Year 5 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 5 for the Spring term, which will also be in pupil's books and on working walls in school.

YEAR 5 SCIENCE – PROPERTIES AND CHANGES OF MATERIALS KNOWLEDGE ORGANISER

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

In Year 1, we learnt about objects and their materials, everyday materials and we explored waterproof materials and Charles Macintosh. We described the basic properties and grouped materials based on these.

In Year 2, we learnt about the suitability of different materials for different objects and we learnt about John McAdam who changed the roads.

In Year 5, we will develop this further by looking deeper at their properties such as hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. We explore materials dissolving and solutions as well as separating mixtures through filtering, sieving and evaporating. Changes made to materials can be reversible and irreversible which we explore and we learn about Ruth Benerito who 'saved the cotton industry'.

CLASSIFYING MATERIALS

Different materials are used for particular jobs based on the properties they have.

Conductor – A conductor is a material that **allows heat or electricity** to easily **pass through it**. Most metals are **thermal conductors** (conduct heat) and electrical conductors.

Insulator – An insulator is a material that **does not allow heat or electricity to easily travel through it**. Woods and plastics are both thermal and electrical insulators.

Soluble – Materials that **dissolve** when introduced to **water** and create a **solution**.

Insoluble – Materials that **do not dissolve** when introduced to **water.**

Transparent – A material that **allows light to pass through it.**

Tiny sugar cubes in still water | Sugar cubes being distributed throughout the solution | A "Sugary" solution

CHANGES OF STATE

Dissolving
Some substances **dissolve** when you mix them with **water**. When a substance dissolves, it might look like it has **disappeared**, but in fact it has just **mixed** with the water to make a transparent (see-through) liquid called a **solution**.

Substances that dissolve in water are called **soluble substances**. When you mix sugar with water, the sugar dissolves to make a transparent solution. Salt is soluble in water too.

Mixtures
A **mixture** is the result of combining **two or more substances**, in which they **do not change their physical state** and **no chemical reaction takes place**. These mixtures are **reversible** as the substances included in the mixture **can be separated** without great levels difficulty.

Creating a mixture of two or more objects may involve sand and water (**suspension**) or pasta and paperclips (**mixture**).

Changes of State
A **reversible** change of state refers to any form of process that can be **undone**.

For example, when **ice melts to water** it goes from being a **solid to a liquid**. If you were to continue **heating** the liquid, it would once again **change state to a gas**.

The original ice cube could be restored once the water was collected by the process of **evaporation and frozen again**.

Therefore the state of a substance is **interchangeable** between a solid, liquid or gas.

FOCUS SCIENTIST – RUTH BENERITO – WASH AND WEAR COTTON FABRICS

Ruth Benerito was an **American chemist**. She is best known for developing **wrinkle-free cotton fabric**. Benerito also invented a **fat mixture** that could **provide nutrients through the veins of patients who could not eat**.

In 2008, Benerito was inducted into the **National Inventors Hall of Fame**. She died on October

Wrinkle-free cotton
In the 1950s and 60s, synthetic fabrics such as nylon were becoming more popular than cotton as they did not need to be ironed whereas cotton creased really easily.

Ruth added chemicals that fastened to the cotton and acted as 'rungs of a ladder' holding the molecules in place and keeping the fabric smooth.

FORMATION OF NEW MATERIALS

When **substances** create a **new material** through **chemical change**, it is **irreversible**. A change is called irreversible if it cannot be changed back to its original state.
Heating
Heating can cause an irreversible change. For example, you heat a raw egg to cook it. **The cooked egg cannot be changed back to a raw egg again.**
Mixing
Mixing substances can cause an irreversible change. For example, when vinegar (an acid) and bicarbonate of soda are mixed, the mixture changes and lots of bubbles of carbon dioxide are made. **These bubbles and the liquid mixture left behind, cannot be turned back into vinegar and bicarbonate of soda again.**
Burning
Burning is an example of an irreversible change.
When you burn wood, you get ash and smoke. You cannot change the ash and smoke back to wood again.

SEPARATING MIXTURES

SIEVING – a mixture of different sized solid particles can be separated with a sieve. The particles small enough fall through the holes of the sieve, whilst the largest particles remain within it.

FILTERING – an insoluble solid can be separated from a liquid when passed through a filter. The liquid passes through and the solid particles are trapped on the filter.

EVAPORATING – if a solution is boiled (heated) the water will evaporate into gas and the solid will be left behind.

Key Vocabulary

solid   liquid   gas   conductor   insulator   reversible   irreversible   process   dissolve   solution   mixture   separation   filtering   burning   heating   evaporating

YEAR 5 SCIENCE – FORCES

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 'Use of Every day materials' to:
- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
- find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching

In Year 3, we learnt in our topic 'Forces and Magnets' to:
- compare how things move on different surfaces
- notice that some forces need contact between two objects, but magnetic forces can act at a distance
- observe how magnets attract or repel each other and attract some materials and not others
- compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
- describe magnets as having two poles
- predict whether two magnets will attract or repel each other, depending on which poles are facing.

In Year 5, we will learn to:
- explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
- identify the effects of air resistance, water resistance and friction, that act between moving surfaces

recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.

TYPES OF FORCES

Gravity – the force that pulls things to the ground. Gravity also holds Earth and other planets in their orbits around the sun.
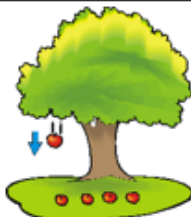
Friction – friction is a force between 2 surfaces that are sliding or trying to slide across each other. Friction works in the opposite direction to which the object is moving. It slows down the moving object and also produces heat. It can be helpful in certain situations but not helpful in others.

Air resistance – a type of friction between air and another material. Aeroplanes and cars are streamlined so that they can move through the air as easily as possible.

Water resistance – a type of friction between water and another material. When you go swimming there is friction between your skin and the water particles.

TYPES OF MECHANISM

Pulleys – they are used to reduce the amount of force needed to lift a load. The more wheels in a pulley the less force is needed to lift the weight.

PULLEY

Gears or cogs – are used to change speed, direction or force of a motion. When 2 gears are connected they always turn in the opposite direction to one another.

GEARS

Levers – can be sued to make a small force lift a lighter load. A lever always rests on a pivot or fulcrum.

LEVER
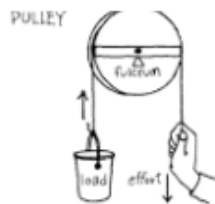
FOCUS SCIENTIST – ISAAC NEWTON - GRAVITY

Isaac Newton was born in 1643 and became famous for his work on gravity and his three laws of motion. He was also well known for his work on light and colour, and what is now called calculus (a branch of mathematics).
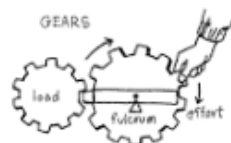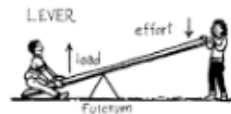
The famous story of an apple falling to the ground from a tree illustrates how Newton's work on gravity was inspired by things he observed in the world around him.

BALANCED AND UNBALANCED FORCES

Forces are just pushes and pulls in a particular direction.
Forces are shown by arrows in diagrams. The direction of the arrow shows the direction in which the force is acting. The bigger the arrow, the bigger the force.

Balanced forces
If two forces are balanced, it means the forces are the same size but are acting in opposite directions.If two balanced forces are acting on an object, that object will not change its motion. If it is still, the object will stay still or if it is moving, it will continue moving in the same direction and at the same speed.

Balanced Force
300 N — 300 N

Unbalanced forces
When two forces acting on an object are not equal in size, we say that they are unbalanced forces. Unbalanced forces do change the way something is moving. They can make objects start to move, speed up, slow down or change direction.

Unbalanced Force
400 N — 300 N

Key Vocabulary

force	gravity	air resistance	push	pull	balanced	mechanisms	friction	weight	mass	streamline	water resistance
fulcrum	pulley	pivot	opposite	gears	lever	Isaac Newton	Laws of motion	direction	force arrow

YEAR 5 HISTORY - ANCIENT EGYPTIANS

KNOWLEDGE ORGANISER

What have we learnt in this topic before and what we will learn this year?	Ancient Egyptian Timeline
In Year 3 we studied The Stone Age. The Ancient Egyptians began around the same time as the Stone Age but lasted for a longer period. In Year 4 we learnt about Ancient Rome -this era was at a similar time to Ancient Egypt. In Year 5,we will learn about the Ancient Egyptians and the role that people had in their hierarchy. We look at the importance of the Nile and why many Egyptians cities are still today alongside the river. We will study the art of mummification and how the Pharoahs came to have such elaborate sarcophagi. We also look at Howard Carter and his famous discovery.	**3100 – 2950 BC** - Hieroglyphics are First Used **2950 – 2575 BC** - The First Egyptian pyramid is Built **2575 – 2150 BC** - The Great Pyramids are Built **1539 – 1075 BC** - Great Pharaohs **332 BC** - Alexander the Great Conquers Egypt **196 BC** - The Rosetta Stone is Carved **51 – 30 BC** - Cleopatra: One of the most famous pharaohs of Ancient Egypt **30 BC** - The Roman Empire Conquers Egypt: The Roman Empire, led by Octavian, conquered Egypt in 30 BC.

Crime and Punishment

The ancient Egyptian legal system was based on a set of written laws.

Punishment in ancient Egypt was often severe and could include physical punishment, fines, and even execution. The most common form of punishment was corporal punishment, which could include beating, flogging, and amputation. In some cases, criminals were also subjected to forced labor or imprisonment.

Death sentences in ancient Egypt were reserved for the most serious crimes, such as murder and treason. Execution could be carried out through methods such as hanging, beheading, or drowning.

Ancient Egyptian religion also played a role in crime and punishment. Many crimes were seen as offenses against the gods and could result in spiritual punishment as well as physical punishment. This could include being denied access to the afterlife or being punished in the afterlife.

Howard Carter and the discovery of Tutankhamun

Tutankhamun reigned for roughly 10 years.(1333BCE- 1323BCE) He died around the age of 18 and was buried in a tomb in the Valley of the Kings. His burial place was hidden for many centuries. It was discovered by the Egyptologist Howard Carter in 1922. It contained many amazing artefacts, including Tutankhamun's famous golden death mask, a chariot and a dagger made from meteorite iron!

The discovery of Tutankhamun's tomb was an accident. Howard Carter's waterboy stumbled across some steps leading under the desert surface. Lady Carnarvon, a sponsor of Carter's work, was running low on patience at this point, and so if the discovery had not been made, then it is likely it would not have been discovered at all.

Anicent Egyptian Civilization and artefacts

Egypt, with a civilization that lasted over 7000 years, has a richness of antiquities that can be unearthed in temples and tombs beneath its soft sand throughout every inch of the Egyptian country. Archaeologists discover treasures every day and study them to learn more about this ancient civilization's incredible achievements and mysteries.

1.Amulets had the magical or miraculous power to protect the person who wore it.
2.Canopic Jars were vessels that store internal organs that have been removed from the body during the process of mummification.
3.Egyptian scarab was an amulet or seal in the shape of an abstract dung beetle
4.Papyrus was a paper made from papyrus reeds that have been used as a writing and painting medium for thousands of years.
5.Pyramids are enormous buildings with a square or triangular base and sloping sides that culminate in a point at the summit that was erected of limestone as a royal mausoleum in ancient Egypt. They also served as the official symbol of Egypt for endless generations during their time of construction and use.

BC   AD   ancient   amulet   pharaoh   canopic   embalming   sarcophagus   amulet   mummies

mummification   papyrus   afterlife   Hieroglyphs   scarab   irrigation

Year 5 Geography - Spring 2

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

In Year 3 we learnt to identify features using a map, describe physical and human features and use grid references, compass directions and OS map symbols.

In Year 5, we are explaining how locations fit into their geographical locations with reference to physical and human geography. We will be creating a report about South America to showcase all of our learning including countries, climate and culture.

In Year 6, we will learn about biomes, tropics of cancer and Capricorn and how human activity has caused the environment to change. We will also describe human and physical features around the world.

SOUTH AMERICA

The Amazon Rainforest

There are 12 countries in South America. The Amazon Rainforest is in eight of these countries.

South America

It is in the Southern Hemisphere.

To fly from London to Brazil it would take approximately 10 hours 45 minutes and London to Chile takes 14 hours and 45 minutes.

CLIMATE CHANGE

Climate change is having significant impact throughout South America but this is particurlarly threatening for The Amazon Rainforest. In 2020 the rate of deforestation was at the highest in twelve years.

What does this mean?
- Loss of habitats for millions of species
- Contribution to global warming
- Loss of homes of indigenous people
- Increased carbon emissions (carbon stored in trunks released when cut down)
- Soil erosion because there are no trees tro protect it
- Decrease in precipitation

PHYSICAL GEOGRAPHY

Why is the Amazon Rainforest there?

The red line shows the equator and either side of the equator is the Tropic of Cancer, in the Northern Hemisphere, and the Tropic of Capricorn, in the Southern Hemisphere. In between these is known as 'the tropics' or tropical region.

This makes the Amazon Rainforest a tropical rainforest. This means that the climate is humid and warm all year round with temperatures consistently above 14 °C and precipitation all year round (often daily) between 1.5m and 3m every year.

The Amazon Rainforest sits in the Amazon basin. This is the area that drains into the Amazon River and it is the largest river basin in the world.

Why are the Andes mountains there?

The world is made of different tectonic plates and scientists believe these plates move at a maximum rate of around 1-2 inches per year.

The Andes is formed by a convergent plate boundary which can cause earthquakes, mountains and volcanoes.

Pacific Ring of Fire
75% of Earth's volcanoes are along the Pacific Ring of Fire which is a circle formed by subduction of tectonic plates. This is where plates overlap at convergent boundaries like that of the Nazca and South America plate.

The Andean Volcanic Belt is found along the Pacific Ring of fire and contains over 200 potentiall active volcanoes in four different zones.

HUMAN GEOGRAPHY

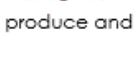The largest and most densely populated country is Brazil with just over 212,000,000 poeple.

There is a significant divide between the rich and the poor with 16 million people living in poverty.

On the outskirts of the city you will find extensive favela's where many people live in crowded and significantly poor living conditions.

← A Brazilian Favela

South America's biggest industry is agriculture for example:
- Bananas
- Coffee
- Timber
- Cattle for dairy produce and meat
- Wine
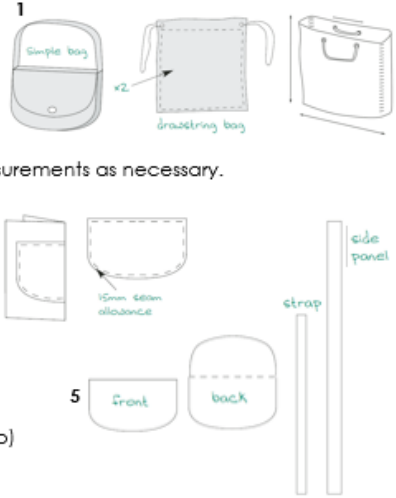- Metals and metal ore such as gold and copper.

Key Vocabulary
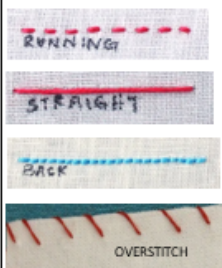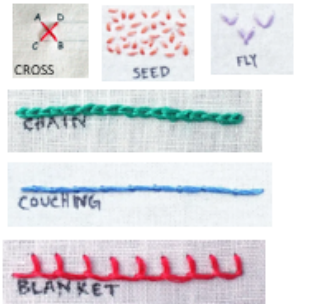
Human geography   Physical geography   continent   country   equator   Tropic of Cancer   Tropic of Capricorn

climate   river basin   tectonic plates   industry   population   favela   climate change   global warming

Year 5 DT - Spring 2

Year 5 ART and DT – SOUTH AMERICAN BAG

KNOWLEDGE ORGANISER

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

In Year 4, we used early textile and sewing skills to make bunting. We looked at running stitch, back stitch, over sew stitch, blanket stitch and cross stitch (embroidery).

In Year 5, we are using textile and sewing skills as part of a project to make and decorate a bag in the style of Peruvian textiles. We will explore the use of a variety of stitches including running stitch, cross stitch, back stitch, embroidery and applique.

In Year 6, we will continue to develop skills to ensure work is precise and accurate and hide joins to improve the look of our product.

HISTORY OF TEXTILES IN SOUTH AMERICA

The earliest textile evidence dates back to 8000 BC in the modern day Peru. To this date, textile weaving is integral to livelihood and culture of Peruvian people and particularly the Quechua culture (those living in the highland regions of the Andes). Not only does it provide an income but weaving tells stories, shares feelings, preserves memories and recollects history.

Weaving is done utilizing a backstrap loom which is one of the oldest forms of loom in the world. The loom is completely non-mechanized and relies on one's body to keep the tension required.

The technique of weaving has been passed down through generations. They use yarn from local animals such as alpaca, vicuna and sheep.

PATTERNS AND DESIGNS IN PERUVIAN TEXTILES

The designs created would be unique to each weaver and certain patterns would be related to certain regions in Peru. Textiles often including animals, peoples, flowers and abstract designs.

Diamonds

Red and white circles represent footprints of the bull used to plough the land.

Smaller white and yellow circles symbolize the eyes of the llama, an incredibly important animal in Peru.

Yellow 'S' is symbolic of the chira, an agricultural tool used to plough land by hand.

Black figures represent the birds who would warn farmers when foxes are in the area.

DESIGN TECHNOLOGY- MAKING A BAG

1. Research different styles of bags and explore design options.

2. Design your bag including style, decoration and fastening technique.

3. Use paper and stapes to make a 3d prototype and refine design and measurements as necessary.

4. Make symmetrical pattern.

5. Cut all pieces of fabric.

6. Join edges together using an appropriate joining stitch.

7. Add embroidery or applique.

8. Add fastening technique (optional step)

ART - SEWING

Joining Stitches
RUNNING
STRAIGHT
BACK
OVERSTITCH

Embroidery / Decorative Stitches
CROSS
SEED
FLY
CHAIN
COUCHING
BLANKET

Fastening Techniques
Button
Toggle
Press stud
Velcro

Key Vocabulary

Prototype   3D model   textiles   running stitch   cross stitch   back stitch   applique   embroidery   pattern
seam allowance   specification   tacking   annotated sketch   measurement   fastening   joining stitch   evaluate
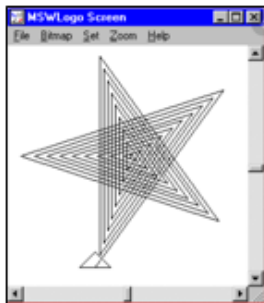
COMPUTING: PROGRAMMING

KNOWLEDGE ORGANISER

Y5

Overview

Selection in Physical Computing

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

- Logo is a text-based program that we can use in order to create shapes and patterns.

- We use algorithms (a set of instructions to perform a task) which we can plan, model and test, in order to create accurate and imaginative shapes and patterns.

Programming Commands

- **Patterns:** Patterns are things that repeat in a logical way. In everyday life, patterns are everywhere!

- **Patterns in Logo:** Instead of typing in the code to create each individual shape, we can save time by repeating a sequence of instructions. We use the 'repeat' function.
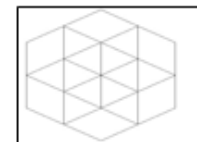
- **Repeat:** Type the command 'repeat' — this repeats commands a set number of times. The number following repeat is the number of times to repeat the code, and the code to be repeated is in square brackets, e.g. repeat 4 [FD 100 LT 90]

The above code will repeat FD 100 LT 90 four times.

- **Creating Shapes and Loops:** To make shapes, we need to know the angles of corners of different shapes (see right). Using the repeat function with shapes can help us to make spirals.

Microcontrollers, LEDs and Motors

- **Microcontrollers:** A microcontroller is a small device that can be programmed to control devices that are connected to it.

- One brand of widely used microcontroller is called a Crumble controller, which can be used to control many things, e.g. LEDs and motors.

LEDs:
- LEDs are output devices that are emit light. When electricity is passed through an LED it produces light. One type of LED light, controlled by a Crumble controller, is called a Sparkle.
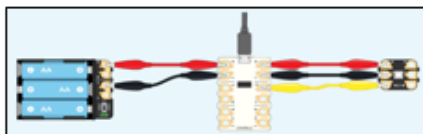
Motors:
- Motors are another output device. A motor can start, stop, spin forwards, spin backwards, and go at different speeds.

Creating Circuits:

- The USB port connects the microcontroller to a computer. Crocodile clips pass electricity and data through to the LED/motor.
- The + and – power pads on the Crumble should be connected with the + and – power pads on the Sparkle and battery box. The D pads on the Crumble and Sparkle should also be connected.

Sequencing and Algorithms

- A **sequence** is a pattern or process in which one thing follows another.

- We design **algorithms** (sets of instructions for performing a task) to help us program the sequence that we require to achieve our desired outcomes.

- **Programming** is the process of keying in the code recognized by the computer (using your algorithm).

Trialling and Debugging

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

Correct code:
FD 100
RT 90
FD 200

- 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.

Important Vocabulary

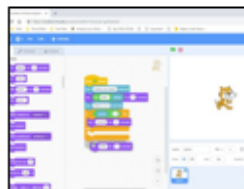| Programming | Circuit | Electricity | Microcontroller | Code | LED | Algorithm | Motor | Sequence | Debugging |

COMPUTING: PROGRAMMING
KNOWLEDGE ORGANISER
V5

Overview

Quizzes 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 quizzes, stories, animations and games. We can input questions using the 'ask' command blocks. We can use selections and conditions in order to ensure that there are different outcomes depending upon a user's response.

- 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 quizzes, stories, games and animations.

-Scratch helps us to learn how to use programming language, whilst also being creative and using problem-solving skills.
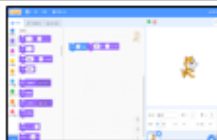
There are three main areas in Scratch:

-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.

Selections and Conditions

-**Creating Conditions:** The 'If-then' command block helps us to create conditions. It is one of the darker orange control blocks. Other blocks are placed inside the 'If-then' blocks to create conditions.

The 'senses' blocks (light blue) create the 'trigger' (e.g. when a certain key is pressed). We can change the trigger by pressing the downward arrow and selecting from the range of keys/ actions. The 'actions' blocks (e.g. motions, sounds, etc). are then used to program what will happen when the 'senses' command is triggered.

-**Different Outcomes:** The 'If-then-else' command block helps us to write programs that have selections with two outcomes.

-Actions to be carried out if the condition is 'true' (if the conditions of the 'sense' command are met) are placed below 'then.' Actions to be carried out if the condition is 'false' (e.g. if any other key is pressed) go below 'else.'

-The 'forever' block means that the command will happen continually.

Asking Questions

-Questions can be included by using the 'ask' command blocks.

-If specific answers are needed (e.g. yes or no), these can be typed in when using the 'answer' sensing block within the = 'Operators' block – drag it into the first white space. In the second white space, we can then type in the desired answer.

-The 'say' command block (in looks) is used to inform the user if the response was correct.

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.

Important Vocabulary

| Programming | Scratch | Logical | Commands | Algorithm | Condition | Selection | Sequence | Trialling | Debugging |

PE spring 1

Prior Learning

Worked well in a team or group within defined roles. Planned and refined strategies to solve problems. Identified the relevance of and used maps, compasses and symbols. Identified what they do well and suggest what they could do to improve.

Unit Focus

Explore ways of communicating in a range of challenging activities. Navigate and solve problems from memory. Develop and use trust to complete the task and perform under pressure.

We are learning...

1. to explore different ways of communicating with a blindfolded partner.
2. to follow a designated route at maximum speed and complete a task safely.
3. to use memory methods to recall different objects whilst navigating.
4. to use clear communication to recreate a shape as a team
5. to use imagination and creative thinking to create the tallest marshmallow tower.
6. to send and interpret messages using Morse code.

Key Questions

1. Can you suggest any other ways to communicate a Morse Code Signal?
2. Can you think of any situations today in which Morse Code might be useful, for example, in an emergency?
3. What happens to our recall the more times we see something new?

Equipment

Variety of ropes, hoops, bean bags, a variety of sports equipment, teaching resource cards, softballs, bibs/bands, marshmallows, spaghetti, whiteboard pen, bucket, water, and plastic cups.

Vocabulary

Challenge, plan, trust, solve, team, design, instructions, extend, orient, morse code, decipher, individual, signal.

Concept

A control point is a checkpoint within a route or course.
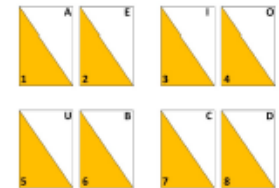
Assessment Overview

Head - Communicate using code.
Hand - Work at a high intensity for a sustained period whilst completing a task.
Heart - Explore and refine ways of communicating to best complete a set task.

Prior Learning

Have created longer and more complex sequences and adapted performances. Taken the lead in a group. Developed symmetry. Compared performances and judged strengths and areas for improvement. Selected a component for improvement.

Unit Focus

Take responsibility for your own warm-up. Perform more complex actions, shapes and balances with consistency. Use information given by others to improve performance. Remember and repeat longer sequences with more difficult actions.

We are learning...

1. to use space creatively along an L-shaped pathway.
2. to refine our round-off technique.
3. To refine the over-the-shoulder roll and attempt an alternative action to finish
4. to smoothly link two cartwheels to perform a double cartwheel.
5. to transition into a bridge with control.
6. to develop a 6-element partner sequence incorporating asymmetry.

Key Questions

1. Describe an asymmetrical balance you saw in someone else work.
2. Why is it important to warm-up before performing specific actions?
3. What are some of the things you must do when linking two cartwheels together?

Equipment

Mats, bench, low box top, throw down markers, chalk.

Vocabulary

Speed, partner, asymmetrical, elements, control, balance, strength, bridge, warmup, injury, core temperature.

Concepts

Warmups prevent injury by increasing the body's core temperature. Warm muscles increase reflexes. A good warm-up should also increase the range of motion and prepare the mind for activity. The need to warm up increases in importance as we age.

Assessment Overview

Head - Explain the significance of a warm-up and how it relates to gymnastics activity.
Hand - Work within/on set pathways.
Heart - Lead others in a warmup with confidence in their own preparation.

Spring 2

Prior Learning

Have performed different styles of dance fluently and clearly. Refined and improved dances, adapting them to include the use of space, rhythm and expression.

Unit Focus

Using professional examples to inspire ideas for explosive action. Owning and exploring new movement possibilities.

We are learning...

1. to communicate the theme of heroes through our dance.
2. to manipulate and develop actions using a range of devices.
3. to create interesting and varied dance actions as a group using levels.
4. to use jumps to bring power and energy to our dance phrase.
5. to show the theme of an attack, performing at a low level.
6. to work effectively with others to improve movement quality and performance.

Key Questions

1. Do you have a different opinion of dance since the start of the unit?
2. Can you name, describe or show some individual dance skills you learned?
3. Why do you think dance is important?

Equipment

Videos of modelled movements, posters, music.

Vocabulary

Assemblé, sissone, sauté, chainé, retrograde, inversion, instrumentation, fragmentation.

Concepts

Instrumentation is a choreographic device where a movement performed by a body part(s) is transferred to another body part(s).

Assessment Overview

Head - Show ways in which you can communicate a narrative through dance.
Hand - Adapt their skills to meet the demands of a range of dance styles.
Heart - Recognise and comment on dances, suggesting ways to improve.

Fragmentation - Change the order of the movements

Retrograde - rewind the movement

Inversion - Try to turn the movement upside down

Devices

Instrumentation - Try the movement with another body part

Travel - Make the action move around the space

Support: Use the simple devices if you are struggling with the complex ones - Size, Speed, Level, Direction, facing.

Prior Learning

Introduced netball positions. Acquired and applied basic shooting techniques. Demonstrated and implemented some basic rules. Developed netball skills such as marking and footwork. Introduced the concept of preliminary moves.

Unit Focus

Make choices about which pass to use and where to shoot from. Implement some tactics to get free. Move quickly around the court.

We are learning...

1. to choose the appropriate pass for different scenarios.
2. to find space to receive in a game.
3. to use different dodging techniques to outwit a defender and get free.
4. to practice and perform pivoting and quick turns.
5. to get into closer shooting positions.
6. to react and move quickly in isolation and in games.

Key Questions

1. Why is it an advantage to get closer to shoot?
2. What areas of your game would you like to improve?
3. What should you do if you are closely marked by a player when you are trying to find space?

Equipment

Netballs, cones, bibs, stopwatch, goals (junior posts if possible), hoops, soft balls.

Vocabulary

Score, shoot, possession, react, foul, umpire, quick turns, dodge, pivot, stationary, shooting circle/semi-circle.

Rules

- No hitting or slapping the ball out of players' hands.
- You cannot kick the ball.
- You cannot defend the ball in a player's hands, but you can jump once to intercept the pass or shot.

Assessment Overview

Head - Explain the techniques for different passes.
Hand - Attempt to get into better shooting positions.
Heart - Use verbal and non-verbal communication to show teammates where you want to ball.