

KNOWLEDGE ORGANISERS

2021-22

YR8

HONESTY | EXCELLENCE | ACCOUNTABILITY | RESPECT | TEAMWORK



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A Guide to Using your Knowledge Organisers

What is a knowledge organiser?

In this booklet you will find knowledge organisers for every subject you study at Maddani. Your teachers have thought about **the most important key vocabulary, diagrams, information, and ideas that you need to know to understand each topic and have summarised them on one A4 sheet of paper** for you. The information has been organised into clear tables, diagrams or key points to make the knowledge organiser easy to use and to understand.

How will Knowledge organisers help you?

People remember what they have learned by thinking about it often, and by linking key knowledge to other ideas within a topic. Your knowledge organisers include the key information and ideas for the topic you are studying, so that you can think about how these ideas are linked to what you are learning in each lesson. **This means that you are thinking about these key ideas many times as you study the topic.** This will make it easier to remember what you have learned and add new knowledge each lesson

Your knowledge organisers are also useful if you have been absent because the knowledge organiser will include the key ideas from the lesson you missed. This will make it much easier to understand and catch up with the activities you need to complete independently.

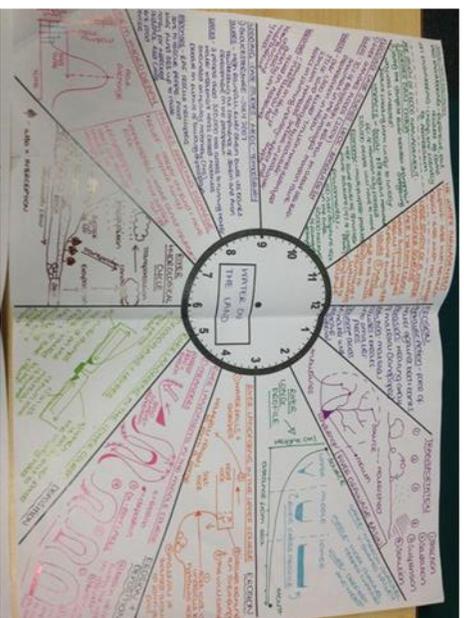
How can you use your knowledge organisers?

There are many activities that you can do using your knowledge organisers. Try some of the ones explained below:

Homework: Your teachers may assign homework linked to your knowledge organisers to help you understand key terms and ideas from the topic. This will help you prepare for your next lesson and understand the new information more clearly

Independent Research: You could do your own research to learn more about the key ideas included in your booklet

Creating more revision and learning tools: You can use the information on your knowledge organiser to create mind-maps or revision clocks. You can do this by taking the key ideas from the knowledge organiser and creating your mind-map or Round the Clock sheet (like the one shown below with 12 sections for information – just like a clock) by starting with the main ideas from your knowledge organiser and adding all the specific detail you remember from your lessons to the different sections of your mind-map or Round the Clock Diagram.



They are great for revision and testing your level of knowledge:

Test yourself: Because knowledge organisers include the key information and ideas for each topic, you can use them to help you revise for tests. You can self-quiz by covering sections of the knowledge organiser and testing yourself to see what you remember. Then uncover the information on your knowledge organiser and see if you were correct.

See how well you know the topic: Turn your knowledge organiser over and create a mind-map or write everything you know about the topic on a blank piece of paper. Then turn over the knowledge organiser and check to see if your information is correct or if there is anything that you missed. Revise it and make sure you will remember more the next time.

Create your own quizzes: Use the knowledge organiser to write your own set of questions based on the information included. Once you have a set of questions, turn the knowledge organiser over and see if you can remember the answers. Make sure you revise anything that you couldn't answer so that you will be able to next time. Try to answer the questions each week and see if you are able to remember more each time.

Create your own flashcards. For example, you could write the key terms from your knowledge organiser on one side of the card and the definition on the other. Then use the cards to quiz yourself.

Many of the key ideas you need to know for exams are on the mind-map. If it is included on the knowledge organiser your teacher thinks it is important for you to know it and you can expect it to be tested on an exam in some way.

It is important to remember that knowledge organisers don't include all the information that you need to know – only the main ideas. You can use them to help you remember the detail from your lessons.

How can your parents/carers use knowledge organisers to help you learn?

Read through the organiser with someone in your family and explain the information included in the knowledge organiser to them. Make sure you use examples and provide as much detail as you can, and then answer any questions your family member might have. Teaching someone else what you know helps you to understand the key ideas more clearly and helps you remember them more easily next time.

Ask your family to test or quiz you on the information included in the knowledge organiser. You should try to do this regularly and keep track of what you remember to see if you improve each time.

Ask your family to read out sections of the knowledge organiser to you, but to miss out key words or pieces of information and see if you can fill in the key terms or knowledge.

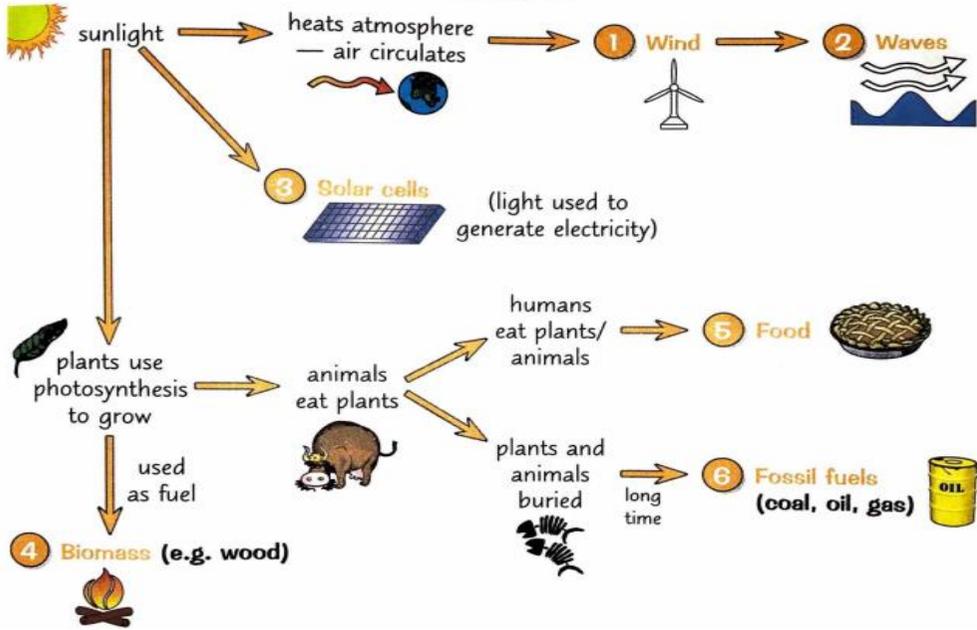
Ask your family to test you regularly on the spellings of key words until they are perfect. Make a note of the ones that you spell incorrectly to make sure that you know them next time.



Energy Resources

Six Energy Resources

The Sun supplies almost all of the energy on Earth — it is transferred to different stores before we use it.



Calculating Energy Transfers

ELECTRICAL APPLIANCE — anything that needs electricity to work.

Appliances transfer energy electrically to other stores.



POWER RATING — amount of energy an appliance transfers per second when working at its recommended maximum power.

energy transferred E Power — how fast energy is transferred. P time t

Equation	$E = P \times t$		
Units	joules, J kilowatt-hours, kWh	watts, W kilowatts, kW	seconds, s hours, h

You could use either of these sets of units in the equation.

Electricity at Home

Electricity meters record amount of energy transferred in kWh.

4 4 2 8 1 . 2 5 kWh

energy transferred in a time period =
meter reading at end — meter reading at start



This is then used to calculate fuel bills.

$$\text{cost} = E \times \text{price}$$

energy transferred in kWh (above E)
per kWh (below price)

Appliances with higher power ratings cost more to run — they transfer more energy in a set time period.

Renewable and Non-Renewable Resources

We use energy resources for things such as:

generating electricity heating transport

NON-RENEWABLE RESOURCES	Energy resources that will run out one day.	E.g. fossil fuels (take too long to replenish)
RENEWABLE RESOURCES	Energy resources that will never run out.	E.g. solar energy, wind, waves, plants

One problem with renewable resources is unreliability — e.g. it's not always windy or sunny.

Energy in Food



All food contains energy — we need to take in the right amount of energy each day.

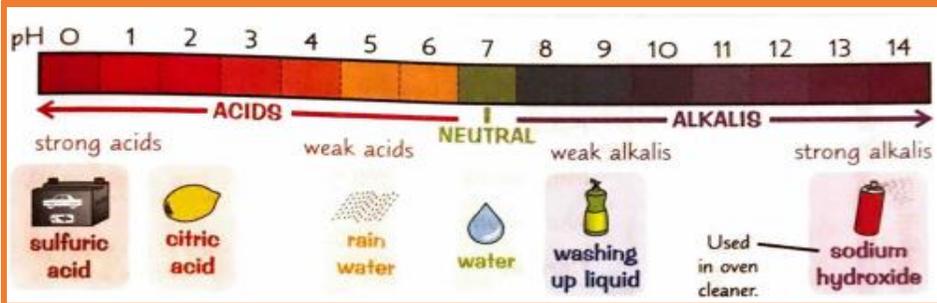


Food labels tell you how much energy is in the food, measured in kJ.

You might also see food labels that give energy in kcals — that's just a different unit.

You can use this information to compare different foods.

The pH Scale

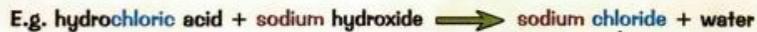


Neutralisation Resources

Neutralisation Reactions



The products of neutralisation reactions are neutral.

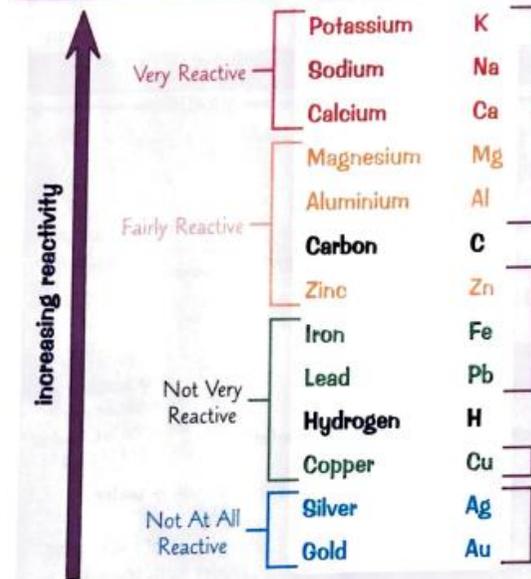


First part of salt's name comes from the metal in the alkali.

Second part of salt's name comes from the acid.

The Reactivity Series

The Reactivity Series



Ores are rocks containing metals and metal compounds — usually metal oxides.

Extracted from their ores by electrolysis (where electricity splits up the ore into its elements).

When an ore is reduced, oxygen is removed from it.

Extracted from their ores by reduction using carbon.

Found in the earth in their pure form.

Two types of Indicator

INDICATOR — something that changes colour depending on whether it's in an acid or an alkali.

1 Litmus Paper

Acids turn litmus paper red.
Alkalis turn litmus paper blue.

2 Universal indicator — gives the range of colours shown on the pH scale.

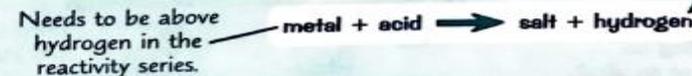
Universal indicator can be used by adding a few drops into a solution.

Four Steps for Making Salts



Reactions of Metals with Acid

Reactions of Metals with Acids



Test for hydrogen using a lit splint.

increasing reactivity →										
Au	Ag	Cu	Pb	Fe	Zn	Al	Mg	Ca	Na	K
no reaction			moderate reaction				violent reaction			
no pop			squeak				POPI			
dilute acid			steady bubbling				fast bubbling			
metal			metal				metal			

Mean, median, mode and range

For the data points: 3, 3, 3, 7, 8, 9, 9

The **mode** is the most common data point: 3

The **median** is the middle number (Once you've lined them up from smallest to largest): 7
There are three numbers to the left of 7 and three numbers to the right, so 7 is the median.

To find the **mean**, you divide the total by the number of data points:
 $3 + 3 + 3 + 7 + 9 + 9 + 10 = 42$
 $42 \div 7 = 6$, so the mean is 6.

The mean is the total shared between each data point. In the example above, it is like saying that 7 friends have a total of £42, so they each have about £6 on average. However it does not tell us how the much the amounts vary from each other. For that we need to find the range.

The **range** is the difference between the smallest and largest data point: $9 - 3 = 6$ so the range is 6. The range is not an average, but a measure of the spread or consistency of the data.

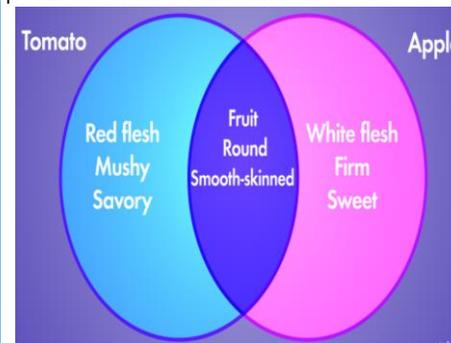
Estimating the mean from a table with groups data

Column 2		Column 4	
Amount spent, m, (£)	Frequency	Midpoint	F x MP
$0 < m \leq 5$	4	2.5	$2.5 \times 4 = 10$
$5 < m \leq 10$	12		
$10 < m \leq 15$	26		
$15 < m \leq 20$	8		

- Find the midpoint of each class interval.
- Multiply the midpoint by the frequency.
- Add up the totals in column 2 and column 4.
- To estimate the mean, divide the total of column 4 by the total of column 2.

Venn Diagram

The objects in the intersection of a **Venn diagram** share the characteristics of both sets. The objects outside the Venn diagram have neither characteristic. We use Venn diagrams to help calculate probabilities of events.



Probability

Probability is a measure of how high likely it is that an event will take place. It is measured by

$$\frac{\text{number of suitable outcomes}}{\text{number of possible outcomes}}$$

For example, the probability of rolling a 5 on a fair six-sided dice is $\frac{1}{6}$ as there is one number five out of six possible outcomes.

Relative Frequency

Relative frequency is the frequency relative to the total. It can be written as a decimal, percentage or a fraction.

For example, the table below shows the relative frequency of 40 chocolates in a set.

x	f	Relative frequency
dark	10	$\frac{10}{40} = 0.25 = 25\%$
milk	21	$\frac{21}{40} = 0.525 = 52.5\%$
white	9	$\frac{9}{40} = 0.225 = 22.5\%$

Expectation

Expectation is how often you would expect an event to occur, based on its probability. For example, you would expect a fair dice to land on five, $\frac{1}{6}$ of the times it is thrown. If you throw the dice 120 times, you would expect it to land on a five, $\frac{1}{6}$ of 120 times, which equals 20 times in total. The real number should therefore be close to 20.

Topic

Algorithms

Pattern Recognition

Finding patterns is extremely important. Patterns make our task simpler. Problems are easier to solve when they share patterns, because we can use the same problem-solving solution wherever the pattern exists. The more patterns we can find, the easier and quicker our overall task of problem solving will be.



Source: Sooth Sayer Analytics, <https://soothsayeranalytics.com/wp-content/uploads/2019/02/pattern-recognition-header.jpg>

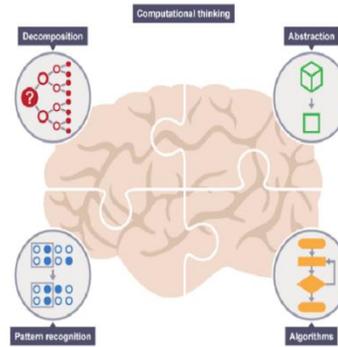
Computational Thinking

Decomposition - breaking down a complex problem or system into smaller, more manageable parts

Pattern Recognition - looking for similarities among and within problems

Abstraction - focusing on the important information only, ignoring irrelevant detail

Algorithms - developing a step-by-step solution to the problem, or the rules to follow to solve the problem



Computational thinking involves taking that complex problem and breaking it down into a series of small, more manageable problems (**decomposition**). Each of these smaller problems can then be looked at individually, considering how similar problems have been solved previously (**pattern recognition**) and focusing only on the important details, while ignoring irrelevant information (**abstraction**). Next, simple steps or rules to solve each of the smaller problems can be designed (**algorithms**).

Finally, these simple steps or rules are used to **program** a computer to help solve the complex problem in the best way.

Source: BBC Bitesize, <https://www.bbc.co.uk/bitesize/guides/zp92mp3/revision/1>

Boolean Operators

Operator Symbol	Operator Meaning
>	greater than
<	less than
=	equal to
>=	greater than or equal to
<=	less than or equal to
<>	not equal to

Mathematical Operators

Operator Symbol	Operator Meaning
+	Addition
-	Subtraction
*	Multiplication
/	Division

Abstraction

Abstraction involves filtering out – essentially, ignoring - the characteristics that we don't need in order to concentrate on those that we do.

An example of abstraction is the London Underground map. It details tube and rail lines and the stations that are on them. That is all that is required for a passenger to be able to plan a journey from one station to another. Other details, such as real geographical location, distance between stations, depth underground and number of platforms are not included as they are irrelevant to journey planning on the Underground.



Source: BBC Bitesize, <https://www.bbc.co.uk/bitesize/guides/z4rfbc6/revision/3>

Decomposition

Decomposition involves breaking down a complex problem or system into smaller parts that are more manageable and easier to understand. The smaller parts can then be examined and solved, or designed individually, as they are simpler to work with.

For example, a police officer would need to know the answer to a series of smaller problems:

- what crime was committed
 - when the crime was committed
 - where the crime was committed
 - what evidence there is
 - if there were any witnesses
 - if there have recently been any similar crimes
- The complex problem of the committed crime has now been broken down into simpler problems that can be examined individually, in detail.

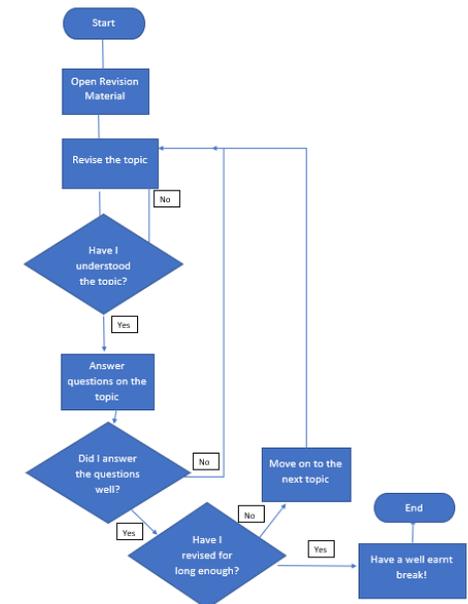


Source: BBC Bitesize, <https://www.bbc.co.uk/bitesize/guides/zaqfyrd/revision/2>

Flow Diagrams

A flow diagram is a diagram that shows an overview of a program. Flow diagrams normally use standard symbols to represent the different types of instruction. These symbols are used to construct the flowchart and show the step-by-step solution to the problem. Flow diagrams are sometimes known as flowcharts.

Symbol	Name	Function
	Start/end	An oval represents the start or end point
	Arrows	Lines show the relationship between different representative symbols
	Input/ Output	A parallelogram represents input or output
	Process	A rectangle represents a process
	Decision	A diamond indicates a decision



Context– A Christmas Carol was written by Charles Dickens in 1843

Charles Dickens – Charles Dicken was born in 1812 and spent the first years of his life in Kent, England. At 9, he moved to London. At 12, his father was sent to debtors' prison for racking up huge debts, and Charles was given a painful job labelling bottles near the prison. He found this period in his life hellish, and it doubtlessly led him to draw readers' attention to the plight of the poor when he later found success as an author. Many of his works are about social hardships and inequalities.



Class Divides – Despite industrial changes altering the social landscape, there were still relatively distinct social classes in operation: the nobility upper class, the middle class, and the working class. Life was terrible for the poorest: Lack of money resulted in a negligible food supply. For some working families, money was so tight that they required their children to work in order to survive.



The Victorian Era– The Victorian era describes the period in which Queen Victoria sat on the English throne – between 1837 and 1901 (most of Dickens' life). Whilst this was a time of industrial revolution, it was also an extremely harsh time to live, and the differences between the lives of the richest and the poorest were exacerbated. The Victorian era was a period of great change. In this time, the population of England doubled – from 16.8 million 1851 to over 30 million in 1901.



Health and Medicine –Healthcare was more of a luxury at the time, and medicine was nowhere near as advanced today, Many diseases were rife, and childbirth and poverty were very real dangers to people living in the era. As a result, a middle class person may expect to live to 45 at the time, whereas a working class person would have been lucky to have lived half that time. In *A Christmas Carol*, the restrictions in healthcare are evident in Tiny Tim's continued suffering.



Workhouses– A workhouse was a place where a person went if they could not afford to financial support themselves and their families. Men , women and children (mostly orphans) lived and worked in the workhouses, which were very crowded – making living conditions unhealthy and unpleasant. People slept in dormitories, where disease was easily spread. In *A Christmas Carol*, Scrooge voices his support for workhouses.



Christmas– We now associate Christmas as being a time of seasonal goodwill, love and friendship. However, before the Victorian era, when writers such as Dickens spread these messages through their novels, there was no Santa Claus, Christmas cards, and no holidays from work! Christmas Day was a far more low-key affair. Writers such as Dickens encouraged middle-class families to share their wealth and act selflessly.



Main Characters – Consider what Dickens intended through his characterisation of each of the below...

Ebenezer Scrooge – Scrooge is the lead protagonist of the novella. He is a miserly owner of a counting house (what would now be called an accountant's office). Initially greedy, selfish and cold, Scrooge hates Christmas and lacks any form of Christmas spirit. He experiences a moral and psychological transformation through his visits from the Ghosts of Christmases Past, Present and Yet to Come.

Quote: "It's enough for a man to understand his own business"

Jacob Marley and Fred– Joseph Marley is Scrooge's late business partner, and Fred is Scrooge's nephew. They represent the two extremes of Christmas spirit. Joseph Marley symbolises the limitations of a life-lived focused on greed and selfishness, whilst Fred's life appears fulfilled through his perpetual joy, kindness and interactions with others. After his death, Joseph Marley has been condemned to wander the world as a miserable ghost.

Quote: "you have yet a chance and hope of escaping my fate."

The Ghost of Christmas Present – The Ghost of Christmas Present is the second of the three ghosts to visit Scrooge. He is a majestic jolly giant, who is dressed in a green robe. His lifespan is restricted to Christmas Day, and he has 'over 1800 brothers', representative of the other Christmas Days that were once in the present. He escorts Scrooge on a tour of how his contemporaries spend Christmas day, to force him to contemplate his own solitary existence. He also shows him the need to consider 'Want' and 'Ignorance.'

Old Major Quote: ""Come in! and know me better, man!"

The Cratchits– Bob Cratchit is Scrooge's kind, mild-mannered clerk, who is treated terribly by his employer. He is a very poor man, with a large family, including Tiny Tim. Tiny Tim is a young boy who has been born with physical disabilities that his family are too poor to have treated. Despite these hardships, the family are cheery and determined to enjoy the few positives that they can get from life.

Quote: "I am sure we shall none of us forget poor Tiny Tim"

The Ghost of Christmas Past – This is the first spirit to visit Scrooge. He is a curious child-like figure that has an illuminated head, symbolising how shining a light on memories from the past can be used to illuminate one's thoughts and behaviours in the future. The Ghost of Christmas Past takes Scrooge to a number of places from his childhood and early adulthood, including his old school, hometown, and the scene of his engagement being broken off.

Quote: "Strange to have forgotten it for so many years!"

The Ghost of Christmas Yet to Come – The Ghost of Christmas Yet to Come is the third and final spirit to visit Scrooge. He is a silent phantom that is clad in robes (he rather resembles common characterisations of 'Death'). He presents Scrooge with an ominous view of his own death: the only people who his death remotely affects are those he owes money to (who are relieved), those who can make money from him (such as those dealing with his estate) and those who he could have saved (Tiny Tim).

Quote: "The Spirit answered not, but pointed onward with its hand.'

Dickens' Literary Devices

Simile	This gives the reader a better image of characters and places, e. g Scrooge described as 'hard and sharp as a flint.'
Clear Narrative Viewpoint	The narrator gives views to tell the reader how to think – e.g. Scrooge was a 'tight-fisted hand at the grindstone.'
Metaphor	Used to represent deeper meanings and ideas. For example, the children 'Want' and 'Ignorance' represent the poor in society.
Personification	To emphasise the atmosphere of places and settings: e.g. 'the crisp air laughed to hear it.'

Scene-by-Scene Summary – Alongside key quotations from each scene.

STAVE 1	It is a foggy Christmas Eve, and Scrooge is working in his counting house. He refuses to buy another lump of coal to heat Bob Cratchit's (his clerk's) office. Scrooge's cheerful nephew, Fred, enters, inviting Scrooge to Christmas party, but he declines. After he leaves, two gentlemen enter, asking if Scrooge is willing to make a charitable donation to the poor. Scrooge again declines. He begrudgingly gives Bob Cratchit the day off. Scrooge follows his usual routine on the way home. At home, he sees the ghost of his old business partner (Jacob Marley) in the knocker. Marley is in chains as punishment for his selfishness and greed when living. He says that he seeks to save Scrooge from the same fate, and hence Scrooge will be visited by 3 ghosts over the next 3 nights.	"Marley was dead: to begin with. There is no doubt whatever about that. The register of his burial was signed by the clergyman, the clerk, the undertaker, and the chief mourner. Scrooge signed it."
STAVE 2	Scrooge is confused to wake at midnight, as it was after 2am when he went to sleep. At one o'clock, Scrooge is visited by a strange child-like figure that emanates wisdom – The Ghost of Christmas Past. The spirit touches Scrooge's heart, granting the power to fly. The ghost takes Scrooge back to where he was raised – Scrooge is touched by memories of his childhood. He sees himself as a schoolboy spending Christmas alone, being visited by his sister, being at a party held by Scrooge's old boss Fezziwig, and with his old partner Belle, who is breaking off their engagement on account of his greed. He sees Belle in a more modern time, with her husband, discussing how Scrooge is now 'quite alone in the world.' Scrooge is upset by the visions, and begs with the ghost to take him back home. Scrooge finds himself back in his bedroom, where he once again falls asleep almost instantly.	"But the strangest thing about it was, that from the crown of its head there sprung a bright clear jet of light, by which all this was visible; and which was doubtless the occasion of its using, in its duller moments, a great extinguisher for a cap, which it now held under its arm."
STAVE 3	The bell strikes one, and Scrooge is awake once more. At fifteen minutes past one, he wanders into the next room, where he finds the Ghost of Christmas Present waiting for him. He is a majestic jolly giant, and sits atop of a mountain of food. The spirit takes Scrooge to the bustling streets on Christmas morning, where passers-by joyfully greet each other. The spirit then takes Scrooge to the home of Bob Cratchit, where the family savour the Christmas that they can afford. Their visibly-ill son, Tiny Tim, is cheering despite his ailments. Scrooge begs to know whether he will survive. They also visit Fred's Christmas party, which Scrooge enjoys (though no one can see him). Eventually, Scrooge is brought to a vast expanse, where two sickly children, 'Want' and 'Ignorance' emerge. When Scrooge asks if there is anything that can be done, the spirit mocks his prior selfishness.	"Its dark brown curls were long and free; free as its genial face, its sparkling eye, its open hand, its cheery voice, its unconstrained demeanour, and its joyful air."
STAVE 4	Scrooge is approached by a hooded phantom. The spirit is silent, and Scrooge is terrified by him. Scrooge pleads with him to provide his next lesson. The ghost takes him to the stock exchange, where men discuss the accounts of a rich man, a dingy pawn shop, where the rich man's stolen goods are being sold, and the Cratchit household, where the family struggles with the death of Tiny Tim. Scrooge is then taken to a freshly dug grave in a graveyard. The gravestone reveals that it is his own grave. Appalled, Scrooge begs with the spirit to give him another chance to show that he has learnt his lesson. The phantom begins to tremble and disappears, and once again Scrooge finds himself in the relative safety of his own bed.	I fear you more than any spectre I have seen. But as I know your purpose is to do me good, and as I hope to live to be another man from what I was, I am prepared to bear your company, and do it with a thankful heart"
STAVE 5	Scrooge realises that he has been returned to Christmas morning, and is utterly overjoyed. He pays the first boy that he meets a huge sum to deliver a great big turkey to Bob Cratchit's household. He bumps into the gentlemen collecting for charity, apologises for his prior behaviour, and promises to donate lots of money to the poor. He attends Fred's party and is so happy and kind that the other guests can barely believe his behaviour. The next morning, he pretends to scold Bob Cratchit for arriving late, before promising to give him a large raise and to care for his family. As time passes by, he stays true to his word – he helps the Cratchits and becomes like a second father to Tiny Tim, who does not die. Scrooge brings Christmas cheer to every day, and shrugs off the doubts that others have about his changed behaviour. The narrator concludes by suggesting that Scrooge's changed attitude and behaviour should be shared by everyone.	"He had no further intercourse with Spirits, but lived upon the Total Abstinence Principle, ever afterwards; and it was always said of him, that he knew how to keep Christmas well, if any man alive possessed the knowledge....God bless us all, every one!"

Themes – A theme is an idea or message that runs throughout a text.

Greed and Selfishness – Characters such as Scrooge represent the selfish middle classes, who sought to amass, rather than share their wealth. Jacob Marley demonstrates the burden that such a selfish life will inevitably bring. Through these characters and the events of the novel, Dickens criticises how wealth had become associated with the root of happiness, at the expense of close relationships and goodwill.

Divisions – Divisions are evident throughout the novel, as those with power and money seek simply to exert and recycle their advantages over those without (rather than aiding them). The book shines a light on the plight faced by poor families such as the Cratchits, which demonises the negative attitudes towards the poor held by the rich.

Transformation – Physical transformations are evident throughout *A Christmas Carol*, as objects, settings, and characters appear and vanish under the manipulation of the ghosts. Spiritual transformations take place too, as the reader witnesses a lonely boy's transformation into an embittered old man, and the efforts made to transform his character to reconnect with those around him.

Time – Time is stretched by the ghosts – the events that Scrooge experiences appear to have taken days, and yet all takes place in the space of one night. A race against time is also taking place, as the spirits work to prevent Scrooge (and in turn, Tiny Tim) from experiencing their fateful demise. The reader is taught to value the time that we have, and use it to spread happiness to others.

Structural Features

Five Staves – The story is set out in five Staves – a structure that mimics musical organization – the opening sets the scene, the middle is the turning point, and the last stave concludes.

Surface Level Story – A literal story that works on a surface level, e.g. The story of one cruel and harsh man being visited by ghosts who teach him a lesson, making him kind and compassionate.

Symbolic Level Story – A deeper, more hidden meaning to the story, e.g. There exists a selfish society, who needs to heed this warning, in order to become more caring.

The Number 3 – Scrooge is visited by 3 ghosts: Past, Present, and Yet to Come. This is a common feature in magical fairy stories: e.g. 3 wishes, 3 choices etc. This adds to the mystical feel of the novella.

Learning Objectives

By the end of the term, I can communicate (talk, ask and answer) about:

- Television programmes
- Film genres
- Review a film
- Reading preferences

Grammar Objectives

I will be able to understand and apply rules about:

- Direct object pronouns
- Faire+ infinitive and rendre + adjective
- Use of ce que
- Opinions in the past
- 'Verb + infinitive' structures

Key Grammar

Direct object pronouns

le	it (masculine)	les	them
la	it (feminine)		
l'	it (before vowel)		

J'aime **les documentaires**.
→ Je **les** aime.

I like **documentaries**.
→ I like **them**.

Verbs followed by an infinitive

Verbs of preference such as *aimer, adorer, préférer* and *détester* are often followed by an infinitive:

J'adore lire les romans comiques. – I love to read comic novels.

Je déteste lire les romans de science-fiction. – I hate reading science-fiction novels.

Ce que

Use *ce que* to make your opinions more interesting and complex! Instead of saying *J'aime le rock* (I like rock music), say: *Ce que j'aime, c'est le rock* (What I like is rock music).

Opinions in the past

The perfect and the imperfect are both past tenses:

- Use the **perfect tense** for completed actions in the past:

J'ai vu un film. – I saw a film.

Je l'ai aimé. – I liked it.

- Use the **imperfect tense** for descriptions in the past: *C'était fantastique.* – It was fantastic.

Faire + infinitive, rendre + adjective

Ça me fait danser. – It makes me dance.

Ça me rend triste. – It makes me sad.

Television

Qu'est-ce que tu aimes/ n'aimes pas regarder à la télé? What do you like/not like to watch on TV?

J'aime (bien/beaucoup) ... I like ... (very much/a lot).

Je n'aime pas (du tout)/ Je déteste ... I don't like ... (at all)/I hate ...

les comédies comedies

les dessins animés cartoons

les documentaires documentaries

les émissions musicales music programmes

les émissions de sport sports programmes

les émissions de télé-réalité reality tv programmes

les jeux télévisés game shows

les séries series

Je les aime/adore/déteste. I like/love/hate them.

Je ne les aime pas. I don't like them.

Ça dépend. It depends.

Je les trouve ... I find them ...

amusant(e)s. funny.

intéressant(e)s. interesting.

divertissant(e)s. entertaining.

enfantin(e)s. childish.

ennuyeux/ennuyeuses. boring.

éducatifs/éducatives. educational.

nuls/nulles. rubbish.

Books

Qu'est-ce que tu aimes lire? What do you like reading?

J'aime/Je préfère lire ... I like/I prefer to read

...

Je n'aime pas/Je déteste lire ... I don't like/I hate reading ...

les (auto)biographies (auto)biographies

la littérature non-romanesque non-fiction

les romans d'amour love stories, romances

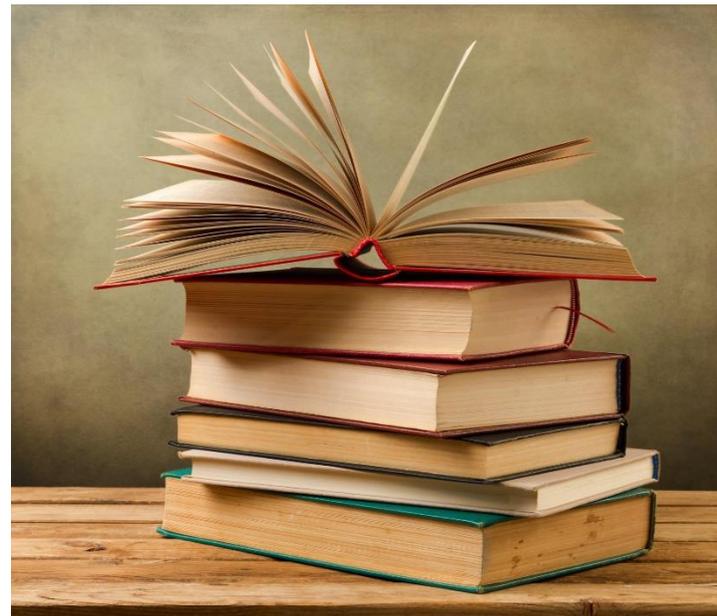
les romans d'aventure adventure novels

les romans comiques comedies

les romans historiques historical novels

les romans d'horreur horror novels

les romans de science-fiction science fiction



Connectives

mais but

parce que/car because

par contre/en revanche on the other hand

cependant/pourtant however

Model Text

Qu'est-ce que tu aimes regarder à la télé ?	Salut ! J'aime bien regarder les émissions de sport parce que je les trouve très divertissants. En revanche...	Hi ! I like to watch sports shows because I find them very entertaining. However...
Qu'est-ce que tu n'aimes pas regarder à la télé ?	Je n'aime pas du tout les dessins animés car je les trouve un peu enfantins.	I don't like cartoons at all as I find them a bit childish.
Parle d'un film que tu as vu récemment ?	J'ai vu un film d'action au cinéma qui s'appelait « Jumanji ». L'action se déroule dans la jungle. Il y a quatre personnages principaux. Je l'ai aimé parce que c'était passionnant. Je le recommande.	I saw an action film at the cinema called "Jumanji". It takes place in the jungle. There are 4 main characters. I liked it because it was exciting. I recommend it.
Qu'est-ce que tu aimes lire ?	J'adore lire la littérature non-romanesque parce que j'aime apprendre.	I like to read non-fiction books because I like to learn.
Parle d'un de tes livres préférés ?	Un de mes livres préférés s'appelle <i>Cheval de Guerre</i> écrit par Michael Murpurgo. J'ai lu <i>Cheval de Guerre</i> sur ma liseuse en vacances l'année dernière. C'était très émouvant. <i>Cheval de Guerre</i> , c'est un roman de guerre et un roman historique aussi.	One of my favourite books is called <i>War Horse</i> written by Michael Murpurgo. I read <i>War Horse</i> on my e-reader on holiday last year. It was very moving. <i>War Horse</i> is a war novel and a historical novel also.
Qu'est ce que tu vas regarder et lire ensuite ?	Le weekend prochain je vais regarder un film d'horreur à la télé avec ma famille parce qu'on aime les films effrayants. Ensuite je vais lire <i>Soldat Peaceful</i> de Michael Murpurgo, c'est mon auteur préféré.	Next weekend I am going to watch a horror film on TV with my family because we like scary films. Then I am going to read <i>Private Peaceful</i> by Michael Murpurgo, (he) it is my favourite author.

Cinema

Quel dernier film as-tu vu? What was the last film you saw?	
J'ai vu ...	I saw ...
un film d'action	an action film
un film d'arts martiaux	a martial arts film
un film comique	a comedy
un film d'horreur	a horror film
un film romantique	a romantic film
un film de science-fiction	a science-fiction film
un film à suspense	a thriller
un western	a western
au cinéma/en DVD	at the cinema/on DVD
en streaming	streamed (on the Internet)
à la télé	on TV
Je l'ai aimé/adoré/détesté.	I liked/loved/hated it.
Je ne l'ai pas aimé.	I didn't like it.
C'était ...	It was ...
Je (ne) le recommande (pas).	I (don't) recommend it.



Handball Skills

Hands:

- passing - right and left hand, short, long, stationary, on the move
- catching - one handed, two handed, static, on the move
- control - stability in performance of skills, footwork - running pass, running shot,
- evasion - feints with and without a ball, shooting - standing shot
- defending - blocking, interceptions, man to man,

Handball-Use of Skills In Game Situations

Head:

- contribution to open play: e.g. moving up court, moving into space, creating space, interceptions in attack and defence
- decision making; making correct decision to use techniques as appropriate contribution to strategy and tactics
- demonstrating communication and influence on team performance



Basketball Skills

Hands:

- passing – chest and bounce pass
- shooting – lay-up, set shot
- dribbling – either hand, changes of direction
- rebounding
- footwork – pivot

Basketball – Use of skills in a game situation

Head:

- Half court defence
- Out of bounds
- Decision making



Invasion Games: Football | Rugby | Basketball | Handball

1-2	3-4	5-6	7-8-9
<p>I can identify some reasons for needing to complete a warm up by myself</p> <p>Use some simple tactics</p> <p>I am beginning to understand why we have rules in sport.</p>	<p>I can lead a warm up to a partner</p> <p>I can identify and describe tactics in some sporting activities. I understand techniques, which can help me to improve my own performance.</p> <p>Make suggestions on how to improve my performance and provide some feedback to others</p>	<p>I can take responsibility for leading a small group warm up.</p> <p>I can apply my knowledge of rules and tactics of several different sports. I can give feedback to my peers and teams overall performance.</p> <p>I can apply my knowledge of skills and techniques and this improves my own and others practical performance.</p>	<p>I can describe how the body adapts and benefits from regular exercise.</p> <p>I can lead and officiate matches showing a good understanding of the rules.</p> <p>I can analyse performance of myself and peer in order to improve skills, techniques</p>
<p>Works cooperatively with others in lessons</p> <p>I can lead my own warm up</p> <p>I know how to respect equipment and others.</p>	<p>I can demonstrate confidence and understand effective communication within discussions and activities.</p> <p>Confidently leads a small group warm up</p> <p>I can demonstrate leadership of a small group of peers with some confidence.</p>	<p>Provides constructive feedback to others</p> <p>I am hard working, resilient and eagerly accept challenges.</p> <p>Can lead a warm up to a larger group</p> <p>I can confidently lead a group of people, applying a variety of roles: official, coach, teacher and captain.</p>	<p>Consistently works independently with others</p> <p>Takes the initiative to lead when officiating, or leading activities</p> <p>I am confident and competent when leading large groups of performers.</p> <p>I often inspire others to participate and progress in sporting activity.</p>
<p>I can demonstrate with some accuracy and success basic skills across a variety of activities in practice.</p> <p>There are times I make the correct decision about whether to pass/shoot/dribble</p> <p>Can exercise for short periods of time</p>	<p>I can demonstrate with some accuracy and success basic skills and tactics across a variety of activities in moderately pressured practice situations.</p> <p>I sometimes make the correct decision about whether to pass/shoot/dribble</p> <p>Can exercise for longer periods of time</p>	<p>I can demonstrate with some accuracy and success more complex skills and tactics across a variety of sports in competitive situations.</p> <p>I often make the correct decision about whether to pass/shoot/dribble</p> <p>Can exercise for longer periods of time and still use the correct techniques</p>	<p>I can demonstrate, with consistent accuracy and success, a range of complex skills and tactics in challenging situations.</p> <p>I nearly always make the correct decision, about whether to pass/shoot/dribble, even when under pressure</p> <p>Can exercise for sustained periods of time, whilst performing at a high level</p>

Topic

Hobbies الهوايات

Key Words

Always دَائِمًا
Usually عَادَةً
Often كَثِيرًا
Generally عَامَّةً
Sometimes أحيانًا
Rarely نَادِرًا
Never أَبَدًا

Writing Template

اسْمِي خَالِدٌ، هَوَايَتِي الْمَفْضَلَةُ هِيَ لَعِبُ كُرَةِ السَّلَّةِ، أَنَا أَلْعَبُ كُرَةَ السَّلَّةِ ثَلَاثَ مَرَّاتٍ فِي الْأَسْبُوعِ، فِي يَوْمِ الْإِثْنَيْنِ أَلْعَبُ فِي الْمَدْرَسَةِ مَعَ زُمْلَانِي، وَفِي يَوْمِ الْأَرْبَعَاءِ أَلْعَبُ فِي السَّاعَةِ الثَّامِنَةِ مَعَ جِيرَانِي، وَفِي يَوْمِ السَّبْتِ فِي السَّاعَةِ التَّاسِعَةِ صَبَاحًا مَعَ أَخِي وَأَصْدِقَائِهِ، أَخِي لَاعِبٌ مُمْتَازٌ، أحيانًا أَلْعَبُ كُرَةَ الْقَدَمِ فِي الْمَدْرَسَةِ، وَلَا أَلْعَبُ كِرِكِتَ أَبَدًا لِأَنَّهُ مُمِلٌّ جَدًّا

Key Concepts

Identify and discuss hobbies

Verbs

I play أَلْعَبُ
I ride أَرْكَبُ
I practice أَمَارِسُ
I study أَطْلَعُ
I read أَقْرَأُ
I watch أَشَاهِدُ
I listen to أَسْتَمِعُ إِلَى
I swim أَسْبِحُ
I visit أُرُورُ
I browse أَتَصَفَّحُ
I go to أَدْهَبُ إِلَى

Days

في يَوْمِ الْأَحَدِ
في يَوْمِ الْإِثْنَيْنِ
في يَوْمِ الثَّلَاثَاءِ
في يَوْمِ الْأَرْبَعَاءِ
في يَوْمِ الْخَمِيسِ
في يَوْمِ الْجُمُعَةِ
في يَوْمِ السَّبْتِ

Points to think about

- What is your hobby?
- How often do you carry it out?
- Can you add days and times in there?
- With whom?
- Can you give opinions about hobbies/sports that you like or dislike?

Times

في السَّاعَةِ الْوَّاحِدَةِ
في السَّاعَةِ الثَّانِيَةِ
في السَّاعَةِ الثَّلَاثَةِ
في السَّاعَةِ الرَّابِعَةِ

Sentence Starters

في وَفْتِ فَرَاغِي
My favourite hobby هَوَايَتِي الْمَفْضَلَةُ
is
في نَهَايَةِ الْأَسْبُوعِ
In the holidays فِي الْعُطَلَاتِ



Development

Development in geography is the continued improvement in quality of life. - Quality of life is often defined as "health, wealth and education". - A country's development often depends on its wealth. Therefore, in geography we refer to countries as low income countries (LICs), high income countries (HICs) and newly industrialised countries (NICs). - A country may be classed as a HIC, a LIC, or a NIC but there can still be disparity within a country or even with a town or city.

Factors Affecting Development

Economic factors:

- The products countries sell
- Businesses which are willing to invest in the country.
- International debt

Environmental factors:

- The climate of a country
- Natural disasters
- Being landlocked
- The availability of natural resources

Social factors:

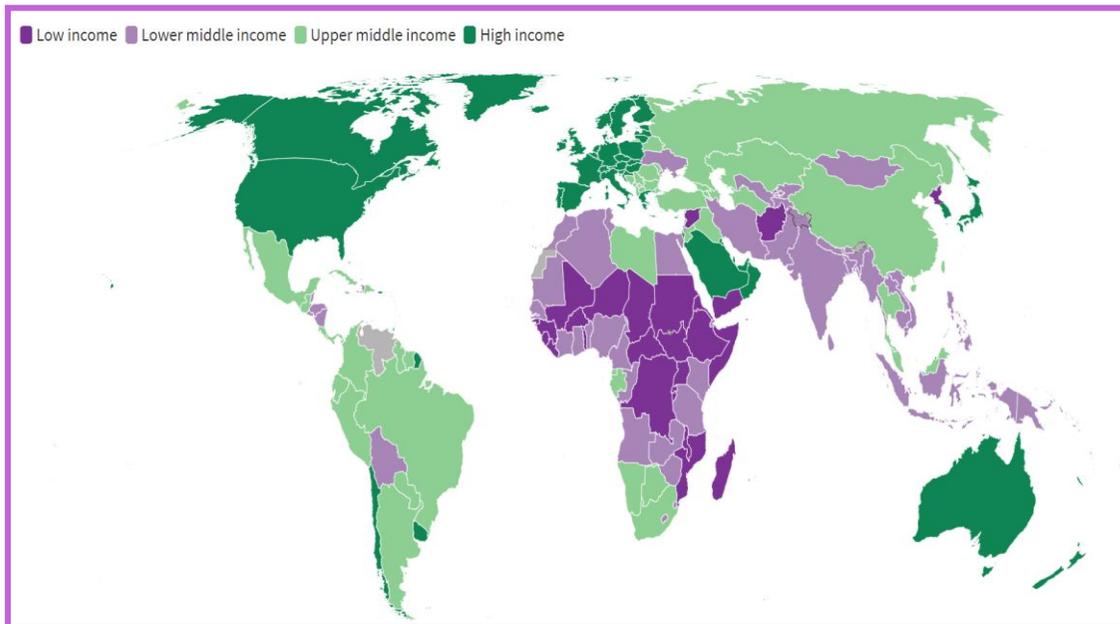
- Lack of investment in education
- Poor access to safe water
- Lack of investment in healthcare
- High dependency ratio

Political factors:

- Conflict or civil war
- A poor or corrupt government
- Countries which used to be colonies for other countries

Key Words and Terms

Development	The continued improvement in the quality of life of a country.
Quality of life	The social and economic conditions in a country. This is often defined as "health, wealth and education".
Social	Anything which affects people and families
Economic	Anything to do with money or which affects the ability of people or a country to make money.
Disparity	Differences in development between two areas.
LIC	Low income country
HIC	High income country
NEE	Newly Emerging Economy
Development indicator	A piece of data which is used to measure part of a country's development
GNI	Gross National Income (The total value of the goods and services produced by a country.)
Per capita	Per person Composite: Something which is made up of several parts or elements.
Quality of life	The social and economic conditions in a country. This is often defined as "health, wealth and education".
Landlocked	When a country is entirely surrounded by land.
International debt	Money owed by countries to other countries.
MDG	Millennium Development Goal



Topic

How did Britain expand their empire in the 1800s?

Key Terms

Empire	A large area made up of several different groups or countries ruled over by a single strong country or ruler
Colony	a country or area under the full or partial political control of another country and occupied by settlers from that country
Trade	Buying and selling goods (between individuals, businesses / companies or countries)
Industrial Revolution	The rapid development of industry (economic activity) in Britain in the late 18th and 19th centuries, brought about by the introduction of machinery.
Superior	Of a superior rank or quality - better than others
Barbarians	A term used to describe a person or a group as uncivilised or primitive
East India Company	British trading company (business) that worked in India and gradually took control of and ruled India. The British government took over control (in the name of Queen Victoria) after there were revolts against the East India Company
Sepoy	Indian soldiers who fought in the British army
Missionary	A person who travels to other countries to promote their religion. Christian missionaries travelled to countries in the British Empire to convince people to become Christian
Zulu	A powerful military empire in southern Africa in the 1800s until it was defeated by European powers
Blight	A disease affecting plants
Famine	Extreme scarcity of food causing deaths from starvation

Contrasting views of the British empire



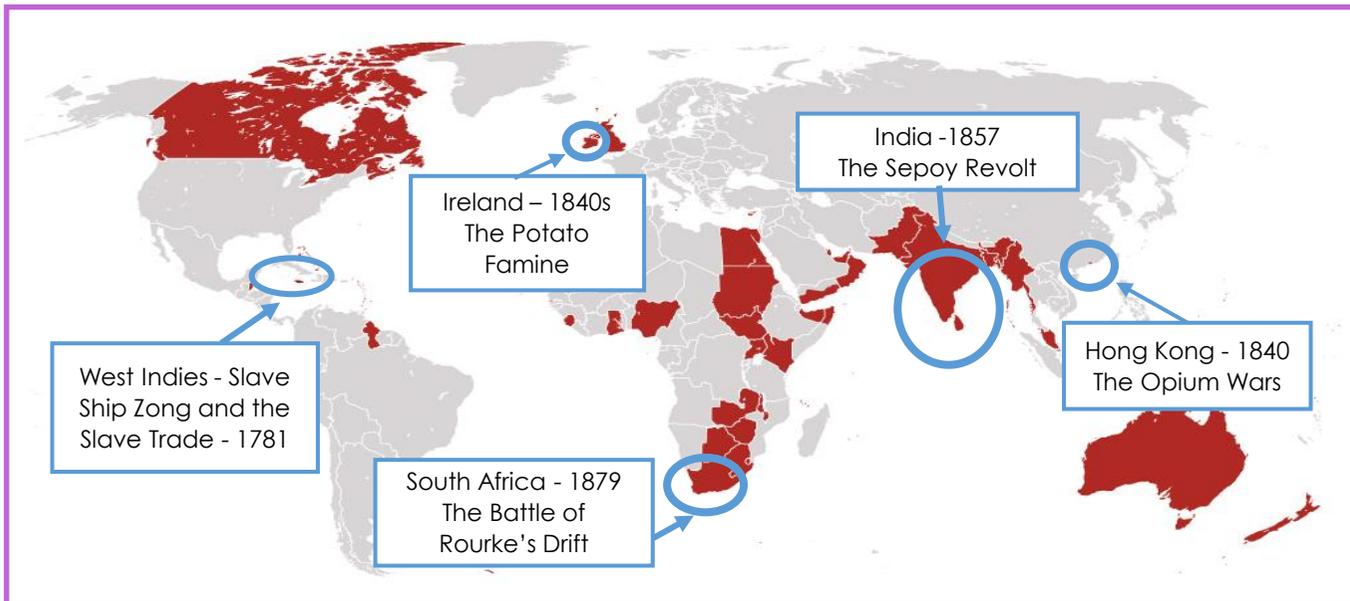
Queen Victoria's view of the purpose of the Empire in the late 1800s:

'to protect the poor natives and to advance civilisation'



View of Sashi Tharoor – modern politician and diplomat from India

British rule meant economic exploitation and the ruin of millions of people, the demolition of successful industries, the denial of rights, the removal of local governments, the transformation of lifestyles and the complete destruction of identities and self – respect



National Careers Week (NCW) 7th March – 12th March 2022

- Empowering positive change through careers education
- Students will make connections with resources from NCW
- Links between world book day and National Careers Week.

Content

- Identify different sectors and categories of jobs
- Explore percentages of people in employment in each sector in the UK and in the East Midlands
- Examine the relationship between a job and a career
- Personal strengths and areas of development linked to employment – How do these attributes help one succeed in the world of work
- Goal setting based on the above – What do students need to develop in terms of skills and attributes in order to reach potential

Skills Which Boost Employability



What Skills will I Develop in Heart for life?

Each lesson will have opportunities to develop your skills through a variety of learning activities, ranging from:

- Thinking skills
- Enquiry and evaluation skills
- Research skills
- Debate and communication skills
- Active learning.
- Reflective learning skills.
- Personalised learning skills.
- Revision and recall.



Overview

- Students recognise when they are using and developing skills which are valuable to employers
- Students can explain a career in terms of a path or a journey and identify steps to achieving a goal
- Students can identify personal networks of support including family, friends, community and school and how they support careers choices and skills development

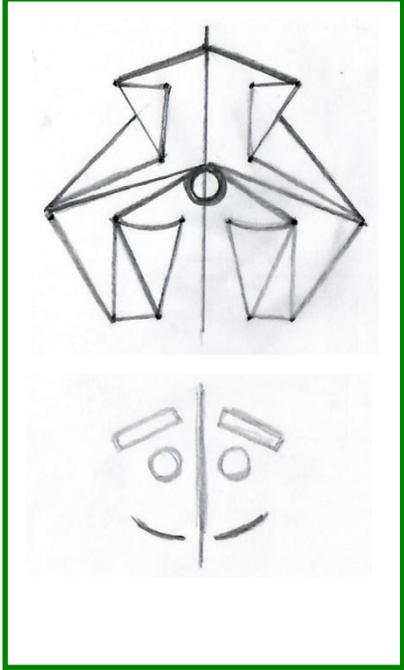
Key Concepts

Careers focus, exploring different careers. Using Unifrog to explore career links

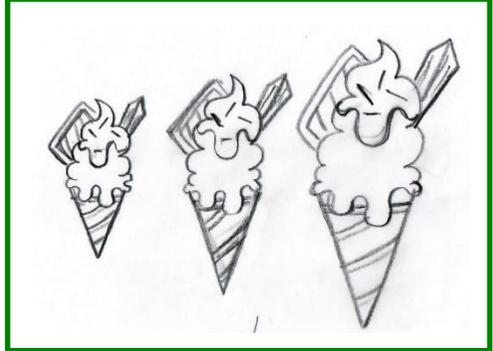
Essential Attributes Developed Through Heart for Life

- Self -Improvement
- Resilience
- Self-organisation
- Clarifying own values
- Developing and maintaining a healthy self concept
- Empathy and compassion
- Respect for others
- Skills for employability
- enterprise skills

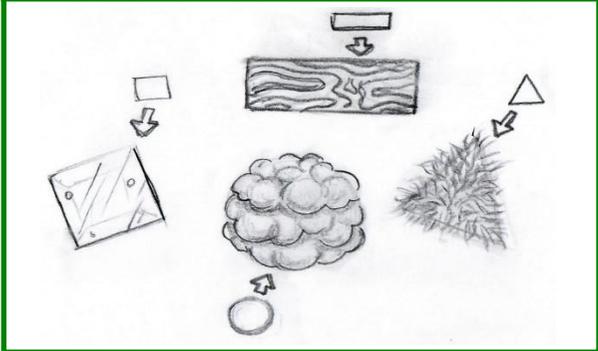
Symmetry



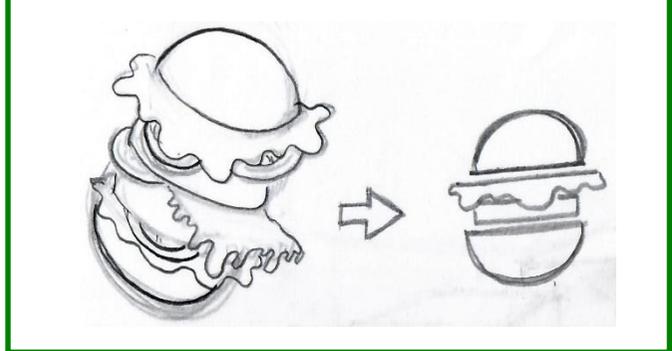
Proportion/ Scale



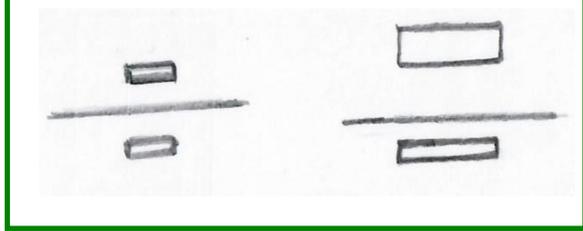
Texture



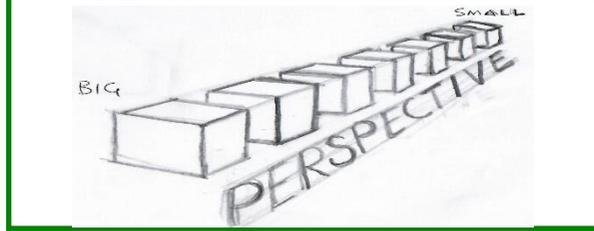
Minimalism



Balance



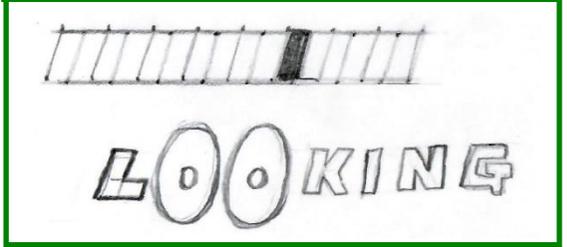
Perspective



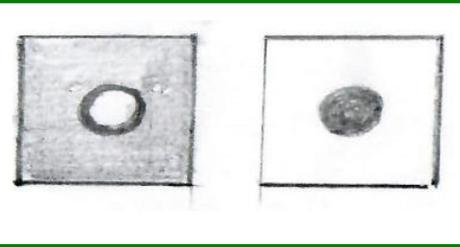
Line



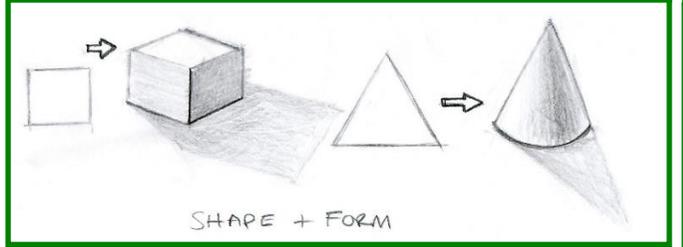
Emphasis



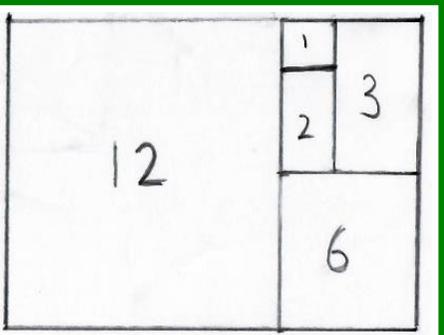
Space



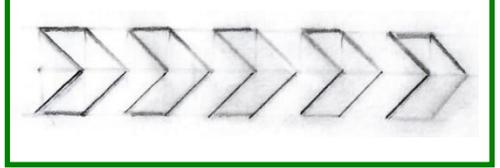
Shape & Form



Golden Ratio



Rhythm & Movement



Value



$$1 \rightarrow 1+1=2 \rightarrow 1+2=3 \rightarrow (1+2)+3=6 \rightarrow (1+2+3)+6=12 \rightarrow (1+2+3+6)+12=24$$

$$3+3=6 \quad 6+6=12 \quad 12+12=24$$

Topic

Engineering Manufacturing Processes

Additive Manufacturing

Sintering: Is a process that is used to make products from metal powders
Rapid Prototyping: Involves using additive manufacturing to make a complete part or component in a single operation.
Fused Deposition Modelling: Is the most common rapid prototyping process; used in 3D printing with ABS, PLA polyamides and nylon
Stereolithography: Is a rapid prototyping process that uses a laser to make polymer products

Joining & Assembly

Threaded Fastenings: Include nuts, bolts and screws. These are available in a wide range of materials, including steel, brass and thermoplastic polymers
Rivets: Are used to hold sheets of material together, for example attaching overlapping metal plates to form the hull of a ship or attaching the skin to an aircraft
Soldering: Is a process in which two (or more) metal parts are joined together. It involves melting solder to form a joint between the pieces being joined



Shaping, Forming & Manipulation

Bending: involves physically deforming a material. The material to be bent must be ductile and malleable; brittle materials tend to shatter
Folding: is bending material over on itself, so that one part covers another
Press Forming: is used in industry to make 3D shapes from metal sheet
Press Moulding: Polymer sheets can be formed into shapes using a similar process to press forming
Punching and Stamping: are used to cut shapes in metal sheets
Composite Lay Up: is made up of thin layers of composite material resulting in a thick shaped composite material using a shaped mould

Material Removal

Cutting: sawing, shearing, laser cutting
Sawing: use of movement to progressively cut away material as it moves against it
Shearing: involves applying force from opposite sides of a sheet of material
Laser Cutting: is used to cut thin sheets of material; the material along the cut line is vapourised
Turning: involves the use of a lathe to make parts with a round profile
Milling: milling machines use a rotating tool to remove metal one thin layer at a time; they can be used to face a piece of material producing a flat surface with a good finish
Drilling: makes holes in the material using a rotating tool to progressively remove material
Chemical Etching: uses chemicals to remove material rather than a tool; usually used to make PCB's



Casting & Moulding

Sand Casting: is used to make metal parts. It gets its name from using a mould that is made from bonded sand
Pressure Die Casting: is mainly used to make parts from non-ferrous metal. The special type of mould called a 'die' usually has two halves
Injection Moulding: is a similar process to pressure die casting but it is used for parts made from polymer

Heat and Chemical Treatment & Surface Finishing

Normalising: is carried out on steel that has been work hardened
Annealing: involves heating the metal to a suitable temperature and holding it there for a given time
Hardening and Quenching: High-carbon steel, can be hardened by heat treatment. The steel can then be put through the process of quenching which involves cooling it rapidly by immersing it in oil or brine (salt water)
Tempering: involves heating it to a temperature of 230-300 °C, then quenching it again in oil or brine
Painting: is one of the most common surface finishing processes; it can increase corrosion resistance and visual appearances
Dip Coating: is used to apply polymer coatings such as PVC, nylon or polyethylene to metal parts
Electroplating: uses electricity and a chemical solution to create a coating on a metal part
Polishing: is a physical process that gives a material a shinier appearance. It also makes the surface smoother



Hinduism	
Beliefs	Hindus believe in One Supreme Spirit, or Power called Brahman. Brahman can take the form of many gods and goddesses, also known as deities. Hindus believe in the concept of karma. Karma is the law of cause and effect. Hindus believe that good actions lead to good karma and bad actions lead to bad karma.
Holy Book	There are many holy books in Hinduism. The oldest ones are called the Vedas and the Upanishads. The Bhagavad Gita and the Ramayana are also read by many Hindus, and they help to guide them in their daily life.
Worship	Hindu worship is called puja. Hindus can worship at their holy building, called a mandir, or in their home. Puja involves praying to a favourite god or goddess. A statue or image is often used as a focus, and these are sometimes called murtis (meaning forms). During puja offerings of fruit and sweet foods are made to the deity.
Symbol	This is the Om symbol (sometimes written as Aum) and it is the Hindu word or sound for God. Hindus will say this at the beginning and end of all prayers.
Hindu shrine	A Hindu place of worship is called a mandir, but the majority of Hindus have a shrine at home where they perform personal and family worship. Worship in Hinduism is called puja.
Trimurti	Hindus believe that Brahman is beyond their understanding, so the different gods and goddesses help them to understand various aspects of Brahman. Three of the Hindu gods are known as the Trimurti.

Key Words

- Puja
- Vedas
- Om symbol
- Brahman
- Aum
- Trimurti
- Mandir



Key Words

- Buddhist
- Buddha
- Tripitaka
- Vihara
- Monastery
- Dharma
- Meditation



Buddhism	
Beliefs	Buddhism focuses on personal spiritual development, and Buddhists try to live a good life by following the Buddha's teachings, called the Dharma. In the Four Noble Truths the Buddha taught that life is full of suffering. Suffering is caused by desire and wanting things, and attachment to possessions. The way to stop suffering is to stop wanting things by following the Eightfold Path.
Holy Book	The Buddhist scriptures are known as the Tripitaka which means 'three baskets'. This is because the original writings were made on palm leaves and stored in baskets. The Tripitaka contains the teachings of the Buddha and his companions, comments on those teachings, as well as rules for monks. Buddhists call the teachings of the Buddha 'dharma', which means 'truth'.
Worship	Buddhists do not worship in the traditional sense, but they show their devotion by a ritual called puja, either at home, in a temple or a vihara. A vihara is a Buddhist monastery, which is open to the community for study, meditation and worship. In Buddhist countries, there are many temples. People bring flowers and incense for the shrine and food for the monks. When entering a temple or vihara, Buddhists will take off their shoes, put their hands together and bow to the image of the Buddha. They may also use prayer beads called malas.
Symbol	The dharmachakra, also known as wheel of dharma, is widely used as the symbol of Buddhism. It shows a wheel with eight spokes, representing the Noble Eightfold Path and the teachings of the Buddha.
Meditation	Meditation is important in all branches of Buddhism. It can help clear the mind, so that negative thoughts of anger or hatred can be replaced with positive ones of loving kindness and peace. By meditating frequently, Buddhists hope to develop insight and wisdom, helping them to see the true nature of things.



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