## ESSENTIAL KNOWLEDGE BOOK

## Name: Form: <br> Year 8 Booklet One

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Page 1

## Username/Password Information

| Platform | Username | Password Reminder |
| :--- | :--- | :--- |
| School email |  |  |
| School PC logon |  |  |
| Class Charts |  |  |
| GCSE Pod |  |  |
| Carousel |  |  |
| Sparx |  |  |
| Educake |  |  |
| Isaac Physics |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## Todmorden High School Student ARCH agreement

You and your parents have chosen for you to attend our school. Todmorden High school is a three-time Ofsted judged 'Good' high school. We have four values that create the acronym ARCH. You should use these values to guide you in your decisions in school and in your wider life. f you follow the expectations in the agreement below you will leave Todmorden High School with the skills, qualifications and confidence who contribute positively to society.
To achieve our value of Ambition:
I will arrive on time to school and attend all lessons on time.
I will complete all home learning set on time and to the best of my ability.
I will have high expectations of myself, now and for the future, so I can unlock my unique potential.
experiences.
will join in with some extra-curricular activities throughout the year to expand my

## I will celebrate my achievements at home

## To achieve our value of Respect

I will wear the correct school uniform, including travelling to and from school. I will not wear jewellery to school, other than a pair of plain studs and a watch (optional). I will bring the correct equipment each day. I will attend detentions if they are set.
I will speak to all staff members with respect following instructions given by staff without argument or delay.
will ensure I behave in a considerate manner not only whilst at school but also on the journey to and from school and within the wider community.
To achieve our value of Care

## To achieve our value of Honesty

I will be honest about my actions.
will ensure I do not share actions and thoughts out of withe and
will ensure I do not share actions and thoughts out of line
I will approach lessons silently ready for silent retrieval.
I will move around the school in a calm manner, following the one-way system and walking on the left
I will ensure I will ensure my mobile phone and smart watch are not seen or heard on are placed in the bottom of my school bag when before I arrive in school and school site at the end of the day.
I will accept personal responsibility for my mistakes
I will ensure all members of our school community feel valued, I will not accept discrimination and bullying in school.
I will make school aware if members of

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## A guide to your Knowledge Organiser

## What is a knowledge organiser?

A knowledge organiser is a place where your teachers have put all the core knowledge that you need to know for a particular topic. They are designed to support you to become self-regulated learners.

It is your first point of reference in lessons to check your understanding. You can use your knowledge organiser to:

- Check your understanding of key vocabulary in a lesson.
- Check your knowledge of a particular topic.
- Self-check quizzing and revision.

A knowledge organiser is not everything you are going to learn about a topic; this information will come from your lessons.

## How to use your knowledge organiser

In lesson

Unless told otherwise, have your knowledge organiser on the desk, open at the subject you are currently in. This will make it simpler for you to check your understanding of key vocabulary.

If you are struggling with a knowledge question, refer to your knowledge organiser before asking your teacher. This will also develop your research skills.

When planning your written answers in lessons, refer to your knowledge organiser for that subject to ensure you have correct and detailed knowledge.

## As revision



## Look-Cover-Write-Check

1. Choose one section of your knowledge organiser.
2. Study it carefully. I find that reading it out works to embed it into memory.
3. Cover the section with a paper, or turn the KO over
4. Write the sentence/information out from memory.
5. Check it against your KO.

## Timeline/diagrams

se the information from your knowledge organiser and transform it into something else. This can be a timeline, storyboard or diagram.

## Self-quizzing

Choose a section of the knowledge organiser you want to learn. Create a set of questions to test yourself with. These can be on flashcards, or even Quizlet. Use the sections of your KO to chunk the knowledge together and make it manageable.

## Context

## Literary context

The novel follows a literary tradition of gothic novels that typically include isolated houses or castles, hauntings and induce fear in the reader. Susan Hill set out to write a ghost story, inspired by Henry James's novel, The Turn of the Screw. She read a range of ghost stories to inspire her and made a list of elements that a ghost story should contain. One of the key features of these stories, as well as the ghost itself, is a 'most unimaginative and straightforward' person who 'most certainly did not believe in such things as ghosts'. We see this character clearly in the rational Arthur Kipps.

## Historical context (Edwardian setting (1901-1910

 but written in early 1980s - a historical novel)Isolation is key generic convention of Gothic Horror (protagonist often an orphan or without family \& rural, isolated settings / old mansions common). Hill is 'playing' with ideas of Gothic horror but changes protagonist to male not than female (gender reversal)
Women often socially isolated in Edwardian society if not fitting traditional stereotype of 'angel in the house' e.g. Jannet excluded while pregnant / Alice Drablow dismissed as a "rum'un" by Mr Bentley.
1970 and early 80s, Britain still expected mums to be at home (social isolation).
Hill suffered emotional isolation with death of 1st fiancé and death of middle daughter
Hill used real-life settings of marshes around Suffolk coast in 1970s to inspire desolate atmosphere in WIB e.g. the dry rustling of reed beds \& moaning wind.

## Narrative and events

## Narrative exposition

Kipps emotionally isolated at start of novel. Christmas Eve: family telling Gothic ghost stories.

Rising action: Kipps more isolated \& tension rises ('conspiracy of silence' in village, physical isolation of Eel Marsh House, literally cut-off by tide).

Narrative Climax in 'Whistle \& I'll come to You' (ch10)

Epiphany in ch11 on seeing Robin after 12 days - "Now, I appreciated the bird's presence, enjoyed simply watching".

Resolution: isolated again - bleak ending.

## Settings

Eel Marsh House ("gloomy old house") - isolated/ cut off by (Nine Lives Causeway. Tide comes in \& no escape (Gothic horror convention). Eel Marsh sounds slippery/ unpleasant (drowning).

Crythin Gifford - rural village, isolated from towns \& cities. Kipps travels by train through Gapemouth Tunnel then car (Samuel Daily) to reach Gifford Arms. Sense of being trapped in the past / another time (clash of old and new). Hill uses for Crythin Gifford: Samuel Daily tells Kipps of "drowned churchyard" \& "swallowed-up village" (foreboding). Physical isolation of settings adds to gloomy feel \& foreshadows horror events.

Page 6
November: month of the dead (and echoes 'Frankenstein')

## Key characters

## Arthur <br> Kipps

## Keckwick

Mr. Jerome

## Jennet

Humpfrye

Mr. Bentley

Tomes

Esme Kipps

Stella Kipps

The narrator of the story. A character who is emotionally isolated from family. Young Kipps is inexperienced \& feels socially isolated/detached from people of Crythin Gifford and from Samuel Daily at first. Ch2 states he had a "Londoner's sense of superiority in those days".

The driver of the pony and trap. Withdrawn from social contact (symbolic of boatman to Hades / The Underworld?). Typical mysterious Gothic Horror character (undead horseman).

Jerome character who is afraid of Eel House Marsh and isolates himself from Kipps. He won't speak truth about the woman in black.

Is isolated by her family when she falls pregnant. She is cut off and forced to give up her child. As the WIB, she is isolated by anger, bitterness and despair.

Mr Bentley a renowned London solicitor for whom Kipps works. They later become business partners.

Mr Bentley's clerk sniffs constantly as if he has a permanent cold. He deals mainly in wills. His name means books - ironic as that is what he spends most of his time working with.

Arthur Kipps' second wife - a widower when he married her.

Arthur Kipps' fiancé during the time of the events at Crythin and later his first wife.

## Literary techniques

| Simile | Comparing two things using like or as. <br> Metaphor |
| :--- | :--- |
| Stating one thing as though it is something else. |  |
| Repenification | Giving human features/characteristics to a non- <br> human object. <br> Where an idea is repeated multiple times throughout <br> a text often to strengthen the idea presented. |
| Unreliable <br> narrator | A sense that the narrator is not telling/is not able to <br> tell the whole truth. |
| Imperative verb | A command verb such as 'put' or 'don't'. |
| Pathetic fallacy | A type of personification where emotions are given to |
| a setting, an object or the weather. |  |

## Themes - create a tally chart for each time these themes occur.

| Isolation | Community |
| :--- | :--- |
| Family | Secrets |
| Appearance and reality | Identity |
| Social class | Gender |
| The role of women | Tradition vs modernity |

## Key vocabulary - add to this list.

| Isolation | Alienation |
| :--- | :--- |
| Blasphemy | Redemption |
| Segregation | Withdrawal |
| Solitude | Detachment |

Remoteness

## Symbolism - add explanations to these key symbols as we read.

Fog and Mist

Eel Marsh

Crythin Gifford

The woman in black

Eel Marsh House

Pagety various characters and settings

## Context and Setting

Setting The play takes place in Messina, a Sicilian city, in the 16th century. Much of the action is specifically within Leonato's property, so it has a domestic tone. The setting is a refuge from the war which has been raging - it is an idyllic and peaceful place. There is also an atmosphere of celebration after the recent victory: whichhelpstoset upthe matchmaking and revelry that form much of the play.
Philosophy Belief that everyone had his or her place in life. There is a strong social hierarchy within the play, which the audience would have expected and understood - Don Pedro is the most powerful man, with Leonato the second-highest status. It is this hierarchy which causes resentment for Don Pedro. Women are seen as inferior and lower status.
Gender A strong focus of the play is the differences in expectations for men and women. Women were expected to be submissive, sexually pure and meek. It was, however, accepted that men would be sexually experienced. It was also thought that excessive education or wit in women was inappropriate - which is why Beatrice is an unusual and strong character.

## Themes

Honour

Women

Love

## Deception

- The men return from battle with a great sense of honour.
- Don John feels he is not viewed honourably because of his status as a 'bastard'.
- Women were expected to be pure and faithful - thus when Hero's virtue is brought into question, she is dishonoured.
- Women were stereotypically expected to be submissive and chaste.
- Hero is pure and modest, however, Beatrice is strong, feisty and fiercely intelligent.
- The characters present different types of love from traditional and romantic to Beatrice and Benedick's slow realisation of love.
- Characters 'deceive' each other by pretending to be different people at the masked ball.
- Don Jon deceives Claudio in an attempt to discredit Don Pedro.
- Beatrice and Benedick are deceived by their friends into thinking they have each confessed their love.
- Claudio falsely accuses Hero of deceiving him.
- The Friar advises Hero to deceive Claudio and Don Pedro by pretending to be dead.


## Plot

Act 1

Act 2

Act 3

Act 4

## Key characters

## Hero

Ursula
Don Pedro
Antonio
Benedick

Claudio

Don John

Leonato

Beatrice

## Margaret

Friar Francis

Borfactuic
Conrad

Don Pedro arrives in Messina. Claudio falls in love with Hero. Beatrice and Benedick tease each other. Don John plots revenge on his brother.

At a masked ball, Claudio becomes engaged to Hero. Don John plots to disgrace Hero. His friends trick Benedick to believe Beatrice is in love with him.

Beatrice is tricked to believe Benedick loves her. Don John tells Claudio that Hero is unfaithful. The Watch arrest Conrad and Borachio.
Claudio accuses Hero at their wedding - she collapses and is believed dead. Beatrice and Benedick confess their love for each other.

Don John's plot is discovered thanks to the Watch. Claudio attends Hero's funeral and discovers she is still alive. They are reunited. Beatrice and Benedick agree to marry.

Leonato's daughter. Young, naïve. Falls in love with Claudio and is falsely accused of being unfaithful to him.

Hero's serving lady and friend.
Prince of Aragon, returned victorious from war.
Leonato's brother who provides a steadying influence.
a lord, soldier and friend of Don Pedro. Known for his quick wit. Loves Beatrice but does not know it.
a lord, soldier and friend of Don Pedro. Young and naïve. Falls in love with Hero.
Don John is the illegitimate brother of Don Pedro, the prince. Because of this, he doesn't have the same power or position as Don Pedro and is bitter.
Governor of Messina, where the play is set. Old and wise, but easily swayed by the opinion of others - he believes it when Hero is first accused.

Leonato's niece. Quick-witted and intelligent. She is in love with Benedick but does not know it.
Hero's flirtatious serving lady who unwittingly helps trick Claudio into thinking Hero is unfaithful.

The priest who is supposed to marry Claudio and Hero and who advises Hero to pretend to be dead.
A follower of Don John who helps him in his plot to discredit Hero.
Conrad is a sidekick to the villain, Don John. Lacks a strong will of his own.

## Language and Shakespeare's methods

The title is thought to be a play on the 'noting' - all the characters watch and 'note' each other, often with disastrous consequences.

Beatrice and Benedick revel in word-play; they flirt using language.

The power of language is revealed when Claudio confronts Hero at their wedding - his words and accusations make her physically ill.

Dogberry demonstrates the comedic power of language, by continually confusing words and phrases.

| Style: | One of the few Shakespeare plays where the majority of the dialogue is written in prose, |
| :--- | :--- |
| rather than blank verse. The former is usually used to denote casual speech, while the latter is |  |
| used for more socially-elevated occasions. Much of the play's humour derives from the |  |
| wordplay between Beatrice and Benedick, which suits a more relaxed form of speech. |  |


| antithesis | metaphor |
| :--- | :--- |
| dramatic irony | personification |
| iambic pentameter | pun |
| imagery |  |

## Maths



| Difference - Means subtraction |
| :--- |
| between the two values. |


| Square - Multiply a number itself |
| :--- |
| Square root - Inverse of squaring a <br> number |

## Prime Numbers - Numbers that only have two factors, 1 and itself.

## Lowest Common Multiple - The LCM is

the smallest shared multiple of a set of numbers 3 is 7 , since $10-3=7$

Eg. $3^{2}=3 \times 3=9$

Eg. $\sqrt{9}=3$

Eg. the difference between 10 and

Eg. An example of some prime numbers: $2,3,5,7,11,13,17 \ldots$.

Eg. The LCM of 4 and 10 is 20 .

## Highest Common Factor - The HCF is the

 largest shared factor of a set of numbers| Integer | A whole number that can be positive, negative or zero. |
| :---: | :---: |
| A number is divisible by | 3 , if the sum of the digits is divisible by 3 <br> 4 , if the sum of the digits is divisible by 4 <br> 6 , if the number is divisible by 2 and 3 <br> 8 , if the last three digits are divisible by 8 <br> 9 , if the sum of its digits are divisible by 9 |
| Deposit | Is a sum of money that is part of a full price. It is usually paid to show that you agree to buy something. |
| Instalment | Is one of several sums of money, paid over an agreed amount of time, until the full payment has been made. |
| Bank balance | Is the amount of money in a bank account. |
| Negative bank balance | A negative bank balance (overdraft) is an amount owed to the bank. |
| Withdrawal | When you take money out of a bank account, it is called a withdrawal. |
| Cubed | $2^{3}=2 \times 2 \times 2$ <br> $2^{3}$ is ' 2 cubed' or ' 2 to the power $3^{\prime}$ |
| Cube Root | Finding the cube root is the inverse of finding the cube number. 3 cubed is 27 , so the cube root of 27 is 3 . <br> The cube root of 27 is written $\sqrt[3]{27}$ |
| Counter example | Is an example which proves that the statement is wrong. |
| Index or power | $24=2 \times 2 \times 2 \times 2$ <br> The small number is called the index or power and tells you how many $2 s$ to multiply together. |
| Product | Is the result of multiplying numbers or letters together. |
| Prime factors | Are factors that are prime numbers. <br> The factors of 36 are $1,2,3,4,6,9,12,18,36$. <br> The prime factors are 2 and 3 . |
| Prime factor decomposition | All positive integers can be written as a product of prime factors. <br> The product is often written in index form (numbers with powers) |
| Square Numbers | Make a pattern of square dots. <br> To find the square of a number, you multiply it by itself. |
| Index | The ' 2 ' in $3^{2}$ is called the power or index. |
| Indices | The plural of index is indices. |
| Square Root | Finding the square root is the inverse of squaring. |

## A compound shape is 2

 smaller shapes joined together.

Two figures or objects are congruent if they have the same shape and size but reflected, rotated or translated.

Substitution is swapping an algebraic letter for its value.

Algebraic expressions can be collected together if they are like terms. This is done by adding or subtracting.


Co-ordinates - The $x$ value is the first number of a co-ordinate, the $y$ value is the second number

A pictogram uses images to show frequencies. Be careful of misleading diagrams.


Year 8 - Unit 3 - Statistics, Graphs and Charts
$\left.\begin{array}{|l|l|}\hline \text { Pie Chart } & \begin{array}{l}\text { A special chart that uses sectors to show relative } \\ \text { sizes of data. }\end{array} \\ \hline \text { Two-way table } & \begin{array}{l}\text { Divides data into groups in rows across a table and } \\ \text { columns down a table. You can calculate totals } \\ \text { across and down. }\end{array} \\ \hline \text { Stem and Leaf Diagram } & \begin{array}{l}\text { Shows numerical data split into a 'stem' and } \\ \text { 'leaves'. } \\ \text { The key shows you how to read the values. }\end{array} \\ \hline \text { Inequalities } & \begin{array}{l}\text { The relationships between two expressions which are } \\ \text { not equal to one another. }\end{array} \\ \hline \text { Scatter Graph } & \begin{array}{l}\text { Statistics } \\ \text { Line of best fit }\end{array} \\ \hline \text { Are values that represent a set of data. } \\ \text { Oean, median, mode and range are all statistics. } \\ \text { Alwo of best fit shows the relationship between data. } \\ \hline \text { An extreme value that doesn't fit the pattern of the } \\ \text { other values is called an outlier. } \\ \text { relationship between two sets of data. This is } \\ \text { represented with correlation. }\end{array}\right\}$

Index notation is a way of representing numbers (constants) and variables that have been multiplied by themselves a number of times.

## Factors are numbers that divide exactly into another number.



## Substitution - replace a variable with a value or

 another variable.
## To expand a bracket means to multiply each term in the bracket by the expression outside the bracket.

## Collecting like terms is a way of simplifying algebraic expressions. To do this we identify the like terms in an algebraic expression and combine them by adding or subtracting.

Year 8 - Unit 4 - Expressions and Equations
$\left.\begin{array}{|l|l|}\hline \text { Expression } & \begin{array}{l}\text { An expression uses variables (letters) to stand for } \\ \text { numbers. }\end{array} \\ \hline \text { Formula } & \begin{array}{l}\text { Uses variable and an equals sign (=) to show the } \\ \text { relationship between variables. }\end{array} \\ \hline \text { Expanding Brackets } & \begin{array}{l}\text { Removes brackets from an expression by } \\ \text { multiplying each term inside the bracket by the } \\ \text { term outside. }\end{array} \\ \hline \text { Factorising } & \begin{array}{l}\text { Inserts brackets into an expression by finding a } \\ \text { common factor of the terms. }\end{array} \\ \hline \text { Function } & \begin{array}{l}\text { Is a rule that changes one number into another } \\ \text { number } \\ \text { The function +3 adds } 3 \text { to a number }\end{array} \\ \hline \text { Solve } & \begin{array}{l}\text { Highest Common Factor - the largest value which } \\ \text { divides into all terms. }\end{array} \\ \hline \text { Inverse function } & \begin{array}{l}\text { Is the reverse or opposite of a function. } \\ \text { The inverse function }-3 \text { is the reverse of +3 }\end{array} \\ \hline \text { An equation means work out the value of the } \\ \text { unknown number. }\end{array}\right\}$

Conversion graphs - This graph can be used to convert between metres and feet.
E.g. Convert 30 feet to metres

1. Using a ruler go up to your line
2. Go across to the other axis

30 feet $\approx 10$ metres


## Distance-time graphs

- The vertical axis represents the distance from the starting point.
- The horizontal axis represents the time taken.
E.g. Peter was ten minutes from home after ten minutes.
Peter started his journey back home at 30 minutes.
It took Peter 15 minutes to get home.

Coordinates are always written with the $x$ axis first, then the $y$ axis.

## $(x, y)$

Year 8 - Unit 5 - Real-life graphs

| Conversion graph | Conversion graphs convert one unit to another <br> For example pounds ( $£$ ) to dollars (\$). |
| ---: | :--- |
| Distance-time <br> graph | Distance-time graphs show the relationship between <br> distance travelled and the time it took. |
| Gradient | The gradient is the steepness of a line. |
| Trend | The trend of data is the general direction of change, <br> ignoring individual ups and downs. |
| Linear graph | A linear graph is a single straight line. |

2 decimal places (2dp) - A number rounded to 2 decimal places has two digits after the decimal point.


## Ratio - Bar model

Ratios can be represented visually as a bar model.

| $T$ | 0 | $\cdot$ | $\frac{1}{10}$ | $\frac{1}{100}$ | $\frac{1}{1000}$ | $\frac{1}{10000}$ | $\frac{1}{100000}$ | $\frac{1}{1000000}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |

## Year 8 - Unit 6 - Decimals and ratio

| Decimal Place | A decimal place is the position of a digit to the right of a <br> decimal point. |
| ---: | :--- |
| Significant figures | Numbers can be rounded to significant figures. <br> The fist significant figure is the one with the highest value. <br> It is the first non-zero digit, counting from the left. |
| Descending | Descending means to move downward or to a lower <br> position. |
| Ascending | Ascending means to move upward or to a higher position. |
| Proportion | Proportion is the relationship in number or size of two <br> things or sets of things. |
| Unit ratio | In a unit ration, one of the numbers is 1. |

## Unit ratio

In a unit ration, one of the numbers is 1 .


# Year Topic 8A Food and Nutrition 

| Key Terms / <br> Words | Definition |
| :--- | :--- |
| Diet | The food that you eat. |
| Fibre | A substance found in food that is not used up <br> by the body. It helps to keep our intestines <br> clean. |
| Nutrient | A substance needed in the diet to provide raw <br> materials for making new substances and for <br> energy release. |
| Protein | A nutrient used for growth and repair. |
| Carbohydrate | A nutrient that is used as the main source of <br> energy. |
| Balanced diet | A nutrient that is stored to be used for energy <br> in the future. It also acts as a thermal <br> insulator. |
| Eating a wide variety of foods to provide all <br> the things the body needs. |  |
| Deficiency <br> disease | A disease caused by a lack of a nutrient. <br> DigestionA process that breaks food into soluble <br> substances in our bodies. |
| Enzyme | A substance that can speed up some processes <br> in living things (e.g. breaking down food <br> molecules). |
| Diffusion | When particles spread and mix with each <br> other without anything moving them. |



To help absorb the digested food, the wall of the small intestine is folded and covered with villi. These features all increase the surface area. The wall of the small intestine is also only one-cell thick, meaning that it is easy for small molecules to diffuse out of the small intestine and into the blood. The digested food molecules are carried in the blood plasma.

Villi cover the intestine wall. They are small finger like projections that increase the surface area, allowing maximum diffusion of nutrients into the
 blood stream.

Food tests

Iodine can be used to test for starch.

Biruet can be used to test for protein.


Benedicts can be used to test for sugar.

Balanced Diet. We need to eat a wide variety of foods to get all the food substances that we need. When we do this, we are said to have a balanced diet. Carbohydrates, proteins, fats and oils (lipids), vitamins and minerals are nutrients, which means that they provide the raw materials for making other substances that the body needs.
Nutrient deficiencies

| Disease | Cause | Symptoms |
| :--- | :--- | :--- |
| Scurvy | Lack of vitamin C | Bleeding gums. |
| Ricketts | Lack of vitamin D | Deformed bones |
| Anorexia | Lack of nutrients <br> generally | Loss of weight, person may <br> be very underweight. |

## Obesity

Obese is a medical term used to describe a person with a high excess of body fat. An obese person is at greater risk of type-2 diabetes, heart disease and some types of cancer.

## Diffusion



Nutrients are transferred across the cell membrane from the small intestine into the blood stream, this happens by diffusion.

e
Enzymes are released in the digestive system to break down larger food molecules into smaller ones so that they can be absorbed into the blood stream by diffusion.

## Biology Topic 8B Plants and their reproduction

| Key term | Definition |
| :---: | :---: |
| Biodiversity | The range of different species of organisms in an area. |
| Classify | To sort things into groups. |
| Species | A group of organisms that can reproduce with each other to produce fertile offspring. |
| Genus | A group of similar organisms. The genus name is the first word in the scientific name for a species. |
| Gamete | A cell used for sexual reproduction. |
| Hybrid | An organism produced when members of two different species reproduce with each other. |
| Variation | The differences between organisms. |
| Pollination | The transfer of pollen from an anther to a stigma. |
| Fertilisation | Fusing of a male gamete with a female gamete. |
| Germinate | When a seed starts to grow. |
| Chloroplast | A green disc containing chlorophyll. Found in plant cells. Where the plant makes food, using photosynthesis. |
| Photosynthes is | A process that plants use to make their own food. It needs light to work. |
| Respiration | A process in which energy is released from substances so it can be used by an organism. All organisms respire. |



| Sexual reproduction | Asexual reproduction |
| :--- | :--- |
| This type of reproduction | This type of reproduction is |
| needs two parents. Two | when one parent plant is able |
| gametes fuse to produce a | to produce offspring (e.g. by |
| zygote. The cells divide to | using runners in strawberries |
| grow into an embryo, |  |
| which develops into an |  |
| adult. | or tubers in potatoes). |

## Core practical: Photosynthesis (examining stomata)

- Use clear nail varnish and sticky tape to create a print of the underside of a leaf.
- Examine underneath a
microscope and identify stomata.
- Produce a biological sketch of observations.



## Seed dispersal

A part of the flower forms a fruit. This is used for seed dispersal, which stops the new plants competing with the parent plants for water, nutrients, light and space.

- Some fruits are eaten by animals and the seeds come out in their faeces (e.g. apples).
- Some fruits are carried on the fur of animals (e.g. burdock).
- Some fruits are carried by the wind (e.g. dandelion).
- Some fruits explode, scattering the seeds (e.g. lupins).


## Fertilisation

Once on the stigma, a pollen grain grows a pollen tube, which enters the ovule containing an egg cell. The nucleus from the male gamete inside the pollen grain joins
 cell to form a zygote.

## Photosynthesis takes place in

 the chloroplasts in the leaves. The glucose from photosynthesis is turned into starch to be stored. A growing plant needs light, air, water, warmth and nutrients called mineral salts.

Year 8G Metals and their Uses


## 8K - Energy Knowledge Organiser

| Key Word | Definition |
| :--- | :--- |
| Temperature | A measure of the average kinetic energy of <br> the particles in a substance measured in <br> degrees Celsius ( C$).$ |
| Internal <br> energy | The sum of the kinetic and potential energy <br> of the particles in a substance. |
| Thermal <br> energy | Another term for heat energy, measured in <br> joules, (J). |
| Conduction | The way energy is transferred through solids <br> by heating. Vibrations are passed from one <br> particle to the adjacent (next) particles. |
| Convection | The way energy is transferred by heating in <br> fluids. |
| Density | The mass per unit volume, measured in <br> kg/m or g/cm 3 . Density = mass / volume. |
| Emit | To give out. <br> Infrared <br> radiation <br> A way of transferring energy by heating that <br> does not need a medium (material). Infrared <br> radiation can travel through transparent <br> things and a vacuum (no particles). <br> Eower <br> The amount of energy in Joules (J) <br> transferred per second. It is measured in <br> Watts (W). $P=\frac{E}{t}$A diagram showing energy transfers, where <br> the width of each arrow is proportional to <br> the amount of energy is represents. |
| The ratio of useful energy transferred to <br> total energy used. $E f f=\frac{U E o u t ~}{\text { Total Ein }}$ |  |

## Conduction



Energy can be transferred through many solid materials by conduction. When a solid is heated, the particles gain kinetic energy and vibrate more.

## Convection



Energy is transferred through fluids (liquids and gases).

## Radiation

Energy Is transferred to hot objects by radiation. All things emit infrared radiation. The hotter the object is, the more it emits. When radiation hits something, it can be absorbed or reflected.


Energy cannot be created or destroyed, so the total amount of energy supplied must be equal to the total amount transferred or stored.

We can calculate efficiency using the following formula:
efficiency $=\frac{\text { useful energy transferred }}{\text { total energy supplied }} \times 100 \%$


## Todmorden High Science K.O.

Year 8 Topic 81 Fluids

| Key <br> term | Definition |
| :--- | :--- |
| Brownian <br> motion | An erratic movement of small <br> specks of matter caused by being <br> hit by the moving particles that <br> make up liquids or gases. |
| Compress | To squeeze into a smaller volume. |
| Diffusion | The movement of particles from an <br> area of higher concentration to an <br> area of lower concentration. |
| Particle <br> theory | A theory used to explain the <br> different properties and <br> observations of solids, liquids and <br> gases. |
| Boiling point | The temperature at which a liquid <br> boils |
| Chemical <br> change | A change which forms one or more <br> new substances. |
| Physical <br> change | An easily reversible change in <br> which no new substances are <br> formed (e.g. changes of state). |
| Pressure | Force per unit area, measured in <br> newtons per square metre (N/m²) <br> or pascals (Pa). |
| Streamlined <br> resistance | Something that has a smooth <br> surface and is shaped to reduce the <br> air resistance or water resistance. <br> through air. It is caused by friction <br> and by the object pushing the air <br> out of the way. |

## The Big Ideas and Must Know Facts



The particles in fluids (liquids and gases) are moving around in all directions. As they move they bump into each other and any surfaces they come into contact with. The force of the particles hitting things causes pressure. Pressure in liquids and gases comes from all directions.



Density = mass

## Volume

Melting and freezing are changes of state. Some materials (including ice in some conditions) can change directly from a solid to a gas. This is called sublimation.

Changes such as combustion and neutralisation are chemical changes, because the atoms within substances become combined in different ways to form new substances. Changes of state are physical changes, because the chemicals in the substances do not change.

## ART: YEAR 8 - TERM 1 MECHANICAL OBJECTS \& JIM DINE

During this term you will be learning about the art work of Jim Dine who creates bold pieces of work around the subject of tools and mechanical objects. You will learn how to create an accurate drawing from a reference image and experiment with materials like fine liner, oil pastel and charcoal. You will then create a final piece of a tool and adding a vibrant background using coloured inks.

## KEY WORDS

COMPOSITION - The layout of a piece of work.
PROPORTION - The size of parts of something compared to other parts.
SKETCH- Creating light lines when starting out a drawing.
TONE - Adding areas of shadow or dark to an image, another word for shading.
SCALE - The size or level of something.
REFINE- Last finishing touches to a piece of work to improve it.
MONOCHROME - Black and white or many shades of the same colour.

## ELEMENTS OF ART

The elements of art are the key terms that a piece of work will always link to. A piece may not link to all but will always link to some of these.
LINE - Sketching or creating any outline in our work.
SPACE - Creating the sense of an area in our work like a landscape.
FORM - Three dimensional shapes.
SHAPE - Two dimensional shapes
TONE - Any area of shading
COLOUR - Adding of pigment
TEXTURE - How something feels like fur or scales



Cross-hatching


Circulism


Contouring

## SHADING TECHNIQUES

Shading or tone helps to add depth to our work and make things look three dimensional. There are different ways you can apply tone using shading techniques called HATCHING, CROSS HATCHING AND CONTOUR HATCHING.


Blend out these shading techniques by spacing out the lines and applying less pressure.

## REFERENCE IMAGE

A reference image is the picture we use to create a piece of work from. You should always fold a reference image into sections and then section your drawing page in the same way. We do this because we can then draw box by box and concentrate on smaller sections. It also helps with accuracy and proportion of our drawing.


## COLOUR THEORY

Colour theory helps us use colour more effectively. We use a colour wheel to help us with this. You can find out how to mix a colour by looking at the colours either side of it on a colour wheel.

PRIMARY COLOURS - The base colours that cannot be mixed are RED, BLUE and YELLOW.

SECONDARY COLOURS - Created when mixing two primary colours together are ORANGE, GREEN and PURPLE.

## COMPLIMENTARY COLOURS -

Opposite each other on the colour wheel and work well together in artwork.

HARMONIOUS COLOURS - Next to each other on the colour wheel and blend easily together.

ART: YEAR 8 - TERM 2 NATURAL WORLD \& GEORGIA O’KEEFFE

During this term you will be learning about the art work of Georgia O'Keefe who created large scale impressionist paintings of nature. You will be learning how to apply water colour accurately and how to create seamless colour blends. For a final piece you will be using a photograph of a flower to create an accurate drawing with an O'Keeffe inspired painted background.

## KEY WORDS

COMPOSITION - The layout of a piece of work.
PROPORTION - The size of parts of something compared to other parts.
SKETCH- Creating light lines when starting out a drawing.
TONE - Adding areas of shadow or dark to an image, another word for shading. SCALE - The size or level of something.
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## Year 8 Computing - Networks

## Computing@Todmorden High School

## Protocols for an email

## Benefits of a

 networkThe '@’ sign must be used. The email address must be unique.

Sharing devices such as printers saves money.
Site (software) licences are likely to be cheaper than buying several standalone licences. Files can easily be shared between users.
Network users can
communicate by email and instant messenger. Security is good - users cannot see other users' files unlike on stand-alone machines.
Data is easy to backup as all the data is stored on the file server.

Purchasing the network cabling and file servers can be expensive.
Managing a large network is complicated, requires training and a network manager usually needs to be employed.
If the file server breaks down the files on the file server become inaccessible. Email might still work if it is on a separate server. The computers can still be used but are isolated.
Viruses can spread to other computers throughout a computer network.
There is a danger of hacking, particularly with wide area networks. Security procedures such as a firewall are needed to prevent such abuse.

## Key words

| Protocol | Set of rules to follow | Bandwidth |
| :---: | :---: | :---: |
| Computer network | A computer network is when two or more computers are connected together to allow them to communicate. |  |
| Hub | A device for connecting computers another network capable devices together to form a network. |  |
| Server | A server is a computer that manages and stores files, or one that provides services to other computers on the network. They control the network and allow other computers to share and communicate. | disadvantages of wired connection |
| Router | Routers are one of the most commonly used connection devices. They are used to send data signals across the internet. Home routers usually contain a hub and a WAP, enabling a small peer-to-peer network to be formed. They also contain a modem, which allows users to connect to the internet. |  |
| Wired data transmission | Wired networks send data along cables. |  |
| Wireless data transmission | Wireless networks send data through the air using radio waves. |  |
| Download | The computer is receiving data. | disadvantages of wireless |
| Upload | Your computer is sending data to the internet. | connection |
| Buffering | Data is arriving at your device at a rate that is slower than it is being processed. |  |
| The internet | The internet is a worldwide network of computers. |  |
| Ethernet | It is the physieage 23 dware, i.e. the cables, the routers, and other pieces of hardware used to connect devices together. |  |

Bandwidth is the amount of data that can be moved from one point to another in a given time. Higher bandwidth = more data per second.
The concept is similar to the volume of water flowing through a pipe. This depends on the size and thickness of the pipe.
More bandwidth DOES NOT increase the speed.

| Advantages | Disadvantages |
| :--- | :--- |
| Faster connections <br> (little or no <br> interference) | Cables can be a <br> trip hazard and <br> look unpleasant |
| Higher bandwidth | More expensive <br> and time <br> consuming to ass <br> devices as each <br> device needs <br> cables |
| Better security | Devices are in <br> fixed <br> positions(no <br> portability) |


| Advantages | Disadvantages |
| :--- | :--- |
| No trailing wires/trip <br> hazards | Lower <br> Bandwidth |
| It is quick and cheap to <br> connect new devices | Wireless <br> connections <br> can be <br> weakened by <br> walls and <br> ceilings |
| Allows portability | Less secure |

## Year 8 -Python

## Computing@Todmorden High School

## Key words

## Different types of

 selectionData is what the program will use to decide on the sequence and output.

Integer/float: In Computing we have a special name for these numbers (integer and float). Integers are whole numbers and Float is a decimal.

String: A simple way to understand strings is to think of them as a string of letters.

Boolean: Boolean is simply true or false.

While loop A while loop allows for a segment or block of code to be revisited repeatedly. until a condition changes from true to false, at which point the loop stops.

| Operator | Meaning | Example |
| :--- | :--- | :--- |
| $==$ | Equal to | $2==2$ |
| != | Not equal to | $3!=7$ |
| > | Greater than | $7>6$ |
| < | Less than | $5<8$ |
| >= | Greater than or <br> equal to | $8>=6$ |
| <= | Less than or <br> equal to | $7<=7$ |

A program is simply a sequence of instructions to tell the computer what to do.

Debugging

## Variable

Input

Algorithm

Iteration
Syntax
Fixing errors.

A variable is a named piece of memory that holds a value. The value held in a variable can - and usually does - change as the program is running.

Allows the user to input information.

A sequence of instructions that are followed by the computer.

Repeat a sequence of instructions.
The way that code has to be written so that the computer can understand it.

A high level programming language.

| Sequence | Instruction 1 <br> Instruction 2 <br> Instruction 3 |
| :--- | :--- |
| Selection | If elif else |
| Iteration | while |



## Input and selection

Variable
Weather=input("what is the weather like") Print("the weather is", weather)

> \& Variable

## Selection using IF and ELSE

Weather=input("What is the weather like?")
If weather=="sunny":
print("Go outside")
Else:
print ("stay in")

## Key words

| Abobe | Animate is a professional |
| :--- | :--- |
| Animate | animation software used by <br> animation companies all over the <br> world |

## How to add a new layer

Click the new layer button at the bottom of the timeline. Select Insert > Timeline > Layer. Right-click (Windows), a layer name in the timeline and select Insert Layer from the context menu

## How to add a key frame

To insert a new frame, select Insert > Timeline > Frame (F5). To create a keyframe, select Insert > Timeline > Keyframe (F6), or right-click (Windows) the frame where you want to place a keyframe, and select Insert Keyframe from the context menu

| Canvas | The name given to the blank document you create an <br> animation on, once the animation process starts this is <br> called The Stage |
| :--- | :--- |
| Frames | A frame in animation is each individual drawing on the <br> time line, which when played in sequences gives the <br> illusion of movement. There are three types of frames <br> used in Adobe Animate, Key Frames, Frames and Blank <br> Key Frames. |
| Key Frame | A key Frame is a Frame on the timeline which has an <br> object or drawing on it. |
| Blank Key | Blank Key Frames is a frame, which has nothing on it, <br> so you will use this to create a news scene, a blank key <br> Frame allows you have a break in action or change of <br> scene. |
| layers | Layers are used so that an animator can have greater <br> control over their animation; by separating different <br> images or parts of the animation onto separate levels, |
| Frame by | Frame-by-Frame animation is when the image on the <br> stage changes in every frame, it is used for detailed <br> animation where movements should appear to |
| Frame |  |
| Animation | happen seamlessly. Frame-by-Frame animation is the <br> most time consuming, due to the number of drawings |
| needed to make a single second of animation. |  |

## Organising Layers

Where a layer is positioned on the project timeline determines how that object or drawing is seen on the animating stage, as the layers are literally layered over the top of each another. The higher a layer appear on the project timeline the closer it will be to the front of the animating stage.

## Using the Onionskin tool

There are two types of inion skins Onionskin and Onionskin Outline they are situated at the bottom of the Adobe animate interface next to the payback controls

To customize the colour of the onion skin frames, select the Onion skin frame in the Timeline bar. Select Edit>Preferences. In the Onion Skin Color option, select the color swatch buttons to customize and set colors for the Past, Present, and Future frames

|  | KEY vocABULARY |
| :--- | :--- |
| Cell | A box in which you can enter <br> a single piece of data. |
| Cell Reference | The name given to a cell to <br> uniquely identify it, for <br> example, A1. |
| Formula | An expression which <br> calculates the value of a cell. |
| Formatting | To change the appearance, <br> layout or organisation of a <br> spreadsheet. |
| Borders | Form an edge along or <br> beside. |
| Rows | The range of cells that go <br> horizontally across the <br> spreadsheet/worksheet. |
| Columns | A vertical series of cells in a <br> chart, table, or spreadsheet. |
| IF statement | The Excel IF Statement tests a <br> given condition and returns <br> one value for a TRUE result <br> and another value for a <br> FALSE result |

## Spreadsheets

Why do we use spreadsheets? Spreadsheets are used to store information and data. Once we have our information in a spreadsheet, we can run powerful calculations, make graphs and charts and analyse patterns

To make graphs: Highlight your data, click the insert tab at the top of Excel and then pick the chart you need.
Autofill: Click on the cell you want to duplicate, grab the black cross in the bottom righthand corner and drag it down to the remaining cells. This also works if you want to copy the formulas down as well.

Year 8 Design and Technology
Textiles knowledge
Todmorden

## Y7 Textiles Key Words

| Stitch | Thread passes through fabric to <br> keep it together. |
| :--- | :--- |
| Needle | A thin piece of metal with a point at <br> one end and an 'eye' at the other for <br> thread to attach - then used to sew. |
| Pins | A thin piece of metal with a flat and <br> pointed end to temporarily join <br> things together. |
| Thread | A piece of spun polyester or cotton <br> to sew with. |
| Seam | Where two pieces of fabric join <br> together by stitching. |
| Seam |  |
| allowance | The distance from the edge of the fabric <br> to where you sew the fabric together. |
| Embroidery | Stitches that create a pattern/design <br> on the surface of fabric - by hand or <br> machine. |

## SEWING MACHINE

An electrical machine for sewing or stitching fabric.


## The Design Process

| Design Brief | A statement outlining what is to be <br> designed and made. |
| :--- | :--- |
| Specification | A list of design criteria. |
| Research | Sourcing information and inspiration <br> to help with design work. |
| Ideas | A range of potential solutions to the <br> problem. |
| Development | Further improving an idea. |
| Final idea | A presentation drawing of chosen idea. |
| Manufacture | Making the final outcome. |
| Evaluation | Reviewing strengths and weaknesses <br> of final product and design work. |



## Seam Allowance

A seam allowance is the space between a seam and the edge of the fabric. Sewing a seam right against the edge of two pieces of fabric can lead to fraying and may not hold. It is important to include a seam allowance that ensures that the seam will be sturdy and not come away from the raw edge of the fabric.


## Features of writing:

Setting: location
Characters: people
Plot: story
Conflict: characters having different objectives Protagonist: leading character
Antagonist: character's rival
Prequel: events that precede original work
Sequel: events that come after original work
Duologue: two actors in a scene
Dialogue: conversation/what they are saying

## Acting skills

## Vocal

Pace: speed
Pause: temporarily stopping
Tone: emotion
Volume: loud/quiet
Diction: clarity
Projection: being heard
Physical
Facial expression: use of eyes/eyebrows/mouth
Eye contact: looking into someone's eyes
Posture: positioning of spine
Gesture: use of hands/head to communicate an idea
Proxemics: meaningful use of space
Levels: being at different heights e.g. led on floor, sat on chair, stood etc.

## The Proscenium Arch:



## Role of the playwright

Research themes/ time period
Write play including dialogue and stage directions Re-draft
Get work published


Gobo

Floodlight


Gauze



Spotlight


Gels

## Role of the director

Has the vision for the show
Holds auditions and casts the show
Runs rehearsals and directs the scenes
Gives notes

## Sound:

Diegetic: a sound from within the world of the play Directional: where the sound comes from
Distortion: altering the sound
Underscore: music played in the background
.

## Key terms

| Medium | A person who claims they can speak <br> to the dead. |
| :--- | :--- |
| Ouija Board | A board that people use to <br> communicate with spirits (souls of <br> the dead). |
| Pseudoscience | A theory that seems scientific, but it <br> is not accepted by most scientists. |
| Paranormal | A supernatural event that science <br> can't explain. |
| Ghosts | A presence of a person thought to <br> have died. |
| Dualist | A person who thinks that humans <br> have a body that dies, but a soul <br> that goes on. |
| Out of Body | An experience where you soul <br> leaves your body. |
| Experience | Where you are born again into a <br> new body. |
| Reincarnation |  |$\quad$| The spiritual, immortal part of a |
| :--- |
| person. |
| Soul |

## Key teachings

## Paranormal

These inexplicable events suggest the soul might exist and include, ghosts, Ouija boards, ghost footage, child reincarnation and out of body experiences.

## Ghost footage

Footage of ghosts (souls of the dead) can be captured on CCTV. If there is no reason that can explain it, it suggests the soul may be able to survive death. However, some people think the footage could be edited or practical effects used.

## Child reincarnation

Some children claim to have lived before and from the moment they can speak, claim they have had a past life. One example is Cameron from The Boy Who Lived Before. He could say where he lived in Barra and how you could get to the island even though he had never been there. He must have known this from his past life.

## Mediums

These people claim to speak to the dead/ the dead speak through them. They are able to give messages that only the client and the dead should know. This suggests the soul can continue after the body dies.

## Out of Body Experience

This is where a person's soul leaves their body and they can see it from above (they can hear and see what is being said/ done around it). One example is the singer Pam Reynolds who's soul left her body during brain surgery. She was clinically dead, but could describe the surgical tools and the conversations the doctors were having. It must have been her soul that witnessed this.

## Hell Experience

Some people claim to have ha experiences of hell which show there is an afterlife. Carl Knighton overdosed and his should was taken to hell where there was 'fire' and 'screaming souls.' St Theresa of Avila also had one in the $16^{\text {th }}$ Century where she has a vision of hell. She described it as being a place full of 'fire and pain.'

## Biblical evidence

God 'breathed life into man (Genesis). The Greek word for this 'life' is anima. God breathed a soul into man that 'animated' the body, so there is a soul.

## Philosophical evidence

Descartes doubted everything existed but could not doubt that he was doubting (thinking). As he doubted his body, the only thing that could be thinking was the soul. This means it exists.

## Key Quotes

Evidence against the soul/ afterlife
'There are usually scientific explanations for these kind of things' Dr Susan Blackmore
'We are dealing with false memories' Dr Chris French
'A wise man bases his belief on the evidence' ‘David Hume

The Bible was made in a 'barbaric age' Richard Dawkins

## Evidence for the soul/ afterlife

'The planes used to land on the bead' Cameron The Boy Who Lived Before

It was a place full of 'fire' and 'torment' Carl Knighton
'Why has my rest been disturbed' Prophet Samuel to King Saul
'I think therefore I am' Descartes

## Key terms

The God of Classical Theism Omnipotent
Wrath
Hebrews

Omniscient Omnibenevolent

Just/ Judge

## Evil

Genesis

Exodus

Abraham

Moses

Job

Deluge

Noah

Old Testament

Bible

Covenant

The Classical idea of what God is like

God is all powerful
God's anger
The ancient people who would end up as members of the Jewish religion
God is all knowing
God is all-loving
God is fair \& is a fair judge
Something that causes pain and suffering
The first book of the Bible. It contains the creation of the world

The second book of the Bible. It contains the story of Moses and the Hebrews in Egypt

The Father of Judaism known for being told to sacrifice his own son

Responsible for the Ten Commandments, the Ten Plagues on Egypt and the parting of the Red Sea

A perfect follower of God who was tested by the Devil in a bet

The name for the flood at the time of Noah

Responsible for building the ark to save the animals

The first half of the Bible detailing the story of the Jewish People

A collection of 66 books made up of the Old Testament and the New Testament

A contract with God that had conditions for God and his people.

## Key teachings

The God of Classical Theism
The 'classical' idea of God where he is all powerful, all loving and all knowing. This idea of God is shown through the stories of the Old Testament. Some people think that God is not TGOCT and use the Bible to counter this.

## Adam, Eve and Creation (for)

In the book of Genesis, God created the world in '7 days' from nothing. He also made Adam from the 'dust of the ground' and Eve from Adam's rib. This shows he is omnipotent.

## Adam, Eve and Creation (against)

If God was all powerful, it should not have taken 7 days, it should have been instant. He should not have needed dirt to make Adam either, it should have been from nothing. Also, he should have known Adam and Eve would sin and eat from the tree. He should have stopped it, but maybe he didn't know, so he is not omniscient.

## Noah (for)

God flooded the Earth for ' 40 days and nights' showing his omnipotence. He told Noah and his family to build the Ark to save them. This shows his omnibenevolence.

## Noah Against

When God speaks to Noah, the Bible says God 'regretted making man.' This would suggest he made a mistake, so he is not all knowing or he would have made mankind better. Additionally, the flood will have killed innocents and only Noah was saved. God should not have favourites. He is clearly not all loving.

## Abraham (for)

God gave Abraham a son to his wife Sarah even though they were infertile. This shows he is benevolent and omnipotent. He also made a covenant with him to keep him safe. Again, this shows love.

## Abraham (against)

God made Abraham wait for a son, then asked him to sacrifice the child (Isaac) to prove his faith. If God was omniscient, he would know Abraham would pass the test. This shows he is not loving or all-knowing.

## Moses (For)

God showed his power through the Ten Plagues and through parting the Red Sea. He also saved the Hebrews and made a covenant with them to keep them safe so was all loving.

## Moses (against)

The Ten Plagues would have killed innocents and the Angel of Death specifically targeted children. This shows God is not omnibenevolent. Job
Job was a faithful servantige God. The devil had a bet with God that if he made him suffer, Job would give up his faith and reject God.

## Key Quotes

Genesis
God made Earth in '7 days'

## Genesis

God made Adam from the 'dirt of the ground' and Eve from 'Adam's rib' Genesis God said you 'must not eat the fruit from that tree' Genesis The Lord God 'banished them from Eden' Genesis 'God flooded the world for ' 40 days and 40 nights' Genesis God said to Abraham 'I will give you as many descendants as stars in the sky' Genesis God said to Abraham 'Sacrifice your son 'Isaac to me' Genesis

## Exodus

And God 'remembered his promise to the Hebrews' Exodus God sent a 'plague of darkness'

## Exodus

God sent the 'Angel of Death'

## Exodus

Moses lifted his staff and parted the Red Sea' Exodus
Moses was given the Ten
Commandments including 'do not steal' as part of the covenant Exodus

## Job

God said 'where were you when I made the foundations of the Earth?' Job

## Psalms

God knows the 'number of hairs on your head'

## Year 8 Food and Nutrition

## Food Preparation and Safety

| Terminology |
| :---: |
| Hygiene |
| Cross- |
| contamination |
| Food poisoning |
| Core temperature |
| Function |
| Fermentation |
| Nutrition |
| Nutrient |
| Structure |
| Micro-nutrient |
| Macro-nutrient |
| Health |

## Meat handling

- Wash hands before and after handling raw meat.
- Use separate colour-coded equipment for meat preparation.
- Keep raw meat separate from other ingredients.
- Store raw meat between 0-5 degrees Celsius in the fridge.
- Ensure the core temperature of cooked meat reaches 75 degrees.
- Sanitise work surfaces after meat preparation.


## Function of bread ingredients

| Strong <br> Flour | Provides the structure of bread <br> and is a source of nutrients. |
| :--- | :--- |
| Water | Binds the ingredients together, <br> activates the yeast. |
| Yeast | Using fermentation, gives off CO2 <br> allowing the bread to rise during <br> proving and baking. |
| Salt | Flavours the bread dough. |
| Sugar | Encourages fermentation with the <br> yeast. |

## Eatwell guide

 Government guidance on how to eat well and be healthy based on the major food groups.
## Nutrition

The study of the
key nutrients in
food, how they are vital for good health and how they work together. Macro-nutrients: fat, protein and carbohydrate. Micro-nutrients: vitamins and minerals.

## Year 8 Geography - Why can I see squirrels and oak trees?

## Flora

Fauna

Fundamental Elements of Existence

Biotic
Abiotic
Interconnected

## Organism

Aspect
Soil types

The environment created by the interaction of all living and non-living things.

The technical term for vegetation.

The technical term for all animal life.

The unique set of ingredients required for life to occur. For example, sunlight and water.

Living things.
Non-living things.
The way in which all life is linked together.
Any living thing, such as an animal, a plant, a bacterium, or a fungus.

The compass direction something faces.
Loam - contains the most nutrients and fast-draining. Clay - stores plenty of water and is nutrient-poor.

Producer
Consumer
Decomposer
Predator
Apex Predator

Prey
Food chain
Food web
Trophic pyramid

Converts sunlight into energy through photosynthesis. Feeds on producer or another consumer. Breaks down dead, organic material. An animal that naturally preys on others.

A predator at the top of a food chain that is not preyed upon by any other animal.

An animal that is caught and killed by another for food. Shows how energy moves through an ecosystem.

Complex balance of food chains in an ecosystem
A diagram that shows the amount of biomass and flow of energy in an ecosystem.

## Nutrient cycle

Biomass

Litter

Compression

Leaching
Parent Rock

Weathering
Decomposition

Nutrients moving from dead decomposed animals and plants into soil ready to be used again.

The total amount or weight of organisms in a given area.

Dead plant material found on the soil surface.
Stress applied to something causing it to become smaller.

Nutrients drained from soil by flow of water.
Also known as bedrock which is broken down, eventually forming soil.

The breakdown of material in situ.


## Year 8 Geography - Why has evolution created a biodiverse planet?

| Panspermia theory | Life on Earth began elsewhere and started as microorganisms. |
| :---: | :---: |
| Heterotrophic theory | Life on Earth began as a result of a lightening strike creatin amino acids (proteins) to make DNA. |
| Hydrothermal theory | Life of Earth began deep in the ocean from under water volcanoes creating amino acids (proteins) to make DNA. |
| Earth | The third planet from the sun which formed 4.5 billion years ago. |
| LUCA | Stands for Last Universal Common Ancestor - most recent ancestor that all organisms now living on Earth share common descent. |
| DNA | The molecule inside cells that contains a species genetic information. It is passed on to offspring during reproduction. |
| Evolution | The way in which living things change and develop over long periods of time. |
| Natural selection | A process where organisms that are better adapted to an environment will survive and reproduce. |
| Charles Darwin | A British naturalist who proposed the theory of biological evolution by natural selection. |
| Adaption | The process of change by which an organism or species becomes better suited to its environment. |
| Mutation | When a gene changes causing an altered form that may be passed onto future generations. |
| Vertebrates | Any animal with a backbone/spinal column. |
| Amoebas | A single-celled organism that moves by changing its shape. |
| Biodiversity | The variety of plant and animal life within a particular area. |



Mutualism

## Parasitism

Organism

Moral dilemma/ Ethical dilemma.

Mangroves

When two organisms of different species benefit by 'working together'.

When one organism lives on or inside another species causing harm.

A living thing, such as an animal, a plant, a bacterium, or a fungus.

A situation where an individual or group has to make a decision and there is no favourable outcome someone will not like the decision you make.

A tree or shrub which grows in sea water, mainly in tropical areas and has tangled roots that grow above ground.


## Year 8 Geography - Why are people wrong about Africa?

Stands for Gross National Income - the total amount of money made by people and businesses.

## Stereotype

Climate

Lagos

Nairobi National Park

## Push factor

## Pull factor

## Rural to urban

 migrationDevelopment

## Development gap

HIC

LIC

Aid

Trade

Big Game

Endangered
Conservation

An oversimplified image or idea of a particular type of person or thing.

The long-term weather pattern of a region or area.
The fastest growing city in the world ( 85 people move there every hour).

An area in Kenya where Big Game hunting has been banned since 1977 because of trophy hunting.

Something that makes people want to leave a place or escape from a particular situation.

Something that attracts people to a place.

Using economic growth (money) and technology to improve quality of life.

Using economic growth (money) and technology to improve quality of life.

The difference in levels of development between the richest and poorest countries in the world.

High Income Country.
Low Income Country.
Assistance given from one country to another.

The exchange of goods or services, usually for money.

Game are land mammals and birds. The 'Big 5' are the lion, leopard, rhino, elephant and buffalo.

A species that is at serious risk of extinction.
Protecting plants and animals from harm.


Colonisation
Apartheid

Nelson Mandela

Famine

Surplus
Deficit
Sustainable Development Goals (SDGs)

Taking control of another country, its people and resources.
A law which separated white people and black people in the country of South Africa.

Former president of South Africa. Famous for ending apartheid.

Extreme lack of hunger.
More than what is needed or used.

Less than what is needed.

These are 17 goals which were set in 2015 to promote sustainable development by 2030 .


## Year 8 History

## Key people

Reigning monarch

Elizabeth I (1533-1603)
The second daughter of Henry VIII. She became Queen of England in 1558 until her death in 1601. She never married and had no heir. She claimed she was 'married to England'.

## Sir Francis Drake (1540—1596)

Explorers
Drake was a ship's captain, slave trader, and explorer. He was the first Englishman to circumnavigate the globe by sea.

John Hawkins (1532-1595)
Hawkins was a sea captain, slave trader and commander of the Royal Navy. He was the first English captain to make money from selling African slaves to the Americas.

## Religious threats

## Half term 1: Elizabethan England

Key terms


Source skills

- Elizabeth was a Protestant Queen but at the start of her reign she was somewhat accepting of Catholicism. In 1559 she passed a series of religious laws to suit everybody; also known as the 'Middle Way'.
- After numerous plots against her throughout her reign, Elizabeth began to pass new laws against Catholics. In 1593 she passed a law stopping Catholics travelling more than five miles from their home and imposing huge fines for those who did not attend Protestant mass.
- Throughout her reign, the gentry began to increase in wealth and power. It was customary to display your wealth
- The gentry created large houses, like Hardwick Hall, which had symmetrical glass. This was a sign of prosperity.
- Poverty increased massively during Elizabeth's reign. The number of vagabonds rose and the public become concerned that the poor threatened law and order.
- There was some attempt to help; in 1601 the Poor Law established a tax on the wealthy to care for the poor. Instead of punishing the poor, they were helped to find jobs and given somewhere to live in workhouses
- Those that refused to work were placed in a House of Correction where they were punished.
- This became a time of discovery and wealth for privateers. Francis Drake attacked Spanish ports in South America and stole $£ 7$ million of gold; he was knighted by Elizabeth.
- Hawkins started the slave trade, by selling slaves from Africa to South America.

Year 8 History
Half term 2: The English Civil War
Source skills
Key people
Royalists

Parlia-
mentarians

## King Charles I

Charles I was king of England between 1625-1649. He believed devoutly in the Divine Right of Kings, often acting without consulting Parliament. His actions led to the start of the English Civil War, which he lost in 1649, resulting in his execution.

## John Pym

John Pym was a parliamentarian and fierce enemy of Charles I. He often criticised Charles, producing pamphlets opposing the king. He was one of 5 MPs who Charles tried to arrest in 1642.

Key terms

Cavalier Civil War

Commonwea Ith

Divine Right of Kings

Lord
Protector

New Model Army

Parliament

Roundhead
Son of Oliver Cromwell, he served as Lord
Protector after Oliver's death. He only served 9 months before giving up power to make way for the restoration of Charles II to the throne.

A supporter of King Charles I during the English Civil War

## Key events

same country i.e. Englishmen vs.
Englishmen
This is the name of England, Ireland,
Scotland and Wales from 1649 to 1660
when they were controlled by Cromwell, Lord Protector

The belief that God chooses a king therefore no man can challenge/question a king's word.
The title Oliver Cromwell took after the execution of Charles I. He had all the powers of a king, without the crown

Cromwell's well-trained, disciplined army that proved effective in battle, beating royalist forces.

A group in the UK elected by the people. They hold the power to pass laws.
A supporter of Parliament during the English Civil War

A tax traditionally collected from coastal towns. Charles demanded 'Ship Tax' from everyone.

Why did Parliament win?

Religion:

- Charles was married to a Catholic and people feared his children were being brought up as Catholics.
- Puritans dominated Parliament.
- They did not like the Catholic changes to churches by Archbishop Laud.
- The Scots opposed the introduction of a new prayer book and went to war against Charles.


## Money:

- Charles ruled without Parliament for eleven years and raised taxes without Parliament's permission.
- Charles introduced ship tax to pay for his failed war against Scotland.
- Charles was forced to pay compensation to the Scots but had limited funds.


## Power:

- Charles believed in the Divine Right of Kings - he was appointed by God.
- Charles preferred the advice of his favourite ministers to consulting with Parliament.
- Charles attempted to arrest 5 leading members of Parliament. After this failed, he fled to Nottingham to wage war against them.
- The New Model Army was introduced in 1645. Soldiers were paid and trained well and all obeyed the 'Lawes of the Model Army'.
- Parliament controlled more resources; they controlled the ports and the south of England which was richer in resources.
- Charles' army was led by his nephew Prince Rupert. Though Rupert was an excellent military leader, his soldiers were unruly and did not follow rules.


## Year 8 History

Half term 3: Age of Revolutions

John Locke
Argues that governments should have limits and people are born with certain liberties (life, health, possessions) that cannot be taken away.

## Volataire

Respect individual liberty and ensure people are given the freedom of speech.

## American

 RevolutionFrench Revolution

George Washington
Leader of American forces in the War of Independence and first President of the Unites States.

## Thomas Paine

Influential writer who wrote 'Common Sense' and 'Rights of Man' arguing for freedom and liberty.
King Louis XVI
French king who ruled an absolute
monarchy. He was seen as a weak leader who was indecisive.
Queen Marie Antoinette
Queen consort of France, Marie Antoinette was criticised for her luxurious and frivolous lifestyle. She was, however, a skilled politician.
Toussaint L'Ouverture
Former enslaved person on the island of Haiti. Leader of the Haitian Revolution who fought against French control of the island.

Republic
Absolute
monarchy
Age of Enlightenment

Aristocracy Bourgeoisie

Colony

Constitution
Constitutional
monarchy

Liberty

Plantation

Reason

Revolution

Key events

The king or queen rules with absolute power.
During this period, there was a growth in new ideas and new facts were discovered.

The upper classes of society who are both wealthy and own land.
A wealthy and intellectual 'middleclass'.
An overseas area controlled by a foreign power.
A set of rules and laws that govern how a society is run.
A state where a king rules alongside a parliament.

A persons right that they observe as a member of a society.
Slave colony that relies on the work of enslaved workers.
Thinking critically about information before forming a belief.
A country without a monarch.
Upheaval of the traditional system, generally through violent protest.

The Age of Enlightenment

An increase in new ideas spread amongst the intellectual classes, based around the ideas and notions of science.
Using the theory of reason to answer real life questions, mostly around liberty and the rights of people. Ideas of fair government become common during this period.

The 13 American Colonies were part of the British Empire. The British could govern the American colonies however they saw fit, whereas the colonies began wanting a say in their running.
The Colonies were particularly angry at the huge taxes that the British charged on things like paper and tea. They began to refuse to pay taxes, chanting "no taxation without representation". On $4^{\text {th }}$ July 1776 the 13 American Colonies signed the Declaration of Independence and began fighting the British crown for their freedom.

- Inspired by the American Revolution, the people of France began demanding reform and change. France was governed by an Autocratic ruler, Louis XVI who was seen by many to be a weak leader. His wife, Marie Antoinette, lived a luxurious and expensive lifestyle. The people of France were angry at increased taxes, which was made worse by poor harvests.
Louis XVI called a meeting of the Estates General but failed to make any real changes and lost much of his support. The Third Estate Deputies (the peasants and workers) met, making the Tennis Court Oath where they demanded change.
- The people of Paris stormed the Bastille and revolution spread through France.

Successful revolution by self-liberated enslaved people and led by former enslaved person Toussaint L'Ouverture. Ending in 1804 with the colony's independence, it is a vital moment in world history; it is the only slave revolution to end with the creation of a state. Influenced by the French Revolution, the people of Haiti wanted freedom from slavery.


## Word order:

Unlike English, in Latin the verb comes at the end of the sentence. When translating to English, we have to switch verb and place.

> Person Place Verb
> "Caecilius in horto sedet"
> "Caecilius is sitting in the garden"
"Metella in atrio sedet" - Metella is sitting in the main room "Grumio in culina coquuit" - Grumio is cooking in the kitchen "Clemens in horto laborat" - Clemens is working in the garden


## Nominative and Accusative

In Latin, the word ending changes based on whether the person/object is doing the action, or having the action done to them.

| Nominative <br> Does the action | Caecilus | Metella | Grumio |
| :---: | :---: | :---: | :---: |
| Accusative <br> Has action <br> done to it | Caecilium | Metellam | Grumionem |

"amicus Metallam salutat." - The friend greets Metella.
"Caecilius Grumionem laudat." - Caecilius praises Grumio.

|  |  | $a d$ | to |
| :---: | :---: | :---: | :---: |
|  | 0 | bibit | drinks |
|  | $\pi$ | circumspectat | looks around |
|  |  | clamat | shouts |
| $\cdots$ | $3$ | ecce! | look! |
| (1) | \& | et | and |
| + | $\dot{6}^{\circ}$ | exspectat | waits for |
| $\circlearrowleft$ | $0$ | ianua | door |
|  | $\theta$ | iratus | angry |
|  | Bin | leo | lion |
|  | - | magnus | big |
|  | $40$ | navis | ship |
|  |  | non | not |
|  | $\dot{\gamma}$ | portat | carries |
|  | $\cdots$ | respondet | replies |
|  | $\because$ | ridet | smiles/laughs |
|  | $\Theta^{\prime \prime \prime}$ | salve! | hello! |
|  |  | surgit | gets/stands up |
|  | 虎 | taberna | shop |
|  | 兄 | videt | sees |
|  | $f_{0}$ | vinum | wine |

## Year 8 Latin - Half Term 1

Stage 4

| $\begin{array}{cc} \frac{\lambda}{0} & \text { agit } \\ \frac{\text { annulus }}{\mathbf{N}} & \text { anus } \end{array}$ | does <br> ring | $\frac{\vdots}{0}$ | Ido, you do, he/she/it does <br> In Latin, it is very easy to determine who is doing an action based on the letter at the end of the verb (doing word). |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{ll} \text { N } & \text { coquit } \\ 0 & \text { cur? } \end{array}$ | why? | $\frac{1}{3}$ |  | I do (ego) [verb]-o | You do (tu) [verb]-s | He/she/it does [verb]-t |
| $\bar{e}$ | from, out of |  | Walk (ambul-) | ambulo | ambulas | ambulat |
| ēheu! | Oh dear! Oh no! |  | $\begin{aligned} & \text { Sit } \\ & \text { (sede-) } \end{aligned}$ | sedeo | sedes | sedet |
| habet | has |  | Work (labor-) | Iaboro | laboras | Laborat |
| inquit iūdex | says judge |  | Watch (spect-) | specto | spectas | spectat |
| mendax | liar |  | $\begin{gathered} \text { Run } \\ \text { (curr-) } \end{gathered}$ | curro | curris | currit |

ego in foro ambulo.
tu in foro ambulas.
Caecilius in foro ambulat.
ego in horto sedeo.
tu in horto sedes.
Metella in horto sedet.
ego in tablino scribo.
tu in tablino scribis.
mercator in tablino scribit.

It is not always necessary to include 'ego' and 'tu' in the sentence because it is clear from the word ending who is doing the action.
in foro ambulo. foro circumspectas.

- The forum is the heart of the town of Pompeii. It was used for commercial, religious and governmental purposes.

- In an age before newspapers or social media, the forum is also where Pompeiians would receive their news and announcements. Notice boards would also be used for citizens to make complaints, spread gossip and draw graffiti.
- Some of the most important buildings in Pompeii are located in the forum.



## Year 8 Latin - Half Term 2

## Stage 5

| adest | is here |
| ---: | :--- |
| adsunt | are here |
| agricola | farmers |
| audit | hears |
| cōāmor | shout/uproar |
| currit | runs |
| fäbula | play/story |
| fēmina | woman |
| hodiē | today |
| iuvenis | young man |
| meus | my/mine |
| multus | much |
| multī | many |
| optimus | very good/excellent |
| petit | makes for/attacks |
| plaudit | applauds |
| puella | girl |
| senex | old man |
| spectat | watches |
| stat | stands |
| turba | crowd |
|  |  |

Sentences which refer to more than one person or thing require a different form of the word.

| Singular | Plural |
| :---: | :---: |
| servus laborat. | servi laborant. |
| puella ridet. |  |
| mercator dormit. | percilae riddent. <br> mercatores dormiunt |
|  | Noun changes <br> to plural |
|  | Verb changes to <br> plural |

## Nouns

The person/place/thing has to change from singular to plural in the sentence. Each of the three declensions have specific endings.

| Singular | $1^{\text {st }}$ declension <br> $(-a)$ | $2^{\text {nd }}$ declension <br> $(-u s)$ | $3^{\text {rd }}$ declension |
| :---: | :---: | :---: | :---: |
| Plural | puella <br> ancilla <br> femina | servus <br> amicus <br> dominus | mercator <br> canis <br> leo |
|  | puellae <br> ancillae <br> feminae | servi <br> amici <br> domini | mercatores <br> canes <br> loenes |

## Verbs

In your sentence the verbs (doing words) have to be pluralised too. These words end in $\boldsymbol{t} \boldsymbol{t}$ if they are singular, and -nt if plural.

| Singular |  | Plural |
| :---: | :---: | :---: |
| sedet |  | sedent |
| dormit | Page 40 | dormiunt |
| ambulat |  | ambulant |

- Plays were not performed every day in Pompeii but only at special festivals. This meant there was lots of excitement about plays coming to the town.
- On the day of the play, all of Pompeii would shut down for the day; shops would close and no business took place as everyone went to watch.
- Although most people hurried to the theatre to secure seats, wealthy and important citizens had their seats reserved, right at the front of the theatre where the best seats were.
- Admission to the theatre was free as wealthy citizens often funded performances to gain popularity which would be useful in local elections.
- Most of the performance was pantomime and used masks and costumes.



## Year 8 Latin - Half Term 3

## Stage 6



## The Past Tense

When thinking about the past tense, there are two types of words; perfect and imperfect.
Perfect tense - a completed action that takes
place in the past. (e.g. Caecilius opened the door)
Imperfect tense - an action that takes place over a period of time. (e.g. Metella was sitting in the garden)

In Latin, these two tenses need to be accounted for.

|  | Singular | Plural |
| :---: | :---: | :---: |
|  | portat <br> sedet <br> audit | portant sedent audiunt |
|  | portābat <br> sedebat <br> audibat | portābant sedebant audibant |
|  | portāvit sedevit audvit | portāverunt <br> sedeverunt <br> Audverunt |

Present: Caecilius hortum intrat.

Present: servi vinum portant.
Past (imp.): servi vinum portabant
Past (perf.): servi vinum portaverunt.

Present: senex in theatrum sedet.
The old man is sat in the theatre
Past (imp.): senex in theatrum sedebat. The old man sat in the theatre. Past (perf.): senex in theqtagberugedevit. The old man was sitting in the theatre.

- Slavery was completely accepted as part of life in Ancient Rome - these slaves were not free to make their own decisions or classed as citizens in Rome.
- They did not live separately from freed people; frequently slaves lived alongside their masters in the same home.
- People usually became slaves by being captured by during war, or by pirates. Children of slaves were automatically born into slavery. Slaves came from across the Roman empire and slavery was not based on race.
- Some masters were brutal and harsh, others were kind and humane. Slaves who could read and write were valuable to their master.


## Freeing a slave

- Some slaves were freed by their masters as a sign of friendship, respect or as a reward. Freedom was also commonly given after a master's death.
- The law set out certain limits; a slave could not be freed before the age of 30 , no more than 100 slaves could be freed in a will.
- The act of freeing a slave was called manūmissiō - meaning sending from the hand.
- An ex-slave became a libertus but they did not receive the same rights as a man born free. They were still expected to pay respects to their former master and work for them for a set number of days a year.


## Year 8 Music

Ukulele Skills

| Terminology |  |
| :--- | :--- |
| Frets | How the neck of the ukulele is <br> divided up into sections. |
| Pluck | Using your fingers to play one string. |
| Strum | Using your hand to play all four <br> strings at the same time. |
| Chord | A collection of notes played <br> together. A ukulele chord would be <br> strummed. |
| Ensemble | Playing and performing as a group. |
| TAB <br> notation | A way to write guitar and ukulele <br> music down, using numbers. |
| Rhythm | The variety of long and short sounds, <br> that create patterns within music. |

## Ukulele Strings <br> Green Cats Eat Ants



How to read a chord diagram



Year 8 Music


Every Green Bus Drives Fast


## Fur Elise



Terminology
Notation
Bar
Stave
Melody
Phrasing
Pitch
Rhythm
Time signature
Accidentals
Structure
Broken chords
Style
Solo
Accuracy
Fluency
Expressagien

## How to build a chord

Use the $1^{\text {st }}, 3^{\text {rd }}$ and $5^{\text {th }}$ notes of the scale to build a basic chord.

Example: A B C D EFG
A minor chord $=A C E$

## Ludwig Van Beethoven

German composer, baptised in 1770. Died 1827.

One of the most admired and well known composers in the history of western music. His repertoire spans both the Classical and Romantic period.

## Year 8 Music

## Notation - Rhythms



## Film Music Composers

John Williams: Star Wars, Jaws, Harry Potter, ET, Jurassic Park, Indiana Jones.
Danny Elfman: Edward Scissorhands, The Simpsons, Alice in Wonderland. Hans Zimmer: Pirates of the Caribbean, Gladiator, Thax 性ion King.

## Terminology

Bar \& bar lines Score
Notation Stave
Articulation
Accuracy
Fluency
Expression
Tempo
Style
Genre
Instrumentation
Melody
Phrasing
Rhythm
Time signature

## Rules

- A basketball team can have a maximum of five players on the court.

Player substitutions can be made at any time and there is no restriction on the number of substitutions made.

- A ball can travel through dribbling or passing.

A player is no longer able to dribble with the ball once the player puts two hands on the ball. At this point, a player must either pass or shoot.
If a team wins possession back in their own half, they have ten seconds to get it into their opponent's end or a foul will be called.
An attacking team has 24 seconds from gaining possession of the ball to shoot
After the shot is taken, the clock is restarted for another 24 seconds.
After a team scores a basket, the ball is returned back to the opposition to start again.
All fouls that are committed throughout a game are to be accumulated and when a certain number is reached, the umpire will award a free throw.
Depending on where a technical foul is committed, the umpire may award a number of free throws a player will receive.
Violations can be awarded by the officials in basketball for player handling errors. These include travelling, double dribble, goal-tending and back court violation.

## Officials

During a competitive game of basketball there are two referees, a scorekeeper, timekeeper and a shot clock operator. To ensure that everybody is aware of a decision made, the referees perform a series of hand and arm signals.

## Scoring

In a game of basketball there are three clear ways to score points. If a shot is successfully scored from outside of the three-point line, three points are awarded. If a shot is successfully scored from inside of the three-point line, two points are awarded. If a team is awarded a technical foul then they will receive between one and three free shots. Each shot scored will be awarded with one point.

## Bounce Pass

A bounce pass is a short pass that enables the player to find a teammate in a crowded area. The height of the ball makes it difficult for the opposition to intercept.

## Stage one

Feet shoulder width apart in opposition, with knees bent. Place hands each side and slightly behind the ball, with the fingers comfortably spread. Hold the ball at waist level, with elbows tucked in.

## Stage two

Step in the direction of the pass, through extending your legs, back and arms. The wrist and fingers should be forced through the ball releasing it off the first and second fingers of both hands. Follow through with the arms fully extended, fingers pointing at the target and thumbs pointing to the floor.

## Chest Pass

A chest pass is a very fast and flat pass. This enables a team to move quickly up a court in a precise and accurate fashion.

## Stage one

Stand with feet shoulder width apart, on the balls of your feet with back straight and knees slightly bent. Place hands on the sides of the ball with the thumbs directly behind the ball and fingers comfortably spread. The ball should be held in front of the chest with the elbows tucked in.

## Stage two

Step in the direction of the pass by extending your legs, back and arms. Push the ball from the chest with both arms (not from one shoulder). Fingers are rotated behind the ball and the thumbs are turned down. The back of the hands face one another with the thumbs straight down.

## Stage three

Make sure the ball is released off the first and second fingers of both hands. Follow through to finish up with the arms fully extended, fingers pointing at the target and thumbs pointing to the floor. Page 4

## Jump shot

The purpose of the jump shot is to allow the shooter to take aim from a higher position and therefore prevent a defender from blocking it.

## Stage one

Place feet shoulder width apart, toes pointing straight ahead, and knees bent. Place non-shooting hand on the side of the ball and the shooting hand at the back of the ball, with the elbow tucked in. Hold the ball at chest height.

## Stage two

Extend the legs/ankles by jumping straight up. Whilst in flight, extend back, shoulders and elbow. Flex the wrist and fingers forwards and release the ball at the highest point. After release, fingers should be pointed at the target, with the palm facing down.

## Lay-up

A lay-up provides a player with the opportunity to drive at the opponent's basket, jump close to the target and release the ball safely at the backboard.

## Stage one

Dribble to the side of net. When a few metres away from the basket, hold the ball with both hands on the shooting hands side of the body. Place the nonshooting hand on the side of the ball, and shooting hand on top of the ball.

## Stage two

The last step before the lay-up jump should ensure that take off foot is opposite to the shooting hand (left foot/right hand). Flex the knee at take-off.

## Stage three

Whilst jumping, extend the shooting knee and raise the ball up. Bring the ball between the shoulder and ear. Direct the wrist and fingers straight at the basket and release the ball at the highest point. Complete the follow through with the arm up and palm facing down, and hold until the ball has reached the basket.

Year 8 PE
BADMINTON

Key terms
Backhand
Forehand
Grip
Rally

## Rules and regulations

- A game always starts at love all (0-0).
- A game is played up to 21 points; the game must be won by two clear points.
- A game always starts with a serve from the right hand box (Even).
- The serve must land beyond your opponents service line.
- All serves must be hit into the diagonal service box.
- Whoever wins the point serves next.
- You cannot hit the net with your racket or body.


## Attacking shots

- Smash shot
- Drop shot
- Net shot


## Defensive shots

- Overhead clear (played to the back of your opponents court)

Todmorden Leisure Centre Ewood Lane OL14 7DF

Brunlea Badminton Club St Peter's Centre Burnley BB11 1NG

## Year 8 PE

## Football

## Short pass

A short side foot pass enables a team to quickly pass a ball and help maintain possession. It is used for accuracy.
Move parallel to the ball and place your non-kicking foot to the side of the ball.
Keep your eye on the ball until you have it under your control.
Look up to see where is the best place to pass it.
$\square$ On selection of your pass, maintain a strong body position.
Swing your kicking foot through and strike the ball with the inside of your foot.
Aim to hit the middle of the ball to ensure it stays close to the ground.
Keep looking at your target.
Follow your kicking leg through towards the intended target.
The speed of the kicking leg will direct how hard you kick the ball.

## Long pass

A long pass is an attacking skill that allows players to switch the direction of the attack very quickly to create space, find a teammate or to catch out the opposition.
Move parallel to the ball and place your non-kicking foot to the side of the ball.
Keep your eye on the ball until you have it under your control.
Look up to see where is the best place to pass the ball.
On selection of your pass, maintain a strong body position.
Explosively bring your kicking foot through and strike the ball with laces of your football boot.
Aim to hit the middle of the ball to ensure it stays close to the ground or the lower half of the ball if you want to lift it over opposition players.
Keep looking at your target.
Follow your kicking leg through towards the intended target and your body over the ball.
The speed of the kicking leg will direct how hard you kick the ball.

## Control

Good control of the football is an essential skill to maintain possession of the ball from the opposition and, if done accurately, gives the player more time to make the correct next decision.
Keep your eye on the ball at all times
On contact with the ball, withdraw the foot slightly to take the momentum out of the ball (this is known as "cushioning").
$\square$ Aim to make contact with the middle of the ball to ensure that it stays close to the ground and does not bounce up.
$\square$ Once under control, move the ball out of your feet to allow the next decision to be made.

## Block tackle

The block tackle is an essential skill for winning the ball back in football. It is mainly used when confronting an opponent head on and it is important to complete it with good timing and technique to prevent injury or fouls.
Close down your opponent quickly but do not rush uncontrolled at them.
Try to reduce any space around you and monitor for passing options.
Stay on the balls of your feet, arms slightly out to jockey your opponent.
Keep your eye on the ball and wait for a clear view of the ball.
When you can see most of the ball, transfer your weight from your back to front foot and move the inside of your foot towards the ball.
$\square$ Maintain a strong body position.

## Throw-in

The throw-in is the legal way to restart the game if the ball has gone out of play from either of the side-lines.
Hold the ball with both hands and ensure that the thumbs are behind the ball and fingers are spread.
Hold the ball behind the head with relaxed arms and elbows bent.
Keep your feet shoulder-width apart.
$\square$ Face your target.
Lean back with both feet in contact with the ground.
$\square$ Slightly bend your knees and arch your head, neck, shoulders and trunk.
When ready, propel yourself forward and release the ball just as it passes your head.
Once the ball is released, bring your strongest leg forward and out in front of you for balance.

## Heading

The header can be an attacking or defensive skill and is used to try and win the ball when it is in the air.
Keep your eyes on the ball
$\square$ Use your forehead to make contact with the bottom of the ball for a defensive header or the top of the ball for an attacking header.
$\square$ For a defensive header, it is important to get good height and distance but for an attacking header you need power and accuracy.
$\square$ You can also use flick headers to pass to a team mate.

## Year 8 PE

## Health, Fitness and Exercise

Health can be defined as 'complete physical, mental and social wellbeing and not only the absence of illness or infirmity'. Fitness can be defined as 'the ability to meet the demands of the environment'. Exercise can be defined as 'a form of physical exercise done to improve health or fitness or both'. Adults - five sessions of thirty minutes activity per week. The activity should be physical enough to cause the adult to breathe more deeply and to begin to sweat. Children and young people - seven sessions of sixty minutes per week. At least two of these sessions should be of high intensity exercise such as running, jumping or cardiovascular based sports.

## Consequences of a sedentary lifestyle

If a person does not take part in regular physical activity, exercise or sport then they are at risk of a number of illnesses and negative effects such as weight gain or obesity; heart disease; hypertension (high blood pressure); diabetes; depression; increased risk of osteoporosis and loss of muscle tone.

## Lifestyle choices

Other lifestyle choices can affect a person's health in either a positive or negative way. For example, eating a balanced diet means a person is less likely to become ill or put on excess body fat; getting enough sleep is important for the body to rest and brain to function optimally; not smoking as this causes illnesses such as bronchitis and lung cancer and not taking recreational drugs such as alcohol as in the short term it can lead to disorientation and poor decision-making and in the long term can lead to disease.

Health related exercise

|  | Definition | Example |
| :---: | :---: | :---: |
| Body composition | The percentage of body weight which is fat, muscle and bone. | The gymnast has a lean body composition to allow them to propel themselves through the air when performing on the asymmetrical bars. |
| Cardiovascular fitness | The ability of the heart, lungs and blood to transport oxygen. | Completing a half marathon with consistent split times across all parts of the run. |
| Flexibility | The range of motion (ROM) at a joint. | A gymnast training to increase hip mobility to improve the quality of their split leap on the beam. |
| Muscular endurance | The ability to use voluntary muscles repeatedly without tiring. | A rower repeatedly pulling their oar against the water to propel the boat towards the line. |
| Strength | The amount of force a muscle can exert against a resistance. | Pushing with all one's force in a rugby scrum against the resistance of the opposite pack. |
| Agility | The ability to change the position of the body quickly and control the movement. | A badminton player moving around the court from back to front and side to side at high speed and efficiency. |
| Balance | The ability to maintain the body's centre of mass above the base of support. | A sprinter holds a perfectly still sprint start position and is ready to go into action as soon as the gun sounds. |
| Coordination | The ability to use two or more body parts together. | A trampolinist timing their arm and leg movements to perform the perfect tuck somersault. |
| Power | The ability to perform strength performances quickly. | A javelin thrower applies great force to the spear while moving their arm rapidly forwards. |
| Reaction time | The time taken to respond to a stimulus. | A boxer perceives a punch from their left and rapidly moves their head to avoid being struck. |
| Speed | The ability to put body parts into mention quickly. | A tennis player moving forwards from the baseline quickly to reach a drop shot close to the net. |

## Year 8 PE

Netball

## Rules

Players are not allowed to travel with the ball.
A team can have up to 12 players but only seven are allowed to play on court.
Defending players are unable to snatch or hit the ball out of another player's hands.
$\square$ A defending player is only allowed to stand beside the player with the ball until it has left their hands.
$\square$ A defending player must stand three feet away from the person with the ball.
$\square$ An attacking player is unable to hold the ball for more than three seconds.
$\square$ Players must remain within their designated zones.
The team retaining possession after the ball goes out of play have three seconds at the sideline to get the ball back into play.

## Officials

During a competitive game of netball there are two referees and up to two scorekeepers and timekeepers officiating

## Scoring

In a game of netball there are two clear ways to score points:

1. In open play, if a shot is successfully scored from inside the goal circle, the team gains one point.
2. If the team is awarded a technical foul then they will receive a free shot at the net. A successful shot will be awarded with one point.

## Bounce Pass

A bounce pass is a short pass that enables the player to find a teammate in a crowded area. The height of the ball makes it difficult for the opposition to reach and intercept.

## Stage one

Feet shoulder-width apart in opposition, with knees bent. Place hands each side and slightly behind the ball, with the fingers comfortably spread. Hold the ball at waist level, with elbows tucked in.

## Stage two

Step in the direction of the pass, extending the legs, back and arms. The wrist and fingers should be forced through the ball, releasing it off the first and second fingers of both hands. Follow through with the arms fully extended, fingers pointing at the target and thumbs pointing to the floor.

## Chest Pass

A chest pass is a very fast and flat pass which enables a team to move quickly up a court in a precise and accurate fashion.

## Stage one

Stand with feet shoulder width apart and on the balls of your feet, with back straight and knees slightly bent. Place hands on the sides of the ball with the thumbs directly behind the ball and fingers comfortably spread.

## Stage two

The ball should be held in front of the chest with the elbows tucked in. Step in the direction of the pass, by extending the legs, back, and arms. Push the ball from the chest with both arms (not from one shoulder). Fingers are rotated behind the ball and the thumbs are turned down.

## Stage three

The back of the hands face one another with the thumbs straight down. Make sure the ball is released off the first and second fingers of both hands. Follow through to finish up with the arms fully extended, fingers pointing at the target and thumbs pointing to the floor.

## Shoulder Pass

A shoulder pass is a very dynamic, fast and long pass which enables a team to switch positions on court very quickly to either find a player in space or break defensive screens.

## Stage one

Player's feet should be shoulder width apart in opposition. Opposite foot forward to throwing arm. Stand on balls of feet with toes pointing toward target, and knees slightly bent. Hold the ball at head height, slightly behind the head. Elbow should be at a $90^{\circ}$ angle and fingers spread behind the ball.

## Stage two

Step in the direction of the pass by transferring the body weight from back foot to front foot. Pull the arm through with the elbow leading. To follow through, fully extend your arm and wrist. Point the fingers in the same direction as the pass, with palms facing down.

## Pivoting

The pivoting action is a swivel movement that allows the player to move on a fixed axis to either pass or shoot.

## Stage one

Run towards the ball and jump by extending the legs and ankles. Keep the eyes firmly fixed on the ball. Bring the hands out in front of the body at chest height with fingers spread open and pointing up.

## Stage two

In the air catch the ball with thumbs an inch or two apart making a 'W' shape. Land on the ball of one foot on the ground. Flex the knee and ankle as the foot hits the floor.

## Stage three

Stand with knees slightly bent and the feet shoulder width apart. Bring the ball into the body to protect it. Pivot by rotating on the ball of the landing foot. Keep the upper body straight and head up. Make sure the hip of the pivoting leg is pointing in the direction the player is aiming to pass the ball in. The player can move or step with the other foot any number of times. The player is not allowed to lift the foot they are pivoting on before they release the ball.

## Year 8 Spanish Units 11\&12 - Talking about food Likes/dislikes and why Parts

| Singular |  |  |  |
| :---: | :---: | :---: | :---: |
| Me encanta [I love] <br> Me gusta mucho [l like a lot] <br> Me gusta [l like] <br> Me gusta un poco [I like a bit] <br> No me gusta [I don't like] <br> Odio [I hate] Prefiero [I prefer] | el agua [water] el arroz [rice] el café [coffee] la carne [meat] el chocolate [chocolate] la ensalada verde [green salad] la fruta [fruit] la leche [milk] la miel [honey] el pan [bread] el pescado [fish] el pollo asado [roast chicken] el queso [cheese] el zumo de fruta [fruit juice] Plural | porque es [because it is] | asqueroso/a [disgusting] delicioso /a [delicious] dulce [sweet] duro /a [tough] grasiento/a [oily, greasy] malsano/a [unhealthy] picante [spicy] $\quad$ refrescante[refreshing] rico/a [delicious] sabroso/a [tasty] sano/a [healthy] |
| Me encantan [I love] <br> Me gustan mucho [I like a lot] <br> Me gustan [l like] <br> Me gustan un poco [I like a bit] <br> No me gustan [I don't like] <br> Odio [I hate] Prefiero [I prefer] | los chocolates [chocolates] las gambas [prawns] las hamburguesas [burgers] los huevos [eggs] las manzanas [apples] las naranjas [oranges] los plátanos [bananas] los tomates [tomatoes] las verduras [vegetables] | porque son [because they are] | ```asquerosos/as [disgusting] deliciosos/as [delicious] dulces [sweet] duros/as [tough] grasientos/as [oily, greasy] malsanos/as [unhealthy] picantes [spicy] refrescantes[refreshing] ricos/as [delicious] sabrosos/as [tasty] sanos/as [healthy]``` |

## REMEMBER:

1 the adjectives above ending in 'o' change to 'a' with feminine nouns. Ex. Me gusta la carne porque es grasienta
2 however, the adjectives ending in 'e' never change when in used in the plural, all the adjectives above add an 's'. Ex.: Me gustan las verduras porque son grasientas

## Meals

Desayuno [At breakfast I eat]
Almuerzo [At lunch I eat] Meriendo [At tea time I eat] Ceno [At dinner I eat] Bebo [I drink]

## What I like/dislike

Me encantan [I love]
Me gustan mucho [l like a lot]
Me gustan [I like]
Me gustan un poco [l like a bit] No me gustan [I don't like] Odio [I hate] Prefiero [I prefer]
el agua [water] el arroz [rice] el atún [tuna fish] el café [coffee] la carne [meat] el chocolate [chocolate] la ensalada verde [green salad] la fruta [fruit] la leche [milk] la miel [honey] la paella [paella] el pescado [fish] el pollo asado [roast chicken] el queso [cheese] el salmón [salmon] el zumo de fruta [fruit juice]
los bocadillos de queso [cheese sandwiches] los calamares [squid] las gambas [prawns] las hamburguesas [burgers] las manzanas [apples] los melocotones [peaches] las naranjas [oranges] los plátanos [bananas] las salchichas [sausages] los tomates [tomatoes] las verduras [vegetables]
porque es
[because it is]
porque son
[because they are]
asqueroso/a [disgusting] agrio/a [acidic, sour] amargo/a [bitter] delicioso/a [delicious] dulce [sweet] duro/a [tough] grasiento/a [oily, greasy] ligero/a [light] jugoso/a [juicy] malsano/a [unhealthy] picante [spicy] refrescante[refreshing] rico/a en vitaminas [rich in vitamins] sabroso/a [tasty] sano/a [healthy] soso/a [bland]
asquerosos/as [disgusting] agrios/as [acidic , sour] amargos/as [bitter] deliciosos/as [delicious] dulces [sweet] duros/as [tough] grasientos/as [oily, greasy] ligeros/as [light] jugosos/as [juicy] malsanos/as [unhealthy] picantes [spicy] refrescantes[refreshing] ricos/as en vitaminas [rich in vitamins] sabrosos/as [tasty] sanos/as [healthy] sosos/as [bland]

## Year 8 Spanish Units 13\&14

-Talking about clothes Likes/dislikes and why Parts - Saying what I (and others) do in our free time

## Por lo general [usually]

Cuando hace calor [when it is hot] Cuando hace frío [when it is cold] Cuando salgo con mi novio/novia [when I go out with my boyfriend/girlfriend] Cuando salgo con mis padres [when I go out with my parents] Cuando salgo con mis amigos [when I go out with my friends] Cuando juego al fútbol [when I play football] En casa [at home] En el colegio [at school] En la discoteca [at the nightclub]
En el gimnasio [at the gym]
En la playa [at the beach]
Nunca [never]
Siempre [always]

| Ilevo [l wear] |
| :--- |
|  |
|  |
| lleva |
| [he/she wears] |


| Singular Feminine |
| :--- |
| una bufanda [a scarf] una camisa [a shirt] <br> una camiseta [a shirt] <br> una camisetas sin mangas [tank top / vest] <br> una chaqueta [a jacket] <br> una chaqueta deportiva [a sports jacket] <br> una corbata [a tie] una falda [a skirt] <br> una gorra [a baseball cap] |
| Singular Masculine |
| un abrigo [a coat] un bañador [a swimsuit] <br> un chaleco [a waistcoast] un chándal [a tracksuit] <br> un cinturón [a belt] un collar [a necklace] <br> un jersey [jumper] un reloj [a watch] <br> un sombrero [a hat] un top [a top] un traje [a suit] <br> un uniforme [a uniform] un vestido [a dress] |

## Plural Feminine

| botas [boots] pantuflas [slippers] |
| :--- |
| sandalias [sandals] |
| zapatillas de deporte [sports shoes] |
| Plural Masculine $\quad$ pantalones [trousers] |
| calcetines [socks] |
| pantalones cortos [shorts] pendientes [earrings] <br> vaqueros [jeans] zapatos [shoes] <br> zapatos de tacón [high heel shoes] |

azul [blue] blanca [white] gris [grey] amarilla [yellow] marrón [brown] naranja [orange] negra [black] roja [red] verde [green]
azul [blue] blanco [white] gris [grey] amarillo [yellow] marrón [brown] naranja [orange] negro [black] rojo [red] verde [green]
azules [blue] blancas/os [white] grises [grey] amarillas/os[yellow] marrónes [brown] naranjas [orange] negras/os [black] rojas/os [red] verdes [green]

| juego [I play] | al ajedrez [chess] al baloncesto [basketball] a las cartas [cards] al fútbol [football] al tenis [tennis] con mis amigos [with my friends] |
| :---: | :---: |
| hago [l do] | ciclismo [cycling] deporte [sport] equitación [horse riding] escalada [rock climbing] esquí [skiing] footing [jogging] natación [swimming] los deberes [homework] pesas [weights] senderismo [hiking] |
| voy [1 go] | a casa de mi amigo/a [to my friend's house] a la montaña [to the mountain] <br> a la piscina [to the pool] a la playa [to the beach] al gimnasio [tpage 54 thm] <br> al parque [to the park] al polideportivo [to the sports centre] de marcha [clubbing] |

## a menudo [often] a veces [sometimes]

casi nunca [hardly ever]
cuando hace mal tiempo [when the weather is bad] cuando hace buen tiempo [when the weather is good] dos veces por semana [twice a week] raramente [rarely] todos los días [every day]

Year 8 Spanish Units 15\&16
-Talking about weather and free time

## - Talking about my daily routine

## Cuando tengo tiempo [when I have time]

Cuando está despejado calor [when the sky is clear]
Cuando está nublado [when the sky is cloudy]
Cuando hace buen tiempo [When the weather is good] Cuando hace mal tiempo [When the weather is bad]
Cuando hace calor [when it is hot]
Cuando hace frío [when it is cold] Cuando hace sol [when it is sunny] Cuando hace viento [when it is windy]
Cuando hay niebla [when it is foggy]
Cuando hay tormentas [when there are storms]
Cuando llueve [when it rains] Cuando nieva [when it snows]
A veces [sometimes] Los días de semana [on weekdays]
Los fines de semana [at the weekends]
A eso de... [around...] A... [at]
...las cinco [5] ...las seis [6] ...las siete [7]
...las ocho y cinco [8.05] ...las ocho y diez [8.10]
...las ocho y cuarto [8.15] ...las ocho y veinte [8.20]
...las ocho y veinticinco [8.25] ...las ocho y media [8.30
...las ocho y treinta y cinco [8.35]
...las nueve menos veinte [8.40]
...las nueve menos cuarto [8.45]
...las nueve menos diez [8.50] ...las nueve menos cinco [8.55] A mediodía [12 pm]

A medianoche [12 am]



[^0]:    I will make school aware if members of our school community are not upholding our values.

