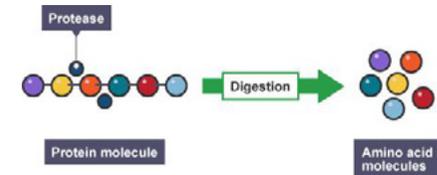
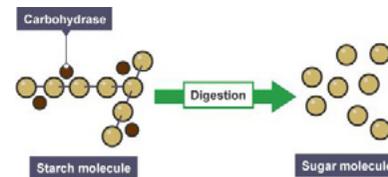
Enzymes

Enzymes are not living things. They are just special proteins that can break large molecules into small molecules. Different types of enzymes can break down different nutrients:

amylase and other **carbohydrase** enzymes break down **starch** into **sugar**

protease enzymes break down **proteins** into **amino acids**

lipase enzymes break down **lipids** (fats and oils) into **fatty acids** and **glycerol**



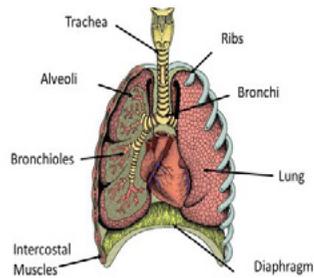
Enzymes - biological catalysts that speed up reactions e.g. respiration in the mitochondria

- 1) Enzyme and substrate
- 2) Substrate binds to active site
- 3) Substrate is broken down

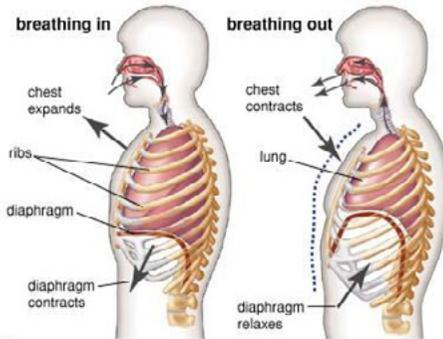
Science

B8 Organisms

The breathing system



Inhaling and exhaling



Inhalation: Ribs move out, diaphragm down, chest cavity expands and pressure inside chest cavity reduces- air flows in
Exhalation: Ribs move in, diaphragm moves up, volume of chest cavity decreases- air is forced out

Drugs

A **drug** is a substance that has an effect on the body:

- medicines are drugs that help people suffering from pain or disease
- recreational drugs are taken by people because they like the effects they have on their bodies

Some recreational drugs are legal, such as tobacco and alcohol, although there are restrictions on who can buy them. Caffeine, found in coffee, is another recreational drug. Most other recreational drugs are **illegal**, and these include cannabis, ecstasy and heroin.

Smoking is very harmful to health. Tobacco smoke contains many harmful substances. These include: **tar**, **nicotine** and **carbon monoxide**

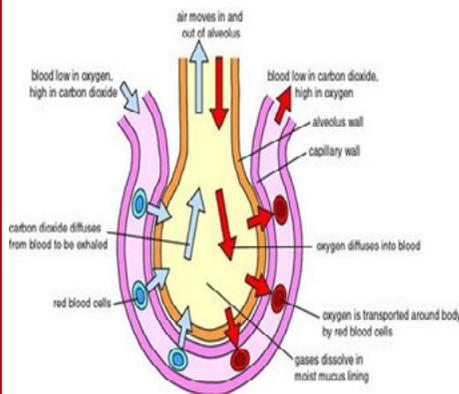
Tar causes **cancer** of the lungs, mouth and throat. It coats the inside of the lungs, including the **alveoli**, causing coughing. It damages the alveoli, making it more difficult for gas exchange to happen.

Smoke Cells in the lining of the breathing system produce sticky mucus. This traps dirt and microbes. Cells with tiny hair-like parts, called **cilia** then move the mucus out of the lungs. However, hot smoke and tar from smoking damages the cilia. As a result of this, smokers cough to move the mucus and are more likely to get **bronchitis**.

Nicotine is **addictive**. It causes a smoker to want more cigarettes. Nicotine also increases the heart rate and blood pressure, and makes blood vessels narrower than normal. This can lead to **heart disease**.

Carbon monoxide is a gas that takes the place of oxygen in **red blood cells**. This reduces the amount of oxygen that the blood can carry. It means that the **circulatory system** has to work harder, causing heart disease.

Gas exchange takes place in the alveoli



Depressants and stimulants

A **depressant** slows down messages in the brain and along the nerves. **Alcohol** is a depressant. Other depressants include heroin. They can result in lowered inhibition, slowed thinking and slowed muscular activity.

Stimulants speed up messages in the brain and along the nerves. This makes you feel more alert. Nicotine from tobacco is a stimulant. Caffeine is another stimulant. Cocaine, ecstasy and amphetamines are all illegal stimulants. They make you feel more energetic and confident, but they can damage the liver and heart. They can also cause loss of memory and concentration, and bring an increased risk of mental illness.

Science

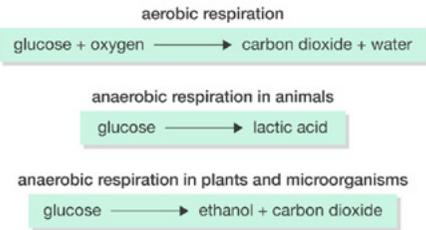
B9 Ecosystems

Respiration

Energy is needed for life processes such as:
 growth and repair
 movement
 control of body temperature in mammals

Respiration is a chemical reaction that happens in all living cells, including plant cells and animal cells. It is the way that energy is released from glucose so that all the other chemical processes needed for life can happen.

Respiration Types in Different Organisms



All of these reactions release energy.

In addition, aerobic respiration releases much more energy per glucose molecule than anaerobic respiration does.

	Aerobic	Anaerobic
Needs oxygen?	Yes	No
Needs glucose?	Yes	Yes
Products formed	Carbon dioxide and water	Lactic acid

Fermentation

Yeast, which are unicellular fungi, can carry out an anaerobic process called **fermentation**. Here is the word equation for **fermentation**: glucose \rightarrow ethanol + carbon dioxide. The ethanol (alcohol) is useful for brewers and wine-makers, and the carbon dioxide is useful to bakers because it helps their bread rise

Adaptation

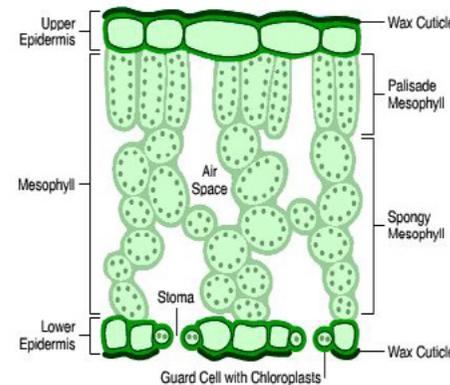
Function

Thin	Provides a short distance for carbon dioxide to move by diffusion into the leaf
Contains chlorophyll	Absorbs light
Stomata	Allows carbon dioxide to move by diffusion into the leaf
Guard cells	To open and close the stomata depending on the conditions
Network of tubes (xylem and phloem)	To transport water (xylem) and food (phloem)

Photosynthesis

Plants make food using photosynthesis. This needs light, carbon dioxide and water. It produces glucose, and oxygen as a by-product.

Photosynthesis



Leaves

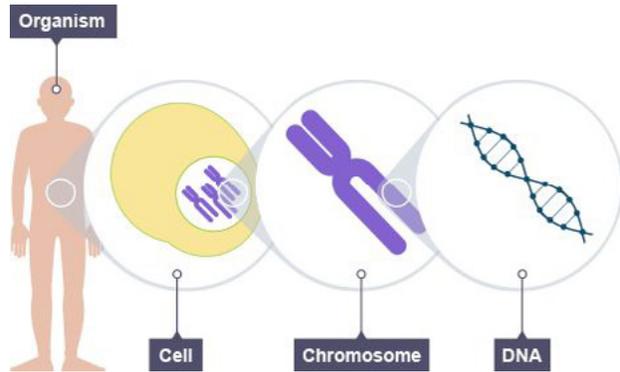
Waxy cuticle-keeps water in
 Palisade layer-cells contain lots of chloroplasts to capture light
 Stomata on lower surface to allow gases in/out
 Spongy mesophyll layer has air spaces to allow gases to move between cells

Science

B10 Genes

Chromosomes, DNA and genes

The DNA in all of your cells is approximately two metres long, except red blood cells which have none and sperm or eggs which only have about one metre. Because it is so long it is very thin and coiled into structures called **chromosomes**. The chromosomes are found in the **nucleus** of each cell.



A cell nucleus contains 46 Chromosomes, which carry genes. Different versions of genes are called alleles.

If an allele is dominant you only need one copy of it (inherit it from one parent) to have that characteristic.

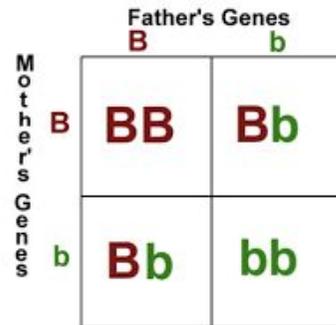
If an allele is recessive, you need two copies of it (one from each parent, to have that characteristic).

46=chromosomes in normal cell

23=chromosomes in sex cells

A **gene** is a section of DNA that is responsible for a characteristic like eye colour or blood group. Humans have around 20,000 genes. DNA makes up genes, which makes up chromosomes. One copy of all your chromosomes is called your genome.

The **Punnett square** is a square diagram that is used to predict the genotypes of a particular cross or breeding experiment



In this case, $\frac{3}{4}$ or 75% would have brown eyes (B) and $\frac{1}{4}$ or 25% would have blue eyes (b). The brown eye allele (B) is dominant so a genotype Bb would result in blue eyes.

GM crops

Genetic modification can be used to produce plants that improve food production. For example, a plant may be produced with improved resistance to pests. However, there are ethical issues involved in genetic modification. There are concerns about the possible health risks of genetically modified food. For example, a GM food might contain a substance that causes an allergic reaction in some people, or higher levels of a **toxin** naturally found in the food. Others think it is morally wrong to create new life forms, or to move **genes** between different species

Top 10 Genetically Modified Foods



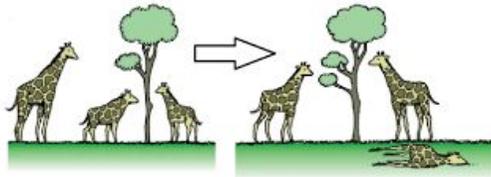
B10 Genes

Natural selection is known as 'the survival of the fittest'.

Natural selection is a process by which a species **changes** over time in response to changes in the **environment**, or **competition** between organisms, in order for the species to **survive**.

The members of the species with the most desirable characteristics are able to produce the **best-adapted** offspring. The **best adapted** organisms are able to **survive**.

If a species is unable to adapt then it is at risk of becoming **extinct**.

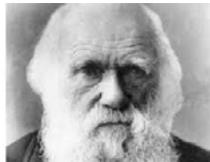


Natural Selection in action

Evolution

Charles Darwin's theory of evolution suggested that different species have evolved from simpler life forms and that the organisms able to survive are those that have adapted best to their environment.

Evolution is a slow process that can take many thousands, even millions, of years to happen. Scientists have used fossil evidence to look at how organisms have adapted over millions of years and how their characteristics have changed.



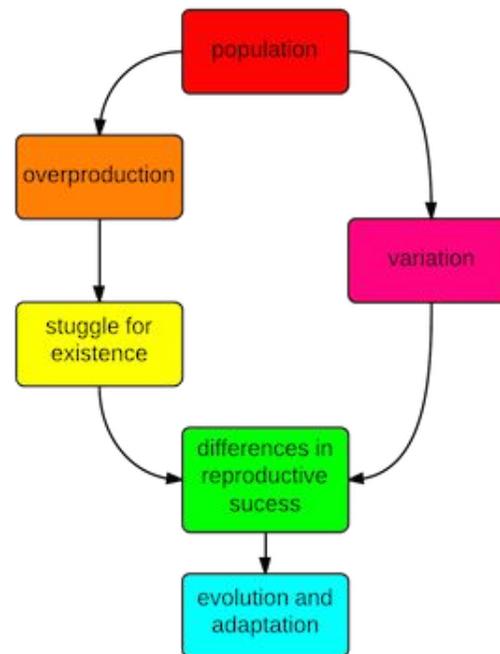
Science

If a species is unable to adapt quickly enough to its environment, then it is at risk of becoming **extinct**. This can happen for many reasons:

- New predators
- New diseases
- Destruction of habitats
- Changes to the environment
- Increased competition for resources



Natural selection



Biodiversity is the planet's full range of life forms. Humans are only one species among millions and biodiversity benefits humans and other species alike.

We need biodiversity for:

- food
- medicines
- industrial products
- gene pool preservation
- biological services such as pollination and cleaning water.

We also have an ethical responsibility of stewardship over other species on the planet.

DATA TYPES

Data Type	Definition
String	Text eg: "Hello"
Integer	Whole number eg: 32
Float/Real	Decimal number eg: 1.2
Boolean	Two values eg: true or false
Character	A single character eg: b

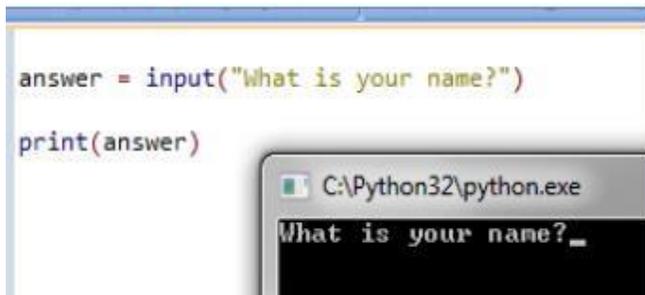
Casting is when you want to change between data types. Eg - if you want to use an integer in a sentence you would need to convert it to a string.

VARIABLES AND CONSTANTS

Variable - A value which may change while the program is running.

Variables can be local or global.

Constant - A value which cannot be altered as the program is running.

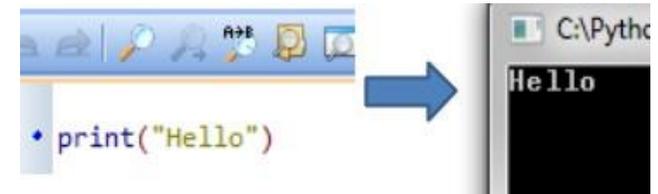


OPERATORS

Operator/Function	Definition
Exponentiation	Raises a number to a power eg: 2**3 OR 2 ^3 (=2 ³)
Quotient/DIV	Gives the whole number after a division
Remainder/MOD	Gives the remainder part of a division
==	Is equal to
! or <>	Is not equal to
<	Is less than
>	Is more than
>=	Is more than or equal to
<=	Is less than or equal to

INPUTS AND OUTPUTS

To output we simply use the word `print`, with the text in speech marks.



Or we can print inputs as variables without speech marks.

The diagram shows a Python code snippet with several annotations:

```

ict = input("what is your current level in ICT?")
maths = input("what is your current level in Maths?")
geog = input("what is your current level in Geography?")
print("Below is a summary of your current levels: ")
print("")
print("ICT Level: ", ict)
print("Maths Level: ", maths)
print("Geography Level: ", geog)
print("")
print("...good luck improving those!")

```

Annotations include:

- "This input statement asks the user a question and waits for their input" (pointing to the `input` lines).
- "The input is then stored in a variable called `ict`" (pointing to the `ict` variable).
- "This is repeated for the other subjects" (pointing to the `maths` and `geog` variables).
- "Finally each print statement outputs different lines of text" (pointing to the `print` lines).
- "Here the text in speech marks is output... and the contents in variables too! Speech marks aren't needed here otherwise it would output the text 'ict' instead of the variables contents." (pointing to the `print` lines with variables).

PROGRAMMING CONSTRUCTS



Sequence

A Sequence is when there are programming steps that are carried out one after another.



Selection

Selection is where there are different paths in your code eg: IF, ELIF, ELSE



Iteration

Iteration is when there is repetition (loops) in code. This could be a WHILE loop (do something WHILE a condition is met) or a FOR loop (do something for a set number of times)

Sequence - inputs / outputs / variables.

Selection: IF and ELSE Statements.

Validation: You can put checks on inputs to make sure you get the right type if input. Look at the date types above. Below "int" is used to make sure the input is an integer as you want a whole number input.

```
feeling = int(input("How are you feeling from 1-3? "))
```

SELECTION - IF AND ELSE STATEMENTS

If we want the user to make a decision based on an input we use "selection."

```

• num1 = input("Please enter your first number: ")
• num2 = input("Please enter your second number: ")

• num1 = int(num1)
• num2 = int(num2)

• if num1 > num2:
•     print("Your first number is the biggest")
• else:
•     print("Your second number is the biggest")
    
```

When you use selection statements you must indent accordingly.

Colons are needed at the end of each and ELSE statement

We use the operators from the above date to compare values(e.g. !=/=). All statements have to

MULTIPLE SELECTION

IF and ELSE have 2 options but when have a range of options we use ELIF.

```

feeling = int(input("How are you feeling from 1-3? "))

if feeling == 1:
    print("So, you aren't feeling so good?")
elif feeling == 2:
    print("So, you are feeling OK?")
else:
    print("So, you are feeling GREAT!")
    
```

Notice there is no comparison for the "else" as it is the only other option.

IF/ELSE AND SWITCH/CASE FOR SELECTION

Selection can be shown using IF/ELSE or SWITCH/CASE

IF ELSE	SWITCH/CASE
<pre> If choice == "a" then print("You chose A") elseif choice=="b" then print("You chose B") else print("Unrecognised choice") </pre>	<pre> Switch entry: case "A": print("You chose A") case "B": print("You chose B") default: print("Unrecognised choice") </pre>

Year 8 Ethics Spring Term Knowledge Organiser. Animal Rights

Tips for learning spellings

Use a chart like this:

Copy it	Copy it	Recall it
---------	---------	-----------

What What What

After you have copied the word twice, fold the paper over so you cannot see what you have written and have a go at writing the word unaided. You should be able to recall the spelling without looking.

Another classic technique is known as **Look, Cover, Write and Check**.

So, you **look** at the word...
Cover the word...
Write the word...
 And finally **check** it.

Animal Rights & the use of animals

Many people agree that animals should be protected by rights to prevent cruelty and unnecessary suffering. However people disagree on what this should include. Humans use animals for many purposes – for example - food, entertainment, as labour, for sport, for scientific experiments, for zoos and pets. Some people believe we should not use animals for any human gain.

Spellings 1	Spellings 2
environment	welfare
legislation	protection
allowed	evaluate
cull	activism
conservation	vegetarian
pollution	believe
habitat	nature
scientific	domestic

PLASTIC POLLUTION

Plastic pollution is the accumulation of **plastic** objects and particles (e.g.: **plastic** bottles and much more) in the Earth's environment that adversely affects wildlife, wildlife habitat, and humans.



Seal hunting, or sealing, is the personal or commercial hunting of seals. Seal hunting is currently practiced in nine countries and one region of Denmark: United States (above the Arctic Circle in Alaska), Canada, Namibia, Iceland, Norway, Russia, Finland, Sweden, and Greenland. Most of the world's seal hunting takes place in Canada and Greenland. Many animal protection groups encourage people to petition against the cull.



PCSA Ethics Yr8 Animal Rights Spellings

Use Quizlet on the internet – type **PCSA Ethics Animal Rights Spellings 1** and **PCSA Ethics Yr8 Animal Rights Spellings 2**
 It has different games to help you learn the spelling and meaning



YEAR 8 FRENCH CYCLE 2

les domiciles – homes

j'habite dans	- I live in	une petite ville	- a small town
une grande maison	- a big house	un grand village	- a big village
une petite maison	- a small house	un petit village	- a small village
un grand appartement	- a big flat	Je voudrais habiter...	- I would like to live...
un petit appartement	- a small flat	J'habitais...	- I used to live...
une grande ville	- a big town / a city	à la montagne	- in the mountains

Oh la la



à la campagne	- in the countryside
au bord de la mer	- at the seaside
dans un vieux château	- in an old castle
dans une vieille chaumière	- in an old cottage
dans une ferme	- on a farm

les pièces – rooms

chez moi, il y a... (six) pièces	- in my home, there is/are... - (six) rooms
le salon	- the living room
le jardin	- the garden
la cuisine	- the kitchen
la salle à manger	- the dining room
la salle de bains	- the bathroom
ma chambre	- my bedroom
la chambre de mes parents/ma sœur/mon frère	- my parents'/sister's/brother's bedroom
il n'y a pas de (jardin)	- there isn't a (garden)



les prépositions – prepositions

dans	- in
sur	- on
devant	- in front of
derrière	- behind
sous	- under
en face de	- opposite
à côté de	- next to
à droite de/à gauche de	- on the right/left of

le petit déjeuner – breakfast

pour le petit déjeuner, je prends	- for breakfast, I have	du thé	- tea
du beurre	- butter	de la confiture	- jam
du café	- coffee	un croissant	- a croissant
du chocolat chaud	- hot chocolate	des céréales	- cereal
du jus d'orange	- orange juice	un pain au chocolat	- a pain au chocolat
du lait	- milk	une baguette	- a baguette
du pain	- bread	une brioche	- a brioche (sweet loaf)
une tartine	- a slide of bread and butter	je bois	- I drink
Je ne mange rien	- I don't eat anything	je mange	- I eat

Les meubles – rooms

le bureau	- desk
le canapé	- settee/sofa
le lit	- bed
le frigo	- fridge
l'armoire (f)	- wardrobe
la chaise	- chair
la machine à laver	- washing machine
le lavabo	- wash basin
la douche	- shower
la fenêtre	- window
la table	- table
la télé-satellite	- satellite TV

YEAR 8 FRENCH CYCLE 2

le diner – evening meal

du fromage	- cheese
du poisson	- fish
du poulet	- chicken
du riz	- rice
de la soupe	- soup
de la viande	- meat
des crêpes	- pancakes
des crudités	- crudités (raw, chopped veg.)
des escargots	- snails
des légumes	- vegetables
des pâtes	- pasta
des plats à emporter	- takeaway food
des pommes de terre	- potatoes
des tomates	- tomatoes
un fruit	- a piece of fruit
un steak frites	- steak and chips
un yaourt	- a yoghurt
une mousse au chocolat	- a chocolate mousse
je suis végétarien(ne)	- I'm a vegetarian

Au carnaval – at the carnival

Je vais / on va...	- I'm / we're going to
aller au carnaval	- go to the carnival
boire un coca	- drink a cola
chanter et danser	- sing and dance
manger au restaurant	- eat in a restaurant
participer au défilé	- take part in the parade
porter un costume	- wear a costume
prendre des photos	- take photos
regarder le feu d'artifice	- watch the fireworks
Je vais m'amuser	- I'm going to have fun
ce sera super	- it will be great
c'était fantastique	- it was amazing
après avoir mangé	- after having eaten



LINGUASCOPE

Login Details:

Go to:
www.linguascope.com

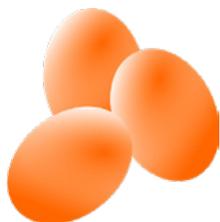
Username: paigntonac

Password: harris



les provisions – food shopping

il faut acheter	- I/we/you must buy
du chocolat	- chocolate
du fromage	- cheese
du jambon	- ham
de la crème Chantilly	- whipped cream
de la farine	- flour
des bananes	- bananas
des champignons	- mushrooms
des fraises	- strawberries
des œufs	- eggs
des pommes	- apples



les quantités

un litre de
un kilo de
un paquet de...
une tranche de...
cinq cent grammes de...
une tablette de...
une bombe de...

quantities

- a litre of
- a kilo of
- a packet of...
- a slice of...
- 500 grams of...
- a bar of...
- a spray can of...

GEOGRAPHY

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.

What are the causes of deforestation?

Logging

- Most widely reported cause of destructions to biodiversity.
- Timber is harvested to create **commercial items** such as furniture and paper.

Agriculture

- Large scale '**slash and burn**' of land for ranches and palm oil.
- Increases **carbon emission**.
- Increase in **palm oil** is making the **soil infertile**.

Mineral Extraction

- Precious metals** are found in the rainforest.
- Areas **mined** can experience **soil and water contamination**.

Tourism

- Mass tourism** is resulting in the building of hotels in extremely **vulnerable areas**.
- Lead to **negative relationship** between the government and indigenous tribes.

Energy Development

- The **high rainfall** creates ideal conditions for **hydro-electric power (HEP)**.

Road Building

- Roads** are needed to bring supplies and **provide access** to new mining areas, settlements and energy projects.

Rainforest Nutrient Cycle

The **hot, damp conditions** on the forest floor allow for the **rapid decomposition** of dead plant material. This provides plentiful nutrients that are easily absorbed by plant roots. These nutrients are in high demand from the many fast-growing plants, they do not remain in the soil for long.

Climate of Tropical Rainforests

- Evening temperatures rarely fall below **22°C**.
- Due to the **presence of clouds**, temperatures rarely rise above **32°C**.
- Most afternoons have heavy showers.
- At night with no clouds insulating, temperature drops.

Geography: Ecosystems and Rainforests

Tropical Rainforest Biome

Tropical rainforest cover about **6/7% per cent** of the Earth's surface yet they are home to **over half of the world's plant and animals**.

Sustainability for the Rainforest

- Selective logging** - Trees are only felled when they reach a particular height.
- Education** - Ensuring those people understand the consequences of deforestation
- Afforestation** - If trees are cut down, they are replaced.
- Forest reserves** - Areas protected from exploitation.
- Ecotourism** - tourism that promotes the environments & conservation

Adaptations of plants and animals

Plants

The leaves of forest trees have adapted to cope with exceptionally high rainfall. Many tropical **rainforest** leaves have a drip tip. It is thought that these drip tips enable rain drops to run off quickly.

Animals

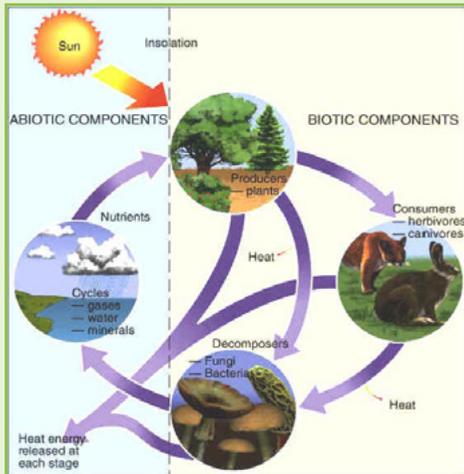
Spider Monkeys adaptations are the prehensile tail and the hook-like hands - both making it ideal for **arboreal** life. These hook-like hands and **long arms** allow them to **swing** by their arms beneath the tree branches.

Distribution of Tropical Rainforests

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.

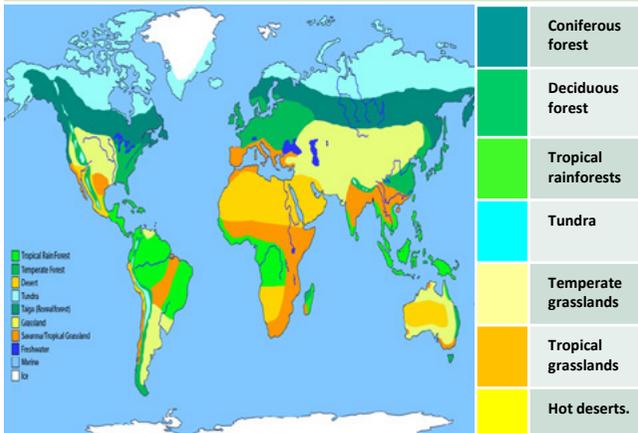


Ecosystems Diagram

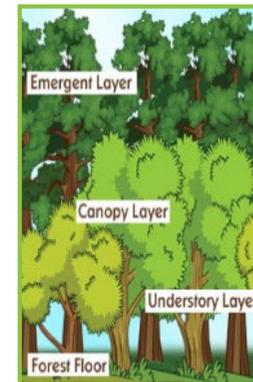
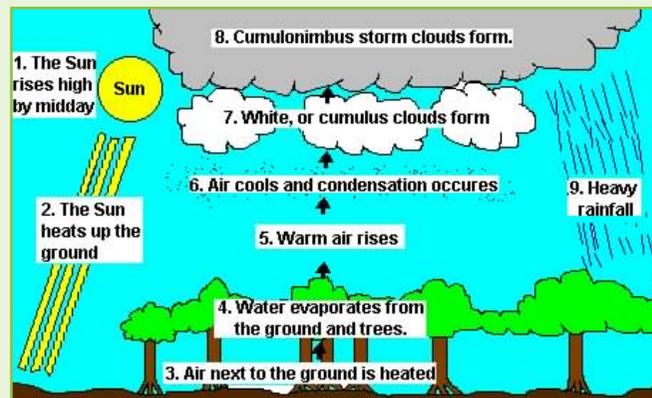


Biomes

A biome is a **large geographical area of distinctive plant and animal groups**, which are adapted to that particular environment.



Convective Rainfall in TRF



Layers of the Rainforest

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

HISTORY

Women's Rights

Key Words / Terms:

Suffrage	The right to vote in political elections.
Militant	Favouring confrontational or violent methods in support of a political cause.
Patriarchal	A system of society or government controlled by men.
Bias	Inclination or prejudice for or against one person or group.
Martyr	A person who is killed because of their religious or other beliefs.
Hunger Striking	A prolonged refusal to eat, carried out as a protest by a prisoner.
Patriotic	Devotion to and vigorous support for one's country.
Munitions	Military weapons, ammunition, and equipment.
Hindered	Make it difficult for someone to do something, or for something to happen.
Hierarchical	Ranked according to importance.
Moral	Concerned with ideas of right or wrong behaviour.
Feminist	A supporter of equal rights between men and women.
Discrimination	The unjust treatment of groups of people based on gender, age, or race.
Misogynistic	Strongly prejudiced against women.
Oppression	The state of being subject to cruel or unjust treatment.
Coercive	Using force or threats.
Injunction	Order issued by court to forbid a particular action or behaviour.

Key Events:

1889	The Women's Franchise League is founded by suffragette Emmeline Pankhurst.
1903	Emmeline Pankhurst forms WSPU (The Women's Social and Political Union).
1905	Militant acts in support of women's suffrage begin to occur.
1907	The Women's Freedom League is founded.
1908	Mass rally in Hyde Park for women's suffrage.
1909	Marion Wallace Dunlop goes on hunger strike. This same year hunger strikers are force fed for the first time.
1910	Black Friday. Mary Clarke, Cecilia Haig, and Ellen Pitfield die of injuries in the protest.
1913	Emily Davison throws herself in front of King George V's horse.
1918	For the first time in British history, women vote in a general election.
1928	The Equal Franchise Act is finally passed. All women over 21 can now vote.



Emily Davison



Emmeline Pankhurst



Christabel Pankhurst



Annie Kenney

Dictators and Dictatorships

Key Words / Terms:

Dictator	An individual with total power over a country.
Dictatorship	A country ruled by a dictator.
Democracy	Everyone votes for the government.
Communism	A system in which goods are owned in common and are available to all as needed.
Bolsheviks	A Russian communist.
Socialist	Group ownership and co-operation.
Collectivisation	When multiple farmers join and farm together.
Purge	Remove a group of people considered undesirable in a violent way.
Chancellor	The head of government.
Nationalism	Strong belief in one's own country.
SA	Nazi paramilitary force. (like an army).
SS	Hitler's personal protection squad. (Body guards).
Coup	A sudden, violent, and illegal seizure of power from a government.
Ba'ath Party	Socialist Nationalist Iraqi party.
KWP	Communist worker's party of North Korea.
Politburo	Policy makers in the communist party.
Famine	Extreme shortage of food.
Seismic	Relating to earthquakes or movements of the earth's crusts.
Conscription	All males must join the armed forces if fit and able and over a certain age.
Embargo	An official ban on trade or other commercial activity with a particular country.
Totalitarianism	A system of government that is a dictatorial and requires complete obedience.

Key People:

1879 - 1953		<u>Joseph Stalin, Dictator of the Soviet Union.</u> Governed the Soviet Union as a dictator from the mid-1920s until his death in 1953.
1883 - 1945		<u>Mussolini, Il Duce, Dictator of Italy.</u> Benito Amilcare Andrea Mussolini was an Italian political, journalist, and the leader of the Fascist Party who ruled the country as Prime Minister from 1922 until his ousting in 1943.
1889 - 1945		<u>Adolf Hitler, Der Fuhrer</u> Austrian-born German politician and leader of the National Socialist German Workers Party (Nazi). Chancellor of Germany from 1933-1945 ruling the country as an absolute dictator.
1937- 2006		<u>Saddam Hussein, President of Iraq</u> Fifth president of Iraq, serving from July 1979 until April 2003. Widely condemned in the West for the brutality of his dictatorship.
1941- 2011		<u>Kim Jong Il - Second Supreme leader of North Korea from 1994-2011.</u> Ruled North Korea as a repressive and totalitarian dictatorship.





The Pandemic and Me

What do you make of life under lock down? What are your hopes and fears? What do you think the future will or should hold for us all?

In this cycle you will be acknowledging your thoughts and feelings towards the pandemic and visually exploring ways to show them. Those of us that emerge into life in a post pandemic world will not be the same as the ones that left the old world on the 20th March 2020. Already the impact on society has been profound as we are all more likely to be aware of the secondary impacts of the pandemic: changes to career, poverty, virtual socialising, grief, respect for others, changes to mental health, selfless acts of kindness, domestic violence and more. We are going to reflect on the positives.



SOPHIE TEA

Brief:

Paignton Academy would like to hold an exhibition of its students' artworks. The artworks need to be a visual representation of personal feelings, emotions and expectations for a post pandemic world. The Academy would like to see insightful work that explores personal and emotional representations of Covid - 19.

Key Words	Isolation	Well-being
	Collage	Environment
	Mindfulness	Photo-montage
	Typography	

Quotes

"For all those people who are finding it difficult at the moment - the sun will shine on you again and the clouds will go away."

Captain Tom



JAMIE GREEN



"Art should comfort the disturbed and disturb the comfortable."

Banksy

Top Tips

- Think of positives.
- Consider what you would like the world to look like post covid.
- Be creative with your ideas.
- Have confidence in what you are creating.

JONJO ELLIOTT



Formal Elements:

line	tone
colour	composition

Home Learning:

1. Keywords.
2. Tate Website & Research.
3. Image of local environment.
4. Quote from inspirational icons.



"Let him have it, Chris" (Key quote)

DEREK BENTLEY - INJUSTICE

THEATRICAL SKILLS

PHYSICAL SKILLS

BODY LANGUAGE

POSTURE

GESTURES

MOVEMENT

EYE CONTACT

FACIAL EXPRESSION

SPATIAL AWARENESS

LEVELS

PROXEMICS

FOCUS

VOCAL SKILLS

PITCH

PACE

VOLUME

TONE

PROJECTION

ACCENT

INTONATION

PAUSE



WHAT IS A STIMULUS?

A resource that sparks an idea for a drama piece, e.g. a script extract, a poem, a piece of music, an object or a historical subject.

BUILDING TENSION

Creating a feeling the story is building up, expectation, the climax of a scene, etc.

CHARACTERISATION

Changing your voice and physicality to portray a character consistently in performance.

WHAT IS DEVISING?

Creating your own original piece of drama from a stimulus.

THEMES

Miscarriage of justice

Crime and punishment

Capital punishment

Teenagers in 1950s London

1950s culture

WHAT DO WE MEAN BY CONTEXT?

The background

Environment

Social class

Historical background

The setting

Cultural background

DRAMA DEVICES

STILL IMAGE - a frozen picture of one or more characters that communicates meaning.

THOUGHT-TRACK - when the actor speaks the thoughts and feelings of the character to the audience.

MARKING THE MOMENT - highlighting an important part in the drama.

SOUND-SCAPE - a collection of sounds used to create atmosphere in a scene.

SLOW MOTION - moving and creating actions that are much slower than real life.

MIME - using only movement to create character and meaning.

FLASHBACK - going back to an earlier time.

MONOLOGUE - a speech for one actor.

CROSS-CUT - used to move between two or more scenes. You can re-order the action by 'cutting' forwards and backwards to different moments.

SPLIT-STAGE - two contrasting scenes happen on stage at the same time.

MULTI-ROLE - playing more than one role in a performance.





MAIN CHARACTERS

DEREK BENTLEY

19 year-old boy hanged for the murder of PC Miles on 28th January 1953.

CHRISTOPHER CRAIG

16 year-old boy, friend of Derek, who shot PC Miles.

PETITIONER

NEWS REPORTER

MRS BENTLEY



Derek Bentley

“When you go to hang a boy of 19 years old, it does not matter that he is tall and broad-shouldered, for at nine o’clock on the morning he is to die, he still looks only a boy...”

The Hangman’s Account



The family of Derek Bentley



Christopher Craig



PC Miles

Year 8 Engineering Knowledge Organiser

BEING SAFE IN THE WORKSHOP



BEING SAFE

What will you do to ensure your own and others safety in the workshop?
What are the safety Rules?

DESIGN BRIEF & SPECIFICATION

What do you need to make?
Who will use what you make?
What are the desired features of what you are going to make?
What materials will you use ?

COMPUTER AIDED DESIGN
Drawing Ideas on a computer

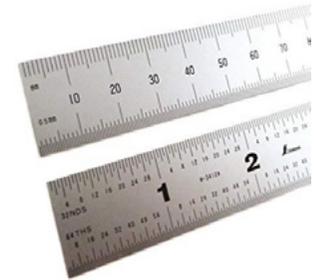
2D^{1/2} DESIGN

TINKERCAD software on line

AUTODESK 3D Modelling

Units of measurement

mm cm



KEYWORDS & TERMS

MARKING OUT
PILLAR DRILL
DESIGN BRIEF
SPECIFICATION
RECYCLABLE MATERIALS
DATUM EDGES
RESEARCH
ASSEMBLED
RIVET
RIVET GUN
COMPUTER AIDED DESIGN

TOOLS, MACHINES & PROCESSES



PLAN

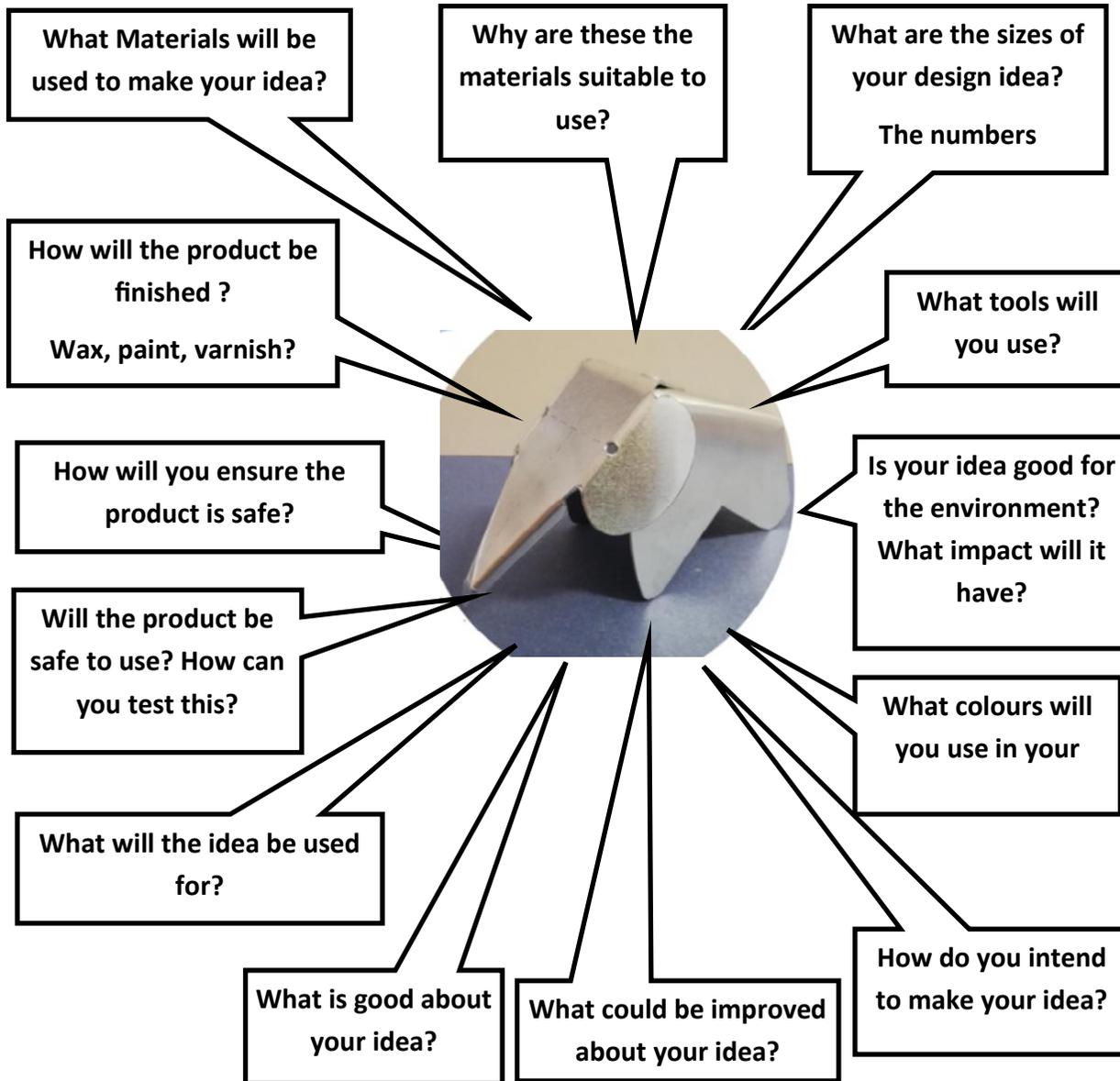
ENGINEERING

MAKE

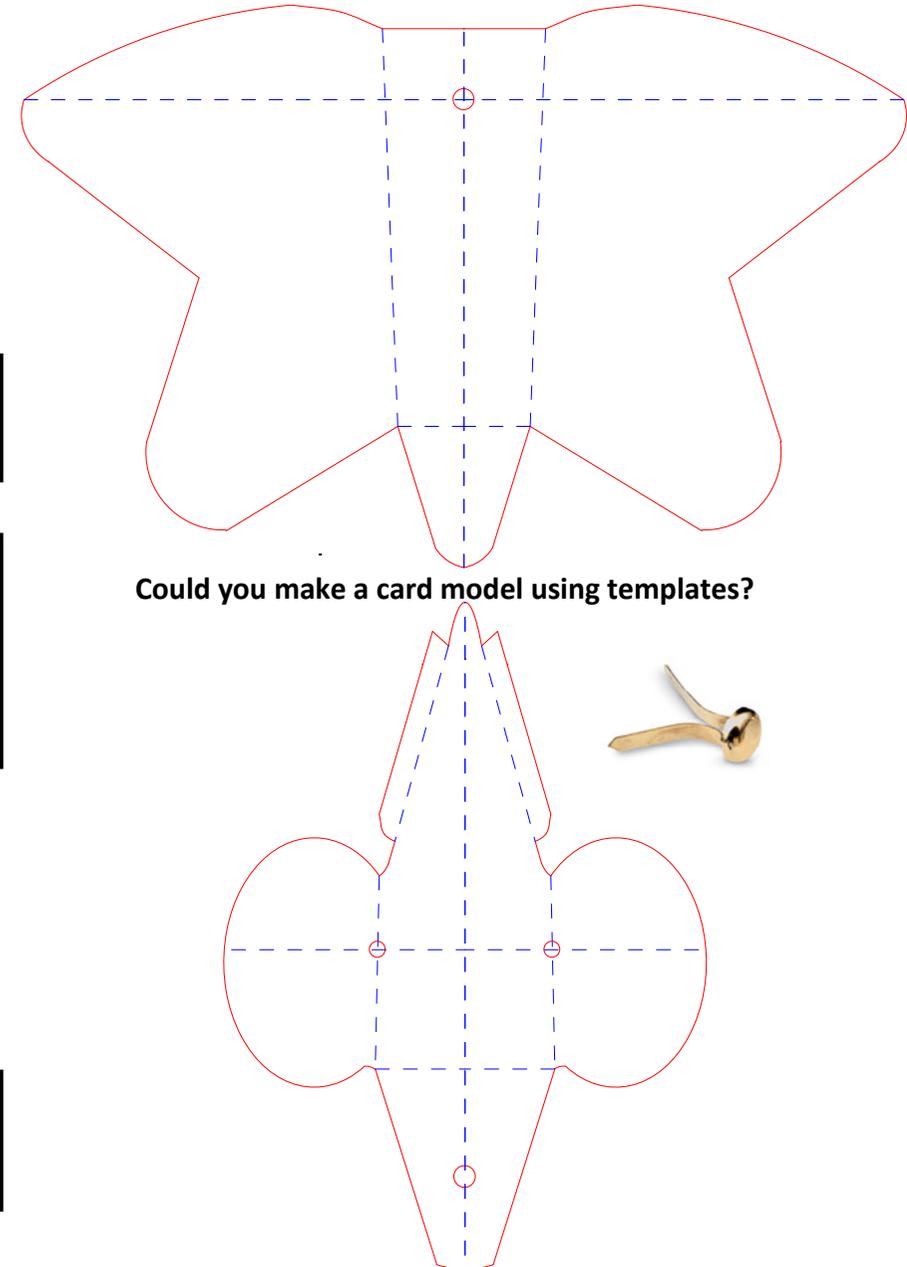
PROCESS

EVALUATE

Adding Labels to your Design Ideas; Annotation



Using Card Templates



PLAN

ENGINEERING

MAKE

PROCESS

EVALUATE

Name:

Date:

Food commodities: Dairy, meat, fish and shellfish

- Different types of food are reared and caught.
- There are a number of different stages in producing and processing food.

Dairy

Dairy cows are reared by farmers around the UK.



In the summer most dairy cows eat grass in the fields and in the winter they eat pickled grass called silage.

Dairy cows drink 60-80 litres of water per day.

Cows are milked 2-3 times per day. The milk is chilled and stored ready for the tanker to take it to be processed.



The milk is treated to make it safe to drink, it is then put into bottles or cartons and sold in shops.

Milk is also used to make cheese, yogurt and butter.

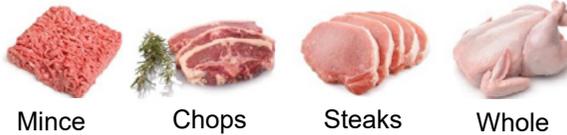


Meat

Animals are reared by farmers for our food.



Cuts of meat are prepared by butchers in shops and supermarkets. Cuts include:



Mince

Chops

Steaks

Whole

Meat is also bought ready prepared.



Sausages



Ham



Burgers

Meat can be cooked in many different ways.



Barbeque



Stir-fry



Roasting

Fish and shellfish

There are lots of different types of fish.



Fishers catch the fish and it is sold at market.

The fish is bought by fish processing companies, fishmongers and restaurants.

Fish can be cooked in many different ways.



Mussels are a type of shellfish.

They are grown at the bottom of the sea on ropes (droppers).

Mussels are in season from September to April.



Animal welfare

It is important that animals are cared for and have everything they need, including:

- the right food and fresh water;
- being treated by a vet if ill or injured;
- space to move around and to be able to do the things they like;
- gentle and caring handling and treatment;
- somewhere comfortable to rest;
- company of animals of their own kind.

To find out more, go to: <https://bit.ly/3eP0qWb>

Task

Research the farm to fork journey for a type of meat, fish or shellfish of your choice.

Create a set of cards or a timeline to show the journey.

Example cards can be found here:

<https://bit.ly/326H7SX>

Name:

Date:

Where food comes from

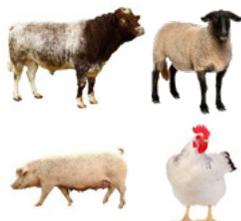
- Food is produced all around the world.
- Different food is grown, reared and caught. Some of this is seasonal.

All the food we eat has to be grown, reared or caught.

Plants are grown.



Animals are reared.



Fish and shellfish are caught.



Food is produced all around the world.

A lot of the food we eat is grown in the UK, but some food comes from other countries where the weather or seasons are different to ours.

UK food



World food



To find out more, go to: <https://bit.ly/3lm4uj3>

Some of the food we eat is seasonal in the UK. This means it only grows at certain times of the year.

Spring
(March, April, May)



Summer
(June, July, August)



Autumn
(September, October, November)



Winter
(December, January, February)



In the UK, some food is also grown in glasshouses. This means that the food is available at different times to that grown outside.

Some food has labels that tell us more about the animals welfare or how the food was grown.

The Red Tractor Logo shows that farmers look after their animals and produce food safely.



Where is my food from?

Once grown, reared or caught, food is processed to make it edible and safe. For example:

- milk is from a dairy cow;
- apple juice is from apples which grow on trees;
- a tomato is a fruit which grows on a plant;
- mashed potato is made from potatoes (a plant) which grows under the ground;
- ham and bacon are made from pork which is the meat from a pig;
- toast is made from bread, bread is made from flour, flour is made from the plant called wheat (it is milled).



Task

1. Name five foods that come from the UK.
2. Name five foods that come from other countries in the world.

HOOK – A ‘musical hook’ is usually the ‘catchy bit’ of the song that you will remember. It is often short and used and repeated in different places throughout the piece. HOOKS can either be a:

MELODIC HOOK – a HOOK based on the instruments and the singers

RHYTHMIC HOOK – a HOOK based on the patterns in the drums and bass parts or a

VERBAL/LYRICAL HOOK – a HOOK based on the rhyming and/or repeated words of the chorus.

RIFF – A repeated musical pattern often used in the introduction and instrumental breaks in a song or piece of music. RIFFS can be rhythmic, melodic or lyrical, short and repeated.

OSTINATO – A repeated musical pattern. The same meaning as the word RIFF but used when describing repeated musical patterns in “classical” and some “World” music.

BASS LINE – The lowest pitched part of the music often played on bass instruments such as the bass guitar or double bass. RIFFS are often used in BASS LINES.

MELODY – The main “tune” of a song or piece of music, played higher in pitch than the BASS LINE and it may also contain RIFFS or HOOKS. In “Classical Music”, the melody line is often performed “with” an OSTINATO pattern below.

MUSIC

Hooks and Riffs

Year 8 Cycle 2

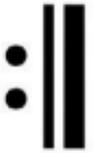
Line notes: E very G ood B oy D eserves F ootball (with soccer ball illustration)

Space notes: F A C E (with smiley face illustration)

Line notes: G reedy B ig D og's F all A sleep (with dog and house illustration)

Space notes: A ll C ows E at G rass (with cow illustration)

REPEAT SYMBOL – A musical symbol used in staff notation consisting of two vertical dots followed by double bar lines



showing the performer should go back to either the start of the piece or to the corresponding sign facing the other way and repeat that section of music.

TREBLE CLEF – A musical symbol showing that notes are to be performed at a higher pitch. Also called the G clef since it indicates that the second line up is the note G.



BASS CLEF – A musical symbol showing that notes are to be performed at a lower pitch. The BASS LINE part is often written using the BASS CLEF. Also called the F clef since it indicates that the fourth line up is the note F.



Ascending: C, C#, D, D#, E, F, F#, G, G#, A, A#, B, C

Descending: C, B, B#, A#, A, G#, G, F#, F, E, D#, D, C#

A 'musical hook' is usually the catchy bit of the song that you will remember. It is often short and used in different places throughout the piece.

Hooks and Riffs

Year 8 Cycle 2

Tempo	Definition
Lento	Slowly
Largo	Slow and stately
Adagio	Leisurely
Andante	At a walking pace
Allegro	Fast
Vivace	Lively
Presto	Very Quickly

Just Play. "Shape Of You" – Ed Sheeran

Em Am C D

1 e + a 2 e + a 3 e + a 4 e + a

Em Am C D

C D E F G A B C D E C D E F G A B C D E C D E F G A B C D E C D E F G A B C D E

E

Em

MUSICAL FUTURES

- TEMPO
- PITCH
- DYNAMICS
- TEXTURE
- RHYTHM

Lately I been, I been losing sleep
 Dreaming about the things that we could be
 But baby I been, I been prayin' hard
 Said no more counting dollars
 We'll be counting stars
 Yeah, we'll be counting stars

E E G E D C B E E G E D C B

E G E E G E E G E F# E D

Counting Stars
 (Chorus melody) One Republic

Am C G F

D E G E D E D C E D D E F E D C E A C

Am C G F

D E G E D E D C E D D E F E D C E D D A C

Literacy Bank – Key Words

Training Methods/ Warm ups
 Continuous, Fartlek, Hollow,
 Plyometric, Static, Ballistic,



Year 8 -
 Physical Education
 Spring Term Block 2

Fitness Training

Numeracy Bank

Speed /Timing Calculations
 Numerical Order of Warm Up Stages
 Number of Circuits in Circuit
 Training/sets /repetitions
 Measurement of weight in Weight
 Training



Stages of a Warm Up

Stage One - Pulse

Raiser

Stage Two -

Static and

Dynamic

Stretching

Stage Three -

Skill Related

Activity

<u>Component of Fitness</u>	<u>Types of Training</u>
Flexibility	Ballistic and Static Stretching, PNF Stretching
Muscular Strength	Free Weights, Circuit Training, Plyometrics
Aerobic Endurance	Continuous, Fartlek, Interval, Circuit Training
Speed Training	Hollow Sprints, Interval, Acceleration, Hill, Resistance Sprints





New to the Careers Department...

Google Classroom

During this term we have introduced Job of the week information will be sent out through the Year 8 Wellbeing Google classroom.

Careers KO information

We know that students use their Knowledge Organiser as a reference point and felt that it would be useful to add details about careers activities, research tools and help plan your future intentions.

Virtual Assemblies

We would love to deliver assemblies in person but at the moment this is not possible, we are therefore providing more materials to inspire you and support your PSHE learning online via the Careers Hub. You will receive Careers Assemblies through Tutor time. For those that are not in school the assemblies will also be sent out via Google classroom.

Student Feedback

We have introduced to the Student Council a termly feedback on the Academy's careers provision. If there is something that you feel would benefit your year group please discuss with your House Representative.

Split site

We have a large number of pupils on both sites and know that not having instant access to a Careers Adviser can be a little frustrating particularly if you are working virtually. The team are here to help you and are happy to answer any questions you may have via email: careers@paigntonacademy.org

Getting to know me

What type of personality are you? Knowing who you are is a very important part of having a successful and satisfying career. By knowing you, you will know where your strengths lie and this will help you match suitable employment and training options. Why not use the following link and discover a little more about yourself?

<https://icould.com/buzz-quiz/>



Types of qualifications (After Year 11) ...

Level	Qualification		
7	NVQ 5	Master's Degree / Doctorate	
6	Higher Apprenticeship / NVQ 4	Honours' Degree	
5		Foundation Degree, HND	Diploma in Higher Education
4		HNC	Certificate in Higher Education
3	Advanced Apprenticeship / NVQ 3	Vocational A Level BTEC Cert/Diploma	AS / A2 Levels
2	Apprenticeship / NVQ 2	BTEC/VCERT	GCSE Grades A - C 4-9
1	Traineeship / NVQ 1	BTEC/VCERT	GCSE Grades D - F 3-1
Entry	Basic Skills / Skills for Life		
	Work-based Learning	Vocationally Related Learning	Academic Learning

Find out more by accessing the Careers Hub



We are in the midst of a global pandemic with unemployment and educational issues; chief amongst these are the gap in education and the effect on the job market. The Careers Hub, a dedicated website, has loads of information for you to access and covers topics such as, Work Experience, College/6th Form Open event dates, Apprenticeships, how to write CVs and personal statements and finding a Job. Simply click on the Careers Hub logo on the home page of the Academy website to enter the site.