



KNOWLEDGE ORGANISER

2021-22

YR7

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.

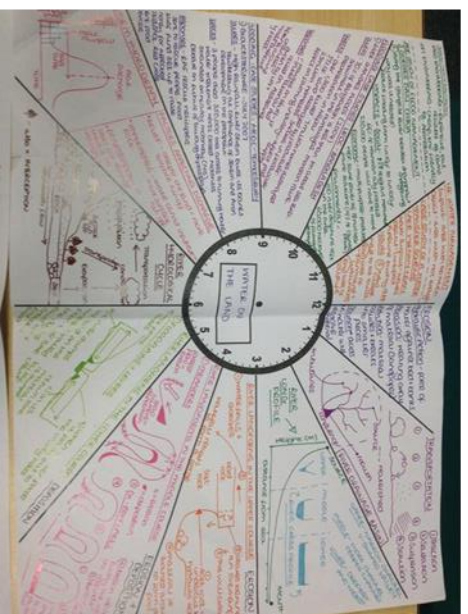
How can you use your knowledge organisers?

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.



Nutrition - Seven Components of a healthy diet

Component	Needed For
1 Carbohydrates	Energy
2 Proteins	Cell growth and repair
3 Lipids (fats and oils)	Energy (used if carbohydrates run out)
4 Vitamins	Vital processes in the body
5 Minerals	E.g. iron for healthy blood, calcium for strong teeth and bones
6 Fibre	Moving food through digestive system
7 Water	All chemical reactions in body

Energy Requirements

BASIC ENERGY REQUIREMENT (BER) — energy needed to maintain essential bodily functions.

$$\text{Daily BER} = 5.4 \times 24 \times \text{body mass}$$

in kJ/day in kg

$$\text{Total energy needed in a day} = \text{daily BER} + \text{extra energy for activities}$$

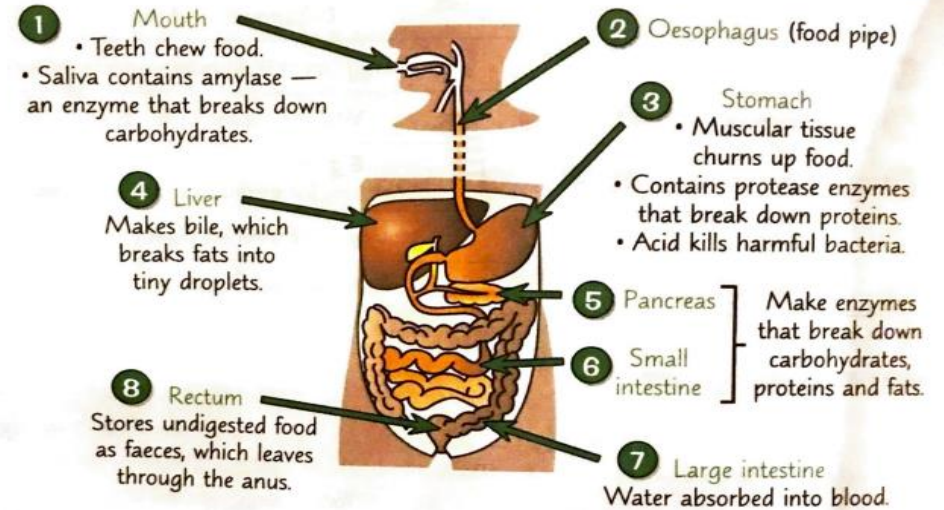
E.g. 1 hour walking uses around 800 kJ of energy.

The heavier and more active you are, the more energy you need.

Digestion – The Digestive System

DIGESTION — the process of breaking down food so the nutrients can be absorbed into the blood.

ENZYMES — biological catalysts (things that speed up chemical reactions in the body).



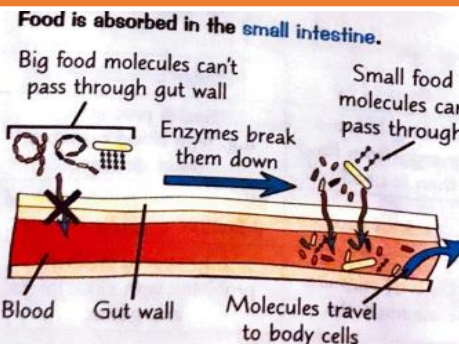
The intestines contain a lot of good bacteria, which:

- produce enzymes that help with digestion.
- help to stop harmful bacteria from growing and making you ill.

Three possible effects of an unbalanced diet

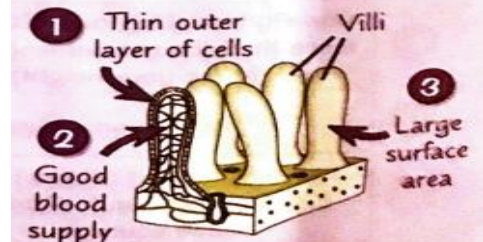
Effect	Caused by	Possible consequences
1 Obesity (weighing over 20% more than the recommended weight for your height)	Taking in more energy from food than is used up.	Health problems, e.g. high blood pressure, heart disease.
2 Starvation	Lack of food.	Slow growth, greater risk of infection, irregular periods.
3 Deficiency diseases E.g. lack of vitamin C can cause scurvy.	Lack of vitamins or minerals.	E.g. scurvy leads to problems with skin, joints and gums.

Absorption of Food



Villi

Villi line the small intestine. Three adaptations of villi that make them suited to food absorption:



Resistance

RESISTANCE — anything in a circuit that slows down the flow of current.

Resistance is measured in ohms, Ω .

$$\text{Resistance} = \text{Potential Difference} \div \text{Current}$$

(of a component)

If resistance **increases** and potential difference stays the same, current **decreases**.

If potential difference **increases** and resistance stays the same, current **increases**.

Conductors

CONDUCTOR — a component or material that **easily** allows electricity to pass through it.

e.g. metals

They have low resistance.

The lower the resistance of a component, the better it is at conducting electricity. E.g. a bulb with a resistance of 2Ω is a better conductor than a bulb with a resistance of 3Ω .

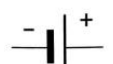
Insulators

INSULATOR — a component or material that **doesn't easily** allow electricity to pass through it.

e.g. wood

They have high resistance.

Circuit Symbols



Cell (a single energy source)



Battery (two or more cells put together)



Switch open



Voltmeter



Ammeter



Motor



Buzzer



Switch closed



Bulb

CIRCUIT DIAGRAM — a simplified drawing of a real circuit using circuit symbols.

Electric Current

Electric Current

ELECTRIC CURRENT — the flow of charge around a circuit.

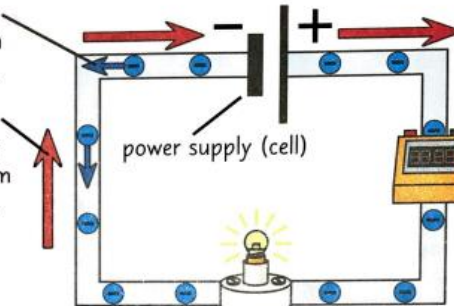
Current is measured in amperes, A.

Electric current can only flow if the circuit is complete.

Charges (negative electrons) move from negative to positive.

However, on circuit diagrams, current is shown as moving from positive to negative.

I know this is silly, but it's true.



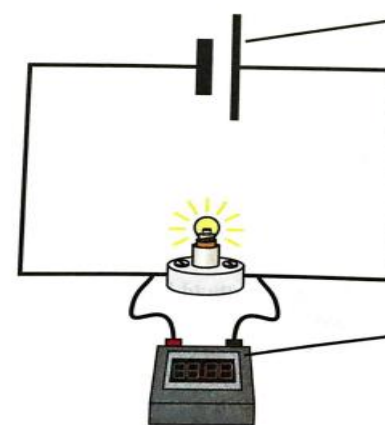
Ammeter — measures electric current through circuit.

Current is not used up — the amount of current that flows out of a cell is the same as the amount that flows back into it.

Potential Difference

POTENTIAL DIFFERENCE — the driving force that pushes charge round a circuit.

Potential difference is measured in volts, V.



Potential difference is provided by the power supply.

You can put power supplies (cells/batteries) together to make a bigger potential difference.

Voltmeter — measures potential difference across a component. (In this case, the bulb.)

Potential difference rating of:

- a battery — tells you the potential difference it will supply.

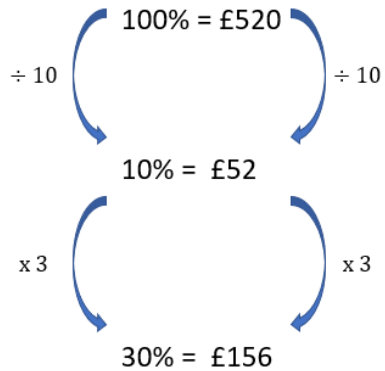


- a bulb — tells you the maximum potential difference that you can put safely across it.

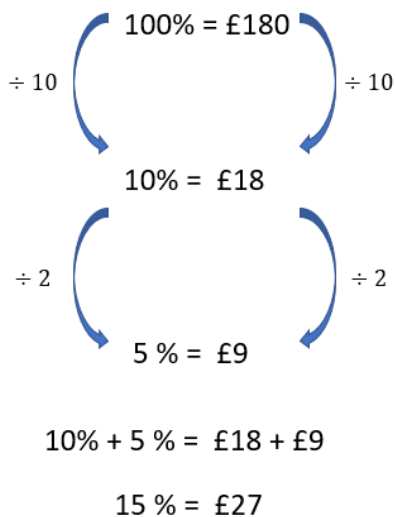


Percentages

Find 30% of £520

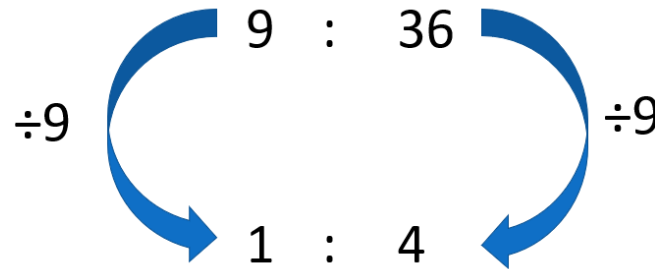


Find 15% of £120



Ratio

Simplifying Ratio: **The Golden Rule:** Divide both by the highest common factor



The ratio of apples to bananas is 4:3

How many apples are there?
How many bananas are there?

apples	apples	apples	apples	bananas	bananas	bananas
--------	--------	--------	--------	---------	---------	---------

Apples	Apples	Apples	Apples	Bananas	Bananas	Bananas
4	4	4	4	4	4	4

There could be 16 apples: 12 bananas

Apples	Apples	Apples	Apples	Bananas	Bananas	Bananas
10	10	10	10	10	10	10

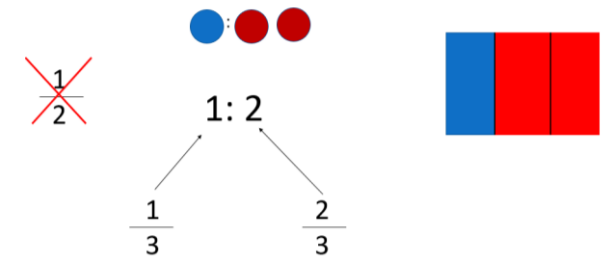
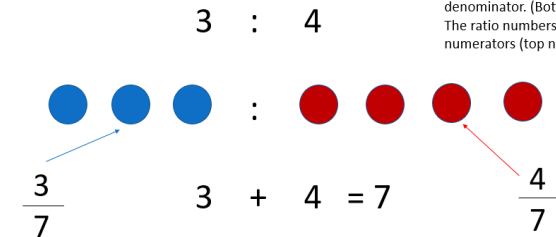
There could be 40 apples: 30 bananas Etc.

Converting ratio to Fractions

Converting Ratio to Fractions

Converting ratios to fractions: **The golden rule!**

Add the ratios together. This is your new denominator. (Bottom number.)
The ratio numbers are your new numerators (top numbers).



Which deal is the best value?

Eat Fresh



2 for 68p

$68p \div 2 = 34p$ each

Max-Mart



3 for 96p



$96p \div 3 = 32p$ each

price per item = total cost \div quantity

Computing Components – Key Vocabulary

Computer, System, Device, Program, Software, Instructions

CPU

The processor (CPU) is the component that **executes** program instructions.
An instruction may:

- Perform arithmetic or logic operations on data
- Perform input/output of data
- Control program flow

Computer Vs Other Appliances

Computer:

- Can do hundreds of tasks.
- **Doesn't have a specific, well-designed purpose.**

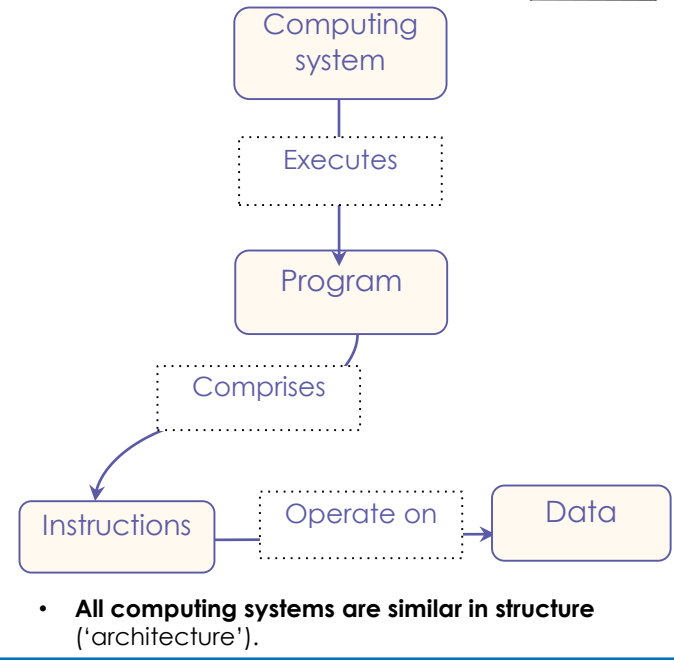
Other appliances:

- Toasters toast. Refrigerators cool. Lamps illuminate.
- **One appliance, one task.**



Computers

- The purpose of a general-purpose computer is to **execute programs** that operate on data.
- **The term 'Computer'** applies to all kinds of general-purpose computing devices, e.g., laptop, tablet, etc.



Key Vocabulary (Hardware & Software)

Computer, system, device, program, instructions, data, hardware, processor, memory, storage, communication, input and output, architecture

Hardware & Software

- The **physical components** of a computing system are called **hardware**.
- **Software** means **programs**.
- Example of Programs to write documents with: word processors
- Programs to visit websites with: browsers
- Programs to manipulate media with: video editing, image editing, sound editing programs

Storage

- The storage (secondary memory) is the set of components that **stores** programs and data.
- Storage is **persistent**: it retains its contents when the power is off.

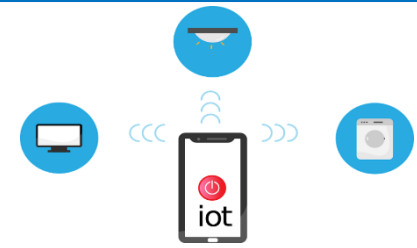


Solid-state drive (SSD) Hard disk (HDD) USB stick Optical disc SD card

- The main memory (RAM) **stores** the programs and data **currently in use**. Memory is **volatile**: its contents are lost when the power is off.
- A storage medium is the part or thing that stores the data/information for a storage device, e.g. CD, DVD's, etc.
- An example of an external storage device that stores data are memory stick (USB stick) and an example of internal storage device is a Hard disk.
- **Primary storage** is not accessed directly by the CPU:
- The main memory (RAM) **stores** the programs and data **currently in use**. Memory is **volatile**: its contents are lost when the power is off.

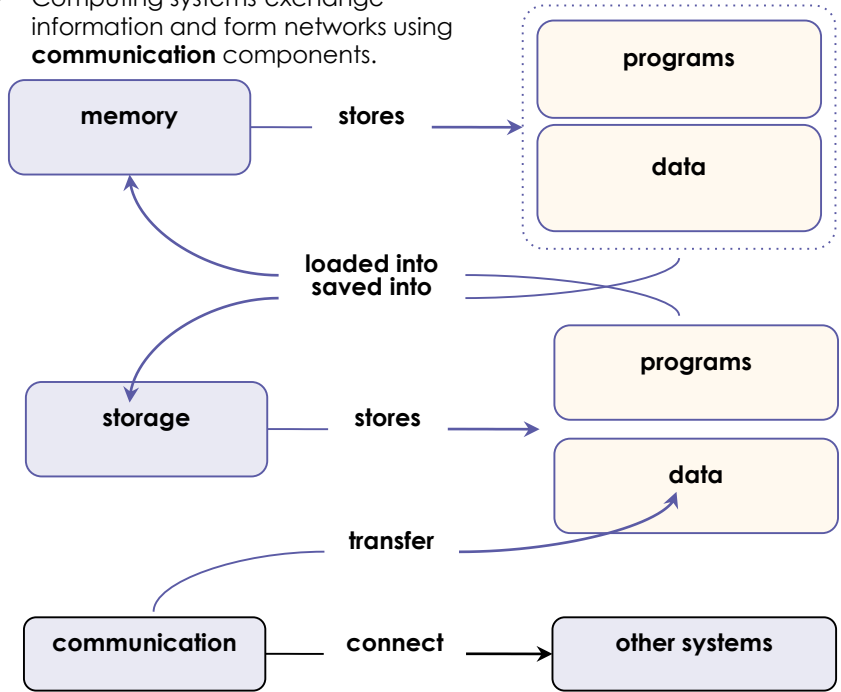
IoT

The Internet of Things means taking 'everyday' **'things'** and connecting them to the **internet**. These connected 'things' allow us to gather information, send information, or both.



Storage

- Computing systems exchange information and form networks using **communication** components.

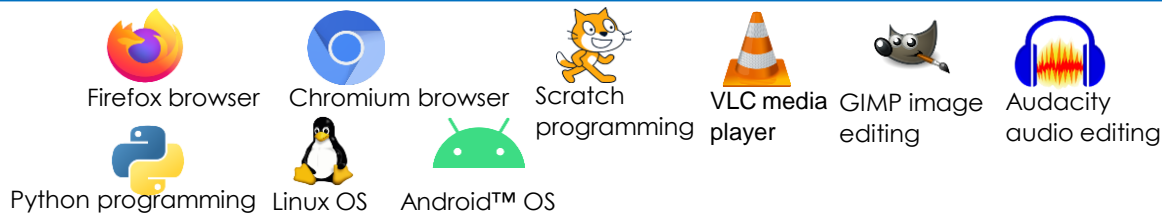


Cores

- Modern processors have multiple **cores**.
- Each core can execute instructions from a different program. (In the building analogy, this is like having multiple workers).
- How many programs can be executed at the same time? Just one! At any given time, the **processor** executes **one instruction*** that is part of **one program**.

Programs

When asked if something is a program, you could ask yourself: Does it perform a task? Does it process data?



Operating Systems

The **operating system** is a set of programs that controls the operation of a computing system.

Question: Are **operating systems** (e.g., android, ios, windows) programs?

Answer: Yes. The tasks they perform are to supervise and manage many aspects of the system's operation.

Monitoring Systems:

Software that monitors our computing system can help us visualise some of its complexity.

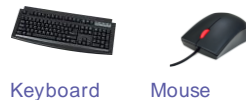
We can see measurements for:

- Processor load
- Main memory usage
- Network Activity

Computing Systems

Computing systems interact with the user and their surroundings through devices for Input and output.

Input



Keyboard Mouse



Camera Microphone
Sensors

Output



Screen Speakers Printer



Projector LEDs Motors

Computer Peripherals

Computer Peripherals are devices that allow input or retrieval of information.

Input devices allow a user to enter information into a computer, e.g., text is typed, voices are recorded and images are scanned.

Output devices display results after processing of information/data.

Measuring Computer Performance

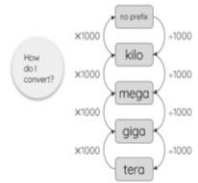
CPU performance is measured in clock speed(Hertz), i.e. number of fetch-decode-execute-cycles the computer is able process/second. RAM performance is measured by speed(Hertz) and how much it can store (bytes). Hard drive performance is measured by how much it can store(bytes).

Bits, bytes, and prefixes Unit conversions

What does it mean?	bit	b	binary digit (0 or 1)
	byte	B	8 binary digits



What does it mean?	kilo-	K	thousands
	mega-	M	millions
	giga-	G	billions
	tera-	T	trillions



Content extracted from the Teach Computing Curriculum by the National Centre for Computing Education: <https://teachcomputing.org/curriculum/key-stage-3/computing-systems>

The Odyssey- Background

Length	12,000 lines organised into 24 books.
Date Written	approximately 8th century B.C.
Oral Tradition	practice of reciting well-known myths about gods and heroes, common in ancient Greece
Homer	blind man, credited for writing two masterpieces of Greek literature (The Iliad and The Odyssey).

Context

The Iliad	the prequel to The Odyssey, about the Trojan War written by Homer.
Trojan War	10 year battle between Greeks and Trojans at the city of Troy.
Aegean sea	sea that the Greeks sailed over 1000 ships across to reach Troy.
Voyage of Odysseus	the 10 year return-journey of Odysseus, king of the Greek city-state Ithaca
Greek Values	Hospitality (xenia). Intelligence. Loyalty. Glory.

Places

Phaeacia (feye-EE-sha)	the land where Odysseus tells his story. The royal family help him finally get home.
Troy	modern-day Turkey, where Odysseus' journey home starts
Ithaca	Odysseus' home, which he hopes to return to and where he is king.

Character: Conventions of An Epic Hero

Favoured by the gods	Skilled at warfare
Mortal	Represent the value of society
Physically impressive	Described using epithets

Characters

Odysseus	King of Ithaca, hero who fought in Troy, husband of Penelope, father of Telemachus
Penelope	wife of Odysseus. She is left alone for many years. She is famous for her loyalty to her husband despite having many suitors.
Telemachus	Odysseus' son. He waits for the return of a father he does not know. He displays many of the virtues that his father has. He is depicted as loyal and brave.

Structure and Story

Epic Poem	a narrative about an epic hero, who completes a great journey and overcomes conflict.
Deus Ex Machina	(Latin: 'a god from a machine'.) A moment in a story when a god, or something supernatural, suddenly enters to help the hero.
In Media Res	(Latin: 'into the middle of things'.) Beginning in the middle of the story.
Narrative Functions	conventions that Aristotle believed created a good story.
Complication	the beginning of a story; everything that leads up to the turning point.
Turning Point	the climax of the story; the moment when things change from either bad to good or from good to bad.
Denouement	everything that happens after the turning point and that leads to the end of the story.

Language

Hyperbole	statements or images used to exaggerate.
Epithets	compound adjectives (adjectives of two or more words) used to describe nouns. The words in the adjective use a hyphen.
Imperatives	verbs conjugated to sound like commands which makes the speaker sound powerful.
Dramatic Irony	When the audience are aware of something that the characters are not.

Genre

MYTHS

Myths are stories that use fantasy to express ideas about life that cannot be expressed easily in realistic terms. They: 1. Explain natural mysteries (the seasons, the moon rising and setting). 2. Explain something connected with humans (how humans were created). 3. Demonstrate what happens when someone makes good or bad decisions. 4. Show the special powers and flaws of the particular culture's gods, goddesses, heroes and villains.

EPIC POETRY

Epic poetry is a type of poetry that was originally recited and not written down. It is a long narrative poem that tells of adventures, heroes, gods and monsters. 1. It begins in media res (in the middle of the plot). 2. It has a huge setting, covering many countries and localities. 3. It begins with an invocation of the muse: "Tell me, O Muse, of the man of many devices, who wandered full many ways after he had sacked the sacred citadel of Troy." 4. It starts with a statement of the theme. 5. It includes long lists. 6. It features long, formal speeches. 7. It shows divine intention on human affairs.

Ten Quotations

- "My wife's face fades in my memory each day, and that's what I can't bear. That's why I ache." (42)
- "Odysseus, the unkillable genius hero of Troy, with a hundred spears aimed at his chest and a thousand arrows bouncing off his helmet." (57)
- "I am Odysseus. I AM ODYSSEUS, so of Laertes, known the world over for cunning and guile and strength of mind." (66)
- "We'll wait for our host. Today we'll be civilized." (84)
- "Settle down and rest. We're safe here. Be quiet and let me think." (91)
- "I goaded the Cyclops with taunts." (97)
- "Good Achilles, you're still my glorious nobleman, my God-like lord." (145)
- "Be metal-headed and iron-hearted, men. Don't swerve from the task." (158)
- "Let the bond be remade. Let this family begin again." (214)
- "When Death asks who sent you to his gate, don't forget my name. Tell him ODYSSEUS, ODSYSSEUS, ODYSSEUS!" (258)

Gods and Demi-Gods

Zeus	the most powerful god, whose realm is the sky, and Mount Olympus, where all the gods live
Poseidon	the god of the sea, Zeus' brother. Father of the Cyclops. Hates Odysseus.
Hades	the god of the underworld. Brother of Zeus. Persephone is his wife
Athena	the goddess of wisdom and war. Daughter of Zeus. Supporter of Odysseus.
Hermes	the god of travellers (and tricksters and thieves). He is a son of Zeus, and flies with winged sandals.
Persephone	queen of the underworld, wife of Hades. Daughter of Zeus.
Helios	the god of the Sun.
Calypso	the semi-divine nymph who imprisons Odysseus for seven years. He is on her island when the story opens.
Circe	an enchantress who turns men into animals. Odysseus and his men stay with her for one year.

Monsters

Cyclops	a one-eyed monster who herds sheep in a remote country. Son of Poseidon.
Charybdis	a deadly whirlpool, personified as a female sea-monster.
Scylla	a six-headed monster who lives in the cliffs nearby Charybdis.
Sirens	mythical creatures (often described as half-woman, half-bird) whose singing and promise of knowledge lure people, especially sailors, to their death.

Vocabulary

Suspicious	(adj): having or showing a cautious distrust of someone or something.	Sacrilegious	(adj): an act that is disrespectful to gods or religion.	Ruthless	(adj): having or showing no pity or compassion for others.
Museum	(n): a building in which objects of historical, scientific, artistic, or cultural interest are stored and exhibited.	Delirious	(adj): in a state of wild excitement or ecstasy	Resolution	(n): the solving of a problem or the ending of a story
Destiny	(n): the hidden power believed to control future events; fate	Compassionate	(adj): feeling or showing sympathy and concern for others.	Predicament	(n): an unpleasant situation that is difficult to get out of
Hood-winked	(v): deceive or trick.	Exile	(n): the state of being barred from one's native country, typically for political or punitive reasons	Farcical	(adj): something having absurd or ridiculous aspects. (adj): something having absurd or ridiculous aspects.
Rapture	(adv): in a miserably inadequate or ridiculous way.	Wily	(adj): skilled at gaining an advantage, especially deceitfully	Disappeared	(v): to cease to be visible.
Devours	v): eat (food or prey) hungrily or quickly.	Hospitality	(n): the friendly and generous reception and entertainment of guests, visitors, or strangers	Self-indulgence	(n): lack of respect; rudeness.
Lurked	(v): be or remain hidden so as to wait in ambush for someone or something.	Sadistic	(adj): deriving pleasure from inflicting pain, suffering, or humiliation on others	Impertinence	(n): the act of allowing yourself to have or do the things that you enjoy very much.
Maelstrom	(n): a powerful whirlpool in the sea or a river.				
Devilment	(n): mischievous conduct.				
Mortal	(adj): subject to death				
Hazardous	(adj): risky; dangerous.				
Vortex	(n): a whirling mass of fluid or air, especially a whirlpool or whirlwind.				
Forlornly	adv): pitifully sad and abandoned or lonely				
Docile	(adj): ready to accept control or instruction; submissive.				
Deceit	(n): to deceive someone; trickery				
Bounteous	(adj): generously given or giving.				



Learning Objectives

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

- My family
- School subjects
- Your friends
- Your home

Grammar Objectives

I will be able to understand and apply rules about:

- Present tense avoir and être
- Pronoms le, la, les
- Possessive adjectives
- Adjectives agreement
- Connectives
- Comparatives

School

l'anglais	English
les arts plastiques	Art
l'EPS	Sport
le français	French
la géographie	Geography
l'histoire	History
les maths	Mathematics
la musique	Music
les SVT (sciences de la vie et de la terre)	Science
la technologie	Technology
Ma matière préférée, (c'est) ...	My favourite subject is ...
j'adore (ça)	I love (it/that)
j'aime (ça)	I like (it/that)
ça va	it's OK
je n'aime pas (ça)	I don't like (it/that)
je déteste (ça)	I hate (it/that)
C'est ...	It's ...
créatif/ennuyeux/inutile/passionnant/nul/relaxant/utile	creative/boring/pointless/exciting/rubbish/relaxing/useful
C'est plus/moins intéressant que ...	It's more/less interesting than ...

Friends

J'ai un/une meilleur(e) ami(e).	I've got a best friend.
Je n'en ai pas.	I don't have one/any.
J'ai une grande bande de copains.	I have a big group of friends.
Je le/la/les connais depuis ...	I have known him/her/them ...
... un an/deux ans.	... for one/two years.
... que je suis petit/bébé.	... since I was small/a baby
... toujours.	... always
... l'école primaire.	... since primary school

Family

J'habite avec ...	I live with ...
J'ai ... qui s'appelle/s'appellent ...	I have ... who is/are called ...
il/elle s'appelle	he/she is called
ils/elles s'appellent	they are called
je l'appelle	I call him/her/it
Je n'ai pas de ...	I don't have a ...
Je n'ai plus de ...	I don't have a ... any longer.
séparés/divorcés	separated/divorced
adoptif	adoptive
Je suis fils/fille unique.	I am an only child.
une mère/belle-mère	mother/step-mother
un père/beau-père	father/step-father
des parents	parents
maman/papa	mum/dad
une sœur/demi-sœur	sister/half-/step-sister
un frère/demi-frère	brother/half-/step-brother
des grands-parents	grandparents

Opinions & Connectives

A mon avis, ...	In my opinion, ...
Je pense que ...	I think that ...
On dit que ...	People say that ...
parce que / car	because
et	and
mais / par contre	but / on the other hand

Describing Personality

Tu es comment?	What are you like?
Je suis quelqu'un de (d') ...	I am a(n) ... person.
je suis/je ne suis pas	I am/I am not
tu es/tu n'es pas	you are/you are not
il/elle est	he/she is
un peu/assez/très	a bit/quite/very
actif	active
adorable	adorable
amusant	funny
bavard	chatty/talkative
courageux	brave
créatif	creative
fidèle	faithful
généreux	generous
gentil	kind
heureux	happy
intelligent	intelligent
méchant	horrible
sociable	sociable
sportif	sporty
timide	timid/shy
travailleur	hard-working

Key Grammar

Verbe Etre / to be (present tense)

Je suis / I am

Tu es / you are

Il/elle/on est / He-she is

Nous sommes / we are

Vous êtes / You are

Ils/elles sont / they are

Verbe Avoir / to have (present tense)

J'ai / I have

Tu as /you have

Il/elle/on a / He-she has

Nous avons / we have

Vous avez / You have

Ils/elles ont /they have

le, la, les

Le, la, les mean 'the' but they can also mean 'him', 'her' and 'them'.

Mon meilleur ami s'appelle Baptiste.	Je le connais depuis trois ans.	I have known him for three years.
Ma meilleure amie s'appelle Emmeline.	Je la connais depuis six ans.	I have known her for six years.
Mes meilleurs amis s'appellent Jeanne et Luc.	Je les connais depuis dix ans.	I have known them for ten years.

Making comparisons

Use *plus* (more) or *moins* (less) in front of adjectives to make comparisons between subjects.

Le français, j'aime ça.	C'est plus intéressant que l'anglais.
L'anglais, je n'aime pas ça.	C'est moins intéressant que le français.

	masculine	feminine
je suis ...	amusant	amusante
	intelligent	intelligente
	bavard	bavarde
	actif	active
	créatif	créative
	sportif	sportive
	courageux	courageuse
	paresseux	paresseuse
	travailleur	travailleuse
	sociable	sociable
	timide	timide
	adorable	adorable

Possessive adjectives are the words that describe who or what something (or someone) belongs to.

masculine	feminine	plural	
mon	ma	mes	my
ton	ta	tes	your

Model Text

Tu es comment ?	Je suis un peu timide. Je suis intelligent.	I am a bit shy. I am intelligent.
Tu es comment ?	Je ne suis pas sociable. Je ne suis pas amusant(e).	I am not sociable. I am not funny.
Comment est ta famille ?	Ma famille est sympa. Ma famille est grande.	My family is nice. My family is big.
Tu as des frères et sœurs ?	Oui, j'ai un frère et deux sœurs. Non, je n'ai pas de frère et sœur. Je suis fils/fille unique.	Yes, I have one brother and two sisters. No, I don't have brother and sister. I am only one child.
Avec qui habites-tu ?	J'habite avec mon père, ma mère et mes trois sœurs.	I live with my dad, my mum and my three sisters.
Comment s'appelle ton frère/ta sœur ?	Mon frère s'appelle Ma sœur s'appelle...	My brother called... My sister called...
Tu aimes l'école ?	Oui, j'aime l'école. Non, je n'aime pas l'école.	Yes, I like school. No, I don't like school.
Quelles matières préfères-tu ?	Je préfère les maths et les sciences.	I prefer Maths and Sciences.
Tu aimes le Français ? Pourquoi ?	Oui, j'adore le Français	Yes, I love French
	Car c'est très intéressant.	Because it is very interesting.
Comment est ton/ta meilleur(e) ami(e) ?	Mon/ma meilleur(e) ami(e) est loyal(e).	My best friend is loyal.
Comment s'appelle ton/ta meilleur(e) ami(e) ?	Mon/ma meilleur(e) ami(e) s'appelle...	My best friend called...
Comment étais-tu petit(e) ?	Quand j'étais petit(e) j'étais paresseux(se)	When I was little, I was lazy.

Rugby Skills

Hands:

- passing (lateral, spin)
- offloading (before contact)
- catching (from pass)
- running with the ball (evasion – side step or swerve)
- Intercepting

Rugby-Use of Skills In Game Situations

Head:

- Contributing to strategy and tactics
- Decision making
- Adhering to rules, health and safety guidelines

Heart:

- Ability to influence the performance and motivation of self and others
- Accurate repeating of actions and sequences.
- Adhering to rules, health and safety guidelines



Gymnastics

Hands:

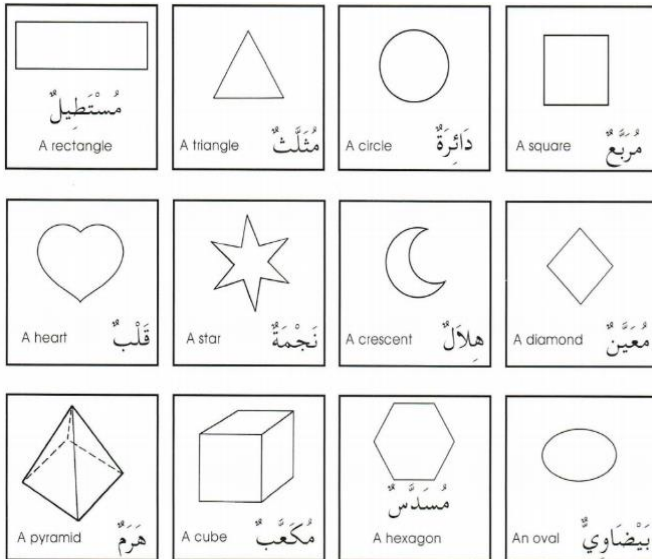
Perform a mixture of balances and rolls

Head:

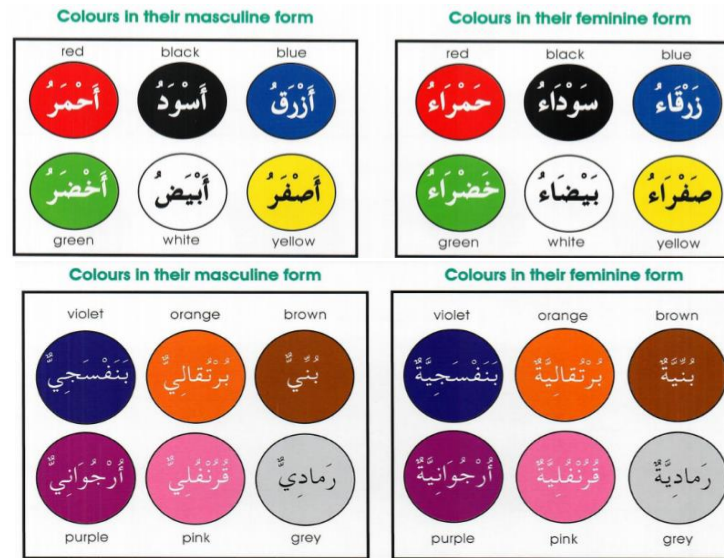
To plan 3 balances.

To plan a sequence of balances and rolls.

Shapes



Colours



A Nominal Sentence

الجُمْلَةُ الإِسْمِيَّةُ

Is a sentence that begins with a noun **إِسْمٌ**. It has two parts: the **subject** **المُبْتَدَأُ** and the **predicate** **الخَبَرُ**.

- * The Subject will always be Definite (will begin with **الـ**)
- * While the Predicate will always be Indefinite (will only take a *Tanween*)
- * When the Subject and the Predicate come together, they form a full sentence.

الخَبَرُ	المُبْتَدَأُ	الجُمْلَةُ
جَدِيدَةٌ	السَّيَّارَةُ	السَّيَّارَةُ جَدِيدَةٌ.

Translation: The car is new

Numbers

	Fem.	Masc.	
1	وَاحِدَةٌ	وَاحِدٌ	١
2	اِثْنَانٌ	اِثْنَانٌ	٢
3	ثَلَاثَةٌ	ثَلَاثٌ	٣
4	أَرْبَعَةٌ	أَرْبَعٌ	٤
5	خَمْسَةٌ	خَمْسٌ	٥
6	سِتَّةٌ	سِتٌّ	٦
7	سَبْعَةٌ	سَبْعٌ	٧
8	ثَمَانِيَةٌ	ثَمَانٌ	٨
9	تِسْعَةٌ	تِسْعٌ	٩
10	عَشْرَةٌ	عَشْرٌ	١٠

Asking Questions

So far, we have learnt how to ask 'What is...?' using the word **مَا؟**
 To ask 'Who is ...?' we use the word **مَنْ؟**
 Who is that? (masculine) **مَنْ ذَلِكَ؟** Who is this? (masculine) **مَنْ هَذَا؟**
 Who is that? (feminine) **مَنْ تِلْكَ؟** Who is this? (feminine) **مَنْ هَذِهِ؟**
هَلْ هَذَا قَلَمٌ؟ or **أَهَذَا قَلَمٌ؟** as 'Is this...?' in Arabic. e.g. Is this a pen?
 Note how **أ** becomes part of the following word, but **هَلْ** is written separately.
 In order to answer this type of question, we need to learn the words for 'yes' and 'no' in Arabic:
 Yes = **نَعَمْ** and no = **لا**.
 Note also the shape of the question mark in Arabic: **؟**

Body Part Names

Masculine Nouns		Feminine Nouns	
body	جِسْمٌ	hair	شَعْرَةٌ
head	رَأْسٌ	eye	عَيْنٌ
chest	صَدْرٌ	arm	ذِرَاعٌ
face	وَجْهٌ	ear	أُذُنٌ
stomach	بَطْنٌ	hand	يَدٌ
nose	أَنْفٌ	leg	رِجْلٌ
arm	ذِرَاعٌ	tooth	سِنٌّ
cheek	خَدٌ	tongue	لِسَانٌ
mouth	فَمٌ	foot	قَدَمٌ
shoulder	كَتِفٌ	knee	رُكْبَةٌ
tongue	لِسَانٌ	forehead	جَبْهَةٌ
elbow	مِرْفَقٌ		
wrist	مِعَصَمٌ		
chin	ذَقْنٌ		
neck	عُنُقٌ		
thumb	إِبْهَامٌ		
finger	إِصْبَعٌ		
back	ظَهْرٌ		

Note that many (though not all) of the parts of the body that occur in pairs are feminine.

Friends & Family

اسْمِي حَسَنٌ. لِي أُخْتُ اسْمُهَا نَادِيَةٌ.
 أَبِي رَجُلٌ طَوِيلٌ. اسْمُهُ يُوْسُفٌ.
 وَهُوَ طَبِيبٌ فِي الْمُسْتَشْفَى.
 وَأُمِّي هِيَ مُعَلِّمَةٌ فِي مَدْرَسَتِي.
 هِيَ أَمْرَأَةٌ قَصِيرَةٌ وَجَمِيلَةٌ.
 اسْمُهَا زَيْنَبٌ.
 لِي صَدِيقٌ اسْمُهُ مُحَمَّدٌ.

Rivers

A river is a moving body of water that flows from its **source** on high ground, across land, and then into another body of water, which could be a **lake**, the **sea**, an **ocean** or even another river.



Flooding

A flood occurs whenever a river overflows its banks. A flood becomes a problem when the water rises to a level where it threatens property and/or life. Rivers usually flood due to a range of physical factors, which can be divided into climatic factors and drainage basin characteristics. Human intervention can also make flooding worse



River Processes

- **EROSION** where rocks are worn away and the land changes shape
- **TRANSPORTATION** where eroded material is carried by the river downstream
- **DEPOSITION** where transported material is dropped when the river loses energy, such as when it enters the sea

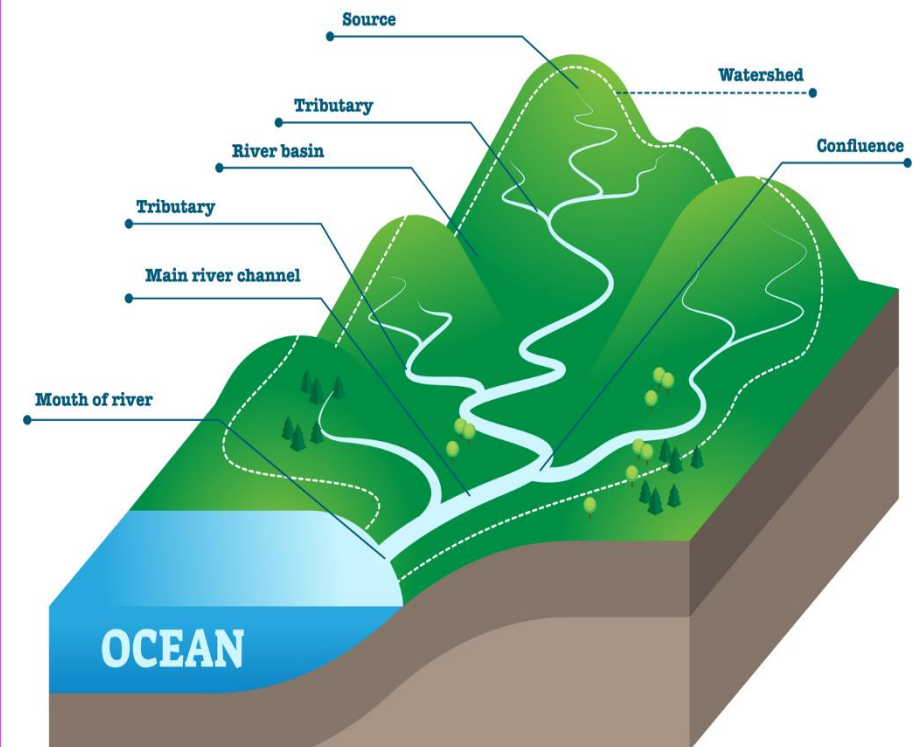


Key Words

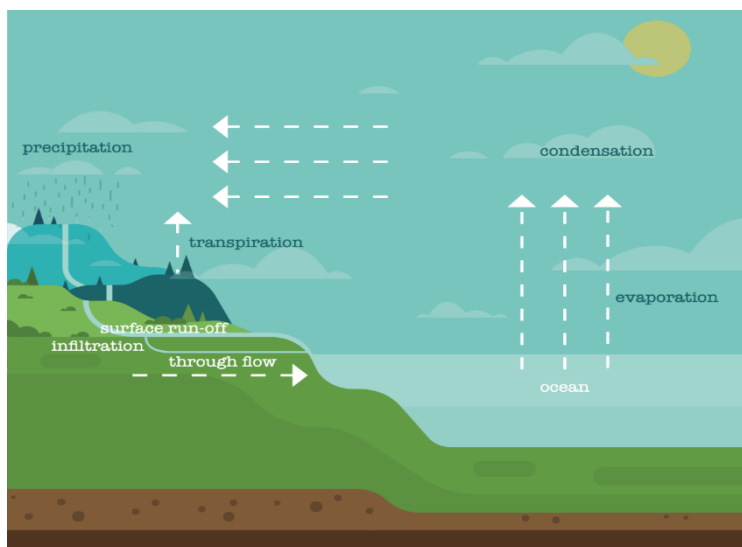
- CAUSE
- EFFECT
- RESPONSE
- LONG PROFILE
- CROSS PROFILE
- V-SHAPED VALLEY
- WATERFALL
- MEANDER
- OXBOW LAKE
- FLOODPLAIN



Drainage Basin



Hydrological Cycle



Topic

Medieval Religious Beliefs

Monks

Monks are men that decided to devote their whole lives to God. They left their families, homes and possessions and moved into a Monastery as a Monk. Monks first arrived in England in the sixth century when Saint Augustin a Benedictine monk, built the first Monastery.

A Monk's life was not an easy one. They could not be married, ate very simple food and worked hard and their lives were dominated by prayer; every three hours; day & night!



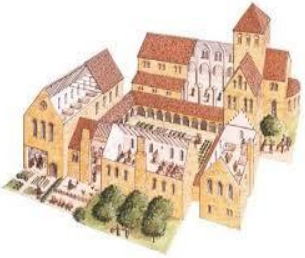
Nuns

Women could become nuns, lived in Nunneries and lived lives that were similar to Monks. Nunneries were often built next to monasteries. There were not as many Nuns as Monks though, and they hardly ever worked with books or manuscripts. Usually, women had to pay to become a nun. Sometimes a family might pay a fee called a dowry to a Nunnery so that one of their daughters could become a nun. Nuns were important to unmarried women who might not be supported otherwise



Monasteries

Monasteries were the buildings which were devoted to God where monks lived. Nuns lived in similar buildings called nunneries. The monastery also included a library and were one of the few places where people could read and write. They also looked after the sick and the poor and provided work for people in the community



Was The Church Central To Peoples Lives?

Evidence that the Church was central to people's lives

Medieval people went on pilgrimages, visiting holy sites in the hope of curing illness and gaining entry into Heaven after they died. People went on Crusades, fighting to claim back the Holy Lands from the Muslims. The Crusades were long and dangerous. Doom paintings showed scenes from the Afterlife, and encouraged Medieval people to behave properly so they could enter Heaven. Most people believed they could not go to Heaven if they did not follow the church's rules

Evidence that the Church was not central to people's lives

Some people went on pilgrimages for non-religious reasons. Sometimes they hoped to make money and sometimes they just wanted adventure. The Crusaders could steal and loot from the Holy Lands. Some Crusaders acted violently towards the people in the Holy Lands. There were some people who did not have a strong Christian faith. Near the end of the Medieval period some people began to question the church's teachings.

Key Terms

Pope	Leader of the Catholic church. People believed the Pope was chosen by God and so was infallible (Could not make mistakes)
Archbishop	The head of the church in England. Had the power to crown kings and run the church courts
Bishops	Officials who helped the archbishop run the Catholic church
Parish Priest	Led individual churches in small communities
Excommunicate	When the archbishop or the Pope banned someone from the Catholic church. If you were excommunicated, people believed you could not go to heaven
Latin	The language that was used for church sermons (talks) and for the bible
Pilgrimage	A long journey, usually to an important religious site
Doom painting	A large painting in a medieval church, usually showing scenes from Heaven, Hell and the Afterlife
Crusade	Expedition (long trip) made to take back the Holy Lands, especially Jerusalem, from the Muslims
Relic	An object thought to have religious importance, like a cross owned by a saint
Purgatory	The place where a sinner goes before his or her soul is allowed to enter Heaven
Mass	An important religious ceremony for Catholics
Superstition	A belief based on magic and the unknown, like good and bad luck
Tithe	A tax of 10% of people's income that was paid to the church each year

Looking After Ourselves-Key words

Puberty	The physical changes through which a child's body matures into an adult.
Adolescence	Following the onset of puberty during which a young person develops from a child into an adult.
Hormones	Essential for every activity of life, including the processes of digestion, metabolism, growth, reproduction, and mood control.
Mental Health	Our emotional, <i>psychological</i> , and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make choices.
Emotional Health	A person's ability to accept and manage feelings through challenge and change.
Self Esteem	An individual's evaluation of their own worth, beliefs about oneself as well as emotional states, such as triumph, despair, pride, and shame.
Body confidence	How a person feels about the way they look. When we have body confidence we accept, and are happy with, how we look and what our bodies can do.
Healthy lifestyle	A state of complete physical, mental, and social well-being.
Peer pressure	Peer pressure is the direct influence on people by peers, or the effect on an individual who gets encouraged to follow their peers by changing their attitudes, values or behaviours to conform to those of the influencing group or individual. This can result in either a positive or negative effect, or both.

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.



RSE and Health Education Link

This unit covers RSE topics; puberty, self esteem, peer pressure and online and media. All RSE is underpinned by Madani's ethos and Islamic teachings. We will also cover what is a healthy lifestyle and how to achieve it.

Overview

Students will explore the different stages of puberty and changes during adolescence. They will consider how puberty impacts their emotional and mental health, how they can cope with hormonal changes and maintain a healthy lifestyle throughout their adolescence. Students will also look at strategies to maintain positive self esteem and body confidence through puberty and hormonal changes.

Key Concepts

Relationships, Living in the Wider World and Health and Wellbeing.

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

Key Terms

Typography	The art, craft or process of composing type (letters/ words)
Serif	Small line attached to font to finish
San Serif	'Without' small line
Point	A measurement for font size
Ascender	Parts of the letter that ascend above the others in height I.e.h
Descender	Parts of the letters that descend below others I.e.y
Baseline	The bottom of most letters without descenders
Tracking	Equal spacing between letters within a word
Kerning	Space between individual letters
Cursive	Any style of penmanship in which some characters are joined together in a flowing manner
3D- Three Dimensional	Something that has height , width and depth (length)
Calligraphy	The art of producing handwriting or lettering
Graffiti	Writing or drawing, scribbled, scratched or sprayed primarily on a wall or other public space

Graffiti & Calligraphy

Graffiti	
Calligraphy	

Typography

Upper Case	A B C D E F G
Lower Case	h i j k l m n o p q r
Graffiti	
Calligraphy	
Tracking	
Kerning	
3D	

Topic

Engineering Materials and Properties

Material Properties

Strength:
The ability of a material to resist an applied force

Ductility:
The amount a material can be deformed

Malleability:
The ability of a material to be deformed without rupturing

Hardness:
The ability of a material to resist wear and abrasion

Toughness:
The ability of a material to withstand an impact without breaking

Brittleness:
The opposite of toughness; the potential for a material to shatter when it experiences an impact

Stiffness:
The ability of a material to resist bending

Young's Modulus:
the ratio of stress to strain of a material, showing how stiff it is



Polymers

- Polymers are the most commonly used material type in commercial production.

Thermoplastics: Consist of long chains of repeating chemical parts; the individual chains are weakly attached to each other making the material ductile. Therefore when they are heated they soften and can be reshaped; then harden when cooled.

Thermosetting polymers: Consist of long chains that contain extra links that that stop the chains from moving. When reheated the either char or burn

Composites: Are materials made by combining two or more different types of material.

Factors Influencing the Design of Solutions

Energy requirements:

- 1.Obtaining Material
- 2.Refining Material
- 3.Chaging Material Shape
4. Changing Material Properties
- 5.Transporting Materials

Sources of energy: Renewable & Non-Renewable

Non renewable energy sources: Coal, Oil, Natural Gas

Nuclear energy: uses radioactive material, low cost, can cause issues for health and the environment

Renewable energy sources: Wind Power, Tidal Power, Biomass, Solar Power



Engineering Lifespans

Engineering Lifespans:
Obsolescence (Quality/Function/Desirability)

Maintenance of Engineered Products:
Reactive Maintenance
Proactive Maintenance

Availability of Materials And User Requirements:
Suppliers going out of business
Market forces, where demand for a material is greater than supply
Limits on the ability to obtain a material from a foreign country, such as local wars or trade restrictions



Metals & Alloys

- Metals are made from metal 'ores'. The ore's are rocks/minerals dug from quarries/mines then refined & processed, turning them into usable forms

Alloy: A mixture of two or more metals

Ferrous metals: Contain iron as their largest alloying element.

Non-ferrous metals: Do not contain iron

Aluminium: Commonly found, usually alloyed, corrosion resistant, low density. Uses- drinks cans, aeroplane wings and body panels

Copper: Can be alloyed to make brass and bronze, excellent electrical and thermal conductor, extremely ductile. Uses- electric wires, water pipes

Lead: Relatively soft, malleable, ductile and good corrosion resistance. Uses- construction, around roofs, shielding radiation

Zinc: Low melting point, good for die-casting. Uses- car door handles, camera bodies

Changing the properties of metal products:
alloying allows-modifying the structure of the metal, changing the surface chemistry

Available forms: Ingots, flat plates, sheets, strips, bars, rods, tubes, pipes, standard section forms and wire

Material Costs & Supply

Cost: Is the price of the product/material

Availability: How easy it is to get/obtain

Form: The shape and dimensions of a material

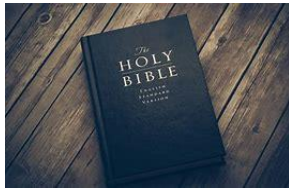
Supply: Making something available

Calculating costs: Based on amount of material required including aesthetic and functional considerations

Topic

Christianity:

- Beliefs
- Worship
- Practice



Key Words

- Jesus
- Church
- Messiah
- Bible
- Trinity
- Saviour



Jesus As The Messiah

Messiah is a Hebrew word meaning 'anointed one'. Christians believe that Jesus is the Messiah because through his crucifixion and resurrection he brought salvation to humankind.

God gave his only son, Jesus, so that all humans could be saved

Jesus was a perfect human - he had no sin

God placed all of humanity's sins on Jesus when he was crucified

Jesus' actions meant that there was a reconciliation between God and humanity

Jesus' death atoned for human sin

As a result of Jesus' sacrifice, humans now have the possibility of going to Heaven

Christianity

Beliefs

While there are many different types of Christians, the majority of Christians share the same basic beliefs. All Christians believe in one God, and most also believe that Jesus was God's son sent to Earth in human form. Jesus was put to death but was resurrected and ascended to heaven. Christians believe that the events of Jesus's life are important and that people should follow his teachings.

Holy Book

The Christian holy book is the Bible, which means 'books' as it is a collection of many different books gathered together into a single volume. The Christian Bible is divided into the Old and New Testaments. The Old Testament was written before the birth of Jesus and is based on ancient Jewish scriptures called the Tanakh. In Protestant Christianity, there are 39 Old Testament books, with 46 in Catholicism.

Worship

Many Christians worship in special buildings such as churches or chapels, and Christian worship can be different depending on the denomination.

Symbol

The cross is the symbol of Christianity. Jesus Christ was executed by the Romans and died by being crucified on a wooden cross. Christians remember his death and resurrection by wearing crosses. Sometimes crosses will have a figure of Jesus on them. These are called crucifixes.

Denominations

Christians share many beliefs, but they don't all agree on everything. This has resulted in the development of different groups within the religion called denominations. Examples of these include Anglican, Methodist, Baptist and Catholic. Different Christian denominations worship in different ways. Anglicans, Catholics and Orthodox Christians have a set form of worship. It is a formal ritual based around the sacraments, particularly Holy Communion.

Topic

Sikhism:

- Beliefs
- Worship
- Practice



Vaisakhi

Guru Gobind Singh was the last of the ten gurus of the Sikhs and the founder of the Khalsa (a special community of initiated Sikhs who take on the wearing of the 5Ks). Vaisakhi is the festival celebrated by Sikhs to remember the formation of the Khalsa, and celebrate the start of the Sikh New Year.



Sikhism

Beliefs	Sikhism was founded in the Punjab region of India by Guru Nanak who was born in the year 1469. Guru Nanak taught that everyone is equal in the eyes of God. The word Guru means a spiritual guide or teacher. Sikhs believe in one God called Waheguru which means 'Wonderful Lord' or 'Wonderful Teacher'. Waheguru gives life to everything, and all life is part of Waheguru. Many Sikhs today join the Khalsa, which is a special community of initiated Sikhs. It was started by Guru Gobind Singh, the tenth Guru. To be part of the Khalsa, Sikhs must take part in the amrit ceremony, where they promise to keep all the rules of their religion and wear the 5 Ks.
Holy Book	The most important Sikh holy book is called the Guru Granth Sahib. The Guru Granth Sahib is a collection of songs, prayers and hymns from the Sikh Gurus and other holy men, as well as teachings from other faiths. Sikhs believe that the Guru Granth Sahib is the word of God, and it is used in all Sikh worship and ceremonies. Sikhs show the Guru Granth Sahib great respect and it is treated as if it is a living person. The Guru Granth Sahib is placed on a throne in the gurdwara called a takht, and is cared for by a Granthi who reads aloud from the book during ceremonies. The Granthi also make sure that the book is covered by cloth when not in use and that it is protected from heat and dust.
Worship	Sikhs worship in a gurdwara. The word gurdwara means 'door to the guru'. The gurdwara brings Sikhs together and supports the Sikh message of equality by offering food, shelter and company to anyone who may need it, regardless of their faith. A gurdwara does not have to be a special building, but it must contain the Guru Granth Sahib, the Sikh holy book. You can identify a gurdwara by a yellow flag flying outside with the Sikh symbol on it. This is called the Nishan Sahib
Symbol	The Khanda is the symbol of the Sikh faith. It consists of three different types of weapons: -A double edged sword or khanda in the centre. -A round throwing weapon known as a chakkar. -Two single-edged swords called kirpans, crossed either side of the other weapons.
The Khalsa	The amrit ceremony is one of the most important ceremonies in Sikhism. It was started by Guru Gobind Singh, the tenth Sikh Guru, who called for Sikhs to defend their faith against the persecution that was happening to them at the time. Guru Gobind Singh asked for volunteers who were prepared to die for their faith. Five men volunteered, but instead of being killed, they were spared and became known as the panj piare – which means 'the five beloved ones'. They were the first members of the Sikh community known as the Khalsa.

How is Guru Nanak celebrated?

To celebrate Guru Nanak Gurpurab, the Sikh community gathers together to take part in a street procession called a nagar kirtan. The Guru Granth Sahib (the Sikh holy book) is carried through the streets on a specially decorated float, Sikhs join together to sing, dance and play musical instruments.
Sikh worship and festivals are followed by the langar. This is a free, vegetarian meal which takes place in the Gurdwara, the Sikh holy building. This meal is offered to everyone, regardless of their faith and is cooked and served by both men and women, with everyone sitting together on the floor to eat. The langar symbolises equality, which was one of the most important teachings of Guru Nanak



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