



Knowledge Organisers – Autumn 1



Year 5

English

Maths

Science

Geography

History

Art

Music

PSHE

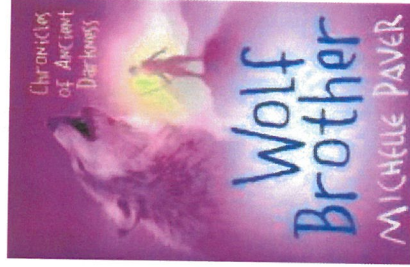
Computing

RE

Latin

PE

Wolf Brother - Knowledge Organiser



Key Information

Plot: Six thousand years ago. Evil stalks the land. Only twelve-year-old Torak and his wolf-cub companion can defeat it. Their journey together takes them through deep forests, across giant glaciers; into dangers they never imagined.

Setting: In the Mesolithic Era, six thousand years ago, after the end of the last ice age. Torak and his father, of Wolf Clan, live alone in the Forest

Theme: Loyalty, friendship, bravery

Key Characters

Torak	An orphaned 12-year-old boy
Wolf	A wolf and Torak's pack brother. Wolf will do anything to save Torak from harm
Renn	An excellent hunter, skilful with many weapons but her favourite is the bow. Her bow was her "friend" until she met Torak
Fin Keddin	Leader of the Raven Clan. Renn's uncle.
Oslak	Raven Clan member. First person in the clan to offer Torak a place in his shelter.

Blurb

Torak is alone: wounded, terrified and on the run. His father lies dead, slaughtered by a demon beat. His only ally is an orphaned wolf cub...

A breathtaking adventure that carries you back thousands of years to a shadowy world steeped in natural magic. The first in the internationally bestselling series, CHRONICLES OF ANCIENT DARKNESS.

'The kind of story you dream of reading all too rarely find.'

Discussion Points

Why is Torak upset by his father's insistence that he find the Mountain of the World Spirit?

Wolf calls Torak Tall Tailless and thinks of him as a pack-brother.

Why doesn't Wolf respond in a similar manner to Renn?

How does Wolf's opinion of the female tailless change with time?

Torak escapes captivity because he is helped by one of the Raven Clan.

Why does Renn help Torak?

Key Quotes

"He cheated! He used fire!" "No, he won fairly enough!"

"Run, Torak! The bear...is...possessed..."

"I saw you! So it's true. The Prophecy is true. You are the Listener."

Wolf Vocabulary

The fast wet	River
The bright beast that bites hot.	Fire
Tall tailless	Torak (humans)
Not breath	No longer alive

The Author

Michelle Paver, author of The Chronicles of Ancient Darkness series explains her inspiration for writing.

Why do so many children love the idea of being snowed in or shipwrecked; of having to survive on one's own? When I was a child, I was no exception. I wanted to hunt with a bow and arrow like the Stone Age people; to skin deer and build my own shelter. And I desperately wanted a wolf. As we lived in London, my options were limited. I bought a rabbit from the butcher's "with the fur still on", and skinned it and cured its hide with salt. I got rid of my bed, and slept on the floor. I dug up the lawn to grow obscure medicinal herbs. But although my parents tolerated the herbs and the sleeping on the floor, they drew the line at a wolf, and got me a spaniel instead.

*Time passed I went to university, travelled, wrote books for adults and then an encounter with a bear took me back to my childhood dreams; **The Chronicles of Ancient Darkness** was born.*

Number and Place Value

Knowledge Organiser

Key Vocabulary

millions

thousands

hundreds

tens

ones

zero

place value

greater than

less than

order

round

rounded

negative number

partition

digit

interval

sequence

linear sequence

Compare and Order

equals

$$26 + 38 = 8 \times 8$$

Both calculations have the value 64.

greater than

$$23\ 873 > 8256$$

The number on the left has 2 ten thousands and the number on the right has 0 ten thousands.

less than

$$901\ 198 < 1\ 091\ 098$$

The number on the right has 1 million and the number on the left has 0 millions.

smallest

898

6735

6835

7019

9002

11 235

greatest

Negative Numbers



Counting in Powers of 10

Counting in 10s

365

375

385

395

405

415

The tens increase until 9 tens becomes one more hundred and 0 tens.

Counting in 10 000s

276 109

286 109

296 109

306 109

The ten thousands increase until 9 ten thousands become one more hundred thousand and 0 ten thousands.

Counting in 100s

2841

2941

3041

3141

3241

3341

The hundreds increase until 9 hundreds becomes one more thousand and 0 hundreds.

Counting in 100 000s

2 972 151

3 072 151

3 172 151

3 272 151

The hundred thousands increase until 9 hundred thousands becomes one more million and 0 hundred thousands.

Number and Place Value

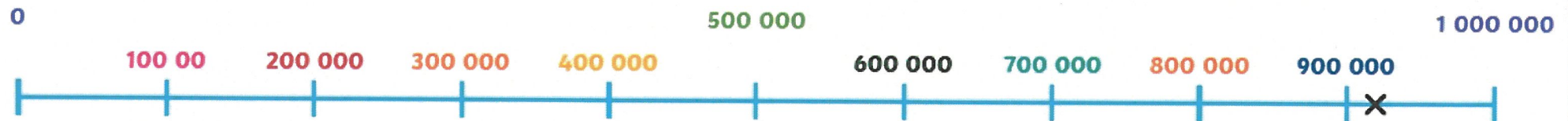
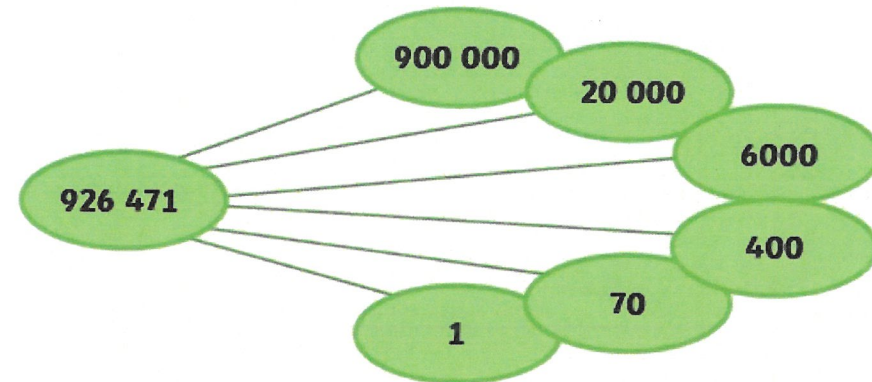
Knowledge Organiser

Numbers to One Million

926 471

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
9	2	6	4	7	1

nine hundred and twenty-six thousand, four hundred and seventy-one



Roman Numerals

	I = 1	II = 2	III = 3	
IV = 4	V = 5	VI = 6	VII = 7	VIII = 8
IX = 9	X = 10	XI = 11	XX = 20	XXX = 30
XL = 40	L = 50	LX = 60	LXX = 70	LXXX = 80
XC = 90	C = 100	CL = 150	CC = 200	CCC = 300
CD = 400	D = 500	DC = 600	DCC = 700	DCCC = 800
CM = 900	M = 1000	MC = 1100	MD = 1500	MM = 2000



CCXLVIII = 248 DCCLXXXIV = 784 MMXIX = 2019

Rounding

Rounding to the nearest 10



Rounding to the nearest 1000



Rounding to the nearest 100 000



Addition and Subtraction

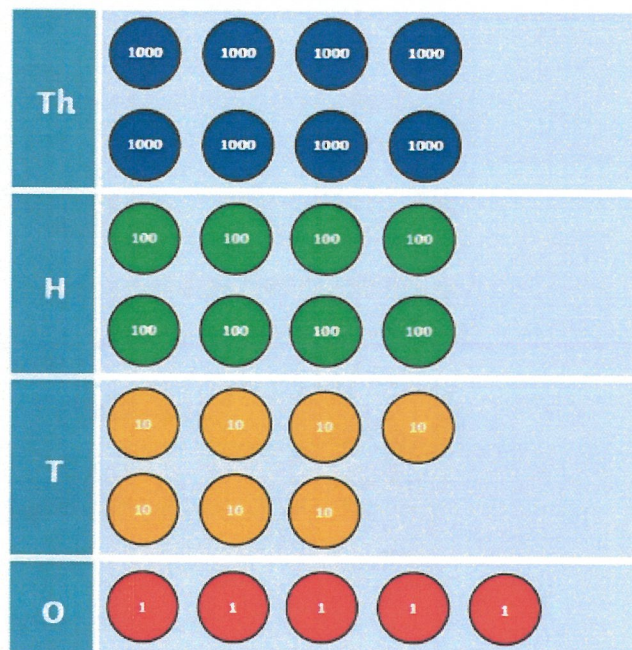
Knowledge Organiser

Key Vocabulary

Add
Total
Make
Plus
Sum
More
Altogether
Difference
Subtract
Less
Minus
Take away
Column addition
Column subtraction
Estimate
Inverse operation
Number facts
Place value
Complex

Addition

Place Value Grid: $3274 + 5601 = 8875$



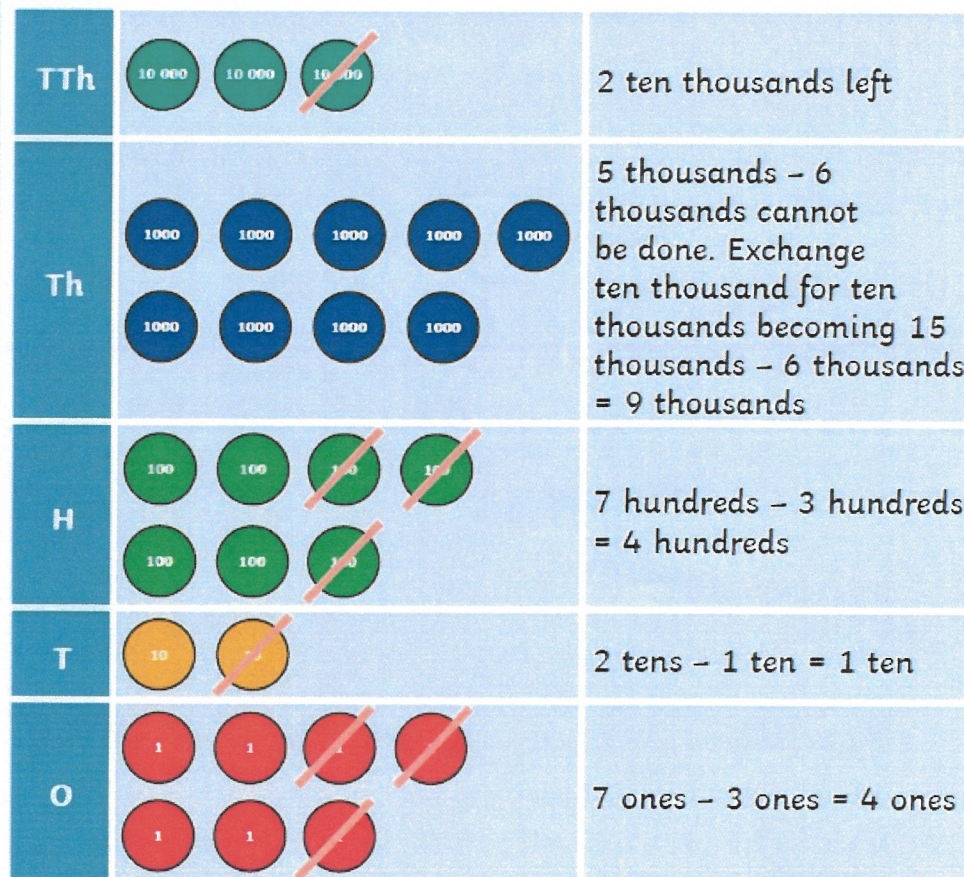
Column Method

Starting with the ones, add each column in turn. Regroup tens, hundreds, thousands, ten thousands and/or as required.

$$\begin{array}{r} 45864 \\ + 23497 \\ \hline 69361 \\ 111 \end{array}$$

Subtraction

Place Value Grid: $35\,727 - 6313 = 29\,414$



Column Method

Starting with the ones, subtract each column in turn. Exchange tens, hundreds, thousands and/or ten thousands as required.

$$\begin{array}{r} 35\overset{6}{7}\overset{13}{4}2 \\ - 3476 \\ \hline 32266 \end{array}$$

Estimate and Approximate

Rounding to Estimate

$$41\ 635 + 7386 = 49\ 021$$

Round to ten:

$$41\ 630 + 7380 = 49\ 010$$

$$41\ 630 + 7390 = 49\ 020$$

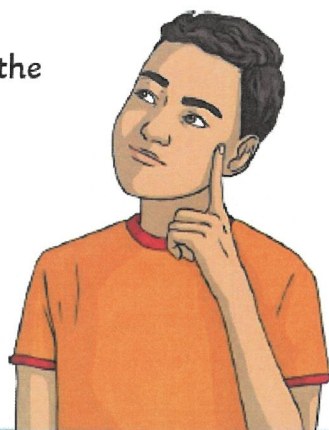
$$41\ 640 + 7390 = 49\ 030$$

Rounding is not as accurate when both numbers are rounded up. A better estimate comes from "rounding" one down and one up.

Estimating on a Number Line



The arrow is about $\frac{3}{4}$ of the way across the line so it is 40 000.



Inverse Operations

Use the inverse to check:

53 476

32 732

20 744

To check $53\ 476 - 32\ 732 = 20\ 744$
use $32\ 732 + 20\ 744 = 53\ 476$

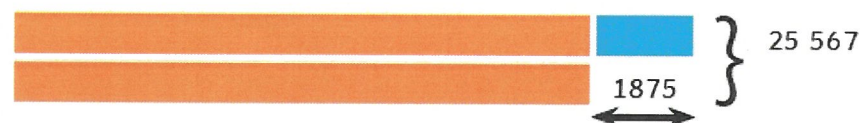
Start with a number, subtract 409 and double. I end with 6264. To find the starting number use the inverse: halve, then add 409. Half of 6264 = 3132. $3132 + 409 = 3541$. The starting number was 3541.

Multistep Problems

Using a Bar Model

The sum of two numbers is 25 567.

The difference is 1875.



Subtract 1875 from 25 567 = 23 692.

Halve 23 692 to find smaller number = 11 846.

Add 1875 to find larger number = 13 721.

£20			£20 is used to buy 2 books costing £3.75 and £8.49.
£3.75	£8.49	?	
£12.24		£7.76	How much change is given?

$$£3.75 + £8.49 = £12.24$$

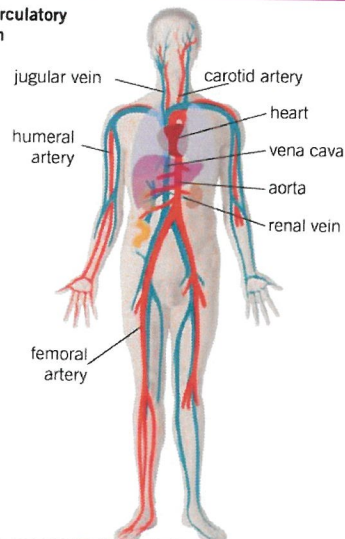
$$£20.00 - £12.24 = £7.76$$

Knowledge Organiser – Human Body – Science – Y5

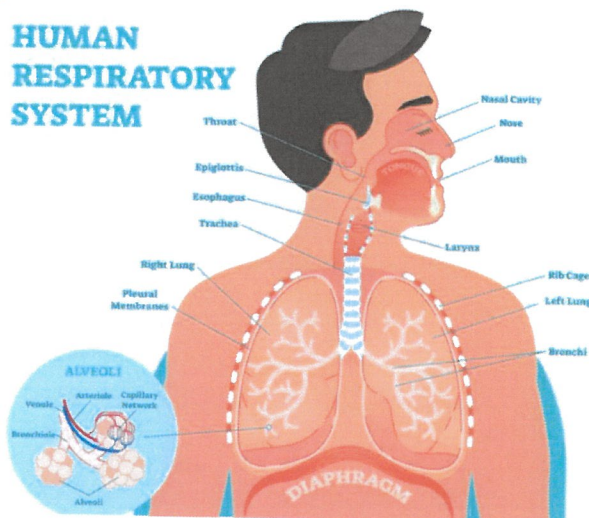
Key Vocabulary:

Circulation	The circulatory system is the system that moves blood around the body.
Respiration	The respiratory system is the set of organs that allows a person to breathe and exchange oxygen and carbon dioxide in the body.
Muscle	A band of tissue in the body that has the ability to contract, producing movement in parts of the body.
Oxygen	We breathe in oxygen which is then transported around the body by red blood cells. In the human body, the oxygen
Carbon dioxide	Your blood carries carbon dioxide to your lungs which is then breathed out.
Veins	Veins carry blood back towards the heart.
Arteries	Arteries carry blood away from the heart.
Capillaries	Tiny blood vessels that carry blood to the individual cells - they join the arteries to the veins
Pulse	The beating of the heart which can be felt by feeling the arteries of the wrist or neck.
Blood vessels	Arteries, veins and capillaries

The circulatory system



HUMAN RESPIRATORY SYSTEM



Key Knowledge:

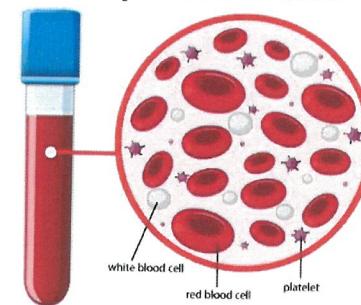
I know the main organs in the body.
I understand how the heart functions.
I understand the difference between the circulatory and respiratory systems.
I understand the importance of blood and can explain why we need it.
I understand the function of the lungs and the effects of smoking on the lungs.

Diseases caused by Smoking

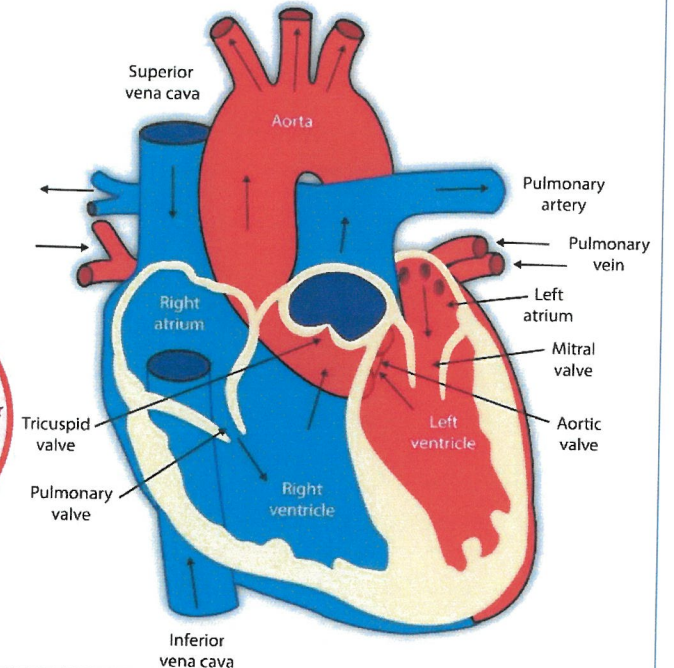
- Cancer e.g. throat, lungs or mouth cancer
- Emphysema
- Heart disease
- Asthma
- Bronchitis
- Heart failure
- Blockage in the arteries



Composition of Blood



Liver	This organ removes toxins from the blood and makes blood	
Lungs	This is where oxygen gets into the blood. Carbon dioxide leaves the blood here.	
Small and large intestines	This is where the body absorbs food and water into the blood.	
Heart	This pumps blood to all parts of the body.	
Brain	This control most of the things your body can do.	
Kidneys	These help the body to get rid of waste and they make urine.	
Stomach	This mixes food with acid and gastric juices. It starts to break down food.	

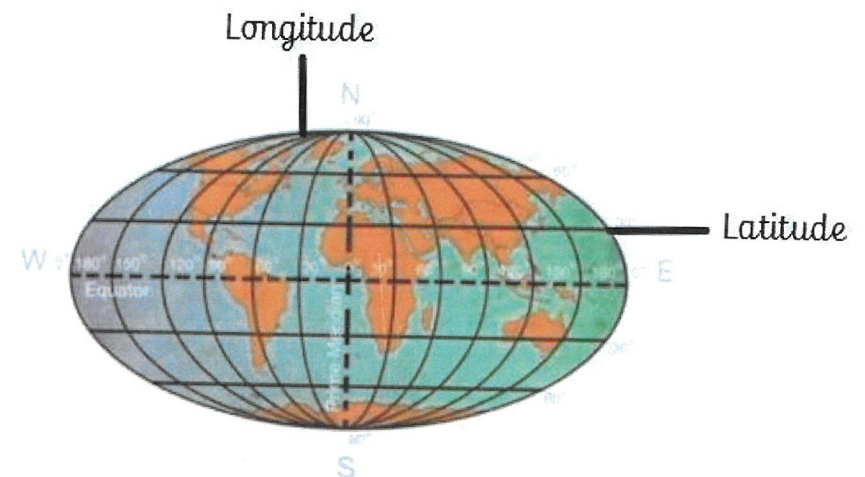
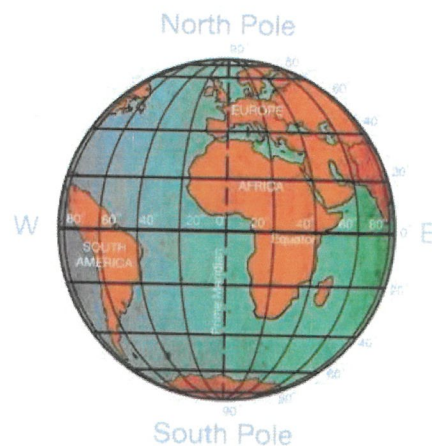


Knowledge Organiser- Spatial Sense - Geography - Year 5

Key Vocabulary	Definition
Prime meridian line	An imaginary line that divides the earth into two sections to show the EASTERN and WESTERN hemispheres. It also used as the BASIS for world time zones.
Longitude	Imaginary LINES parallel to the prime meridian line that help map makers locate places with accuracy. (Vertical lines)
Latitude	Imaginary LINES parallel to the equator that help map makers to locate places with accuracy. (Horizontal lines)
Eastern Hemisphere	A term used to DESCRIBE places that are east of the meridian line.
Western Hemisphere	A term used to DESCRIBE places that are WEST of the meridian line.
Relief maps	A map that uses shading and colours to indicate the height of the land.

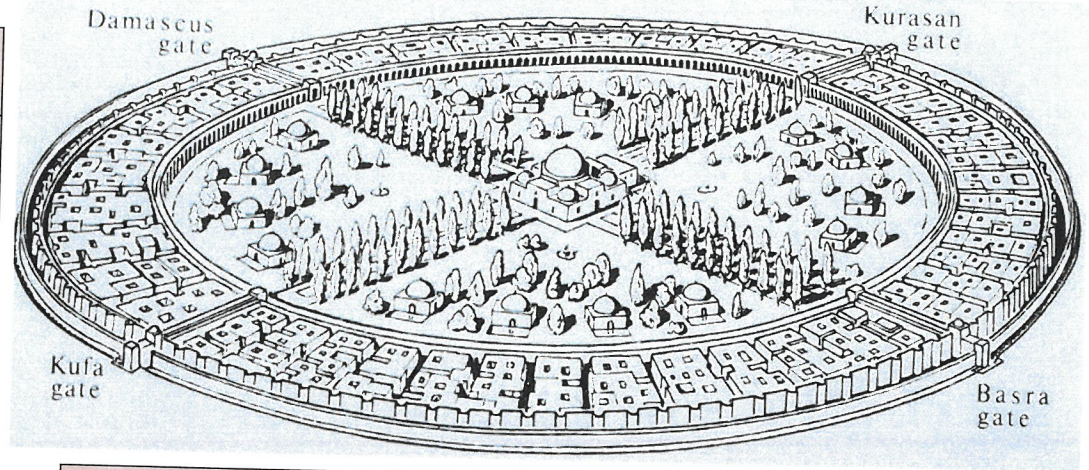
Key Knowledge:

- I understand that map makers draw imaginary lines to divide the world into sections.
- I can locate places in the Eastern and Western hemispheres.
- I can use coordinates to locate places on a map.
- I know how scale is used on a map.
- I understand that a relief map shows heights on the map.



Knowledge Organiser - Baghdad 900 CE - History – Year 5

Key Vocabulary	Definition
Mesopotamia	In the continent of Asia, between the River Tigris and the River Euphrates, there was a warm and pleasant region called Mesopotamia, meaning 'the place between two rivers'.
Cuneiform	Cuneiform is believed to be one of the oldest writing systems in the world. It was developed in Mesopotamia.
Civilisation	A civilisation is a nation, or group of people, that share a common culture, common laws, a common economy, and typically a common faith or religion.
'City of Peace'	Baghdad 900 CE was referred to as the 'City of Peace'.
House of Wisdom	The House of Wisdom was a place in Baghdad where texts were translated and where people came to learn and read. It is remembered as one of the world's greatest libraries.
Mongols	The Mongols (originally from Mongolia) were a tribe of nomads who rode on horseback across central and northern Asia.



Key People	What did they do?
Caliph Al-Mansur	A religious leader who is remembered for founding the city of Baghdad.
Al Tabari	He was an influential scholar, historian and translator/ interpreter.
Hulago Khan	A Mongolian ruler who invaded Baghdad in 1258 and destroyed the city.

Timeline of Baghdad: 762-1258

762 CE

The construction of Baghdad began in 762 CE when Caliph Al-Mansur laid the first brick

900 CE

Baghdad became a hugely significant city by CE 900 and people came from all over the world to visit the city.

1258 CE

Mongol forces invaded and destroyed the city. Much of the population was killed.



Scholars at an Abbasid library

Maqamat of al-Hariri Illustration by Yahya al-Wasiti, Baghdad 1237

Key Knowledge:

I understand that an ancient civilisation began in Mesopotamia.

I know that Baghdad is a city that was built near the Tigris River, in Mesopotamia, a long time ago.

I understand the layout of Baghdad in 900 CE.

I understand that many people came to Baghdad from around the world to trade, teach and learn.

I know that the Mongol attack on Baghdad destroyed the city.

Knowledge Organiser – Islamic Art and Architecture - Visual Arts - Year 5

Key Vocabulary	Definition
Islamic art/architecture	Art or architecture which relates to the religion of Islam or the Islamic world.
mosque	A place of worship for Muslims.
minaret	A thin tower, usually part of a mosque, from which a person calls Muslims to prayer.
dome	The hollow, upper half of a sphere, often used in Islamic architecture.
calligraphy	Decorative handwriting.
geometric patterns	A pattern made out of geometric shapes such as triangles, squares, circles.
vegetal patterns	A pattern made out of shapes and lines which represent plants.
figural	Art work showing humans or animals.

Key Knowledge:

I understand what Islamic art and architecture means.

I understand that Islamic art uses calligraphy, geometric and vegetal patterns.

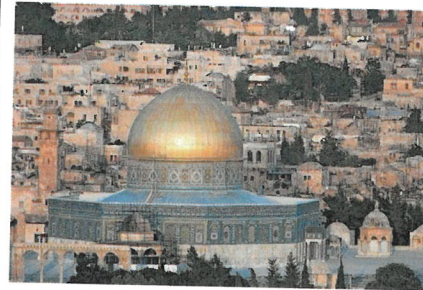
I know common features of Islamic architecture.

I understand how the Alhambra shows features of Islamic art and architecture.

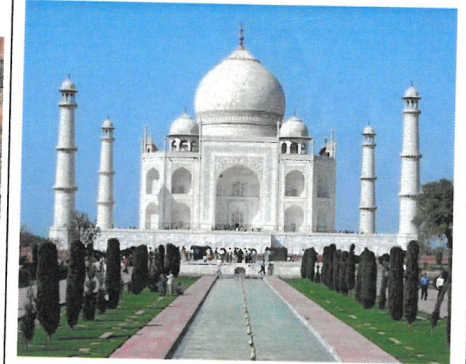
I can explore the Islamic art and architecture of the Taj Mahal.

Architecture

The Dome of the Rock (691 - Jerusalem)



The Taj Mahal (1632 – Agra, India)



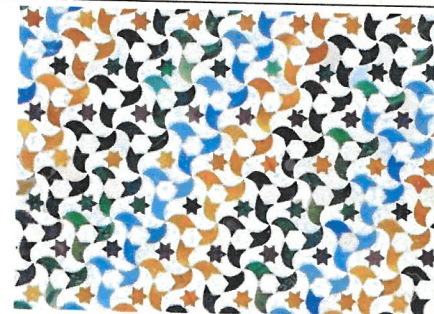
The Alhambra – (Granada, Spain)



Court of the Lions, Nasrid Palaces, (1300s)



Plasterwork - Nasrid Palaces (1300s)



Geometric tilework - Nasrid Palaces (1300s).



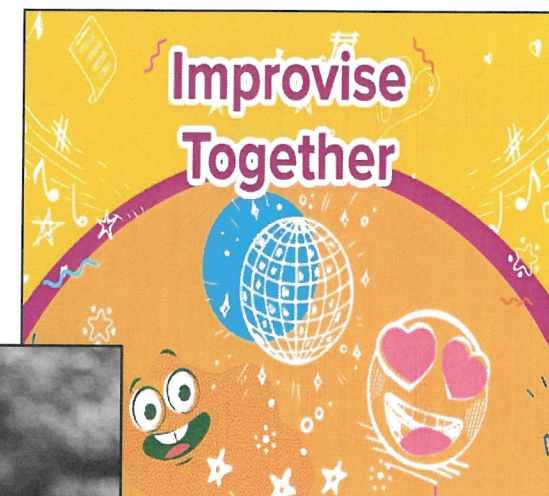
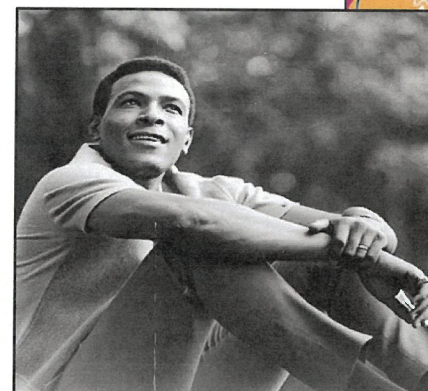
Plasterwork calligraphy - Nasrid Palaces showing arabic writing which reads, "There is no victor but God."

Music Knowledge Organiser – Unit 1: Shaping Music

Key Vocabulary	
Improvise	To create music spontaneously without preparation.
Compose	To create a piece of music through the combination of rhythm and melody.
Ternary Form	A structure consisting of three sections (ABA), where the first and last sections are the same.
Drone	A sustained note that serves as a harmonic foundation.
Melody	A sequence of musical notes that is perceived as a single entity; the main tune of a piece of music.
Major Scale	A scale that typically sounds happy or bright, constructed using specific intervals.
Minor Scale	A scale that sounds contrasting and is constructed with different intervals from those of a major scale.



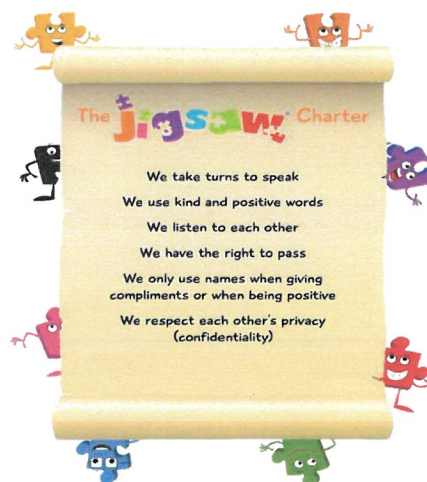
Unit Objectives
To improvise confidently over a drone or groove.
To compose a short ternary piece using Music Notepad.



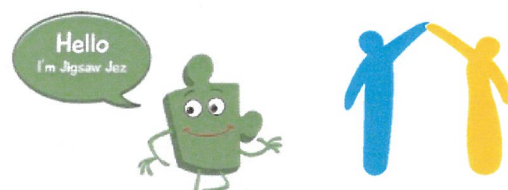
I Can Statements:
I know what 'ternary form' is.
I know how to write a piece of music with Music Notepad using an appropriate clef and adding details such as dynamics.
I can read and play melodies from written music, understanding how different note values (such as crotchets and quavers) and time signatures (2/4, 3/4, 4/4) work together to create rhythm.
I can improvise confidently, reflecting the character of the backing music.

Knowledge Organiser – PSHCE – Being Me in My World - Year Five

Vocabulary	
Refugee, Asylum, Refugee.	See below
Prejudice	Preconceived opinion that is not based on reason or actual experience.
Citizen	Someone who is a citizen of a particular country is legally accepted as belonging to that country.
Persecution	Hostility and ill-treatment, especially because of race or political or religious beliefs.
Collaboration	The action of working with someone to produce something.



Key knowledge
I can face new challenges positively and know how to set personal goals
I can understand my rights and responsibilities as a British citizen and as a member of my school.
I can make choices about my own behaviour because I understand how rewards and consequences feel.
I understand how an individual's behaviour can impact on a group.
I can understand how a democracy and having a voice benefits the school community and know how to participate in this.



REFUGEE - Forced to leave their country - Fleeing armed conflict or persecution - Do not know where they'll end up	MIGRANT - Choose to move - No direct threat of persecution or death - Mainly to improve their lives - Finding work	ENVIRONMENTAL MIGRANT - Fleeing from natural disaster - Still enjoys its government's protection	ASYLUM SEEKER - Person who left country - Applied for refugee status - Awaiting decision on their application - Not to be confused with refugee
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Reflective Questions
Ask me this...
What strategies could you use to help you through a new challenge?
How does the government ensure that everyone's rights are met?
Is it the government's responsibility to ensure that every citizen in our country can have their rights met?
What are the rewards and consequences in school?
What are your responsibilities to yourself or others so that everybody has the chance to learn?

Knowledge Organiser- Computing Systems and Sharing Information – Computing – Year 5

Key Vocabulary	Definition
System	Computer systems are a combination of both hardware and software working together. Hardware is the physical components of a computer and software is the programs that run on a computer.
Input	An input is data or message that a device receives
Process	A process is what a device does with the message or data it receives.
Output	The output is the data that the device sends out after acting on the input.
IP Address	An IP address (short for Internet Protocol address) is a label which is used to identify one or more devices on a computer network, such as the internet. It can be compared to a postal address. An IP address is a long number written in binary.
Collaboration	Working together with multiple people on a project with a shared end goal.
Algorithm	A set of instructions, written in chronological order, that are used to get a task done.
Packet	Information sent from device to device in small chunks. Each packet includes information about where the data is going to go, where it is from and how to interpret it.

Systems

- Systems are a set of things that work together to create a whole outcome.
- Computer systems are made up of inputs (something that sends a message to the device), processes (the way the device acts on the message) and outputs (something that is sent out by the device).



Working Together

- The internet can be used to help people collaborate on projects online, even when they are miles apart.
- Collaboration means working together on something to reach a shared goal.
- Shared 'cloud' functions and online drives can be used to store projects that multiple people can access at one time.

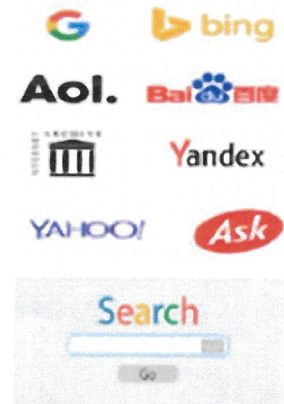


Key Knowledge:

- To know that computers can be connected together to form systems
- To recognise the role of computing systems in our lives
- To be able to experiment with search engines
- To understand and describe how search engines select results
- To know how search results are ranked
- To understand why the order of results is important and to whom

Search Engines - Introduction

- We can find information on the World Wide Web by using search engines.
- A search engine is a program that finds websites & webpages based on key words entered by the user.
- When the World Wide Web was invented by Tim Berners-Lee in 1989, there was only 1 website. By 2018, there were 1,630, 322, 579! The World Wide Web is a big place, and we need search engines to be able to find what we need.
- Some examples of search engines are Bing, Google, Yahoo, DuckDuckGo and Kiddle.
- You can also type searches into the address bar of the browser (e.g. Google Chrome or Microsoft Internet Explorer).



Selecting and Ranking Search Results

Selecting Search Results

- Search engines use programs known as crawlers to index the World Wide Web.
- They 'crawl' websites for searchable information – they then store where it is found in a huge index.
- Search engines select information from this index when we type in key words.
- Searching for some search terms can bring many millions of results.
- We need to make sure that our search terms are as refined as possible, in order to allow the search engine to select the information that is most relevant.

Ranking Search Results

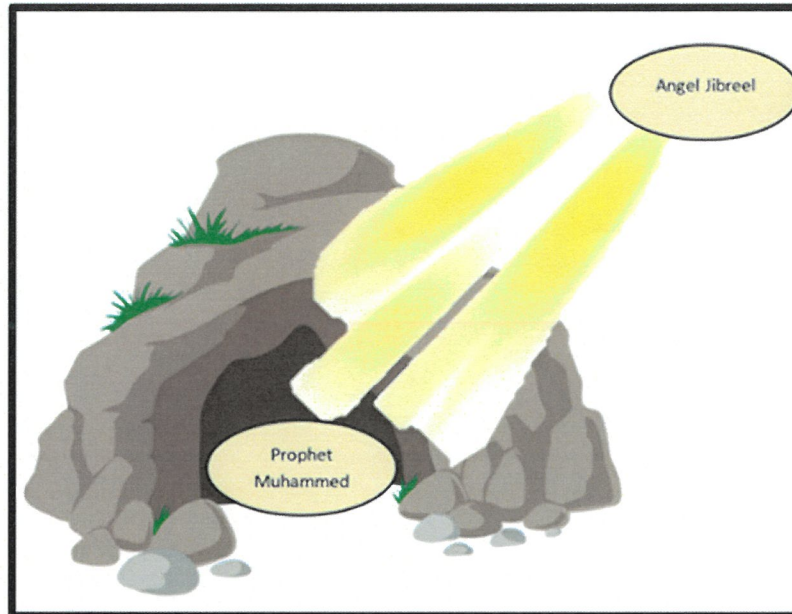
- Search engines 'rank' the web pages (the highest ranked page is at the top).
- Search engines use algorithms to do this – algorithms look at a number of different factors and give web pages a score for each.
- The web page with the highest score ranks the highest.
- Some factors include if the search term is in the title of the page (high points) or if it appears in the paragraphs of the text on the page (lower points).
- Web designers consider algorithms when making web pages.

R.E. Year 5 Autumn 1 Islam Knowledge Organiser

Enquiry: Why is Muhammad (PBUH) important to Muslims?

Key Knowledge

- I know how some people become important in religions
- I know Muhammad (PBUH) is the Islamic religious leader
- I know how Muhammad (PBUH) became a religious leader
- I can explain how Muslims worship
- I know that religions can influence how people live



What makes an ordinary person become a very important religious leader?
 How did Muhammad (PBUH) change Arabia and then the world?
 Why is the Qur'an so important for Muslims?
 How do the teachings of Muhammad (PBUH) influence how Muslims lead their lives?

Key vocabulary	Definition
Muhammad (Peace Be Upon Him)	The Prophet who brought the word of God to the Muslim Holy book.
Islam	The name of the religion of Muslims.
Qur'an/Quran/Koran	The name of the Muslim Holy book.
The Angel Jibreel	The name of the angel who brought the word of God to Muhammad (PBUH).
revelation	A revealing of facts – in holy books it means when God revealed his thoughts and ideas to a human.
Prophet	A man or woman who shares the word of God.



Mecca

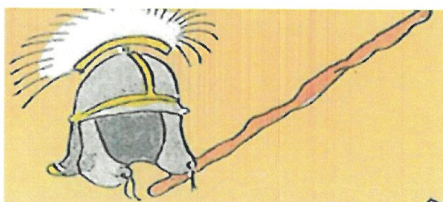
Latin Knowledge Organiser - Unit 7: The Military Machine

Key Vocabulary

Latin	English
quid est?	What is it?
galea	helmet
gladius	sword
pilum	javelin
scūtum	shield
cavē	be careful!
lōrica	breastplate
siste!	stop!
pugiō	dagger
relinque!	leave it!
periculōsus	dangerous
ecce!	look!
mīlitēs	soldiers
audīte!	listen!
sūmite!	pick up!
portāte!	carry!

Key Knowledge

- To learn imperative verbs (singular and plural)
- To translate simple sentences with imperative verbs
- To compare and contrast traditional tales from different cultures.



Grammar

Words we use to give commands called imperative verbs, e.g. Stop! Leave it!

Verbs can be changed from singular to plural form'. For example, venī becomes venīte - Come! (said to one person, or said to many people)

UnitMotto

per aspera ad astra =

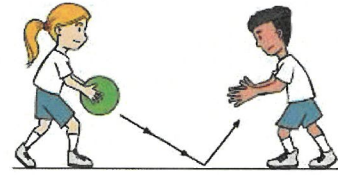
Through hardship to the stars.



Key Vocabulary	Definition
Footwork	The first foot to touch the ground when receiving a ball is the landing foot. The landing foot must remain on the ground, the other foot may be moved in any direction, pivoting on the landing foot.
Held ball	A player has 4 seconds to shoot or pass.
Rebound	A player attempts to shoot but the ball hits the ring and comes back into play..
Free pass	Awarded to a team when the opposition commits a foul.
Intercept	To cut out a pass to gain possession.

Skill Development

To develop passing and moving to maintain possession.
 To use a variety of attacking skills to lose a defender.
 To move into and create space to support a teammate.
 To use defending skills to gain possession.
 To develop accuracy when shooting under pressure.
 To apply skills, tactics and principles in a game situation.

Skills	
Pivot	
Passing	
Shooting	