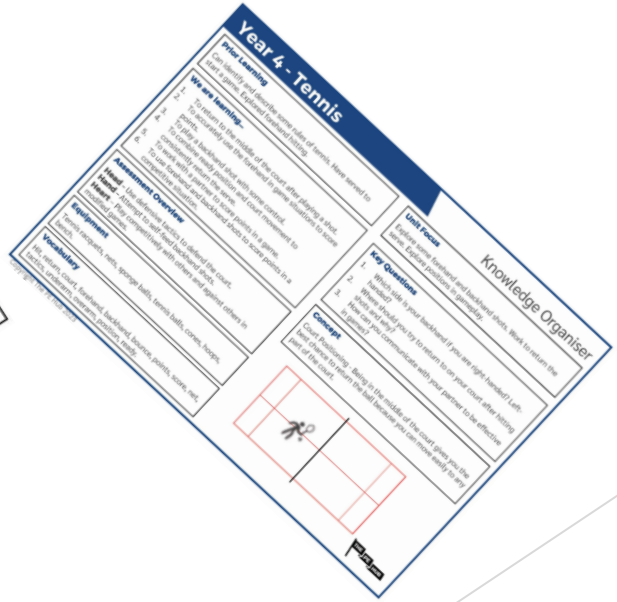
Year 4
Knowledge Organisers

At South Hill, we have created ‘Knowledge Organisers’ to help pupils and parents to know what the children will be learning in each of our Foundation subjects. These contain essential vocabulary and facts for each topic.

Please see ‘Knowledge Organisers’ attached for Year 4 for the Summer term, which will also be in pupil’s books and on working walls in school.



Year 4 Science - Summer 1

YEAR 4 SCIENCE – ANIMALS (INCLUDING HUMANS) KNOWLEDGE ORGANISER

What have we learnt in this topic before, what we will learn this year and what will we learn next?

In Year 3, we learnt in our topic: Animals including humans (Food, diet skeletons and muscles)

- To identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- To identify that humans and some other animals have skeletons and muscles for support, protection and movement.

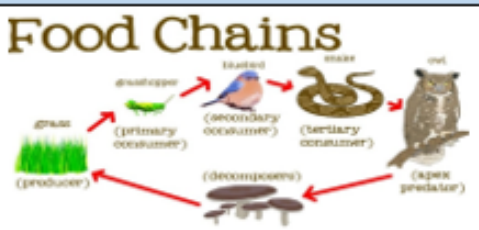
In Year 4, we will learn in our topic: Animals, including Humans
(Digestion, teeth and food chain)

- To describe the simple functions of the basic parts of the digestive system in humans
- To identify the different types of teeth in humans and their simple functions
- To construct and interpret a variety of food chains, identifying producers, predators and prey.

In Year 5, we will learn in our topic: Animals including humans (Growth, development & puberty)

- To describe the changes as humans develop to old age.

FOOD CHAINS



Eating food gives us the **energy** we need, without energy we would not be able to stay alive. Every living thing on Earth such as plants, animals and humans need energy. The **calories** and **nutrients** we get from our food is very important to our lives and bodies. When an animal eats a plant or an animal eats another animal, they create a **food chain**. The food chain is the **transfer of energy** from one species to another:

- **The sun** - The sun provides energy for all living things
- **Producers** - Plants are producers. This is because they produce energy for the food chain.
- **Consumers** - Animals are consumers. This is because they don't produce energy, they just use it up.
- There are two types of consumers. **Herbivores** eat plants and **Carnivores** eat other animals.
- **Decomposers** - Decomposers eat decaying matter (like dead plants and animals). They help put nutrients back into the soil for plants to eat.

THE DIGESTIVE SYSTEM

Food passes through the body with the **nutrients** being extracted and the waste products **excreted**, this process is called **digestion**.

- **Saliva** is mixed with the food and helps to break it up.
- When food is small enough to be swallowed, it is pushed down the **oesophagus** by muscles to the **stomach**.
- The **stomach** is an important organ in the **digestive system**. It produces strong acid. This kills many **harmful microorganisms** that might have been swallowed along with the food.
- It also contains special chemicals called **enzymes**. These are important for breaking down the food so it can be absorbed by the body.
- After it leaves the stomach, the partially-digested food passes into the **intestines** where it begins to be absorbed.
- The food, minus the **nutrients**, moves to the **rectum** where muscles turn it into **faeces**. It is stored here until muscles push it out of the **anus**. This is called **excretion**.

HOW TO LOOK AFTER YOUR TEETH

Children aged 7 and over

- Brush at least twice daily for about 2 minutes with fluoride toothpaste.
- Brush last thing at night before bed and at least on 1 other occasion.
- Use fluoride toothpaste containing between 1,350ppm and 1,500ppm of fluoride (check label).
- Spit out after brushing and don't rinse – if you rinse, the fluoride won't work as well.

Children aged 7 and over should be able to brush their own teeth, but it's still a good idea to watch them to make sure they brush properly and for about 2 minutes.

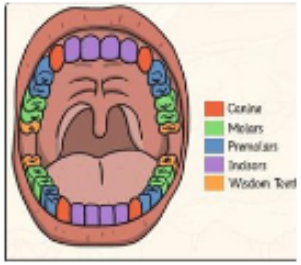
TEETH

Teeth are used for cutting and chewing food.

- They start the **digestive process**.
- Humans look after their teeth by brushing them and ensuring that they do not eat too many foods high in **sugar**.
- Not looking after teeth can lead to an increase in **plaque** and **tooth decay**.

A human has 3 types of teeth:

- **Canines** are pointed for **tearing and ripping** meat. These are usually used when eating meat.
- **Incisors** are shovel-shaped and used to **bite** lumps and **cut** food.
- **Pre-molars** and molars are flat, they **grind and crush** food.
- **Wisdom teeth:** the final teeth that an adult may or may not get. They are also called the third molars, but are often removed as an adult jaw and mouth does not usually have enough space for them.



An adult set consists of 32 teeth and a baby set consists of 20 teeth.

Key Vocabulary

digestion canines incisors pre-Molars liver stomach intestine rectum anus oesophagus omnivore herbivore carnivore producer

Year 4 Science - Summer 2

YEAR 4 SCIENCE – LIVING THINGS AND THEIR HABITATS

KNOWLEDGE ORGANISER

What have we learnt in this topic before and what we will learn this year?

In Year 2, we learnt in our topic:

Living things and their habitats (Living, dead, never alive, habitats)

- explore and compare the differences
- between things that are living, dead, and things that have never been alive
- identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other
- identify and name a variety of plants and animals in their habitats, including micro-habitats
- describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.

In Year 4, we will learn:

Living things and their habitats (Classification & human effects on the environment)

- recognise that living things can be grouped in a variety of ways
- explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
- recognise that environments can change and that this can sometimes pose dangers to living things.
- Our focus Scientist will be: Jane Goodall – Study of Chimpanzees.

In Year 5, we will develop this further and learn about: Living things and their habitats (life cycles and reproduction)

- describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
- describe the life process of reproduction in some plants and animals.
- Our focus Scientists will be: David Attenborough and Jane Goodall.

LIVING THINGS

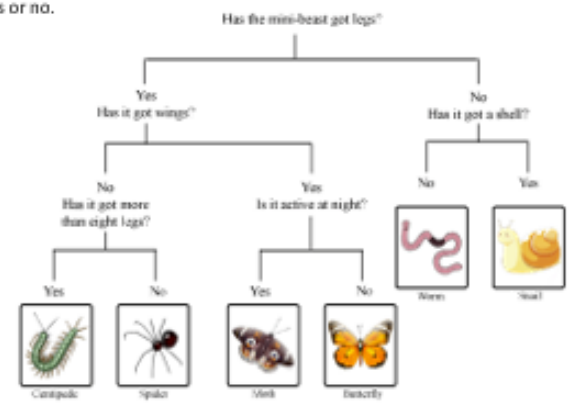
Living things have 7 things in common…

Movement
Respiration
Sensitivity
Growth
Reproduction
Excretion
Nutrition

ANIMAL CLASSIFICATION

A classification key is a set of yes or no questions about the characteristics of living things. They are used to group and sort animals and plants.

Answer the questions and follow the lines depending on whether the answer is yes or no.



FOCUS SCIENTIST – JANE GOODHALL - CHIMPANZEES

Jane Goodall was born in Hampstead, London, in 1934. As a child, Goodall's father gave her a stuffed chimpanzee in honour of a chimp born at London Zoo. She adored the toy, naming it Jubilee, and her love of chimpanzees began. Jane travelled to Tanzania and eventually Jane was sent to study chimps at the Gombe Stream Chimpanzee Reserve.

During these studies, Jane made two very important discoveries. She saw chimpanzees hunting and eating meat, when scientists previously thought they were vegetarian. She also watched chimpanzees using and making tools. Jane also observed the chimps being kind and gentle, while others showed signs of aggression. They expressed human emotions, too, such as sadness, anger and joy, and had ways of hugging and kissing – or even tickling! Jane got to know the distinctive sound of their laughter.

Scientists now know that chimpanzees share nearly 99 per cent of our DNA. Jane was the first person to recognise the intelligence of these wild creatures. Although now in her 80s, she still travels to Tanzania each year to enjoy time with the chimpanzees who have shared so much of her life. Today, she is still an important figure in conservation and animal welfare.

CLASSIFICATION

The billions of different kinds of living things (**organisms**) on earth have been divided up, by scientists, into groups according to their similarities and differences. This is known as **classifying**. Classifying living things into groups allows scientists to learn more about what makes each species **unique**.

There are many different classes of animal. Those with backbones are known as the 'class' **vertebrates**. These are then grouped into mammals, birds, fish, reptiles and amphibians.

Invertebrates, animals without backbones, are arachnids, insects, snails and slugs and worms. Humans fall into the **mammal** class as they have hair on their bodies and drink milk when they are babies. Whales, dolphins, bats, cats, dogs and hedgehogs are also mammals. A **habitat** is the non- living environment surrounding a living thing. It provides space, shelter, food and water.

ENVIRONMENT

Environments change all the time, e.g. leaves fall from the trees during Autumn. Sometimes the changes, however, are not expected and have a drastic effect on the living things there, such as:

- Air pollution
- Forest Fires
- Water pollution
- Flooding

Key Vocabulary

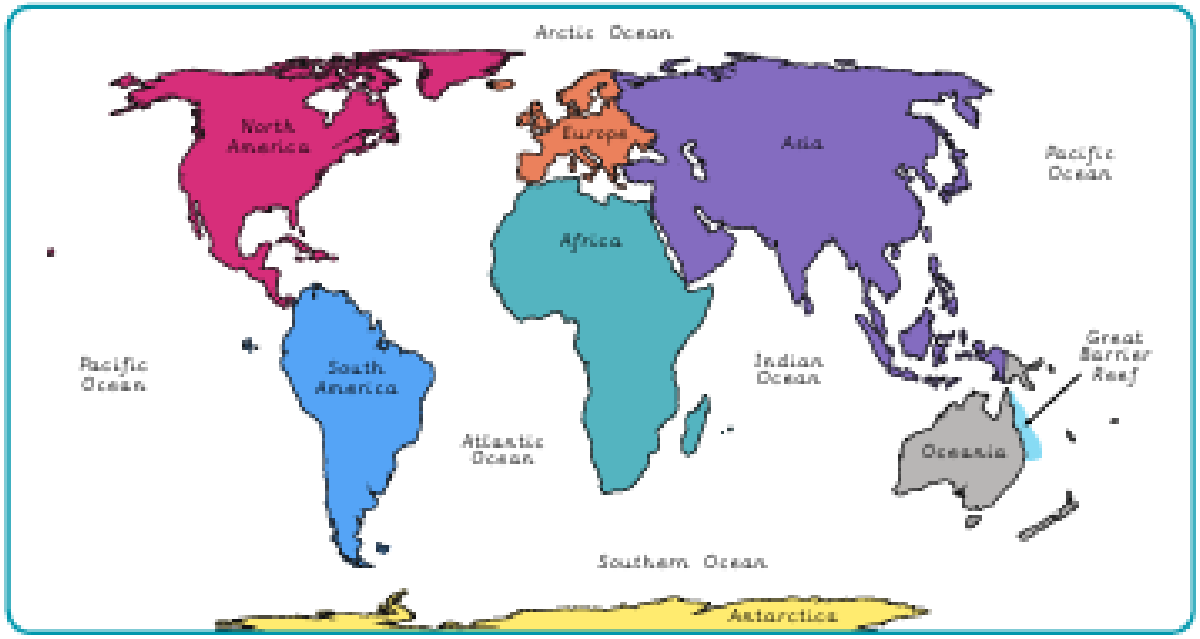
classification | classification keys | environment | vertebrate | invertebrate | habitat | hibernate | MRS GREN | group | similarity | difference

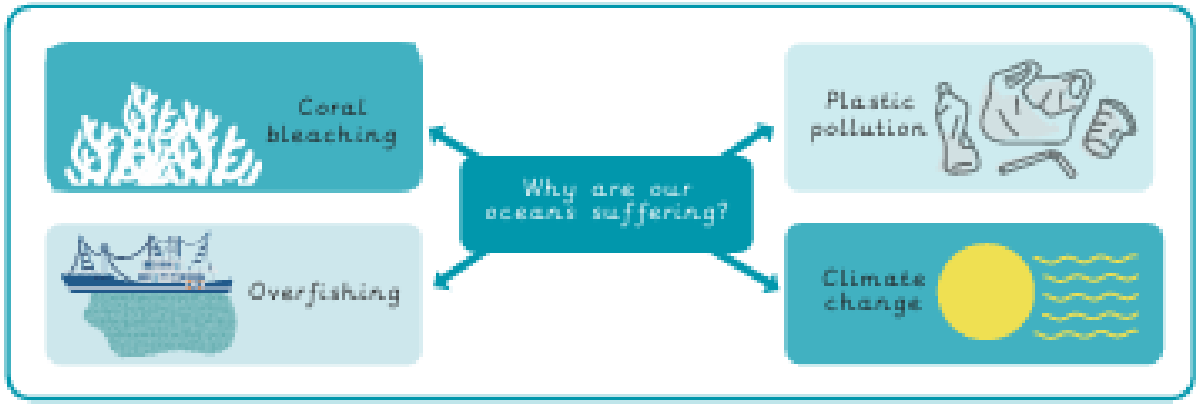
Year 4 Geography - Summer 1

Why do oceans matter?

Ways to support a healthy ocean:

- Trying to avoid buying single-use plastics.
- Recycling any plastics where possible.
- Only buy what you need.
- Buying second-hand.
- Re-using or re-purposing items.
- Teaching others about the ocean.
- Only buy the seafood you need.
- Trying to use natural fertilisers in gardens.
- Walking or cycling if you can.





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Year 4 Geography - Summer 1

Why do oceans matter?

Why are oceans important?

- They are used for trading between countries.
- Ocean currents influence our weather.
- They provide food and jobs.
- They are used for fun activities.
- They give us ingredients for medicine.
- They absorb carbon dioxide and warm our planet.
- Coral reefs act as a buffer to natural disasters.
- Coral reefs are home to a quarter of our marine species.

ocean current	The movement of a large area of seawater driven by the wind, gravity and water density.
coral reef	A large rock structure in the ocean formed by corals.
coral bleaching	A process which turns coral white, losing its colour.
marine	Relating to the ocean.
threat	Something likely to cause damage.
microplastics	Tiny pieces of plastic created from plastic waste.
acidification	The process of making something acidic.
overfishing	The number of fish decreases as a result of extreme amounts of fishing.
biodegradable	When something naturally breaks down and returns to nature.
Marine Protected Area	A designated geographical area of the ocean that is protected and managed.
single-use plastic	Plastic only used once and then thrown away.

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Year 4 History - Summer 2

YEAR 4 HISTORY – ANCIENT GREECE

KNOWLEDGE ORGANISER

What knowledge have we learnt before, what we will learn this year and what will come after?

In Year 3, we learnt about the 'Stone age' to the 'Iron age', including how houses changed over time as well as comparing the changes in lifestyle of early civilisations.

In Year 4, we will continue looking at the theme of 'lifestyle' by learning more about what life was like in both Ancient Rome and Ancient Greece including the legacies that both left behind.

In Year 5, we will continue looking at the theme of 'lifestyle' by learning more about what life was like for Anglo-Saxons once they had invaded Britain as well as social classes and lifestyle in 'Ancient Egypt.'

LEGACY OF ANCIENT GREECE

The Ancient Greeks left a lasting legacy behind. Even now, thousands of years later, many ideas, objects and ways of life originate from Ancient Greece.

DEMOCRACY – First civilisation to allow citizens to vote.
OLYMPIC GAMES – The first ever Olympic Games were held in Ancient Greece.
ALPHABET AND LANGUAGE – Many words in our language, as well as grammar rules, come from Ancient Greece.
SCIENCE AND MEDICINE – The Ancient Greeks introduced lots of scientific ideas that shaped the way we think about the world today.
THEATRE – The Greeks were well-known for writing and performing plays.
MATHS – The Ancient Greeks changed the way mathematicians demonstrate proof and they invented ways of calculating angles in shapes.

ANCIENT GREECE TIMELINE

2200BC - 1450BC	The first Minoan civilisation developed on the island of Crete.
1400BC - 1100BC	The Mycenaeans lived on the Greek mainland. They spoke the Greek language and traded goods with nearby countries.
1100BC - 800BC	This period is called the 'Dark Ages' because historians do not have many clues about what happened during that time.
776BC	The first Olympic Games were held as a festival for the Ancient Greek god Zeus.
490BC	The Battle of Marathon is won by fighters from the city-state of Athens who defeat invaders from the Persian Empire.
470BC - 322BC	Three of the most famous philosophers of all time (Socrates, Plato and Aristotle) studied and taught in Ancient Greece.
336BC – 323BC	Alexander the Great becomes king and powerfully expands the Greek empire as far as Egypt and India.
323-146BC	The Hellenistic period is sometime called 'The Age of Science' because Greek scientists, mathematicians and astronomers made great advancements.
146BC	Greece comes under the control of the Roman Empire after the Battle of Corinth.

HISTORICAL FIGURE – ALEXANDER THE GREAT

- One of the most famous historical figures from the time of the Ancient Greek empire is Alexander the Great.
- Took control as king of Macedonia at the age of just 19, when his father died in 336 BC.
- Conquered the rest of the Greek city states and unified them and gained control of the whole of Greece by age 21.
- He had a powerful army and he dealt harshly with any city-states that made an attempt to rebel against his rule.
- He conquered many places and spread Greek culture across thousands of miles. He even named cities after himself!

THE DIFFERENCES BETWEEN SPARTA AND ATHENS FOR GREEK BOYS AND GIRLS

Athens was the largest city-state in Ancient Greece. For a time, it was also the most powerful.

- Boys in Athens went to school to be educated between the ages of 6 and 20. They would learn to read and write. Girls were not seen to be as important as boys.
- Girls stayed at home instead of going to school.

Sparta was an inland city protected by mountains, making it difficult to invade.

- Boys and girls in Sparta were allowed to go to school. School was about learning fitness and strength so that people could become warriors.
- Boys were taught to fight in harsh and brutal conditions because they would grow to become Spartan warriors.
- Girls were taught combat skills and gymnastics.

Key Vocabulary

Ancient Greece, legacy, originate, democracy, Olympic Games, alphabet & language, Science, Theater, Alexander the Great, army, conquer, powerful, City-state, culture, Sparta, Athens, education, fight

Year 4 Art - Summer 1

YEAR 4 ART – ALL ABOUT ME

KNOWLEDGE ORGANISER

What have we learnt before in Art and what we will learn next?

In Year 3, we created self-portraits inspired by the work of Andy Warhol.

In Year 4, we will further develop our sketching and drawing skills to show facial expressions. We will begin to create movement in our drawings of body positions and will create a montage all about ourselves.

In Year 5, we will extend this to sketching our own self-portraits using grids and designs inspired by the work of Chase Close.

DRAWING FACIAL EXPRESSIONS

Start by drawing out a simple head shape template. Now draw a vertical line that separates the face in half and then draw on 4 horizontal lines, following the picture for guidance.

When creating facial expressions, concentrate on the movement of the eyes, mouth, nose and eyebrows to create mood.

SELF PORTRAITS

A self-portrait is a portrait of an artist created by the artist himself or herself, mainly through the medium of painting, drawing, sculpture or photography.

It is important to focus on the position and size of key facial features, such as our eyes and eyebrows, and then sketching these details onto the template. We can then add further details, such as our hair and use pencils or paints to recreate our skin colour.

DRAWING PEOPLE IN MOVEMENT

When we draw people, we can create 'movement' by studying the posture and position of parts of the body. We can do this in a number of ways:

We can start by creating a sketch skeleton to show the position of the head, body, legs, arms etc and then draw over this to fill out the body.

MONTAGE

A montage is a collection of images that relate to each other in some way to create a single work or part of a work of art.

We can create a montage of ourselves to show:

- What we like/ dislike
- Our hobbies and interests
- Our personality and character
- Our family and friends
- Our heritage

Key Vocabulary

facial expression, template, vertical line, horizontal line, facial features, self-portrait, sketching, drawing, movement, position, size, sketch skeleton, montage, body, arms, legs, head, posture, heritage

Year 4 DT - Summer 2

YEAR 4 DT - MAKING A MODEL STADIUM

KNOWLEDGE ORGANISER

What have we learnt before in DT and what we will learn next?

In Year 3, we revised our knowledge of Freestanding structures. We designed and constructed our own Anglo-Saxon village using different types of joins and learnt how to make holes.

In Year 4, we will learn about Frame structures and we will build a stand to make a 'Panathenaic stadium' using frames, concertinas and triangles to reinforce and strengthen.

In Year 5, we will revise our knowledge of Frame structures and we will build a pneumatic bridge.

THE PANATHENAIC STADIUM

The Panathenaic Stadium (also known as Kallimarmaro) is a multi-purpose stadium in Athens, Greece. It is the only stadium in the world built entirely of marble.

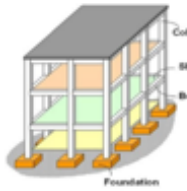
A stadium was built on the site of a simple racecourse by the Athenian statesman Lykourgos in 330 BC, primarily for the Panathenaic Games. It was rebuilt in marble by Herodes Atticus, an Athenian Roman senator and by 144 AD it had a capacity of 50,000 seats.

After the rise of Christianity in the 4th century it was largely abandoned. The stadium was excavated in 1869 and hosted the Zappas Olympics. After being refurbished, it hosted the opening and closing ceremonies of the first modern Olympics in 1896 and was once again used as an Olympic venue in 2004. It is still used for events today!

FRAME STRUCTURES

Structures are things that are built for a purposes, for example to support something or hold something. Frame Structures are rigid support structures that use beams, columns and slabs to hold large forces of gravity and weight.

- Frame structures give shape and are useful for support & weight bearing.
- Frame structures have joints, which are formed according to the design requirements and materials being used.
- Some examples of man-made objects that use frame structures are houses, skyscrapers, bridges, scaffolding, tables, and roller coasters!
- The system of beams and columns in a frame structure can be further strengthened through the use of other features, e.g. foundations, bracing.



USING TRIANGLES FOR STRENGTH

Triangles are commonly used in construction because they are stable, strong, and rigid. They are the strongest polygon.

Here are some ways triangles are used in construction:

- Trusses are structures that combine horizontal and diagonal beams to form triangles. They are used in many structures, including roofs, bridges, and buildings.
- Bridges often use multiple triangles to apply compression and tension in different places.
- Triangles are often used as internal or external support pieces

MEASURING, CUTTING AND FOLDING A CONCERTINA

When re-creating a model, we need to measure accurately (to the nearest cm) using a 30cm ruler and pencil.

Drawing stencil lines can help us to mark out measurements and then we can cut out materials to the required width and length and shape from our design.

To create 'stairs', we can fold a piece of flexible card or paper in a concertina fold. This involves folding the material, in equal lengths, backwards and forwards to create a fan type shape.

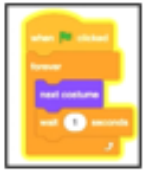
Key Vocabulary

Frame structure	support	rigid	flexible	weight-bearing	joints	strengthen	reinforce	triangle	polygon	model
Internal/external support	measure	cm	stencil lines	width	length	trusses	measure	cut	concertina	stairs

Year 4 Computing - Summer 1

COMPUTING: PROGRAMMING KNOWLEDGE ORGANISER

Overview



Repetition in Scratch

- Programming is when we make a set of instructions for computers to follow.

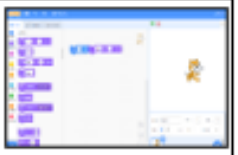
-Scratch is a program that we can use in order to code our own stories, animations and games. We can use repeat and loop operator blocks in order to make our programs more logical and efficient. These help to run code continuously or for a set number of times.

-We use algorithms (a set of instructions to perform a task) to sequence movements, actions and sounds in order to program effective animations.

The Basics of Scratch

-**What is Scratch?** Scratch is a website/ app that lets us code our own stories, games and animations.

-Scratch helps us to learn how to use programming language, whilst also being creative and using problem-solving skills.



There are three main areas in Scratch:

-The Blocks Palette (on the left) contain all of the different blocks: puzzle piece commands which control the animation.

-Code Area (in the middle) is where the blocks are placed to create a program.

-Stage with Sprite (right) is where the output of the program is presented. The sprite is the character.

Attributes: There are three attributes of the sprite which we can change to make our animation: Code, Costumes, Sounds.

-Event Blocks: Event blocks are coloured yellow and are used to sense different events that happen e.g., the green flag being clicked.

-Action Blocks: Action blocks include 'Motion' blocks, 'Sound' blocks and 'Looks' blocks. They make the sprite move, make sounds and change appearance.

Loops and Repetition

-Pen Drawing in Scratch: Select the 'add extension' icon in the bottom left corner. Then select 'pen.' This allows you to draw with your sprites.

-The Repeat Block: Select 'code' and then the 'control' blocks (orange). Here you will find the repeat block. It should be placed around the command blocks that you want to repeat. The number of times something is repeated can be typed into the white area.

-Creating Shapes: Selecting 'pen down' (in the 'operators' blocks) can be followed by use of the motion blocks to determine the line that will be drawn (e.g. 'move 10 steps'). Turning a number of degrees changes the direction of the pen. Placing the repeat block around this motion code can allow more complex shapes to be drawn.

-Count-Controlled/Infinite Loops: We can control the number of 'loops' of a command with the number typed into the 'repeat' block. The 'forever' block makes a command continue infinitely (forever).

Event Managing and Efficiency

-We should ensure that programs are coded and labelled in easy-to-understand, user-friendly ways.

-Using the 'events' blocks logically can help to make your programming easy to use. E.g. when 's' key pressed a square is drawn, when 'h' key is pressed a hexagon is drawn.

-Efficiency is about getting the right result in the easiest way possible, wasting little time or effort. Our use of the repeat and loop tools should help to create efficient programs.

Algorithms, Trialling, Debugging

-Designing an **algorithm** (set of instructions for performing a task) will help you to program the sequence that you require.

-Programmers do not put their computer programs straight to work. They **trial** them first to find any errors:

-Sequence errors: An instruction in the sequence is wrong or in the wrong place.

-Keying errors: Typing in the wrong code.

-Logical errors: Mistakes in plan/thinking.

-If your algorithm does not work correctly the first time, remember to **debug** it.

Year 4 Computing - Summer 2

COMPUTING: CREATING MEDIA KNOWLEDGE ORGANISER

Overview

Audio Editing

-You should already know that audio means sound, including music, sound effects, and podcasts.

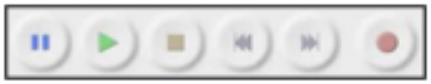
-The process of recording and listening to sound requires input devices (e.g. a microphone) and output devices (e.g. a speaker).

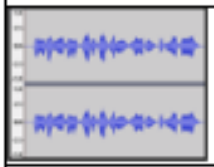
-Podcasts are a type of spoken word audio file, that can be downloaded by listeners.

-People can have ownership over audio files, and can have the audio copyrighted, so that it can't be copied without permission.

Using Software

Audacity is one example of an audio editing tool, but many others are available. For example, you can use the voice memo recorder on a tablet.





The sound is shown as a waveform. We should aim for it to peak at around 0.5/ -0.5

How to Record a New Track

1.Go to the tab 'Tracks' and then 'Add New.'

2.Name the new track

3.Click in the track's window to select it.

4.Press record to begin recording into the new track.

Go to the 'file' tab and 'Save Project' to save your work. You can also delete recordings, but you should only ever delete your own files!

Input and Output Devices

We use input devices to send the audio to the device/ computer.
We use output devices to listen to the audio from the device/ computer.

Input Devices	Output Devices
 Microphones are input devices that change sound into electrical signals, which can then be recorded or transmitted.	 Digital speakers turn the electrical signal into an audio output that can be heard by the listener.
 With the help of special cables, musical instruments can be linked to computers, and become input devices.	 Headphones are worn over the ears of the listener, so that only they can hear the sound output.
  Some devices are capable of acting as both input and output devices. Examples include headsets, smartphones, and voice assistants (e.g. Google Home and Amazon Echo).	

Creating Podcasts

Podcasts are a type of spoken word file that can be downloaded by listeners. A user can often choose to download the whole series of podcasts.

Some examples of podcasts are 'Stories Podcast', 'Six Minutes' and 'Brains On! Kids Science Podcast.'

Features of podcasts include:

Sounds: Voices, jingles, background music, sound effects

Information: Presenters' names, name of podcast, introduction, main section, conclusion.

Top Tips for High-Quality Podcasts

-Speak clearly

-Avoid fillers ('um', 'like')

-Avoid coughing/ sneezing

-Take turns to speak

-Avoid background noise

-Don't touch the microphone

-Choose music carefully

Important Vocabulary

Audio | Input | Output | Microphone | Speaker | Podcast | Waveform | Jingle | Track | Presenter

Year 4 PE - Summer 1

Year 4 – Cricket

Knowledge Organiser

Prior Learning

Adhered to some of the basic rules of cricket. Developed a range of skills to use in isolation and a competitive context. Strike a bowled ball.

Unit Focus

Develop and apply a range of skills in a competitive context. Choose and use a range of simple tactics in isolation and game context. Consolidate existing skills and apply them with consistency.

We are learning...

1. to hit the ball in different directions.
2. to anticipate when to run to score singles.
3. to intercept a moving ball with one hand.
4. to bowl overarm.
5. the pull shot and attempting it in a game.
6. to field a bouncing ball effectively.

Key Questions

1. When would a player attempt a pull shot in a game?
2. Why do we want to bowl overarm? (More powerful, quickest, can vary the ball to make it harder for the batter to hit).
3. Why is it beneficial to only pick the ball up with one hand?

Equipment

Range of balls, range of bats and striking equipment, stumps, button cones, batting cone.

Vocabulary

Zones, directing, conditioned game, intercepting, isolation, pull shot, ground ball, overarm bowling, run singles.

Rules

- Players bat in pairs and will face two overs between them (12 balls).
- 4's and 6's can be scored on the marked boundaries; players must get to the other set of stumps if taking singles.
- Each player on the fielding team will bowl one over, they will do this in tandem with their paired teammate (with whom they will also bat).

Assessment Overview

Head - With increasing consistency, choose where to direct a hit from a bowled ball.
Hand - Track and intercept the ball along the ground, sometimes collecting with 1 hand.
Heart - Show fair play, such as accepting if they were run out or stumped.

Year 4 PE - Summer 2

Year 4 – Athletics

Knowledge Organiser

Prior Learning

Showed controlled movements in response to instructions. Demonstrated agility and speed. Jumped for height and distance. Thrown with speed and power and applied appropriate force.

Unit Focus

Investigate ways of performing running, jumping and throwing activities. Use a variety of equipment to measure, time and compare different styles of runs, jumps and throws.

We are learning...

1. to challenge ourselves in running, jumping and throwing tasks
2. to accelerate over short distances.
3. to run and jump using one-footed take-off.
4. to use a sling action to throw a discus.
5. to run on a curve and exchange a baton in our team
6. to apply the skills we have developed in a competitive way.

Key Questions

1. How did you improve on your scores?
2. Can you name two throwing techniques?
3. Why should you start moving when you receive the baton?

Equipment

A variety of balls, hoops, bean bags, quoits, throw down markers, foam javelins, balloons, stopwatch, measuring tape, skipping ropes, foam discus, quoits, batons.

Vocabulary

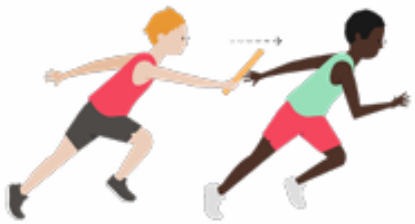
Track, force, distance, curve, accelerate, hurdles, foam javelins, vortex howler, bounce, target, take off, sling, exchange, accuracy.

Rules

- Correct use of a stopwatch.
- Where to receive the baton.
- Measure from the throwing line.

Assessment Overview

Head - Decide on ways to improve, run, jumps and throws and implement changes.
Hand – Throw a variety of objects, demonstrating accuracy.
Heart – Work with others to score and record distance and times accurately.



Year 4 PSHE- Summer 1

YEAR 4 PSHE - DRUGS

KNOWLEDGE ORGANISER

Overview and Recap

At South Hill, we follow the 'Christopher Winter project' curriculum for 'Relationship and Drugs education.'

We are learning about how to live healthy and safe lives, to promote our wellbeing and to have positive relationships with others.

You should already know that:

- Being healthy is about feeling good in your body and wellbeing is about feeling good in your mind.
- We need to look after our bodies. It is important that we have a balanced diet and that we regularly exercise. We should take care with medicines (and all drugs) as they can be harmful.
- We should know the effects of smoking on the body and know the dangers that smoking and alcohol pose to our health and us as a person.
- We should understand that drugs are substances which change the way the body and mind work.

Differences in the effects of Alcohol

Alcohol can affect each person differently, it depends on:

- **How often people drink- every unit of alcohol takes 1 hour for the liver to process after you have stopped drinking.**
- **How much people drink - Binge drinking is classed as more than 6 units of alcohol at one time.**
- **The size and weight of a person- the smaller the person the quicker the absorption of Alcohol into the system.**
- **How much food a person has eaten- eating before drinking can slow down the speed at which Alcohol is absorbed into the system but it does not stop it being absorbed.**

Alcohol and Cigarettes – The Facts

-Drinking alcohol can also be damaging to the human body. For example, it can cause great damage to the liver. In the short term, too much alcohol can affect people's balance, speech, and thinking, and can make people feel very sick.

-In the UK, it is illegal to buy alcohol or cigarettes if you are under the age of 18. It is illegal to smoke in public places such as offices and shops.

Effects of Alcohol

Short term effects on the body

- Being sick
- Blurred vision
- Tiredness
- Weight gain
- Interrupted sleep
- Memory loss
- Headaches
- Unhealthy skin
- Forgetting things

Behavioral effects

- Feeling relaxed
- Being aggressive
- Feeling more confident
- Being irrational
- Doing things or taking risks that you might not normally do

Long term effects on the body

- Cancer of the mouth and throat
- Breast cancer in women
- High blood pressure, increased risk of heart disease and stroke
- Liver damage
- Depression, memory loss
- Stomach damage
- Alcohol poisoning
- Poor immune system

Alcohol and the law

- You have to be 18 to buy alcohol in the UK
- Under the supervision of a responsible adult, children aged over 5 can be given alcohol at home.
- People can be arrested for being drunk in public.
- If you have a blood/alcohol concentration level of over 80mg/100ml, it is ILLEGAL to drive.
- Children under 14 cannot go into a pub unless they are in the restaurant or garden and are supervised by an adult.
- The police can confiscate alcohol from under 18's.

Key Vocabulary

Alcohol beer wine legal police drug influence choice immune system pub limit unit affect

Year 4 PSHE- Summer 2

YEAR 4 PSHE - RELATIONSHIPS

KNOWLEDGE ORGANISER

Overview and Recap

At South Hill, we follow the 'Christopher Winter project' curriculum for 'Relationship and Drugs education.'

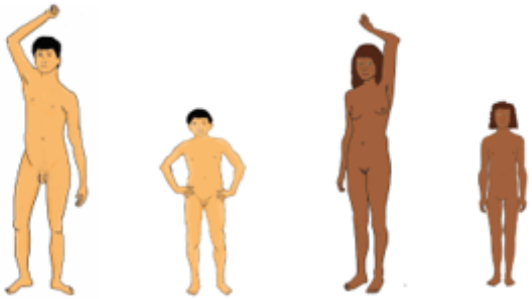
In Year 4 this year, we will learn:

- To describe the main stages of the human lifecycle
- To describe the body changes that happen when a child grows up
- To discuss male and female body parts using agreed words
- To know some of the changes which happen to the body during puberty
- To know about the physical and emotional changes that happen in puberty
- To understand that children change into adults so that they are able to reproduce

CHANGES TO OUR BODY DURING PUBERTY

Puberty is a special time when a child gradually grows and develops into a young adult and both their bodies and feelings change a great deal. This can start as young as 8 and carries on during the teenage years.

- As we grow up, we get taller and grow more **hair** on our bodies.
- **Puberty** is the time when a child grows and changes to become an adult.
- The hair around the private parts is called **pubic** hair.
- Males have a **penis** and females have a **vagina.**
- Behind the penis, the male has two **testicles.**
- The vagina leads up to the woman's **womb** which is where a baby grows.



REPRODUCTION

One of the most important differences to start inside the body during puberty is that males produce a **seed, called sperm**, and females produce **a special kind of egg, called an ovum**; a male and female need these to make a baby.

When they become adults and decide to have a baby together, the egg and the sperm join together inside the woman's body to help make a baby.

LIFECYCLE OF A HUMAN

Like all living things, humans have a life cycle. Every human being goes through the same stages of life in the same order. Most people who live in wealthy countries live to between 60 and 90 years of age, although some people live to be over 100 years of age!

- **Foetus -** All people start off life as a foetus in their mother's belly. A foetus grows in the womb surrounded by liquid and gets its nutrition through a tube called the umbilical cord. When a woman has a foetus growing inside her, we say that she is pregnant. Doctors can take a photo of a foetus using an ultrasound scanner.
- **Baby -** After around nine months (sometimes a bit longer; sometimes a bit less) the mother gives birth. From birth to around two years of age we say a child is a baby (we count people's ages from the day that they are born). Babies cannot do much for themselves and need to be fed (with milk at first, then later with food) and have their nappies changed.
- **Child-** From three years old to twelve years old you are a 'child'. Children are more independent than babies, and they continue to become more independent as they get older; for example, they can eat food that is given to them and dress themselves. Between three and five years old children start to go to nursery and to school.
- **Teenager-** Teenagers are more independent than children; for instance, they can get jobs to earn money for themselves and can learn to drive at sixteen. However, teenagers still live with their parents and rely on them to pay the bills! Knowing which ages are included in the teen years is quite easy, as they end in 'teen' e.g. thirteen.
- **Adult -** Although eighteen and nineteen end in 'teen', people of this age are actually now adults. Adults have grown as much as they are going to and usually live independently in their own houses. Most adults get full-time jobs to pay for their own food, bills and other things that they buy. Adults can also have babies of their own!
- **Elderly -** By the age of around 67, most people have worked hard throughout their lives and they can retire (stop working). Elderly people are not as strong as when they were younger and get tired more easily. However they can still have fun and stay active, like the couple in the photo. If their children have had children, they will be grandparents.






Key Vocabulary

Foetus Baby Toddler Child Teenager Adult Elderly lifecycle puberty seed sperm egg ovum body changes reproduction penis testicles vagina vulva womb male female puberty pubic hair