



Knowledge Organiser Booklet

Year 4

Spring 2



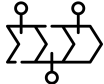




Name		Class	
------	--	-------	--




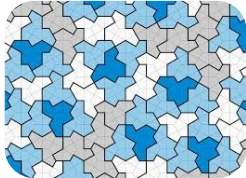




Contents

Page 3	Using Your Knowledge Organiser Guide	Page 9	Physical Education Knowledge Organiser 2
Page 4	Art & Design Knowledge Organiser	Page 10	Religious Education Knowledge Organiser
Page 5	Computing Knowledge Organiser	Page 11	Science Knowledge Organiser 1
Page 6	History Knowledge Organiser	Page 12	Science Knowledge Organiser 2
Page 7	PSHE Education Knowledge Organiser	Page 13	Spanish Knowledge Organiser
Page 8	Physical Education Knowledge Organiser 1	Page 14	School Values

Use your knowledge organisers to help you remember more.

	Test Yourself!	Only Connect! 	Memory Cards 	Order, Order! 	Phone a Friend! 	Picture it! 
1	Look at and study the definitions of the key vocabulary on your knowledge organiser.	Create a mind map, making connections and links with things that you remember without looking back.	Make your own information cards by writing questions about key vocabulary on one side of the card.	Using a simple line, sort information from your topic into chronological, sequential or hierarchical order.	Ask a friend or family member to have the knowledge organiser or memory cards in their hands.	Read over your knowledge organiser and the key vocabulary, remembering the definition.
2	Cover or hide the information on the knowledge organiser and write down everything that you remember.	Challenge yourself by covering or hiding the knowledge organiser, using what you can recall.	On the other side of the card, write the answer to your questions. You could add pictures to your cards.	Check these with a friend or family member, using data on your knowledge organiser, add more detail.	Get them to test you by asking different questions about the information on your knowledge organiser.	Using the information you remember, draw pictures or diagrams to represent words.
3	Check your notes! Correct your mistakes and add anything that you might have missed out.	Check what you have added to your mind map by using your knowledge organiser to correct any mistakes.	Ask a friend or family member to ask you the questions you created or to ask you new questions.	Challenge yourself by adding information you recall from previous topics which are related.	Write your own sentences using the key vocabulary to replace those on the knowledge organiser.	Showing your diagrams to friends or family, ask them to guess which word you have represented.




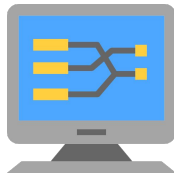

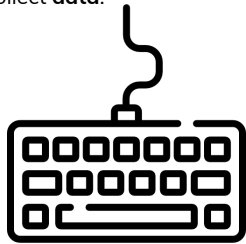
This is your Year 4 Art & Design Knowledge Organiser for Spring 2. Exploring Pattern

Art Themes			Tier 2	Key Vocabulary		
pattern	shape	compare	arrange	tessellation	rules	resolution
The repeated way in which something is designed.	A form or outline of something.	To discover the similarities and differences between things.	Organise things in an order or in relationship to each other.	Using geometric shapes with no overlaps and no gaps to create a pattern.	Instruction that states the way things should be done, and what is / is not allowed.	Being determined and making a firm decision
We can make different patterns arranging shapes and lines in different ways.	We have created collages using different cut-out shapes.	In Year 3, you compared different shapes.	You can arrange your shapes to create a pattern.	We can tessellate our shapes so they can fit into each other.	We can use rules to discover new ways of drawing.	I will keep my resolution to create a range of patterns.
We will make patterns inspired by different artists.	We can make different shapes using a range of media.	We can compare the different ways artists use pattern in their work.	We can arrange a group of objects to draw from.	We can see tessellation in the world around us e.g. in tiles and mosaics.	Sol LeWitt is an artist who creates sets of rules to create his drawings with.	I can make a list of my New Year's resolutions .
						
How this connects with previous learning				How this connects with future learning		
In Year 2, you made patterns using natural materials.	You did 'drawings with scissors' to create shapes in Year 3.	In Year 3 you discovered how cave paintings were created using a range of mark-making.		In Year 4, you will make 3D sculptural forms inspired by food.	In Year 5, you will create your own fashion designs.	In Year 6 you will explore activism and art.






This is your Year 4 **Computing** Knowledge Organiser for Spring 2. Data Logging

Tier 2 Vocabulary

Key Vocabulary


sensor	data	data logger	data set	interval	input device
A device which detects or measures a physical property and records, indicates, or otherwise responds to it.	A letter, word, number etc. that has been collected for a purpose, but stored without context.	An electronic device that records data over time.	A collection of related data .	A period between two events or times.	A piece of equipment/hardware which helps us enter data into a computer.
Sensors are hardware components that can provide your computer with information.	Data is information that has been translated into a form that is efficient for movement or processing.	A data logger can be used to record things automatically.	Data set refers to a file that contains one or more records.	The interval is a regular time period between each data capture, and can vary according to the project.	Keyboards, mice, and microphones are all input devices .
You will use a data logger that has sensors to take readings from different locations in the classroom.	This half term, you will collect data over a period of time.	You will use data loggers to automatically collect the data .	You will spend time using a computer to review and analyse data set you have collected.	You can record a data set when a data logger captures information at regular intervals .	You will use input devices to collect data .
					
How this connects with previous learning			How this connects with future learning		
In Year 1, you were introduced to data and information.	In Year 3, you learnt about input and output devices .	In Year 3, you looked at branching databases and created one yourself.	In Year 5, you will look at how databases can be used to organise data in records.	In Year 5, you will use a real-life database to answer a question, and present your work to others.	In Year 6, you will look further into data and explore how data is transferred over the internet.

This is your Year 4 **History** Knowledge Organiser for Spring 2. Anglo Saxons

Historical Themes		Tier 2	Key Vocabulary			
innovation	migration	locate	Anglo-Saxons	settle	kingdom	settlement
A new idea, a new product or new way of doing something.	The process of moving one from one place to another.	To find the exact place or position of something.	A group of people who ruled in Britain between the 5th and 10th centuries.	To adopt a more steady or secure life style, job and home.	An area of land that is ruled by a king or queen.	A place where people live.
In Year 4 you learnt how innovative the Romans were. Lots of things like roads, Roman numerals and central heating we still use today.	Earlier in Year 4 you learnt that the Romans migrated across Europe to expand their Empire.	We can use historical maps to locate where the different Anglo-Saxon tribes settled in Britain.	They Anglo-Saxons were a mix of tribes. The largest were the Angles, the Saxons and the Jutes.	Anglo-Saxon people wanted to settle in Britain to take advantage of the fertile farmland, which was good to grow crops.	Anglo-Saxon Britain was not ruled by one person. They had varied tribes which created different kingdoms .	To begin with, Anglo-Saxons avoided using Roman towns and buildings and built their own settlements instead.
The Anglo-Saxons spoke their own language. As it developed, more things were written down. The monks at Lindisfarne wrote the famous Lindisfarne Gospels.	The last Roman soldiers left Britain by AD410. New people came to Britain in ships across the North Sea. The Anglo-Saxons migrated from Northern England and settled in Britain.	By AD550 a large part of Britain was ruled by the Angles Saxons and Jutes who we can locate in what is now the east of England.	In Anglo-Saxon society men would usually do the more physical tasks like planting crops or ploughing and women would make clothes and food and look after children.	In Anglo-Saxon times you had to grow food and rear farm animals yourself if you wanted to eat. Skilled craftspeople would often trade their skills for food.	Fighting between kingdoms in Anglo-Saxon Britain was very common. Occasionally the tribes joined together to fight shared enemies but they mostly fought each other.	Early Anglo-Saxon settlements were small communities where people worked together to farm and produce things they needed. Each village had a chief who protected the villagers.
As Anglo-Saxons spent more time in Britain their culture and society became more innovative . They started to use coins and trade overseas.	The land the Anglo Saxons settled became known as 'Angle-land', or England.	Some towns and village names include old Anglo-Saxon words in 'ton' and 'ham' both meant village.				
How this connects with previous learning			How this connects with future learning			
In Year 1 you learnt about the importance of Kings and Queens as rulers and leaders.	Earlier in Year 4 you learnt about the Romans. You learnt how they changed Britain.	You know that the Roman army left Britain in AD410 and Britain was invaded by tribes from northern Europe.			In Year 5 you will learn why the Vikings left Scandinavia and migrated to the British Isles. You will use your prior knowledge to compare life in Viking/ Anglo-Saxon Britain with life in Roman Britain.	In Year 6 you will study the expansion of the British Empire and the importance of trade routes.

This is your Year 4 PSHE Education Knowledge Organiser for Spring 2. Citizenship

Key Vocabulary

council/councillor	community group	human rights	reuse	security	value for money
<p>A council is a group of people who manage a city, county, borough or organisation. Members of a council are called councillors.</p> <p>A council look after the local area and make decisions about shared resources.</p> <p>Local councillors represent local people. A big part of their role is to make things better for people who live in their area. The public votes for the people they want to be on their local council during local elections.</p>	<p>A community can be a group of people with something in common such as living in the same area or having the same beliefs. Community groups often work across large areas of the country and provide lots of different services for people. People can set up their own community groups to help a certain cause in a certain area for example, the environment. Communities are made up of lots of different people and working together makes a strong community.</p> 	<p>Human rights are specific rights which belong to every person.</p> <p>The United Nations developed a set of human rights which apply to everyone. These are called the Declaration of Human Rights.</p> <p>There are people in authority who protect our human rights for example the police, judges, politicians and community/pressure groups. We should know our rights and protect each other's rights.</p> 	<p>To reuse is to use something more than once.</p> <p>Reducing the amount of things we use that will produce waste is the most beneficial action for our environment. The next best thing is to reuse things when we have finished with them either for the same purpose or a new purpose. By reusing things we stop them going to landfill and reduce the energy needed to recycle or make new things as well as save money.</p> 	<p>Security means being protected from threats.</p> <p>You may choose to keep your money secure by putting it in a bank or building society.</p> <p>If you have a bank account, you should never share your PIN or password with others to stop unauthorised access to the account.</p> <p>Reviewing your statements helps you check for unauthorised spending.</p> 	<p>Value for money means something which is worth the price given to it.</p> <p>To decide whether something is value for money, you might consider the price and compare it to other similar products, the quality of the product, how necessary it is and the use you will get from it.</p> <p>You may have different opinions to others about whether something is value for money due to different personal needs, preferences and budget constraints.</p>

How this connects with previous learning		How this connects with future learning			
<p>In Year 2, we explored the different roles and responsibilities people have in our community. We learnt about the difference between needs and wants.</p>	<p>In Year 3, we learnt about the UN rights of the child. We explored the benefits of recycling. We learnt about the role and impact of different charities.</p>				
		<p>In Year 5, we will begin to understand how parliament works and what happens when laws are broken. We will examine the risks associated with handling money online.</p>	<p>In Year 6, we will understand human rights, including the right to education. We will recognise prejudice and discrimination and learn how this can be challenged.</p>	<p>In Year 6, we will explore different career routes and their requirements. We will also explore how different careers operate in the workplace.</p>	

This is your Year 4 PE Education Knowledge Organiser for Spring 2. Tag Rugby

Key Vocabulary

passing	free pass	foul	space	teamwork	try line
In tag rugby, you must pass the ball back to another player on your team once tagged.	Similar to a free kick in football, a free pass is awarded for any offence on the pitch.	When a player breaks the rules of the game.	This is an area on the pitch where there are no players.	Teamwork requires players to work together and collaborate to defeat the other team.	A horizontal line across the pitch near both ends.
You cannot pass the ball forwards, This would be a foul and the other team would get a free pass.	A free pass must be taken at the spot the foul took place.	A foul results in the other team getting a free pass at the spot of the foul.	To be successful in tag rugby, players need to find space away from defenders.	In tag rugby you will usually play in teams of 4 or 6 players.	A team scores a try by crossing this line and placing a ball down.
					

How this connects with previous learning

In year 1 you learnt to introduce the concept of simple tactics and throw and catch a variety of balls and objects.

In year 2 you learnt how to make it difficult for the opponent to score a point, and you began to choose specific tactics.

In year 3 you learnt to handle a rugby ball with confidence and evade attackers using footwork and body control.





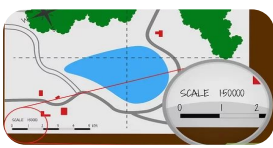



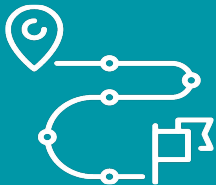
How this connects with future learning

In year 5 you will learn combine basic tag rugby skills, such as quickly passing in one movement. You will select and implement appropriate skills in a game situation.

In year 6 you will choose and implement a range of strategies and tactics to attack and defend. You will combine and perform more complex skills at speed.

This is your Year 4 PE Education Knowledge Organiser for Spring 2. Orienteering

Key Vocabulary

mapwork	symbols	scale	compass	cardinal points	navigate
<p>Mapwork is any activity you complete with a map.</p> <p>We can use maps to plan routes, or to compare one area to another</p>	<p>Map symbols are little icons that represent real objects and landmarks.</p> <p>Certain features like cities, roads and railways are very important so their map symbols are easy to see.</p>	<p>The size of a map compared to the actual size of the thing it represents.</p> <p>For example, a map might have a scale of one cm to a mile.</p>	<p>A compass is a tool for finding direction. A simple compass is a magnetic needle mounted on a pivot.</p> <p>A compass works as the magnetic needle is attracted to the north.</p>	<p>North, south, east, and west are known as the cardinal points.</p> <p>There are also halfway points on a compass called intermediate directions, e.g. 'north east'.</p>	<p>To find your way from place to place, or to a specific destination.</p> <p>We can use a map and compass to navigate in unknown places.</p>
					
How this connects with previous learning			How this connects with future learning		
<p>In year 1 you learnt to recognise rules and apply Them, and use and apply simple strategies for games.</p>	<p>In year 2 you learnt to select and apply a small range of simple tactics, and work with others to achieve a shared goal.</p>	<p>In year 3 you learnt to differentiate between when a task is competitive and when it is collaborative.</p>			
			<p>In year 5 you will explore ways of communicating in a range of challenging activities. You will navigate and solve problems from memory.</p>	<p>In year 6 you will use information given by others to complete a task. You will undertake more complex tasks and make amendments.</p>	

This is your Year 4 Religious Education Knowledge Organiser for Spring 2. Sikh Beliefs

Tier 2 Vocabulary

Key Vocabulary

interpret

Guru Nanak

Gurdwara

Amrit ceremony

The Five Ks

The Guru Granth Sahib

To explain the meaning of information.

In Year 3 you learnt about how different religions **interpret** their religious scriptures.

In Year 4 you will learn how Sikhs **interpret** the Guru Granth Sahib and use it in their daily lives.

In this unit we will ask you to **interpret** information on Sikhism and formulate your own views and opinions around key questions.

Guru Nanak was the first Sikh guru. He came from a small town in India over 500 years ago.

Guru Nanak is considered the first Sikh Guru. Sikhism is still based on his teachings and those of the nine Sikh Gurus that followed him.

Some of the most important teachings **Guru Nanak** gave were:

- there is only one God
- people can access God directly
- all people are equal



A **Gurdwara** is a place where Sikhs come together to worship.

The meaning of the Punjabi word **Gurdwara** is 'the residence of the Guru' or 'the door that leads to the Guru'.

The **Gurdwara** has many purposes. It is a place to learn spiritual wisdom, a place for religious ceremonies, a place where children learn the Sikh faith and a community centre that offers food and shelter to those who need it.



A special ceremony called taking **Amrit** is the way for Sikhs to show their commitment.

The **Amrit** ceremony takes place in the Gurdwara before the Guru Granth Sahib and in the presence of 5 initiated Sikhs. During the ceremony, hymns are recited from the Sikh scripture and prayers are said.

Amrit is a mixture of sugar and water and is stirred with a double edged sword and then blessed. During the ceremony Sikhs drink some of the Amrit and have it sprinkled on their eyes and hair.

The **Five Ks** are a set of symbols that Sikhs wear to show their dedication to Sikhism and to show they belong to the Khalsa.

The Five Ks are :

- kara (bracelet)
- kachera (underclothes)
- kirpan (a small sword)
- kesh (hair)
- kanga (comb)

They are called the **Five Ks** because in Punjabi each item begins with the letter k.



The **Guru Granth Sahib** is the Sikh holy book and Sikhs believe is the last living Guru.

The **Guru Granth Sahib** is unique because it was compiled by the gurus themselves rather than followers of the religion.

The **Guru Granth Sahib** is the focus of worship in the Gurdwara. it is placed on a raised platform under the canopy in the diwan hall. it always sits higher than the congregation as a symbol of respect.



How this connects with previous learning

In Year 2 you learnt about sacred books across different religions. You understood how these are used in worship in religious buildings and in homes.

In Year 3 you learnt ways in which Christians, Hindus and Muslims describe God. You learnt why having a belief is important to members of a religious community.



How this connects with future learning

In Year 4 you will learn about different commitment ceremonies across a range of religions and specifically the Hindu religion.

In Year 5 you will learn how important celebrations and festivals are to believers in and across different religions.

In Year 6 you will learn how believers feel about places of worship in different traditions.

This is your Year 4 Science Knowledge Organiser for Spring 2. Electricity

Scientific Enquiry



Identifying & classifying

Identifying means knowing what something is and naming it. **Classifying** means grouping things together if they have something in common. We will classify the materials that are suitable for wires.

Working Scientifically

Asking scientific questions

Planning an enquiry
Observing closely

Measuring (taking measurements)

Gathering and **recording** results

Presenting results
Interpreting results

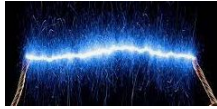
Concluding (drawing conclusions)

Predicting

Evaluating an enquiry

electricity

Electricity is an energy which can be used to power electrical items.



Common appliances that run on **electricity** include: televisions, washing machines, ovens, fridges, computers, lamps, kettles and toasters.



Electricity can be dangerous. You should never pull wires from a socket, put your fingers in a socket or use electrical appliances near water.

mains

Many household devices and appliances run on electricity. Some plug in to the **mains** and others run on batteries.



battery

A **battery** is a source of energy. A battery stores energy until it is ready to be used. **Batteries** come in different shapes and sizes. **Batteries** can provide energy to small items, such as a mobile phone, or large items, such as cars.



circuit

An electrical **circuit** consists of a cell or battery connected to a component using wires.



If there is a break in the **circuit**, a loose connection or a short circuit, the component will not work.

components

A **component** is a basic electronic element that can be fitted together to make a circuit.



Components we will use are: cells or batteries, wires, bulbs, buzzers and motors. A switch can be added to a circuit to turn the **component** on and off by opening or closing the circuit.



conductor

A **conductor** is a material which **electricity** can flow through. Metals are good **conductors**. A **conductor** could replace a wire in a **circuit** and **electricity** would flow through it.



Water, if not completely pure, also **conducts** electricity.

insulator

An **insulator** is a material that does not allow electricity to pass through. Non-metallic solids like rubber and plastic are **insulators** except for graphite (pencil lead).

Things you learnt in previous topics

In Nursery and Reception you learnt about similarities and differences in places, objects, materials and living things. You spoke about the features of your own immediate environment and how environments might vary from one another. You made observations of animals and plants and have explained why some things occur and talk about changes.



How this connects with future learning

In year 6, you will associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. You will compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. You will use symbols when representing a simple circuit in a diagram.

This is your Year 4 Science Knowledge Organiser for Spring 2. Identification and Classification

Scientific Enquiry



identifying & classifying

Identifying means knowing what something is and naming it. **Classifying** means grouping things together if they have something in common. We will use classification keys to name unknown living things and identify and classify unknown plants and animals found in different habitats



study over time (observing)

A **study over time** is seeing how things change over a certain time period. We will observe plants and animals in our local area throughout the year.



researching

We will **research** using **secondary** sources to find out how environments may naturally change and about human impact on environments.



Working Scientifically

Asking scientific questions

Planning an enquiry

Observing closely

Taking measurements

Gathering and recording results

Presenting results

Interpreting results

Drawing conclusions

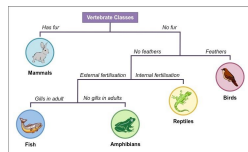
Predicting

Evaluating an enquiry

classification

Classification means arranging or sorting. Living things can be grouped (**classified**) in different ways according to their features. For example, plants can be grouped into categories such as flowering and non-flowering plants.

Classification keys can be used to identify and name living things by sorting them according to their features.



habitat

Living things live in a **habitat** which provides an environment to which they are suited. These environments may change naturally for example, through flooding, a fire or earthquakes. Humans also cause **habitats** to change. Both natural and human changes can pose dangers to living things.



Habitats change with the seasons; different living things can be found in a **habitat** at different times of the year.

hibernate

If an animal **hibernates**, it has a long and deep sleep. This is done by some animals so that they can survive the winter. Bears and hedgehogs are examples of animals that **hibernate**.



migrate

To **migrate** means to move from one place to another. Some animals **migrate** during the winter to a warmer place.

environment

The **environment** is the air, water and land in/on which humans, animals and plants live.



The **environment** can change over time, either naturally or by the actions of humans.

human impact

Human impact means the effects of human action on the **environment**. These can be either by positive or negative. A positive impact would be planting trees or setting up a nature reserve.



A negative impact would be littering or using too many fossil fuels which many scientists believe is contributing to climate change.

Things you learnt in previous topics

In Year 1, you named a variety of common wild and garden plants, including deciduous and evergreen trees. You described the basic structure of a variety of common flowering plants, including trees. You identified a variety of common animals including fish, amphibians, reptiles, birds and mammals. You also described and compared the structure of a variety of common animals. In Year 2, you identified and named a variety of plants and animals in their habitats, including microhabitats.



How this connects with future learning

In Year 5, you will describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird and describe the life process of reproduction in some plants and animals. In Year 6, you will describe how living things are classified into broad groups according to common observable characteristics. You will give reasons for classifying plants and animals based on specific characteristics.

¿Cómo es?

How do they look?

Es



rápido/a



lento/a



grande



pequeño/a



fuerte



peligroso/a

This is your Year 4 Spanish Knowledge Organiser for Spring 2.

Los animales

Mascotas

Pets



perro



gato



pez



hámster



conejo



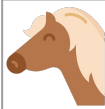
pájaro



tortuga

Animales de la granja

Farm animals



caballo



burro



vaca



oveja



cabra



cerdo



pollo

Animales salvajes

Wild animals



mono



gorila



elefante



león



tigre



jirafa



cebra



oso



oso panda



koala



hipopótamo



delfín



serpiente



mariposa

Mi animal favorito es el perro.

My favorite animal is the dog.

Mis animales favoritos son el perro y el gato.

My favorite animals are dogs and cats.

El pollo tiene pico, plumas y dos patas.

The chicken has a beak, feathers and two legs.

El león es peligroso.

The lion is dangerous.

La tortuga es lenta pero el perro es rápido.

The tortoise is slow but the dog is fast.

Los colores

The colours

rojo



azul



amarillo



verde



naranja



morado



rosa



marrón



blanco



gris



negro



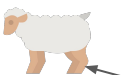
¿Qué tiene?

What does it have?

Tiene



pico



pata



pluma



mancha



raya



aleta

At New Wave Federation, we demonstrate...

The logo for New Wave Federation is a circular emblem with a blue border. Inside the circle, the words "new wave" are written in a black, lowercase, sans-serif font, and "federation" is written below it in a teal, lowercase, sans-serif font. Behind the text is a stylized, light blue wave graphic.

new wave
federation

Collaboration

Creativity

Focus

Kindness

Responsibility