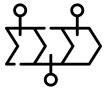
Knowledge Organiser Booklet Year 4

Summer 2

Name		Class	

Contents

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 Computing Knowledge Organiser for Summer 2. Repetition in Games

Tier 2 Vocabulary

modify

Make partial or minor changes to something.

When algorithms are structured properly they can be **modified** without destroying an already existing part.

People always **modify** their behaviour if they know they are being filmed.

If you want to make changes to your code loop, you can **modify** it.

Key Vocabulary

infinite loop

A **sequence** that will continue endlessly

A command that repeatedly runs a defined section of code indefinitely.

To repeat some of the commands in your program- use the **infinite loop** feature.

count-controlled loop

An action is repeated a given number of times

A **count-controlled loop** is used when the number of iterations to occur is already known

You might want your **sprite** to do a certain thing multiple times, this is when you would use a **count-controlled loop.**

animate

Give a character the appearance of movement using animation techniques

A method by which still figures are manipulated to appear as moving images

During this topic, you will **animate** your **sprite** using different blocks.

sequences

A series of related things or events and the order in which they follow each other

The the order in which the statements in the algorithm are executed.

The **sequence** of a program is extremely important so it carries out instructions in correct order.

sprite

A **sprite** refers to a two-dimensional bitmap image that is integrated into a larger scene.

Sprites vary in different games and programs and can often be updated

The **sprite** was the object in her program that performed the actions.

How this connects with previous learning

In Year 1, you were introduced to Scratch Jr where you explored backgrounds and **sprites**.

In Year 3, you learnt about the concept of **sequencing** and the order in which codes need to be placed.

Earlier this year, you learnt about **repetition** and **loops** within a code.

How this connects with future learning

In Year 5, you will use your knowledge of **repetition** and **loops** to understand programming.

In Year 6, you will be exploring variables in programming through games.

In Year 6, you will combine all your programming knowledge to create codes and run multiples programs.

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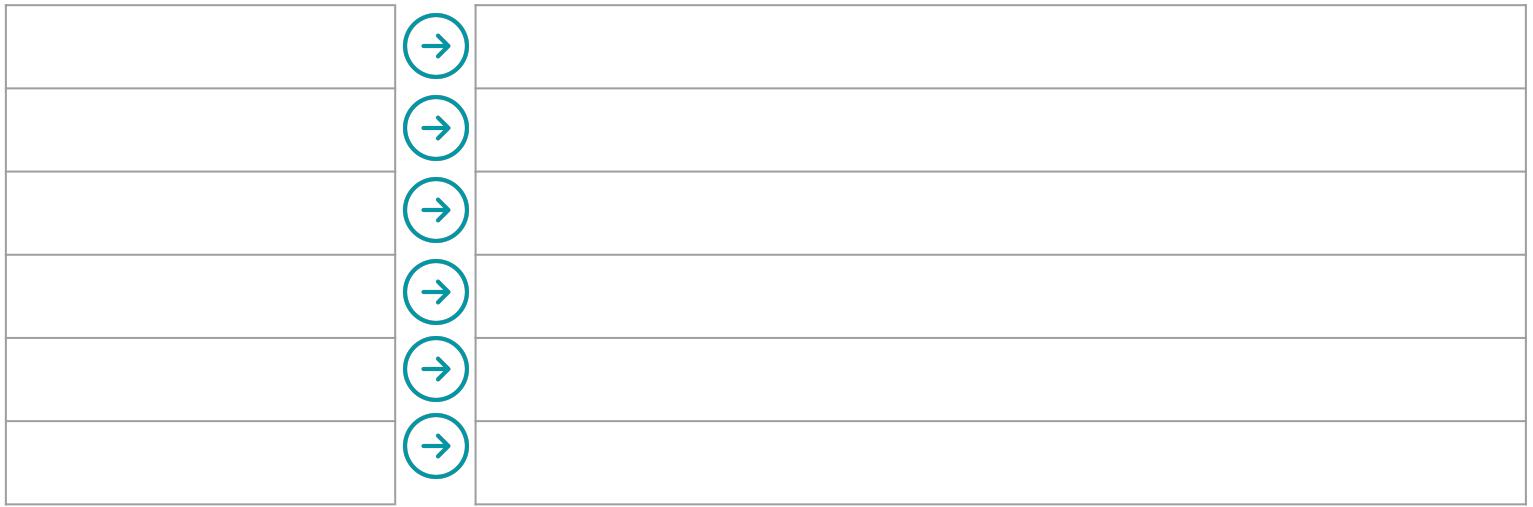

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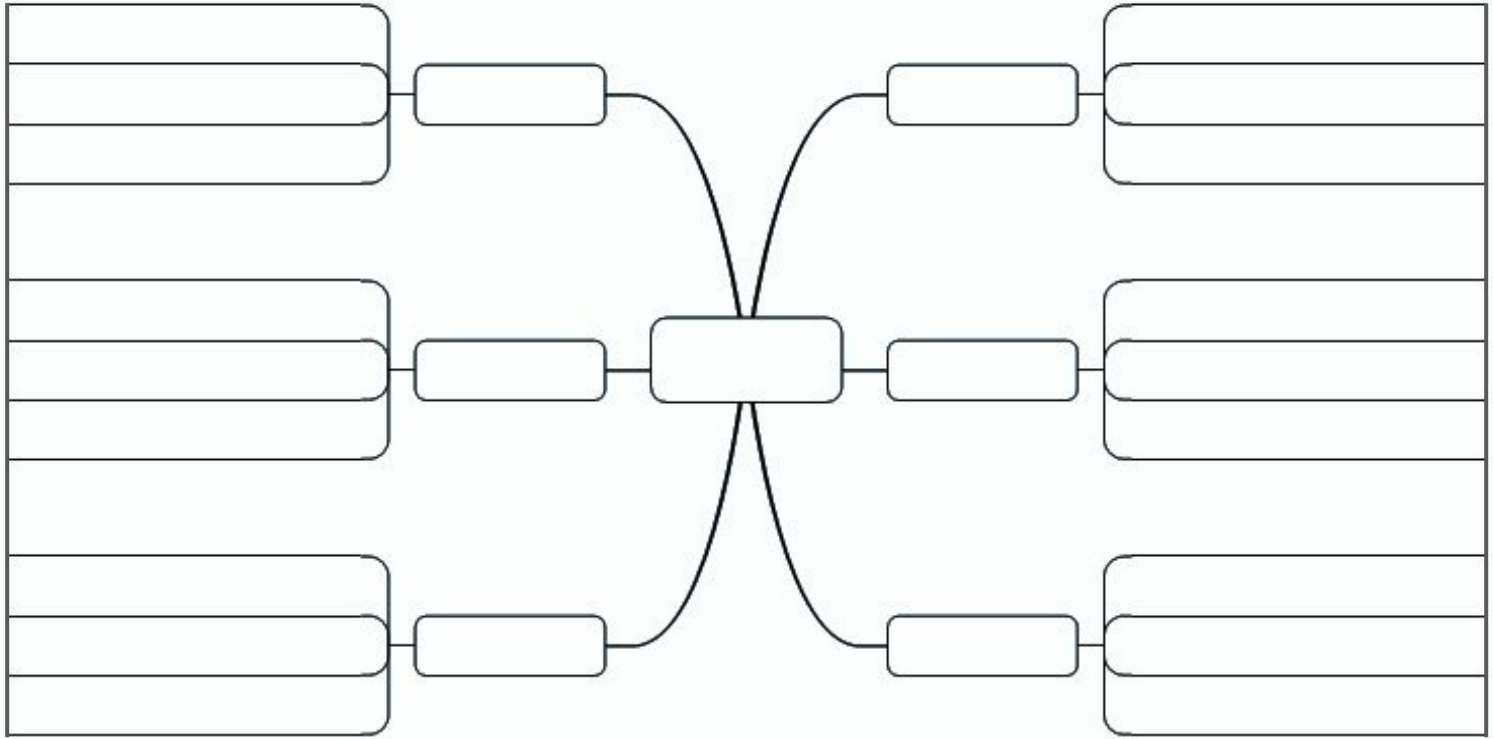


This is your Year 4 Design Technology Knowledge Organiser for Summer 2. Pneumatics

DT Themes

mechanisms

A device used to create movement in a product.

Mechanisms are used in in many everyday objects including analogue clocks and bikes.

We can create a simple **mechanism** using syringes and tubing.

Our **mechanisms** will make our creature move.

Tier 2

constraint

Something that limits or controls what you can do.

Time **constraints** mean that there is only a certain amount of time to complete a project.

A money **constraint** means that you are given a budget which you must stick to.

Limited resources can also be a **constraint** for a project.

innovative

Something new and original.

The wheel was an **innovative** product because it made it much easier to transport items or people quickly.

Mobile phones were an **innovative** product as they allowed people to be contacted outside of the home.

Innovation enables us to solve new or existing problems.

Key Vocabulary

pneumatic system

A system that works using gases (air).

Syringes and tubing will create our **pneumatic system.**

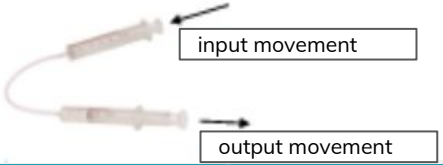
A bicycle pump uses a **pneumatic system**.

input movement

The movement that is put into the system.

Our **input movement** will be pushing the syringe

The **input movement** when riding a bike is pedalling.



output movement

The movement that comes out of the system.

Our **output movement** will be the creature moving.

The **output movement** when riding a bike is the bike moving forwards.

compress

To press or squeeze something so that it takes up less space.

We will **compress** the air in the syringes.

When we crush a tin can, we are **compressing** it.

How this connects with previous learning

In Year 1, you designed, made and evaluated a moving poster.

In Year 2, you designed, made and evaluated a vehicle using wheels and axles.

In Year 3, you considered input and output when making a moving greetings card.

How this connects with future learning

In Year 5, you will design, make and evaluate a moving display using cams.

In Year 6, you will design, make and evaluate a vehicle using a pulley system.

In Year 6, you will design, make and evaluate an electrical system, considering a range of constraints.

To help you remember and recall key information, you can make your own notes about design technology here.

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This is your Year 4 History Knowledge Organiser for Summer 2. Leisure and Entertainment

Historical Themes

innovation

A new idea, a new product or a new way of doing something.

In Year 3 you learnt about the **innovative** writing systems that were used by each Ancient Civilisations.

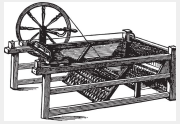
The **Industrial Revolution** was a period of **innovation** that led to inventions including the assembly line, telegraph and the sewing machine.

society

How people in a specific area live their lives.

In Year 3 you learnt about Ancient Egyptian Gods and Goddesses and their role in Egyptian **society.**

The **Victorian era** included lots of new discoveries, inventions and technological developments that changed **society.**



Tier 2

contrast

To show the differences between two or more things.

Whilst there are many similarities between life now and in the **Victorian era**, there are also many **contrasts.**

There was a stark **contrast** between the lives of the rich and poor during the **Victorian era** Many of the **innovations** benefited the rich families but not the poor.

There was a **contrast** in the amount of money people earned and this influenced how they spent their **leisure** time.

Key Vocabulary

leisure

The time when you are free from work or other duties and can relax.

Changing working hours meant that people had more free time which lead to the invention of many new **leisure** activities

Victorian children had many **leisure** activities, including Snakes and Ladders, skipping and marbles.

entertainment

Public shows, film or other performances and activities that **entertain** people.

Music halls were one of the most popular forms of affordable **entertainment** in the **Victorian era**.

Entertainment at music halls included sing alongs, acrobats, trapeze artists and can-can dancers.

Victorian era

The period of British history during the rule of Queen Victoria (1837-1901).

Queen Victoria ruled Great Britain and Ireland for 63 years. The queen's reign is known as the **Victorian era**.

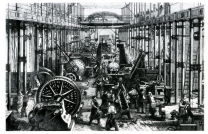
At the start of Queen Victoria's reign most children had to work, by the time the queen died, more children were able to go to school.

Industrial revolution

The period during the 18th and 19th centuries when work began to be done more by machines in factories.

The **Industrial Revolution** began in the cloth industry as new machines made processing yarn and wool quicker.

The **Industrial Revolution** spread to all kinds of production. Farmers, began to invent new machines to plough fields and plant crops.



How this connects with previous learning

In Year 1 you learnt about monarchy and significant Kings and Queens. You learnt about the life of Queen Victoria.

In Year 2 you learnt about transport. You know how people used horse-drawn carriages and bicycles how this changed to trains, ships and buses.

Earlier in Year 4 you learnt about the different types of **leisure** and **entertainment** that the Romans would have taken part in.

How this connects with future learning

In Year 5 you will learn about Islamic Civilisations and how **innovation** and new ways of thinking impacted and changed **society**.

In Year 5 you will be learning about the Ancient Greeks and about the impact of art and sport on **society**.

In Year 6 you will be learning more about how Britain has changed over time and how it became a powerful empire.

To help you remember and recall key information, you can make your own notes about history here.

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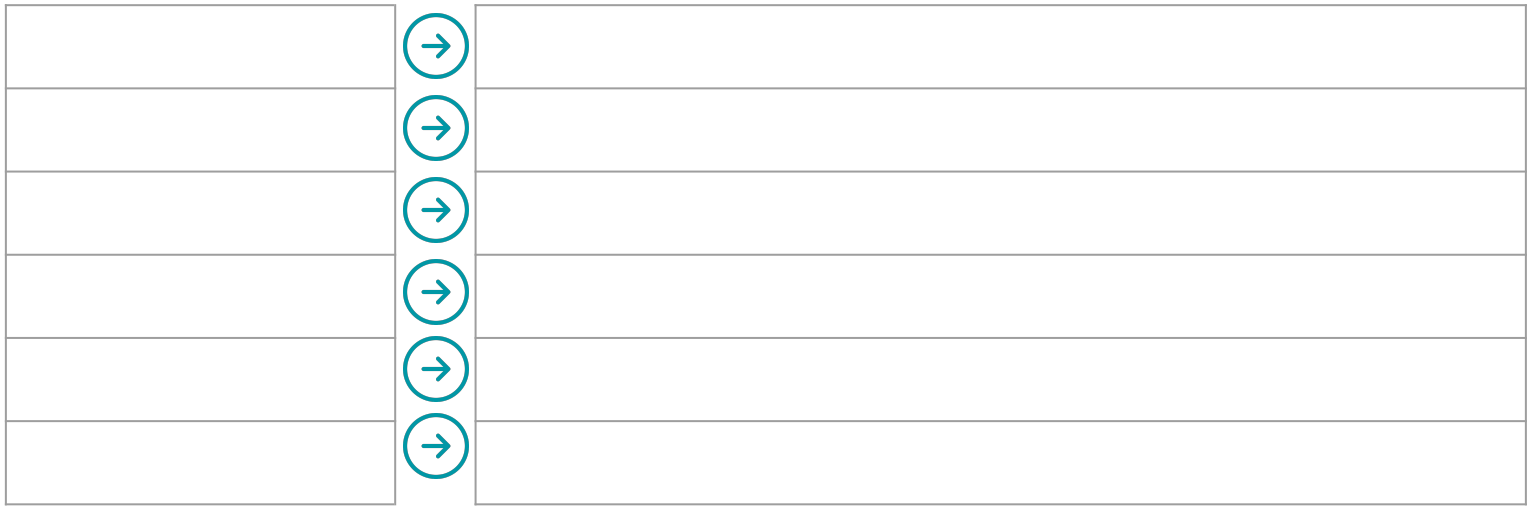

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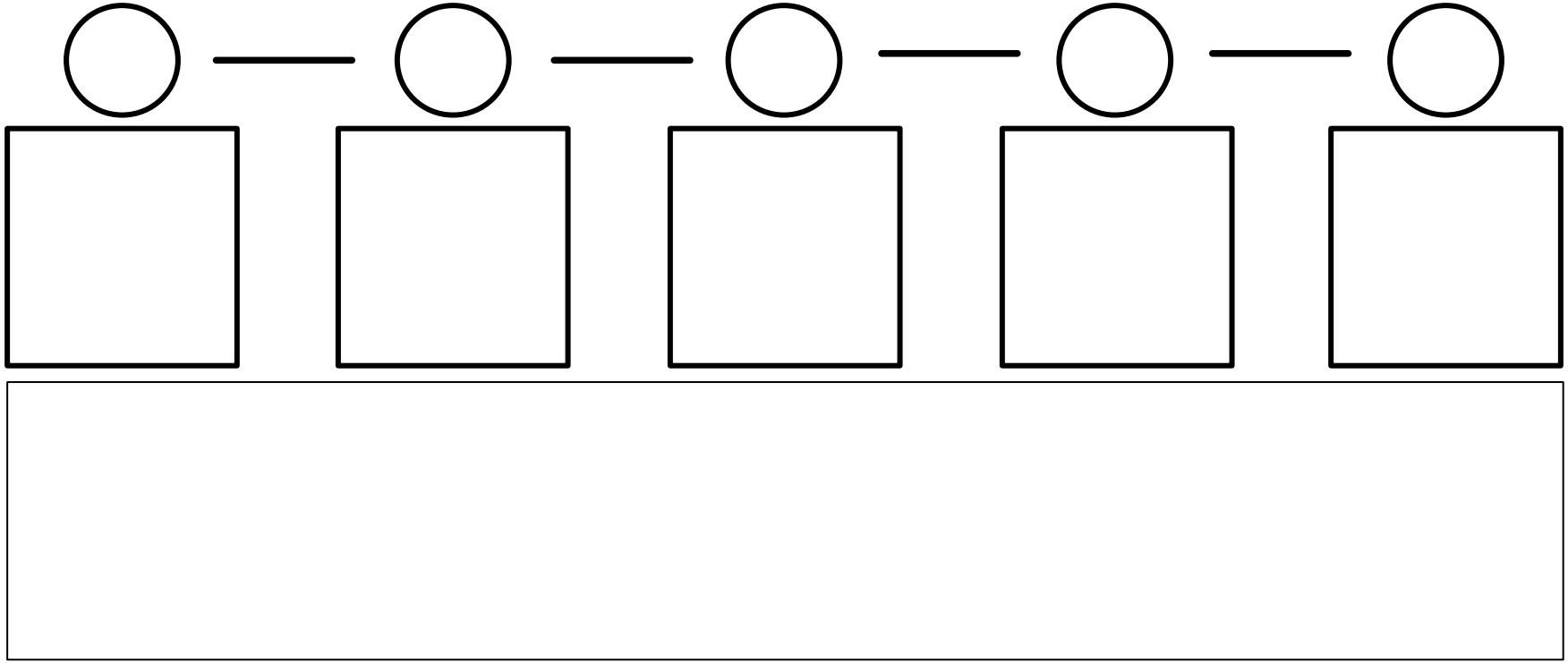
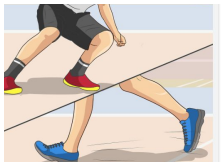
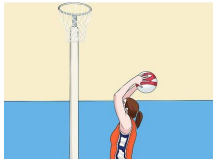
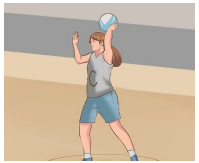


This is your Year 4 Physical Education Knowledge Organiser for Summer 2. Netball

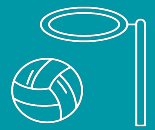
Key Vocabulary

pivot	goal attack	centre	goal shooter	goal defence	foul
A technique or a move used by a player to change direction quickly while maintaining their balance	A position that is one of the two attacking positions in the team. Responsible for scoring goals and providing support.	A position that is allowed to move freely across all thirds of the court.	A position that is restricted to just the shooting circle. Responsible for shooting goals and providing support.	Responsible for defending and stopping the opposition from scoring. Allowed to move freely in the defending third of the court and the centre.	When a player breaks the rules which results in a free pass or penalty pass being awarded to the opposing team.
After catching the ball, the goal attack used a quick **pivot** to evade the defender.	The **goal attack** made a precise pass to the goal shooter, who was able to convert the opportunity into a goal.	The **centre** quickly moved the ball up the court with a series of accurate passes, creating several scoring opportunities.	The **goal shooter** positioned themself under the post, then received the ball and took a shot at the goal.	The **goal defence** made a fantastic interception, jumping high to reach the ball and preventing the opposition from scoring a goal.	The referee blew their whistle to signal a **foul** after the player made contact with the opposition while attempting to intercept the ball.
					

How this connects with previous learning

In Year 2 you learnt how to work with others to build basic attacking pay.

In Year 3 you learnt how to perform basic netball skills such as passing and catching using recognised throws.



How this connects with future learning

In Year 5 you will learn how to play effectively in different positions on the court, both attacking and defending.

In Year 5 you will learn how to increase power and strength in your passes.

In Year 6 you will learn how to work as a team to improve game tactics and gameplay.

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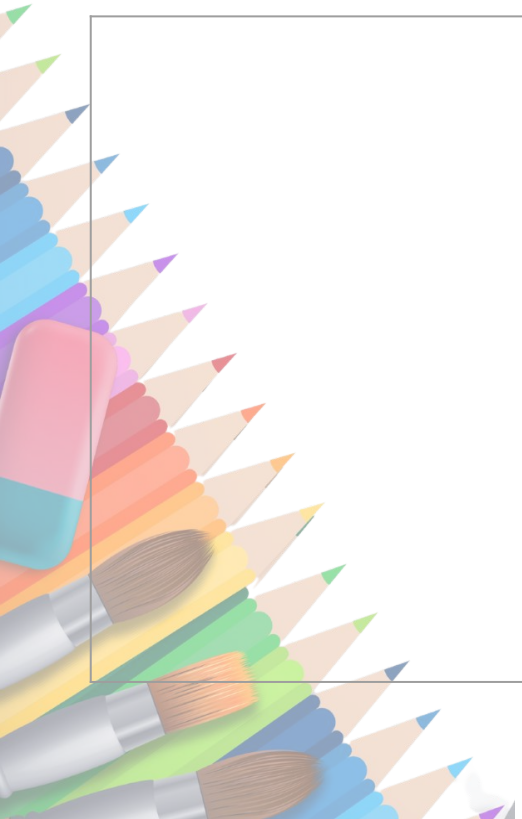

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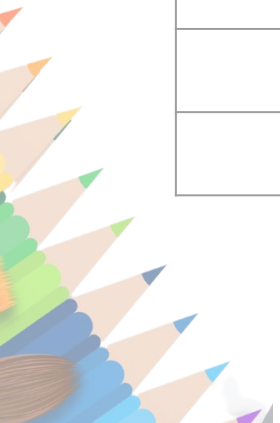

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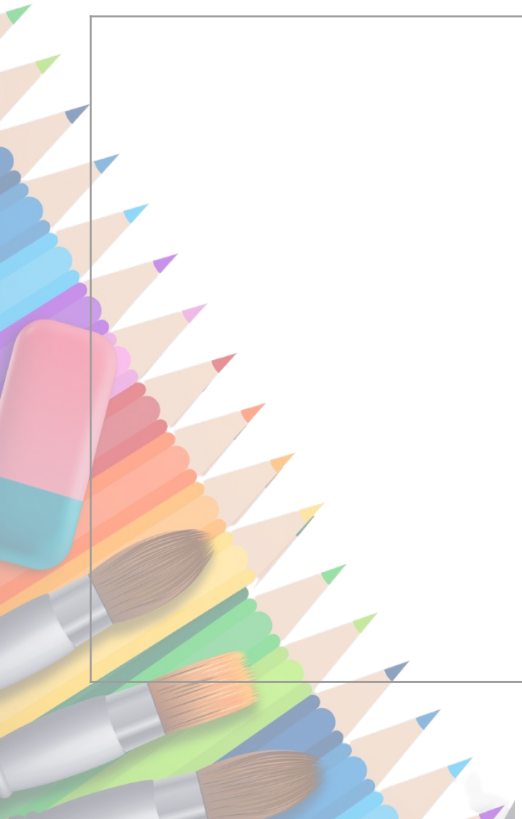
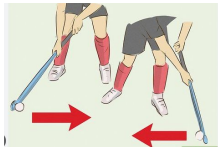


This is your Year 4 Physical Education Knowledge Organiser for Summer 2. Hockey

Key Vocabulary

attack	straight dribble	slap pass	push pass	control	feint dodge
The players who are responsible for moving the ball towards the opposing team's goal and attempting to score.	A technique used by player to move the ball in a straight line while running with the ball.	A type of pass where the player uses a full backswing and slapshot technique to hit the ball hard and accurately to a teammate.	A type of pass that is performed by pushing the ball along the ground with the flat side of the stick.	The player's ability to handle and manipulate the ball with their stick. This includes dribbling, passing and shooting techniques as well as their ability to maintain possession.	A technique used by a player to deceive an opposing player and create space to move the ball up the field.
The player **attacked** with the ball with speed and control, creating an opportunity to score a goal.	The forward used a **straight dribble** to move the ball up the pitch.	The defender made a powerful **slap pass** from their own half of the pitch, sending the ball towards the attacking line.	The centre used a quick **push pass** to move the ball to a teammate in a better position avoiding the opposing defender.	The midfielder demonstrated excellent **ball control**, using quick stickhandling skills to maneuver around the opposition.	The forward pulled off a beautiful **feint dodge,** faking out the defender wu a quick change of direction.
					

How this connects with previous learning

In Year 2 you learnt how to recall and link combinations of skills, dribbling and passing	In Year 3 you learnt how to manipulate the sick and ball with safety and control.

How this connects with future learning

In Year 5 you will learn how to play effectively in different positions on the pitch.	In Year 5 you will learn how to increase power and strength of passes and move with the ball over longer distances.	In Year 6 you will learn how to choose and implement a range of strategies and tactics.

To help you remember and recall key information, you can make your own notes about physical education here.

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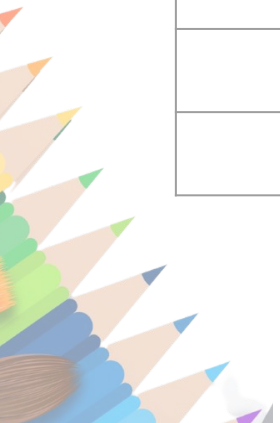

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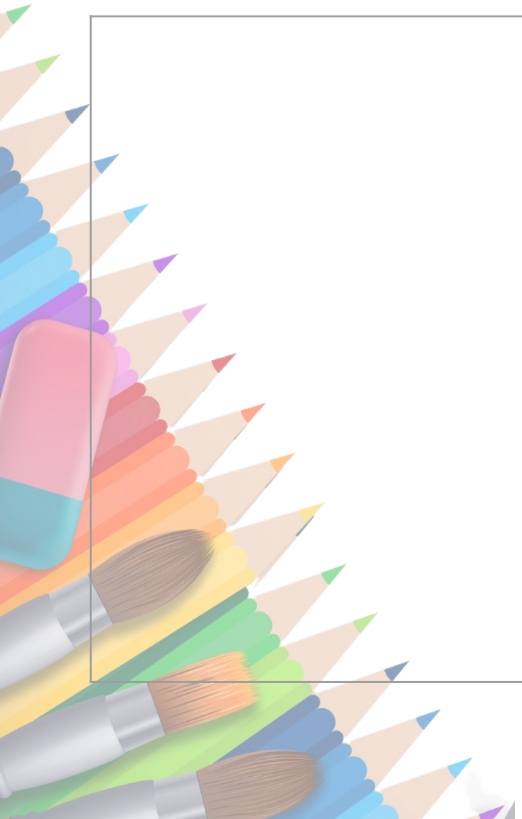

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This is your Year 4 Science Knowledge Organiser for Summer 2. Digestion and Food Chains

Scientific Enquiry

researching

We will **research using secondary** sources such as non-fiction books and dental records to find out what damages teeth and how to look after them.
We will research the function of the parts of the digestive system.
We will identify animals in a habitat and find out what they eat to assist us to classify them as carnivores, herbivores or omnivores.

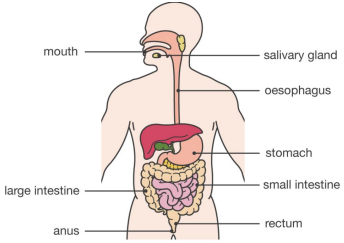
Working Scientifically

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

Subject Specific Vocabulary

digestion

Food enters the body through the mouth. Digestion starts when the teeth begin to break the food down. Saliva is added and the tongue rolls the food into a ball. The food is swallowed and passes down the oesophagus to the stomach. The food is broken down further by being churned around and other chemicals are added. The food passes into the small intestine. Here nutrients are removed from the food and leave the digestive system to be used elsewhere in the body. The rest of the food passes into the large intestine where water is removed for use elsewhere in the body. What is left is then stored in the rectum until it leaves the body through the anus when you go to the toilet.



canine

Canines are the pointed, sharp teeth at the front of the mouth, used for tearing and ripping food.

molar

Molars are teeth at the back of the mouth used for crushing or grinding food.

incisor

Incisors are teeth at the front of the mouth. used for biting off and chewing pieces of food.

carnivore

A **carnivore** is an animal that eats other animals.

herbivore

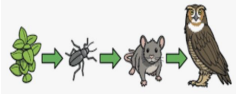
A **herbivore** is an animal that only eats plants.

omnivore

An **omnivore** is an animal that eats both other animals and plants. Humans are **omnivores**. (Some humans choose a vegetarian or vegan diet.)

food chain

A **food chain** is a scientific model that shows how each living thing gets its food. A **food chain** will have a producer and consumers (prey and predators).



producer

A **producer** begins a food chain. Plants are **producers** as they make their own food.

predator

A **predator** is an animal that hunts other animals.

prey

Prey is an animal that is hunted by other animals.

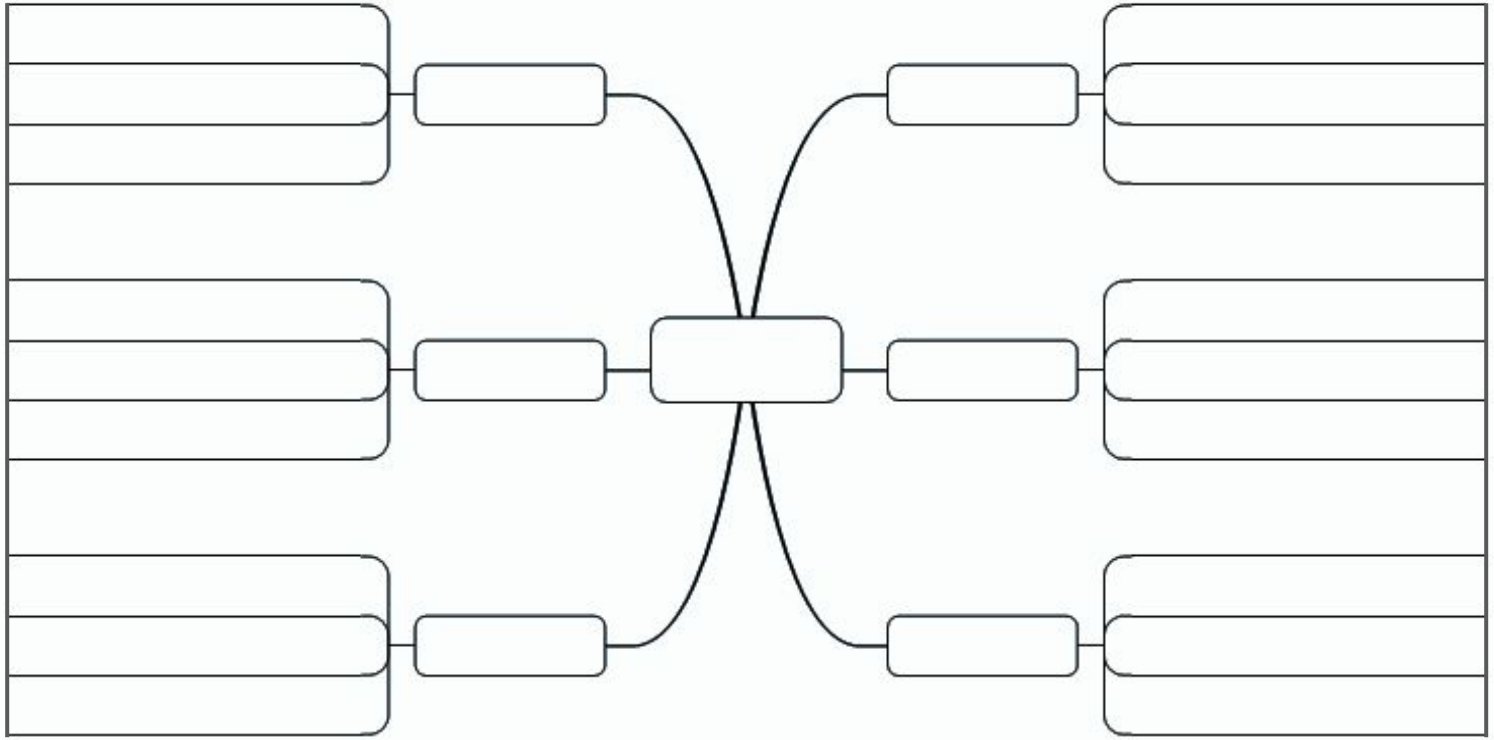
Things you learnt in previous topics

In Year 1, you named a variety of common animals that are carnivores, herbivores and omnivores. In Year 2, you found out about and described the basic needs of animals for survival including having a balanced diet by eating different types of food. In Year 3, you identified that animals, including humans, need the right types and amount of nutrition to be healthy. You identified the benefits (and possible negatives) to the body of different food groups.

How this connects with future learning

In Year 6, you will identify and name the main parts of the human circulatory system and describe the functions of the heart, blood vessels and blood. You will recognise the impact of diet, exercise, drugs and lifestyle on the way your body functions. You will also describe the ways in which nutrients and water are transported within animals, including humans.

To help you remember and recall key information, you can make your own notes about **science** here.



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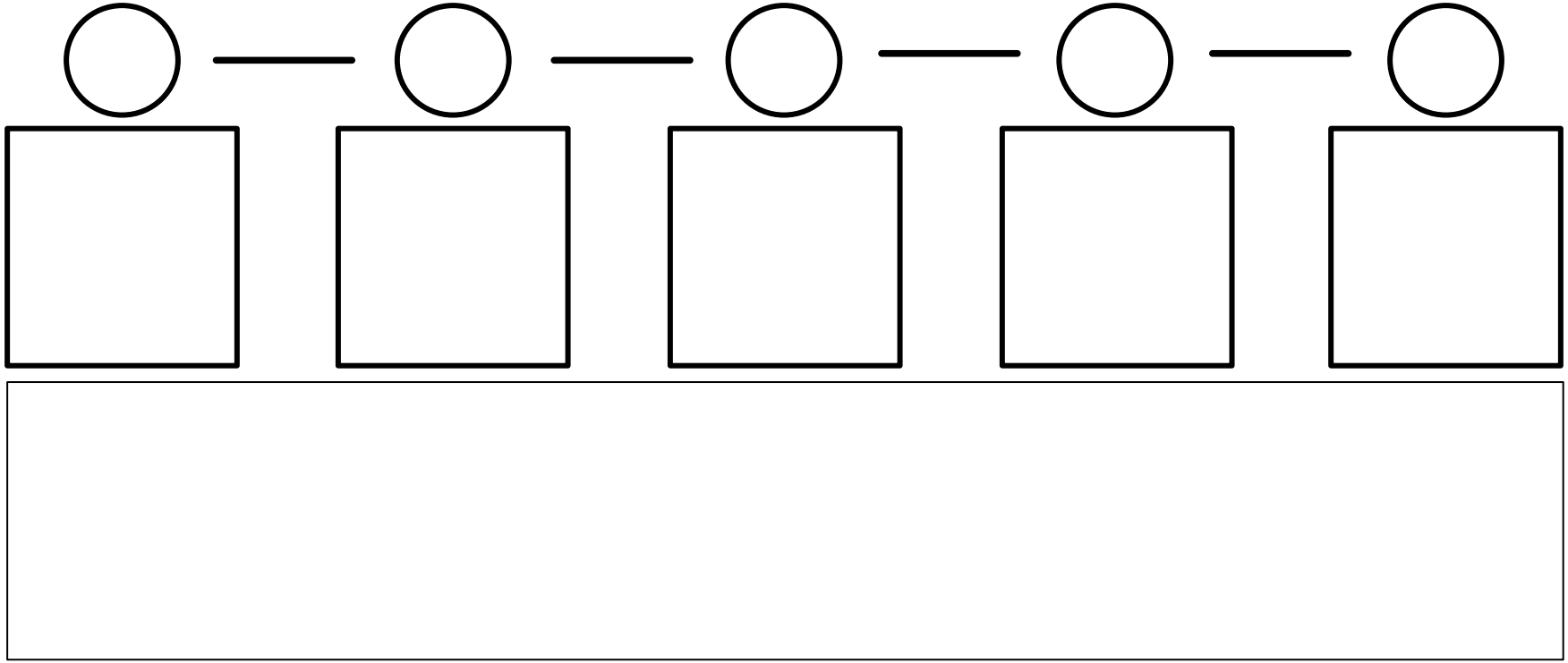


To help you remember and recall key information, you can make your own notes about science here.

Year 4 Spanish Knowledge Organiser
Mi Portfolio

Los números
Numbers

1	uno
2	dos
3	tres
4	cuatro
5	cinco
6	seis
7	siete
8	ocho
9	nueve
10	diez
11	once
12	doce
13	trece
14	catorce
15	quince
16	dieciseis
17	diecisiete
18	dieciocho
19	diecinueve
20	veinte

qu - j - ce/ci - ñ - ll - z - y - h

Información personal
Personal information

 ¿Cómo estás?/ ¿Qué tal? Estoy	 ¿Cómo te llamas? Me llamo.....	 ¿Cuántos años tienes? Tengo ..... años.	 ¿Cuál es tu ..... favorito? Mi ..... favorito es.....	 ¿Cuándo es tu cumpleaños? Mi cumpleaños es el ..... de .....

Verbos
Verbs

- **hay** → there is/there are
- **es** → he/she/it is
- **tengo** → I have
- **tiene** → he/she/it has
- **voy** → I go

Conectores
Connectives

pero → but **y** → and

Los colores
Colours

rojo/a		azul	
amarillo/a		verde	
naranja		rosa	
morado/a		marrón	
blanco/a		gris	
negro/a			

Preguntas
Questions

- ¿Qué hay en tu casa?
- ¿Cuál es tu _____ favorito?
- ¿Cómo vas?
- ¿Qué _____ te gusta?

Frases
Sentences

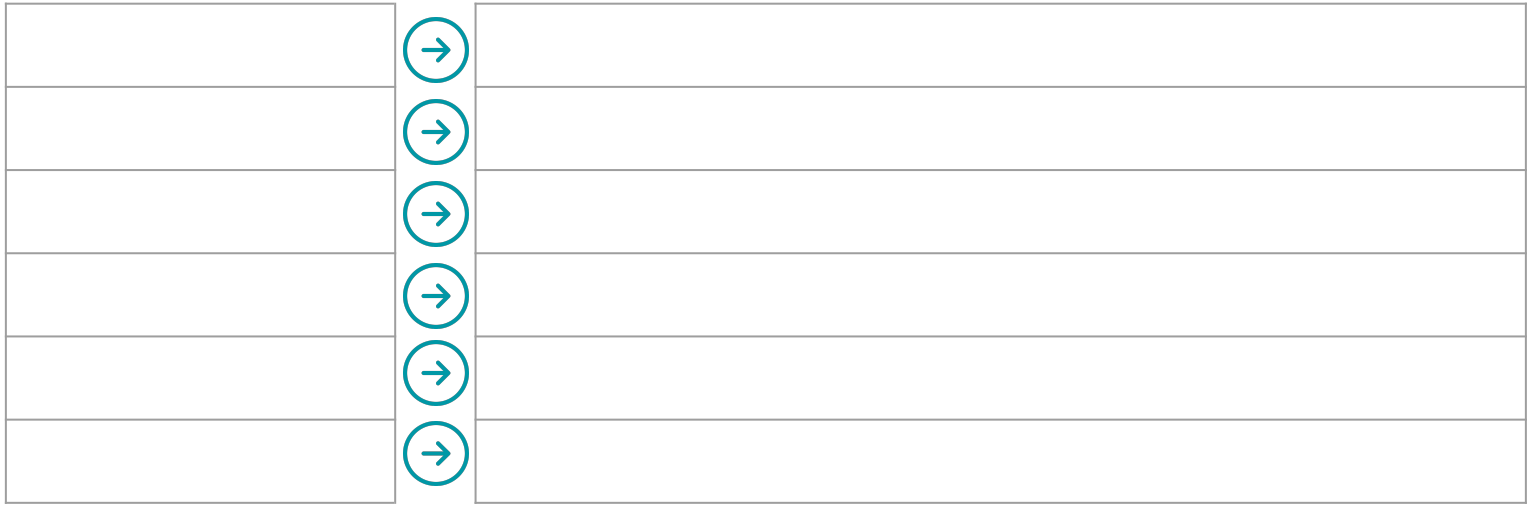
Hay + un / una / número + *habitaciones* / *muebles* + *adjetivo* (masc./fem.)

Mi animal favorito es / Mis animales favoritos son + *animal*

Voy en + *medio de transporte*

Me gusta/n + el/los / la/las + *asignaturas* / *lugares*
No me gusta/n

To help you remember and recall key information, you can make your own notes about Spanish here.



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To help you remember and recall key information, you can make your own notes about Spanish here.

At New Wave Federation, we demonstrate...

new wave federation

- Collaboration
- Creativity
- Focus
- Kindness
- Responsibility