

Year 4, Term 4, Medium Term Plan

Topic Title: Innovation Station

English:

1. Non-fiction week

The children will write a biography/fact file about a famous inventor. This will link to thematic learning in the afternoon. Children will research a famous inventor and make notes using bullet points. They will then use their notes to write about the life of the inventor using extended sentences.

2. Linked text: Edward Tulane

In this unit, the genres that will be covered are:

Character descriptions – Using art as a stimulus, the children will draw their interpretation of Edward Tulane. They will then spend time gathering ambitious, rich vocabulary and use similes and metaphors to describe both his appearance and personality. The children will use their knowledge of prepositions, adverbials and other descriptive features to write their description.

Recounts – The children will write as the main character about his life on Egypt street. The children will use emotive language and subordinate clauses to do so.

Build tension and suspense/show characterisation - The children will show characterisation through thoughts and feelings and build tension and suspense when Edward is thrown overboard. The children will select powerful verbs and rich language to do so.

Letters – The children will write a letter to Nellie and Lawrence describing the dump where he is. They will use contrasting vocabulary to show the difference between the night sky and the smell of the rubbish. They will also use a range of openers and clauses.

Write in role – children will write in role as different characters from across the book. They will vary their sentences and vocabulary based on who they are and the event.

Recount the Miraculous Journey of Edward Tulane – Children will use everything they have learnt across the term to write a recount of his journey.

Maths:

Securing multiplication facts:

- recall multiplication and division facts for multiplication tables up to 12×12

Fractions:

- add and subtract fractions with the same denominator
- recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $2\frac{5}{5} + 4\frac{5}{5} = 6\frac{5}{5} = 11\frac{5}{5}$] (Y5)
- recognise and show, using diagrams, families of common equivalent fractions
- count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten
- solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number

Time:

- convert between different units of measure [for example, hour to minute]
- problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days
- write and convert time between analogue and digital 12- and 24-hour clocks

<p>R.E. : What do Christians believe? Why is Easter important to Christians? IALT: learn about the Easter story for Christians * IALT: understand why Jesus’ resurrection is important to Christians * IALT: identify the symbols of Easter</p>	<p>PSHE: This term’s focus forms the second part of our overarching theme of Health and Safety. In Term 1, Year 4 explored Mental Health and wellbeing and this term will focus on Physical Health. The children will be learning about making healthy life choices and the focus text will be “Keeping Safe: Healthy Me” by Katie Woolley. Learning will explore diet, first aid and making safe choices online.</p>
<p>Art: Pupils will- use a variety of materials to join pieces to join card use card effectively to create 3D parts make a slip to join pieces of clay Focus: paper Sculpture – Masks</p> <ul style="list-style-type: none"> • I know to use a grid to keep the correct proportions and to add detail when copying the other half of an animal face. • I know which patterns were used in African design • I know which colours to use to recreate African patterns • I know why certain colours were used in African art • I have looked at examples of African masks before creating my own design • I know that slip is used to secure clay pieces. • I know how to make slip • I Know the different reasons why masks were used • I know how to use tile pieces to create a Mayan mask • I can use paper to create face parts for a mask. • I know how to curl paper using scissors. • I know how to fold paper to create a 3D effect <p>I can use the skills learnt to create an animal mask and can make my own choices of which materials to use.</p>	<p>Music</p> <p><u>Keyboard Basics:</u></p> <ul style="list-style-type: none"> • Identify The Keys of the Keyboard • Find Middle C • Play simple musical ideas using the correct fingers in both hands. • Duets and playing simple tunes as a class. • Listening focus – Famous Piano & Keyboard players and their work.
<p>Mandarin In Mandarin this term we will be learning to:</p>	<p>P.E. In PE this term we will be looking at functional fitness and multi skills</p>

<p>Ask how someone is feeling.</p> <p>Use “ma” to make a question.</p> <p>Say how we are feeling.</p> <p>Use the conjunctions because and but to explain why.</p> <p>Listen to a song and pick out and understand key phases.</p>		<p>Functional fitness:</p> <p>Develop an understanding of sprinting at high speed over a short distance</p> <p>Change direction at speed</p> <p>Develop strength and power in competitive activities</p> <p>Increase jumping distance through the use of different body parts</p> <p>Demonstrate an understanding of pacing in long distance running</p> <p>Develop an initial understanding of different muscular endurance activities</p> <p>Explain what happens to our body when exercising for a longer period of time</p> <p>Multi skills:</p> <p>Understand how to increase speed over short distance</p> <p>Perform different movements with control</p> <p>Change the type of throw performed depending how far the ball needs to be thrown</p> <p>How to avoid and move away from attackers in a game</p> <p>Learn to bowl correctly towards a target</p> <p>Understand the importance of finding a space</p>
Computing		
Substantive Knowledge		Disciplinary Knowledge
<ul style="list-style-type: none"> Describe how to sort and organise information in a database Demonstrate knowledge and understanding of computer hardware including inputs Design and write programs that accomplish specific goals working with inputs Use logical reasoning to detect problems, make changes and find out what happens as a result. 		<ul style="list-style-type: none"> I can explain what a search engine is and how it works I know what a database is I can sort and use a database to answer questions I can create a database to collect information I know how inputs can be used to run algorithms I can create algorithms using different inputs (Events)
Thematic Curriculum		
Topic Title:	Innovation Station	
Big Question:	Who changed the world?	

Blurb overview:	Within this unit the children will discover Islam's golden age in science, technology and intellectual culture which spanned approximately 500 years, from the ninth until the 14th centuries. Muslim achievements in these areas, greatly influenced the European Renaissance of the 15th and 16th centuries, as well as the birth of modern scientific methods in the 17th century. The children will also compare life in Britain compared to ancient Bagdad and understand the long-lasting influence upon the world.	
Celebration of Learning	Presentation on how the modern-day world has been influenced by the Golden age of Islam.	
Text Links	Edward Tulane	
Oracy End Point:	Presentation on how the modern-day world has been influenced by the Golden age of Islam.	<p>Physical - Use pauses for effect in presentational talk (e.g. give a point, pause and give examples, comic timing).</p> <p>Linguistic - Carefully consider the words and phrasing they use to express their ideas and how this supports the purpose of talk e.g. persuade, inform, entertain.</p> <p>Cognitive - Give supporting evidence e.g. citing a text, a previous example, or a historical event. - Draw upon knowledge of the world to support their own viewpoint.</p> <p>Social and emotional - Use more natural and subtle prompts for turn taking. - Speak with passion and confidence.</p>
Science		
Substantive Knowledge		Disciplinary Knowledge
<p>Electrology</p> <ul style="list-style-type: none"> • To know whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery • To know that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit 		<ul style="list-style-type: none"> • To know that common appliances that run on electricity • To know that a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers • To know some common conductors and insulators, and associate metals with being good conductors.
History		
Substantive Knowledge		Disciplinary Knowledge
<ul style="list-style-type: none"> • To know about the impact that the Islamic civilisation had on the world. • To know why they were considered an advanced society in relation to that period of time in Europe • To know some causes and consequences of the main events, situations and changes in the periods studied. • To know how to identify differences in the social, cultural, religious and ethnicity of societies studied in Britain and the wider world. 		<ul style="list-style-type: none"> • To know how some of the past events/ people affect life today. • To know how to order significant events on a timeline. • To know that change can be shown by the similarities and differences between specific periods in time • To know the difference between primary and secondary sources of evidence • To know that sources can vary in reliability.

<ul style="list-style-type: none"> • To know how to identify changes and make links within and across the time periods studied. • To know why an ancient society is considered advanced in relation to that period of time in Europe. • To know that we can all make history. • To know that an ancient non-European society provides a contrast to British history. • To know how to describe the features of past societies and periods. • To know how to identify differences in the social, cultural, religious and ethnicity of societies studied in Britain and the wider world. • To know that an ancient non-European society provides a contrast to British history. 	<ul style="list-style-type: none"> • To know how to suggest sources of evidence from a selection provided to use to help answer questions. <p>Know that primary and secondary sources are available and vary in reliability.</p> <ul style="list-style-type: none"> • To know the reasons why there may be different accounts of history.
Geography	
Substantive Knowledge	Disciplinary Knowledge
D&T	
Substantive Knowledge	Disciplinary Knowledge
<p style="text-align: right;">Electricity</p> <p>Technical knowledge</p> <p>Know how to:</p> <ul style="list-style-type: none"> • create simple electrical circuits and components e.g. bulbs, switches or buzzers that can be used to create functional products • Link scientific knowledge by using lights, switches, or buzzers • Use electrical systems (series or parallel) to enhance the quality of the product • To persevere and adapt work when original ideas do not work • To know that a design can be based upon research <p>Making</p> <ul style="list-style-type: none"> • To know which material is likely to give the best outcome • To measure accurately <p>Evaluating</p> <ul style="list-style-type: none"> • To present a product in an interesting way 	<ul style="list-style-type: none"> • Know that mistakes can be avoided by measuring carefully <p>Designing</p> <p>To know that existing products can be evaluated</p>

Cultural Capital

Weekly Overview		Key Intended substantive knowledge
Week 1	<p>PSHE</p> <p><i>BV Focus: Rule of Law (links with safety – rules are there to keep you safe)</i></p> <p><i>Focus Text: “Keeping Safe: Healthy Me” by Katie Woolley</i></p> <p><i>Philosophy Question for circle time: What makes you, YOU?</i></p> <p><i>Physical Safety Lessons: Asthma; Flood Alerts</i></p> <p>Term 4 E-Safety Focus – Privacy and Security/Copyright and Plagiarism:</p> <p>Lesson 1: IALT: differentiate between a “risk”, “danger” and “hazard”</p> <p>Children could be given an image with situations that show unsafe situations as a starting point and then more elaboration can be made on which are risks, dangers and hazards</p> <p>Lesson 2: IALT: recognise , predict and react to risks in situations (road safety)</p> <p>Explore through videos https://www.youtube.com/watch?v=qo-JGoEgm7g children to create an advert or poster with road safety rules</p> <p>Lesson 3: IALT: understand how independence means a higher responsibility to be safe</p> <p>Make links to independence from infant school to junior school. Discuss the passes at school and what they represent – why do only Year 5 and 6 pupils have red passes? What does this mean?</p> <p>Lessons 1,2 and 3 all on GTBM DAY (Monday)</p> <p>Wednesday – Flooding and Asthma</p> <p>Friday – E-Safety – privacy and security/ copyright and plagiarism</p>	<p>Lesson 1</p> <p>All: know that a risk is a situation involving exposure to danger</p> <p>Most: know that a risk is a situation involving exposure to danger and a hazard is a potential source of danger</p> <p>Some: know that a risk is a situation involving exposure to danger, a hazard is a potential source of danger, and a danger is the possibility of suffering harm or injury</p> <p>Lesson 2</p> <p>All: understand stop, look, listen and go with road safety</p> <p>Most: could tell you more than one place where it is safe to cross a road</p> <p>Some: explain the risks of road safety and how to</p> <p>Lesson 3</p> <p>All: understand what responsibility</p> <p>Most: understand that as we grow older, we become more responsible for our safety</p> <p>Some: make examples of how we become more independent at junior school and how we become more responsible for our safety</p>
Week 2	<p>Ten key facts:</p> <p>1. 1000 years of extraordinary activity after AD 700</p>	

BS	<p>For approximately 1000 years, after AD 700, there was an extraordinary amount of activity from Baghdad to North Africa, from Spain to China</p> <p>2. Developments outstripped those of anywhere else in the world Developments there outstripped those of anywhere else in the world. There was free education, free health care, public baths, paved streets (lit at night), litter collection and sewage systems.</p> <p>3. A great city Baghdad was a great city where really important developments took place in Mathematics and Science</p> <p>4. Silk road Baghdad was on the Silk Road so was a centre for trade, and attractive because of its water supply and fertile soil</p> <p>5. Circular city Baghdad was a circular city with splendid palaces, mosques, gardens, parks, and even a hospital.</p> <p>6. The house of wisdom The House of Wisdom in Baghdad contained wonderful libraries which preserved knowledge from ancient Greek and Roman times what would otherwise have been lost. It contained the largest collection of books in the world.</p> <p>7. Amazing inventors This was a time when there were lots of amazing inventors living there, many who came from far afield to share knowledge of all things scientific including medicine.</p> <p>8. Wonderful legacy This Golden Age of Islam left a wonderful legacy of things we use today including algebra, Arabic numerals, mechanical clocks, cameras etc</p> <p>9. Tolerant society Baghdad was a tolerant society with many groups of people from around the world meeting there</p> <p>10. Nothing of the old city of Baghdad remains Nothing of the old city of Baghdad remains after it was destroyed in the 13th century but there are wonderful remains elsewhere from this time such as those in Spanish cities such as Cordoba and Granada.</p> <p>Lesson 1: 10 minute CPD : Why was Ancient Baghdad so special? Did you know?: Baghdad and the Silk Roads Silk Roads Programme (unesco.org) • To know about the impact that the Islamic civilisation had on the world.</p>	Lesson 1
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<ul style="list-style-type: none"> •To know why they were considered an advanced society in relation to that period of time in Europe <p>Why do you think it is important to study Islam in this period, c.900?</p> <p>What was Early Islamic Civilisation? What do we already know about the Early Islamic Civilisation?</p> <p>When and where in the world did this civilisation exist? What was special about it?</p> <p>Using the class timeline, place Ancient Baghdad within the context of world history. Make a link with other civilisations and time periods that were running concurrently in different countries. Draw a link with the Ancient Maya in terms of time period and with Ancient Egypt in terms of a highly organised society. Refer back / draw more comparisons and contrasts as the unit progresses. Find modern day Iraq and Bagdad on a map and show where Ancient Baghdad were. Find this on a map of Asia and the world.</p> <p>IALT- understand the impact of the Ancient Islamic Civilisation on the world</p> <p>Answer the Big Question in the books</p> <p>Introduce who they were</p> <p>Plot on a map- modern day and ancient</p> <p>Lesson 2:</p> <ul style="list-style-type: none"> • To know how to identify differences in the social, cultural, religious and ethnicity of societies studied in Britain and the wider world. •To know how to identify changes and make links within and across the time periods studied. <p>How on earth were the Arabs able to spread so far, so quickly, within just a century of the Prophet Muhammad's death?</p> <p>Did you know?: Baghdad and the Silk Roads Silk Roads Programme (unesco.org)</p> <p>Silk roads and trade routes in and out of Baghdad – who visited Baghdad and why?</p> <p>Introduce the substantive concepts of 'trade and innovation'. Draw out what these terms mean through reference to the Ancient Maya and Ancient Egypt.</p> <p>Discuss how the geographical location of Baghdad contributed to its success as a cultural, economic and scientific hub for innovation, and for the spread of these innovations through exploration and trade. Link to the rapid success of the Mayan civilisation and the similar geographical location of the Egyptian civilisation.</p> <p>Explore the imaginative stories of visitors to Baghdad who took ideas with them on their travels.</p> <p>Watch the video: How'd that get here? (youtube.com) and complete the pupil survey. Write up their findings and opinions about the impact of Islamic culture.</p>	<p>All: Children can place Baghdad on a map of the world</p> <p>Most: Children can place Baghdad on a timeline of the history they have studied</p> <p>Some: Children can suggest reasons for studying Baghdad around 900AD</p> <p>Lesson 2</p> <p>All: Children can reach a judgement based on the evidence</p> <p>Most: Children can compare life in 900 AD to life today</p> <p>Some: can explain how Islamic thinking has influenced our life today.</p> <p>Lesson 3</p>
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	<p>Explore what innovations they had and we still use today. Children in groups. Research and make posters/items</p> <p>Lesson 3:</p> <ul style="list-style-type: none"> •To know that an ancient non-European society provides a contrast to British history. •To know some causes and consequences of the main events, situations and changes in the periods studied. <p>What can we learn about Islam from the way they set up the capital at Baghdad?</p> <p>Compare to British locations that were in existence at the same time in History such as London.</p> <p>Whilst Ancient Baghdad was a thriving hub of knowledge, Anglo-Saxon Britain was under attack from the Vikings and going through the period known as ‘the dark ages’.</p> <p><i>(The Abbasid Caliphate stretched from North Africa across to Afghanistan and the North West Frontier. Within the caliphate there were movements of people, goods and ideas. The golden period of this early Islamic caliphate was around 900 AD. As the caliphs were building a major trading empire across the Middle East, Alfred the Great was attempting to rebuild the Saxon Kingdoms against the incursions of the Vikings.)</i></p> <p>Why do pupils think Baghdad thrived?</p> <p>Study the location of places within the walled city and outside it using sources such as ‘Yakut: Baghdad under the Abbasids, c. 1000 CE’</p> <p>Where is the house of wisdom? What other buildings are there?</p> <p>Why is a river and port an essential part to the success of a settlement? Draw sketch maps and add labels / captions to support their theories.</p>	<p>All: Children can identify similarities and differences between life in Baghdad and in London.</p> <p>Most: Children can reach a judgement based on the evidence</p> <p>Some: Children can compare life in 900 AD to life today.</p>
<p>Week 3</p> <p>RoH</p>	<p>Lesson 1:</p> <ul style="list-style-type: none"> •To know that an ancient non-European society provides a contrast to British history. • To know how to describe the features of past societies and periods. •To know how to identify differences in the social, cultural, religious and ethnicity of societies studied in Britain and the wider world. <p>In its Golden Age, ten times more people lived in Baghdad than in London. So what was so special about it and how can we possibly know? The city of Baghdad – a centre of learning, just like Oxford.</p> <p>Where is Baghdad? What do we know about it? Why is it a significant place? History KS2: Baghdad in 900AD - BBC Teach</p> <p>Ask students to investigate some of Baghdad’s important scientists and the advances they made in astronomy, mathematics, and medicine during the Abbasid Caliphate.</p>	<p>Lesson 1</p> <p>All: why these scholars were so important to the golden age of Islam.</p> <p>Most: why Ancient Islamic ideas (medicine, maths ec) were considered so advanced in comparison to European ideas</p> <p>Some: explain the impact one person can have upon world history</p>

<p>Choose from scholars such as: Ibn Al Haytham (Also known as Alhazen.) Muhammad ibn Musa Al-Khwarizmi (Also known as Algoritmi) Al-Jahiz Al-Kindi Al-Ghazali</p> <p>Double page spread describing areas of scientific study with descriptions of advances in each area and then write mini biography of the key individuals</p> <p>Lesson 2:</p> <ul style="list-style-type: none"> •To know why an ancient society is considered advanced in relation to that period of time in Europe. •To know how to identify differences in the social, cultural, religious and ethnicity of societies studied in Britain and the wider world. <p>What happened to Ancient Baghdad? Find out about the invasion of the Mongols and the destruction of the city. Was the knowledge gained in the house of wisdom really lost? What happened next in the Islamic civilisation? <i>(The Mongols were tolerant of other religions so culturally enhanced the Silk Road by allowing people of different religions to coexist. The merging of peoples and cultures from conquered territories brought religious freedom and trade throughout the empire).</i></p> <p>Discuss how Historians can track the spread of Islamic civilisation by the plotting the location of 'treasure' eg. sources and knowledge outside of Iraq.</p> <p>Discussion how sources and knowledge spreads even when artifacts have been destroyed. Culture and reputation of Islamic Civilisation made it desirable. Contrast between Mongol and Islamic Scholars. Conscious alley / drama. "I am a Mongol and I think..." etc</p> <p>Game of Chinese whispers to show how information and knowledge can spread. Some children given information. Others must come up with questions to find out what they know. Historical inquiry strategies.</p>	<p>Lesson 2</p> <p>All: that some cultures did not value learning and books as highly as Baghdad did. Most: children explore where the Mongols came from? Why were they so anti-books and learning? Some: Children could explore other times in history when cities were 'sacked.'</p> <p>Lesson 3</p> <p>All: children can explain what the House of Learning was, and what went on there. Most: children can compare the contents of the House of Wisdom to a library and make comparisons. Some: children can follow the trade links bringing materials to the House of Wisdom.</p>
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	<p>Lesson 3:</p> <ul style="list-style-type: none"> • To know about the impact that the Islamic civilisation had on the world. • To know why they were considered an advanced society in relation to that period of time in Europe • To know that we can all make history. <p>Which of the early Islamic achievements has most effect on our lives today?</p> <p>Role-play a meeting of scholars at the Bayt al-Hikmah, the House of Wisdom. In this imaginary meeting, the scholars debate who has contributed most to Islamic civilisation.</p> <p>Discuss: Which innovations were most important to the success of Ancient Baghdad and why?</p> <p>Create non-chronological reports about the most important innovations.</p> <p>Let's link to the big question- in a different colour</p> <p>Parents in- dress up day</p>	
<p>Week 4</p> <p>BD</p>	<p>Amazon- in for engage session with the children. Half an hour per class. Electrical activities for the rest of the day.</p> <p>Lesson 1: Link to last lesson</p> <ul style="list-style-type: none"> • To know that common appliances that run on electricity • To know that a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers • To know whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery <p>Hook:</p> <p>Divide the class into small groups.</p> <p>Give each group a list of household items or pictures of common appliances.</p> <p>What are they? What do they do? Once they have discussed the appliances, they should label them and discuss their purpose. Afterward, ask each group to present their findings to the class, explaining how each appliance uses electricity.</p> <p>TTYP: How does electricity work? Discuss.</p> <p>Instructions:</p>	<p>Lesson 1</p> <p>All: Recollect and identify common appliances that run on electricity, such as lamps, fans, televisions, and toasters.</p> <p>Identify and name the basic parts of a simple series electrical circuit</p> <p>Most: I can evaluate the connections and components in a simple series electrical circuit to identify potential issues or errors that may prevent a lamp from lighting up.</p> <p>Some: Reflect on the significance of electrical circuits in everyday life, identifying examples of circuits at home, school, or in the community, and explaining their purpose and function.</p> <p>Lesson 2</p> <p>All: Identify that simple circuits must close for a light to work. Draw a simple circuit</p> <p>Most: Identify the different types of switches and their function.</p>

Provide each student with a circuit-building kit, including cells, wires, bulbs, switches, and buzzers. Instruct students to work individually or in pairs to construct a functional circuit with at least one bulb. Encourage students to investigate different arrangements. Ask students to explain their circuit designs and how they accomplished their goals. Give opportunities for students to share their circuits with the class.

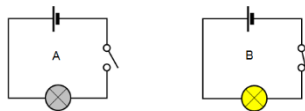


Regroup chn together and go over electrical symbols. Model a simple circuit to the children. Children to recreate that and then draw it with their partner. TTYP: Make and draw a variety of circuits.

This could be sugarpaper work with photos.

Lesson 2:

•To know that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit



Build on knowledge from L1 that circuits need to be complete to work. **TTYP: What are Switches?** Explain to the chn that switches are like little gates that control the flow of electricity in a circuit. They are tiny devices that can open or close a pathway for electricity to flow through.

How do Switches Work?

Imagine you are in a room and you want to turn on a light. You would walk over to the light switch on the wall and flip it up or down. If you flip the switch up, the light turns on. If you flip the switch down, the light turns off. Switches in circuits work in a similar way.

In a circuit, electricity flows from one place to another. When a switch is on, it allows the electricity to flow through the circuit and reach its destination. But when the switch is off, it stops the flow of electricity and nothing happens.

Types of Switches

There are different types of switches that we use in everyday life. Here are a few examples:

Some: Make connections and apply knowledge from other scientific concepts, such as conductors and insulators, to explain and predict the behavior of switches in circuits

Lesson 3

All: explain what a conductor is and give examples of conductive materials. explain what an insulator is and give examples of insulating materials.

Most: Accurately record the results of the conductivity experiments in a structured table or chart.

Some: I can describe the potential dangers of using conductive materials in electrical circuits without appropriate insulation.

Toggle Switch: This switch is like a see-saw. You can flip it up or down to turn something on or off. An example of a toggle switch is the light switch on the wall.

Push Button Switch: This switch is like a button you press. When you press it, something turns on, and when you release it, it turns off. An example of a push button switch is the one on a computer mouse.

Slide Switch: This switch is like a small lever that you can move from side to side. By sliding it, you can control whether something is on or off. An example of a slide switch is the one found on some toys.

Show chn a variety of objects which have different types of switches. Can they identify the type of switch?

Begin by discussing everyday examples of switches (e.g., light switches, doorbells) and their purpose.



Provide students with materials (e.g., batteries, wires, bulbs, switches) to create and experiment with their own simple circuits using switches. Encourage students to make predictions about how the circuits will change when the switch is opened or closed. Draw the circuit. Have students record their findings in describing the role of the switch in completing the circuit.



TTYP: Why are Switches Important?

Switches are important because they give us control over electricity. They allow us to turn things on or off whenever we want. Think about all the devices that use switches, like lights, televisions, or toys. Without switches, we wouldn't be able to control them!

Challenge: You are an interior designer and are designing a home intruder system. Your task is to create a switch that turns on the light when someone approaches the front door. Which type of switch would you use and why?

Lesson 3:

- To know some common conductors and insulators, and associate metals with being good conductors.

	<p>Show the class a variety of objects made from different materials (e.g., plastic, wood, metal, rubber, etc.). Ask the students to discuss with a partner or in small groups what they think will conduct electricity and what will not. After a few minutes, bring the class back together and ask for their ideas. Write their suggestions on the board.</p> <p>Explain that some materials allow electricity to flow through them easily while others do not. Conductors are materials that allow electricity to pass through them, while insulators are materials that do not allow electricity to pass through. Introduce the concept of metals being good conductors of electricity by explaining that metals contain "free electrons" which can easily move and carry electric charge. Show images of common conductors and insulators, such as a piece of metal (e.g., copper wire), a wooden stick, a plastic bottle, etc.</p> <div>  Making predictions  Observing and measuring </div> <p>Divide the class into small groups and provide each group with a selection of materials, such as metal paper clips, plastic rulers, wooden pencils, rubber erasers, glass marbles, etc.</p> <p>Instruct the groups to test each material to determine whether it is a conductor or an insulator. They can do this by connecting each material to a simple circuit with a battery, a bulb, and wires. If the bulb lights up when the material is part of the circuit, it is a conductor; if the bulb does not light up, it is an insulator.</p> <p>Chn to make a prediction before each material. Why do they think it will be a conductor/insulator. Test and measure as a group. Record findings in a table.</p>	
Week 5 RH FP	<p>(Week 5 and 6 can be combined) DT project</p> <p>Skill – components of a circuit</p> <p>Pose a problem - difference between innovation and invention. Children are innovators, solving a problem using knowledge of circuitry</p> <p>Each class has a different problem to solve</p>	<p>Lesson 1</p> <p>All:</p> <p>Most:</p> <p>Some:</p> <p>Lesson 2</p> <p>All:</p>

	<p>Lesson 1:</p> <p>Technical knowledge – link to science learning and week 2&3's learning</p> <p>Know how to:</p> <ul style="list-style-type: none"> • create simple electrical circuits and components e.g. bulbs, switches or buzzers that can be used to create functional products • Link scientific knowledge by using lights, switches, or buzzers • Use electrical systems (series or parallel) to enhance the quality of the product • Know that mistakes can be avoided by measuring carefully <p>Designing</p> <ul style="list-style-type: none"> • To persevere and adapt work when original ideas do not work • To know that a design can be based upon research <p>Lesson 2:</p> <p>Making</p> <ul style="list-style-type: none"> • To know which material is likely to give the best outcome • To measure accurately <p>Evaluating</p> <ul style="list-style-type: none"> • To present a product in an interesting way <p>To know that existing products can be evaluated</p> <p>Lesson 3:</p> <p>End of unit celebration – Presentation of how each class has solved their problems by inventing/innovation and building circuits. Round robin around each classroom.</p>	<p>Most:</p> <p>Some:</p> <p>Lesson 3</p> <p>All:</p> <p>Most:</p> <p>Some:</p>
<p>Week 6</p> <p>BS</p>	<p>R.E. Why is Easter important to Christians?</p> <p>Lesson 1: IALT: learn about the Easter story for Christians*</p> <p>Lesson 2: IALT: understand why Jesus' resurrection is important to Christians*</p> <p>Lesson 3: IALT: identify the symbols of Easter</p>	<p>Lesson 1</p> <p>All: listen to/read the Easter story</p> <p>Most: sequence the Easter story/recall it in chronological order</p> <p>Some: explain what happens in the Easter story and the impact it has on Christianity.</p> <p>Lesson 2</p> <p>All: clarified the term 'resurrection'</p>

		<p>Most: explain what happened when Jesus was resurrected and why this is significant (Christians believe this proves he was the Mesiah, Son of God)</p> <p>Some: explain the impact this had on Christianity moving forwards. Empathise with how Christians may have felt.</p> <p><i>Lesson 3</i></p> <p>All: discuss what a symbol is</p> <p>Most: can list various symbols of Easter</p> <p>Some: can link these symbols to Christianity and explain their use.</p>
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