

# **Knowledge Organisers**

## **1<sup>st</sup> Autumn Term**

**Science**

**History**

**Geography**

**Art**

**PSHE**

**Latin**

**Computing**

**R.E.**

**Music**

**P.E.**

# **Year 5**

# 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

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

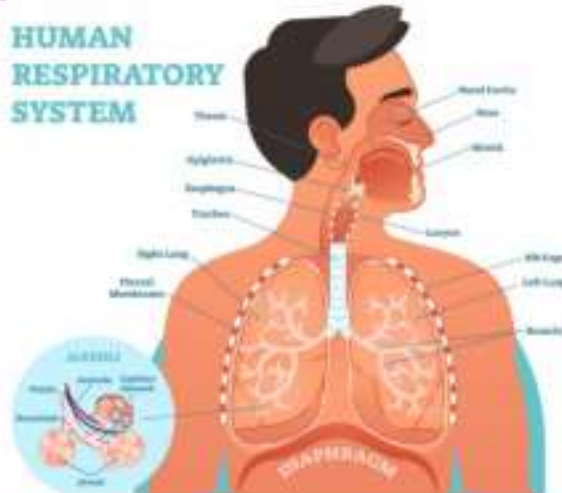


<b>Liver</b>	This organ removes toxins from the blood and makes blood	
<b>Lungs</b>	This is where oxygen gets into the blood. Carbon dioxide leaves the blood here.	
<b>Small and large intestines</b>	This is where the body absorbs food and water into the blood.	
<b>Heart</b>	This pumps blood to all parts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

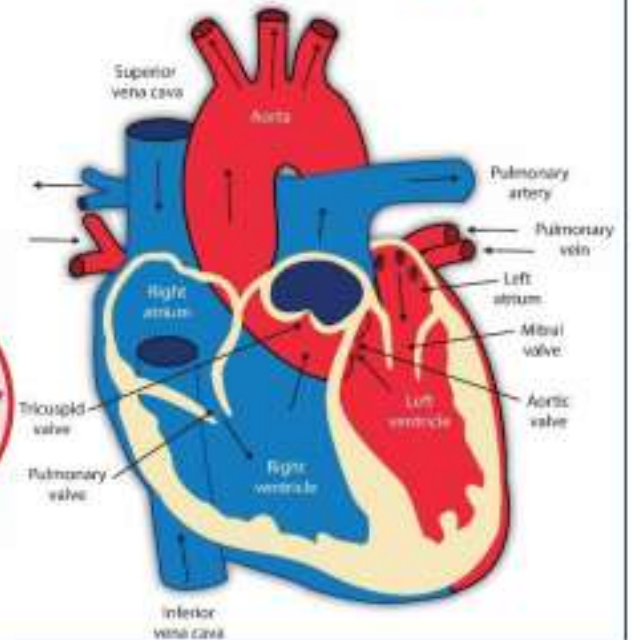
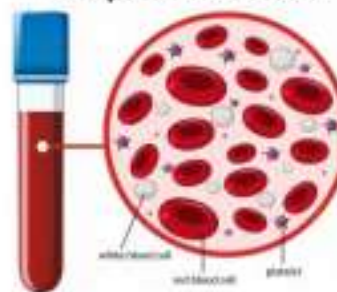
The circulatory system



## HUMAN RESPIRATORY SYSTEM

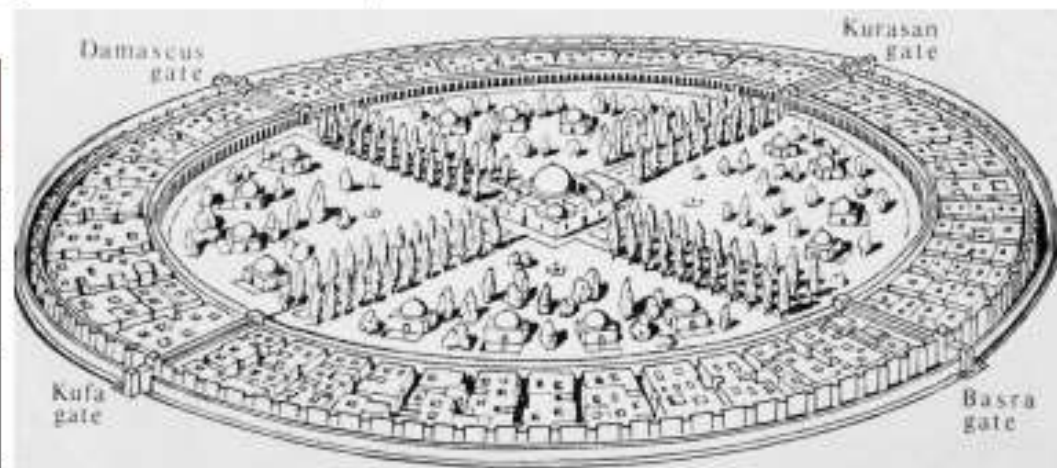


## Composition of Blood



## Knowledge Organiser - Baghdad 900 CE - History – Year 5

Key Vocabulary	Definition
<b>Mesopotamia</b>	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'.
<b>Cuneiform</b>	Cuneiform is believed to be one of the oldest writing systems in the world. It was developed in Mesopotamia.
<b>Civilisation</b>	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.
<b>'City of Peace'</b>	Baghdad 900 CE was referred to as the 'City of Peace'.
<b>House of Wisdom</b>	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.
<b>Mongols</b>	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?
<b>Caliph Al-Mansur</b>	A religious leader who is remembered for founding the city of Baghdad.
<b>Al Tabari</b>	He was an influential scholar, historian and translator/ interpreter.
<b>Hulago Khan</b>	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

Master of al-Hakim illustration by Yahya al-Nasir, Baghdad 1107

#### 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.



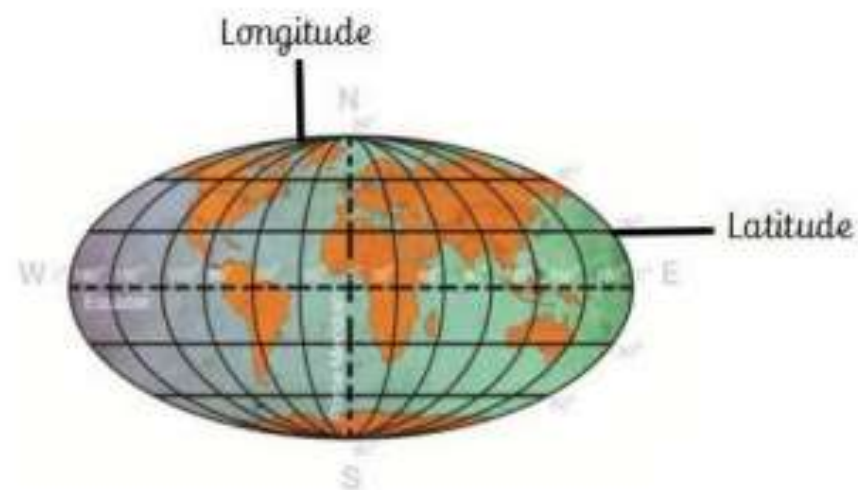
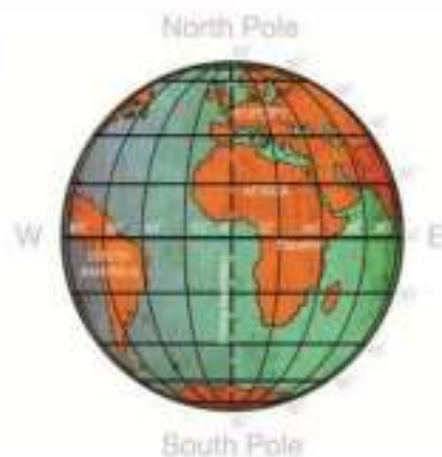
## Knowledge Organiser- Spatial Sense - Geography - Year 5

Key Vocabulary	Definition
<b>Prime meridian line</b>	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.
<b>Longitude</b>	Imaginary LINES parallel to the prime meridian line that help map makers locate places with accuracy. (Vertical LINES)
<b>Latitude</b>	Imaginary LINES parallel to the equator that help map makers to locate places with accuracy. (Horizontal lines)
<b>Eastern Hemisphere</b>	A term used to describe places that are east of the meridian line.
<b>Western Hemisphere</b>	A term used to describe places that are west of the meridian line.
<b>Relief maps</b>	A map that uses shading and colours to indicate the height of the land.



*A relief map of Wales*

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 – 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."



## Knowledge Organiser – PSHE – 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 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 can understand how a democracy and having a voice benefits the school community and know how to participate in this.



<p><b>REFUGEE</b></p> <ul style="list-style-type: none"> <li>Forced to leave their country</li> <li>Fleeing armed conflict or persecution</li> <li>Do not know where they'll end up</li> </ul>	<p><b>MIGRANT</b></p> <ul style="list-style-type: none"> <li>Choose to move</li> <li>No direct threat of persecution or death</li> <li>Mainly to improve their lives</li> <li>Finding work</li> </ul>	<p><b>ENVIRONMENTAL MIGRANT</b></p> <ul style="list-style-type: none"> <li>Fleeing from natural disaster</li> <li>Still enjoys its government's protection</li> </ul>	<p><b>ASYLUM SEEKER</b></p> <ul style="list-style-type: none"> <li>Person who left country</li> <li>Applied for refugee status</li> <li>Awaiting decision on their application</li> <li>Not to be confused with refugee</li> </ul>
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Reflective Questions
Ask me this...
Should a government help its own citizens before it helps refugees?
Is it the government's responsibility to ensure that every citizen in our country can have their rights met?
What are your responsibilities to yourself or others so that everybody has the chance to learn?

# Latin Knowledge Organiser - Unit 1: Meet the Family

Key Vocabulary	
Latin	English
quis es?	Who are you? singular
quī estis?	Who are you? plural
māter	Mother
pater	Father
filia	Daughter
filius	Son
īnfāns	Little child
servī	Slaves
sum	I am
salvē	Hello singular
salvēte	Hello plural
omnēs	Everyone
quis?	Who?
quid?	What?
Fēlīx diēs tibi sit	Happy birthday (may you have a happy day)
grātiās tibi agō	I thank you
fāmōsa	Famous
euge!	Hurrah!
sedāte!	Sit down! (imperative/bossy verb)

## Greek Myth Perseus and Medusa



### Meet the Family who live in Vindolanda

Lepidina is the mother

Flavius is the father. He is the fort commander of Vindolanda

Iulius is the son

Flavia is the daughter

Rufus is the young child

Corinthus and Candidus are slaves

Pandora is a slave

Vibrissa is the cat

Minimus is the mouse

**Unit Motto**  
**carpe diem = seize the day**

## Key Knowledge

- To understand the relevance of learning Latin.
- To learn to say hello and goodbye.
- To write simple sentences using the verb esse (to be).
- To understand the difference between singular and plural.
- To translate the description of a character from a Greek myth.

## Grammar and Phonics

- No capital letters are used in Latin apart from when you are writing someone's name. Don't translate names.
- The letter v in Latin makes the sae sound as the letter w in English.
- Male names end in -us, female names end in -a.



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

Key Vocabulary	Definition
<b>System</b>	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.
<b>Input</b>	An input is data or message that a device receives
<b>Process</b>	A process is what a device does with the message or data it receives.
<b>Output</b>	The output is the data that the device sends out after acting on the input.
<b>IP Address</b>	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.
<b>Collaboration</b>	Working together with multiple people on a project with a shared end goal.
<b>Algorithm</b>	A set of instructions, written in chronological order, that are used to get a task done.
<b>Packet</b>	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.

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

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).

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).

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.

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 when pages.



**R.E. Year 5 Autumn 1 Islam Knowledge Organiser**  
**Enquiry: Why is Muhammad (PBUH) Important to Muslims?**

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 Gabriel/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.



**The Angel Gabriel / Jibreel**

**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**

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



**Mecca**



Key Vocabulary	Definition
Time signature	The rhythm following a clef
Key signature	The key of a piece of music depends on the flats and sharps in the music.
Tempo	The speed at which music is played
Rhythmic patterns using:	Minims:
	Dotted crochets:
	Quavers:
Notation	The symbols which demonstrate sound
chords	A group of notes which fit together.

Songs Covered	
Ghost Parade	Style: 20 <sup>th</sup> and 21 <sup>st</sup> Century Orchestral
Words Can Hurt	Style: 20 <sup>th</sup> and 21 <sup>st</sup> Century Orchestral
Joyful, Joyful	Style: Gospel

**Key Signature: C major** — there are no sharps or flats in the key signature



**Key Signature: G major** — there is one sharp in the key signature



**Key Signature: C minor** — there are three flats in the key signature



### Improvise Together

**Recorder A Minor Scale and Finger Chart.**

**4/4 Time Signature**




**Top Number**  
4 beats every bar

**Bottom Number**  
Quarter (crotchet) beat





Key Vocabulary	Definition
<b>Cooperate</b>	To work together towards the same goal.
<b>Map</b>	A pictorial representation of an area.
<b>Route</b>	A way of getting from one point to another.
<b>Orienteering</b>	A sport in which people run through a series of waypoints (controls) to guide then

Skills	
<b>Legend</b>	
<b>Problem solving</b>	
<b>Map reading</b>	

Skill Development
<p>Keep the map set (or orientated) so that you know where you are on the map and which direction you need to travel. When turning, make sure the map does not turn, and stays 'set'.</p> <p>To communicate and co-operate effectively with <u>others</u></p> <p>To follow a set route on a map</p> <p>To record clues and decipher a code.</p>