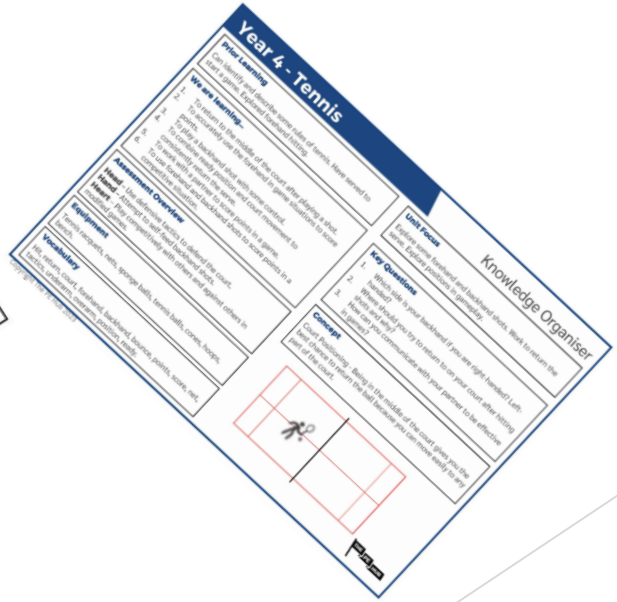
Year 4
Knowledge Organisers

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.

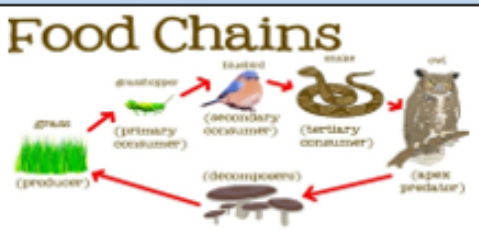
In Year 4, we will learn in our topic: Animals, including Humans
(Digestion, teeth and food chain)

- 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.

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.

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.

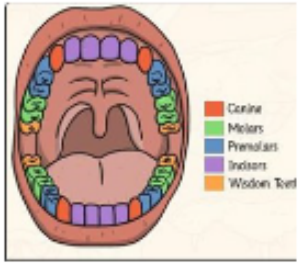
TEETH

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

FOCUS SCIENTIST – JANE GOODHALL - CHIMPANZEES

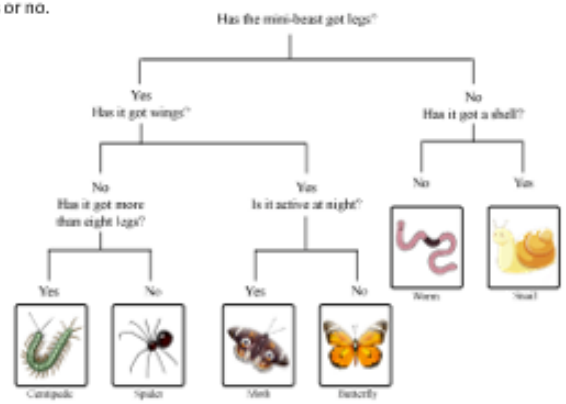
Jane Goodall was born in Hampstead, London, in 1934. As a child, Goodall's father gave her a stuffed chimpanzee in honour of a chimp born at London Zoo. She adored the toy, naming it Jubilee, and her love of chimpanzees began. Jane travelled to Tanzania and eventually Jane was sent to study chimps at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

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.



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

YEAR 4 GEOGRAPHY – WHERE DO WE COME FROM?

KNOWLEDGE ORGANISER

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

In Year 1, through our topic 'Where in the world do we live', we learnt about where we live and began to use atlases and maps to identify countries and Cities in the UK.

In Year 4, during the autumn term, we will extend our knowledge through our topic 'Where do we come from' by looking at the UK in more detail, as well as understanding the European Union and finding out about our own background and heritage.

In Year 5, we will extend this through our topic 'Locating continents and oceans of the world.'

THE EUROPEAN UNION

The European Union (EU) was formed to bring together the countries of Europe. The EU helps its member countries with issues such as trade, security, and the rights of citizens. By 2013 the group had **28 member countries**. However, in 2016, one member—the United Kingdom—voted to leave the EU. The country officially left the union on January 31st 2020.

The EU countries are: **Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.**

FIELDWORK/ INSPIRATIONAL DAY/ HOOK LESSON
WHAT MAKES ME, ME?

There are many things that make us who we are today. Each of us has a unique background and this is what makes us special and valued. There are lots of things that have made us who we are today, such as our:

- **Nationality** – where was I born? Where were my trusted adults born? This is our nationality.
- **Ethnicity** – the Government currently lists 18 different ethnicities in the UK. These are words used to describe groups of people who have something in common and who see themselves as distinctive in some way by having a common heritage or background.

As a class, we will carry out a survey to find out about our nationality and ethnicity and find out about our family background so that we can celebrate what makes us, us!

THE BRITISH ISLES, THE UK AND GREAT BRITAIN

What is the difference between the British Isles, the UK and Great Britain?

The United Kingdom of Great Britain and Northern Ireland is a sovereign state (meaning it is ruled by a King or Queen) in the north west of Europe.

Great Britain is an island consisting of England, Wales and Scotland that is separated by the English Channel and North Sea. Northern Ireland is not a part of Great Britain. On a map, Great Britain is the larger of the two British Isles, on the right hand side.

The **British Isles** are a group of islands consisting of the islands of Great Britain, Ireland, the Isle of Man, the Inner and Outer Hebrides and over six thousand smaller islands. They have a total area of 315,159 km² (121,684 sq mi) and a combined population of almost 72 million, and include two sovereign states, the Republic of Ireland and the United Kingdom of Great Britain and Northern Ireland.

CITIES IN THE UNITED KINGDOM

There are currently a total of 69 such cities in the United Kingdom: 51 in England, 7 in Scotland, 6 in Wales, and 5 in Northern Ireland. Cities are those places that have been granted city status by letters patent or royal charter.

These include: Bath, Belfast, Birmingham, Bradford, Brighton, Bristol, Cambridge, Cardiff, Carlisle, Dundee, Durham, Edinburgh, Manchester, Leeds, London and Glasgow.

Key Vocabulary

Great Britain	British Isles	United Kingdom	city	town	village	capital city	island	The European Union	country	
nationality	ethnicity	tropic of cancer	tropic of Capricorn	equator	continent	nationality	ethnicity	heritage		

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: Changes in Britain from the Stone Age to Iron Age 800000 BC - 750 BC and Britain's settlement by Anglo-Saxons and Scots 410BC – *1066AD.*

In Year 4, we will have already learnt about the Roman Empire and move onto comparing this to the Greek Empire, concentrating on what life was like for children in Athens and Sparta as well as looking at a range of historical events and sources.

In Year 5, we will go on to learn about The Vikings and Anglo-Saxons: The struggle for the Kingdom of England *410BC – 1066AD and* Achievements of the earliest civilisations: Ancient Egypt *3100 BC – 320 BC.*

THE ANCIENT GREEK EMPIRE

About **2,500 years ago**, Greece was one of the most important places in the ancient world. It is made up of a **mainland** and lots of **islands**.

The Greeks were great thinkers, warriors, writers, actors, athletes, artists, architects and politicians. Here are some facts about Ancient Greece:

- People have lived in Greece since **over 40,000 years ago!**
- Today, Greece is still a **country in Europe**.
- In ancient times, Greece was made up of **separate city-states** that each had their own law.
- The **Ancient Greek empire became large and powerful**, spreading out to Turkey, Iran and Bulgaria.
- The Empire existed between **2200BC and 146 BC** when they were conquered by **the Romans!**

HISTORICAL FIGURE – ALEXANDER THE GREAT

One of the most famous historical figures from the time of the Ancient Greek empire is Alexander the Great. Alexander took control as king of Macedonia at the age 19, when his father died in 336 BC. Very soon after he became king, **Alexander conquered the rest of the Greek city states** too. Now he had united Macedonia with the rest of Greece. He had a **powerful army** and he dealt harshly with any city-states that made an attempt to rebel against his rule.

After gaining **control of Greece** by the age of 21, Alexander invaded other countries nearby. He soon invaded **North Africa and Asia**, conquering more land for his Greek Empire with his powerful army. He **conquered many places** and spread Greek culture across thousands of miles. Alexander seemed to particularly love **naming cities after himself**.

PART TIMELINE FOR THE GREEKS

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.**

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

Greek Empire | Athens | Sparta | City-state | warrior | invade | conquer | Alexandra the Great | Olympic | legacy | democracy | Trojan horse | artefact | source | Panathenaic stadium | mainland | island

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?

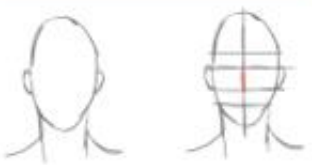
In Year 3, we studied the artist 'Monet' and created our own watercolour paintings, focusing on using brushes for different effects as well as developing our sketching and pencil skills.

In Year 4, in our drawing and painting topic, we will further develop our sketching skills to show facial expressions and body language. 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 'Dragon's eye' to show mood and feeling, as well as studying the artist 'Hockney' and developing our ability to paint landscapes and reflections.

DRAWING FACIAL EXPRESSIONS

Start by drawing out a simple head shape, an oval for the skull, two ears, a neck and the start of the shoulder. 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 realized by the artist himself or herself, mainly through the medium of painting, drawing, sculpture or photography.

Using the head template, we can also create a self portrait by using a mirror or photo. 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 and then adding more of the body
- We can also use paint brush strokes to recreate the general shape of the body in movement.

MONTAGE

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

We ca 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

head, eyes, eyebrow, lips, nose, outline, silhouette, medium, sketch, brush, position, size, body, montage, ourselves, design, colour, facial expression, sad, happy, angry, movement, direction

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, in our topic 'Stiff and Flexible sheet materials', we made an Anglo Saxon village focusing in selecting the right materials, joining them and making holes.

In Year 4, in our topic 'Stiff and Flexible sheet materials', we will make a model of the Panathenaic stadium concentrating on making a strong structure using appropriate adhesives and by layering materials. We will also focus on measuring and cutting materials accurately.

In Year 5, in our topic 'Stiff and Flexible sheet materials', we will make a Hydraulic Bridge consolidating on knowledge and skills in making a strong structure and measuring and cutting materials accurately.

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 in 1870 and 1875.** After being refurbished, it hosted the **opening and closing ceremonies of the first modern Olympics in 1896** and was the venue for 4 of the 9 contested sports.

It was used for various purposes in the 20th century and was once again used as an **Olympic venue in 2004.** It is the **finishing point** for the annual **Athens Classic Marathon.** It is also the last venue in Greece from where the Olympic flame handover ceremony to the host nation takes place.

MAKING A STRUCTURE STRONGER

To make a structure stronger we can use and consider a range of factors:

- Stacking or layering materials
- Laying materials so that they are not directly on top of eachother
- Spreading out the weight
- Giving string foundations
- Triangles are stronger than squares

JOINING MATERIALS

Joints can be joined using adhesives (glues). Joints in wood can be joined using frame joints. Metal joints can be brazed or welded joints, or held together with fastening components such as screws, bolts, and rivets. When joining paper or card, you can also have permanent and temporary fixings.

When considering how to join materials, we need to consider the materials we are using to construct with and the most appropriate material or adhesive to connect/ join the materials.

Cardboard can be joined successfully using sticky tape or a range of glues in order to hold two sheets together.

MEASURING AND CUTTING MATERIALS

When re-creating a model, we need to take care in creating a plan which takes into consideration features such as shapes, width, length and layers.

We can use a range of tools such as:

- Scissors
- Craft knives
- Rulers
- Pencils

We can use these to measure accurately (to the nearest cm), to draw stencil lines and then to cut out materials to the width and length and shape required from our design.

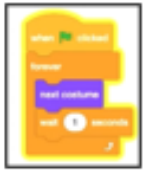
Key Vocabulary

material, joining, cutting, measuring, accurately, adhesive, cardboard, stadium, model, structure, Stronger, layering, weight, base/foundation, triangle, square, design, ruler, length, width

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.

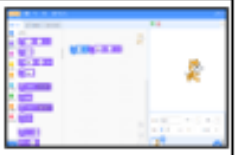
-Scratch is a program that we can use in order to code our own stories, animations and games. We can use repeat and loop operator blocks in order to make our programs more logical and efficient. These help to run code continuously or for a set number of times.

-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.

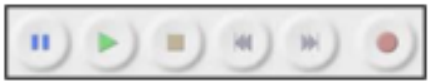
-The process of recording and listening to sound requires input devices (e.g. a microphone) and output devices (e.g. a speaker).

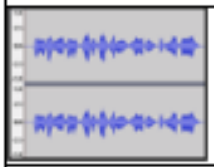
-Podcasts are a type of spoken word audio file, that can be downloaded by listeners.

-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

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.