



Y4 Medium Term Plan Autumn 1

	Science	Humanities	RE	Computing
Theme	<p>States of Matter</p> <p>Key Skills:</p> <p>asking relevant questions and using different types of scientific enquiries to answer them</p> <p>setting up simple practical enquiries, comparative and fair tests</p> <p>making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</p> <p>recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p>	<p>Theme: Ancient Egypt</p> <p>Key skills:</p> <p>-Pupils should continue to develop a chronologically secure knowledge and understanding of British, local and world history, establishing clear narratives within and across the periods they study.</p> <p>- They should note connections, contrasts and trends over time</p> <p>-Develop the appropriate use of historical terms.</p> <p>-They should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance.</p> <p>-They should construct informed responses that involve thoughtful selection and organisation of relevant historical information.</p> <p>-They should understand how our knowledge of the past is constructed from a range of</p>	<p>TOPIC - Buddhism Beliefs and practices Theme: The life of Buddha Enquiry question: Is it possible for everyone to be happy?</p> <p>Key skills</p> <ul style="list-style-type: none"> - I can start to show an understanding of why people think it is difficult to be happy all the time. <p>Empathy Application Discernment Expression</p> <p>Key knowledge</p> <ul style="list-style-type: none"> I know some of the things Siddhattha did to try to be happy and explain why I think they didn't work for him (Life of the Buddha - living a good life make you happy - start 8 path truth) 	<p>Theme: 2code Unit 4.1</p> <p>Key skills</p> <ul style="list-style-type: none"> To plan and design a program with a clear target audience To create a prototype/simulation To add functionality to their programs To know how to design, write and debug programs that accomplish specific goals. <p>Key knowledge</p> <ul style="list-style-type: none"> To know what features make a game successful To know how to use sequence, selection, and repetition in programs; To understand how to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.e.g. By explaining how their program works in 2code/Scratch .

	<p>using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p> <p>identifying differences, similarities or changes related to simple scientific ideas and processes</p> <p>using straightforward scientific evidence to answer questions or to support their findings.</p> <p>Key Knowledge:</p> <p>compare and group materials together, according to whether they are solids, liquids or gases</p> <p>observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)</p> <p>identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>	<p>sources.</p> <p>Key knowledge:</p> <p>The achievements of the earliest civilizations – an overview of where and when the first civilizations appeared and a depth study of one of the following: Ancient Egypt</p>		
<p>Week 1</p>	<p>S.K.L.O: To identify the difference between a solid, liquid and a gas.</p> <p>W.S.L.O: To use straight forward scientific evidence to answer questions.</p> <p>Key skills</p> <ul style="list-style-type: none"> -To record findings using simple scientific language, drawings and labelled diagrams. 	<p>LO:Who were the Ancient Egyptians?</p> <p>Key skills</p> <p>-Pupils should continue to develop a chronologically secure knowledge and understanding of British, local and world history, establishing clear narratives</p>	<p>Engagement lesson -</p> <p>LO to recall times when they were happy and why</p> <p>Key skills</p> <ul style="list-style-type: none"> • Empathy - I am aware that different things make different people happy <p>Key knowledge</p> <ul style="list-style-type: none"> • Know different situations make people happy (family, 	<p>LO: To review design, code, test and debug of a programs.</p> <p>Key skills</p> <ul style="list-style-type: none"> • To review coding vocabulary. • To use a sketch or storyboard to represent a program design and algorithm. • To use the design to create a program.

	<p>Key knowledge:</p> <ul style="list-style-type: none"> - To understand that materials can be classified into different states. - Compare and group materials together, according to whether they are solids, liquids or gases. - Understand how particles behave. <p>Key questions: What are the three states of matter? What is a solid? What is a liquid? What is a gas? How do particles in a solid, liquid or a gas behave?</p> <p>Key Vocabulary: solid, liquid, state, matter, particle, grain, category, classify, group, evidence, question, particles.</p>	<p>within and across the periods they study. -Develop the appropriate use of historical terms.</p> <p>Key knowledge: -Pupils should be able to locate Egypt on the map (and distinguish between Upper and Lower Egypt) -Pupils should locate ancient Egypt on the timeline - They should know that pharaohs were treated as gods and pyramids were pharaohs' tombs</p>	<p>friends, celebrations, socialising, hobbies etc)</p> <p>Question: Is it possible for everyone to be happy? Start initial discussions in groups or talking partners</p>	<p>Key knowledge</p> <ul style="list-style-type: none"> • Children can use sketching to design a program and reflect upon their design. • Children can create code that conforms to their design.
<p>Week 2</p>	<p>S.K.L.O: To investigate the different ways that materials can change states of matter when heated.</p> <p>W.S.L.O: To set up a simple practical enquiry.</p> <p>https://www.bbc.co.uk/bitesize/topics/zkqg87h/articles/z9ck9qt</p> <p>Key skills</p> <ul style="list-style-type: none"> - Learn to accurately use a thermometer - Use scientific language to describe to another what happens to the particles when a substance changes state. - To make careful observations. <p>Key knowledge:</p> <ul style="list-style-type: none"> - To understand, through 	<p>LO: To know what ancient Egyptian life was like.</p> <p>Key skills</p> <ul style="list-style-type: none"> - They should note connections, contrasts and trends over time <p>-Develop the appropriate use of historical terms.</p> <p>-They should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance.</p> <p>Key knowledge: -Children should know: that the Nile provided Egypt with fertile land -drawings as a source of evidence of what life in Egypt looked like</p>	<p>Investigation lesson -</p> <p>LO: To describe and sort the importance people place on money</p> <p>Key skills</p> <ul style="list-style-type: none"> • Application - to understand how the importance of money is different people to everyone <p>Key knowledge</p> <ul style="list-style-type: none"> • Know how people would spend money (spend on family, spend on yourself, helping other people, charity) and the importance they place on it <p>Q- 'If someone gave you a million pounds what would you do?' Q 'Would being rich always make</p>	<p>LO: To use IF/Else statements in a program.</p> <p>Key skills</p> <ul style="list-style-type: none"> • To introduce the If/else statement and use it in a program. • To create a variable. • To explore a flowchart design for a program with an if/else statement • To create a program which responds to the If/else command, using the value of the variable. <p>Key knowledge</p> <ul style="list-style-type: none"> • Children can create an 'If/else' statement. • Children understand what a variable is in programming. • Children can set/change the variable values appropriately.

	<p>practical tasks, that materials change state when they are heated and to describe this process using scientific language.</p> <ul style="list-style-type: none"> - Understand that some materials change state when they are heated and identify the temperature at which this happens in degrees Celsius (°C) <p>Key questions: How have the particles changed? What state of matter is the chocolate now?</p> <p>Key Vocabulary: melting, condensing, particles, thermometer, temperature, Celsius, Fahrenheit, degrees</p>	<ul style="list-style-type: none"> -what kind of jobs they had -what kind of homes they built -what their beliefs about death were -how they travelled 	<p>you happy?'</p> <p>What does the class notice about the ideas? Can you categorise them into groups? Is one set of ideas better than another? Would they give to charity? If so, why? If not, why not? How could this make people happy? Why?</p>	<ul style="list-style-type: none"> • Children can interpret a flowchart that depicts an if/else flowchart.
<p>Week 3</p>	<p>S.K.L.O: To investigate the different ways that materials can change states of matter when cooled.</p> <p>W.S.L.O: To set up a simple practical enquiry.</p> <p>https://www.bbc.co.uk/bitesize/topics/zkqg87h/articles/z9ck9qt</p> <p>Key skills</p> <ul style="list-style-type: none"> - Learn to accurately use a thermometer. - To make careful observations. - recording findings using simple scientific language, drawings and labelled diagrams. <p>Key knowledge:</p> <ul style="list-style-type: none"> - To understand, through practical tasks, that materials change state when they are cooled and to 	<p>LO: To know how and why mummies were made in ancient Egypt.</p> <p>Key skills -They should construct informed responses that involve thoughtful selection and organisation of relevant historical information</p> <p>-Develop the appropriate use of historical terms</p> <p>-They should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance.</p> <p>Key knowledge : -Children are able to describe the stages of mummification process -they should know that humans and animals were mummified</p>	<p>Investigation lesson -</p> <p>LO: To know what Buddhist believe</p> <p>Key skills:</p> <ul style="list-style-type: none"> • Application - To consider how Buddhist live their life <p>Key knowledge:</p> <ul style="list-style-type: none"> • Introduce Buddhism - know Buddhist believe <p>- It started in (what was) India (but is now Nepal) - 2,500 years ago - It is the story of a prince - Buddha - Buddha taught how people should live - Truths - Buddhists meditate to reflect on their life</p>	<p>LO: To use 'repeat until' functions in a program</p> <p>Key skills</p> <ul style="list-style-type: none"> • To create a program with a character that repeats actions. • To use the Repeat Until command to make characters repeat actions. • To program a character to respond to user keyboard input. <p>Key knowledge</p> <ul style="list-style-type: none"> • Children can show how a character repeats an action and explain how they caused it to do so. • Children can make a character respond to user keyboard input.

	<p>describe this process using scientific language.</p> <ul style="list-style-type: none"> - Understand that some materials change state when they are cooled and identify the temperature at which this happens in degrees Celsius (°C) <p>Key Vocabulary solidifying, freezing, melting, condensing, evaporating, particles, thermometer, temperature, Celsius, Fahrenheit, degrees</p>	<ul style="list-style-type: none"> -they should know why people/animals were mummified -the importance of amulets, sarcophagi and canopic jars 		
<p>Week 4</p>	<p>S.K.L.O: To understand the water cycle.</p> <p>W.S.L.O: To identify changes related to simple scientific ideas and processes.</p> <p>Key skills:</p> <ul style="list-style-type: none"> - Explain the water cycle and changes to water during the evaporation and condensation process. - Demonstrate to another, evidence of condensation and evaporation with a simple practical task. - <p>Key knowledge:</p> <ul style="list-style-type: none"> - To know that water moves in a cycle due to changes in temperature causing the water to change from one state to another <p>Key Vocabulary evaporation, condensation, precipitation, transpiration, cycle, particle, temperature, change, evidence</p>	<p>LO: To know about Tutankhamun.</p> <p>Key skills</p> <ul style="list-style-type: none"> -Pupils should continue to develop a chronologically secure knowledge and understanding of British, local and world history, establishing clear narratives within and across the periods they study. -Develop the appropriate use of historical terms. -They should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance. -They should construct informed responses that involve thoughtful selection and organisation of relevant historical information. <p>Key knowledge:</p> <ul style="list-style-type: none"> -Children should know that a pharaoh was considered a half man, half god -the story of Tutankhamun 	<p>Investigation lesson -</p> <p>LO: To be able to recall key events in Buddah's life</p> <p>Key skills:</p> <ul style="list-style-type: none"> • Empathy - begin to understand how the prince felt during events in his life <p>Key knowledge:</p> <ul style="list-style-type: none"> • To know the key events in Buddah's later life <ul style="list-style-type: none"> - Rich prince leaves palace - sees - old age, sickness, death for the first time and is saddened - sees holy man - poor / happy - search for happiness, under the Bodhi Tree - meditation - realised (enlightened) - happiness iis how people think about their situation <p>Decide which is the most important part of the story and explain why. What does it tell us about how easy/difficult it might be to be happy and stay happy? Do you try to stay happy? Is this possible all of the time?</p>	<p>LO: To make and use a timer in a program.</p> <p>Key skills</p> <ul style="list-style-type: none"> • To make timers and counting machines using variables to print a new number to the screen every second. <p>Key knowledge</p> <ul style="list-style-type: none"> • Children can explain what a variable is when used in programming. • Children can create a timer that prints a new number to the screen every second. • Children can explain how they made their program change the number every second.

		-the importance of Howard Carter's discovery -children should be able to name other pharaohs		
Week 5	<p>S.K.L.O: To investigate evaporation and condensation.</p> <p>W.S.L.O: To use straightforward scientific evidence to answer questions and to support findings.</p> <p>Key skills</p> <ul style="list-style-type: none"> - i) identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature - ii) observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius - Ask and investigate questions about evaporation and condensation - Ask questions, and set up a simple fair test to investigate factors that speed up evaporation. <p>Key knowledge:</p> <ul style="list-style-type: none"> - Use scientific language to explain evaporation and condensation to others <p>Key Vocabulary evaporation, condensation, precipitation 'words ending in -tion' is a Year 2 spelling objective, and could be revised with these keywords, particle, state, liquid, gas, solid, ice, rain, clouds, vapour.</p>	<p>LO: To know that the ancient Egyptian used hieroglyphics.</p> <p>Key skills: -They should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance -Develop the appropriate use of historical terms.</p> <p>Key knowledge: -Children should know what hieroglyphics and cartouches are -the importance of the Rosetta Stone in decoding the meaning of hieroglyphics</p>	<p>Evaluation lesson -</p> <p>LO: To know how Buddhist try to be happy and stay happy</p> <p>Key skills</p> <ul style="list-style-type: none"> • Discernment - be able to judge the things that affect our happiness <p>Key knowledge</p> <ul style="list-style-type: none"> • Buddhist are happy and stay happy because: <ul style="list-style-type: none"> → Right values and attitude (compassion rather than selfishness) → Right action (help others) → Right meditation (calm mind, practice meditation) <p>We are learning about the life of the Buddha and exploring how he tried to be happy and stay happy.</p>	<p>LO: To be able to create a simulation.</p> <p>Key skills</p> <ul style="list-style-type: none"> • To create an algorithm modelling the sequence of a simple event. • To manipulate graphics in the design view to achieve the desired look for the program. • To use an algorithm when making a simulation of an event on the computer. <p>Key knowledge</p> <ul style="list-style-type: none"> • To build upon existing knowledge of algorithms and using them in a more sophisticated way. • To know how simulations are made and the purpose of these e.g. graphic designers, architects.

Week 6

L.O-
To be able to present findings.

Key skills

- i) setting up simple practical enquiries, comparative and fair tests
- ii) reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- iii) using straightforward scientific evidence to answer questions or to support their findings
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Key knowledge:

- identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature

Key Vocabulary solid, liquid, gas, state, particle, evidence

LO:
To know who the Ancient Egyptians Gods and Goddesses were.

Key skills:
-They should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance
-Develop the appropriate use of historical terms.

- Egypt had one of the largest and most complex pantheons of gods of any civilization in the ancient world. Over the course of Egyptian history hundreds of gods and goddesses were worshipped. The characteristics of individual gods could be hard to pin down. Most had a principle association (for example, with the sun or the underworld) and form. But these could change over time as gods rose and fell in importance and evolved in ways that corresponded to developments in Egyptian society.
- The 11 Gods and Goddesses

Expression lesson -

LO - To identify times when it is easy to be happy and times when it is not

Key skills:

- Expression and reflection - Think how what I do and say can affect other people's happiness

Key knowledge:

- Respond to the enquiry question: Is it possible for everyone to be happy?

How would you respond? How would a Buddhist respond?

Think about how trying to help people be happy rather than causing hurt, could help people be happy, and how this might help you be happy.

Consider people in the world who may not be happy now.

LO: To understand decomposition and abstraction in programming.

Key skills

- To be able to explain how they have used decomposition in their programs
- To be able to explain how they have used abstraction in their programs

Key knowledge

- To know what decomposition (*decomposition is breaking a task into its component parts so that each part can be coded separately and brought together in the program*) and abstraction (*Abstraction is removing unnecessary details to get the program functioning*) are in computer science.
- To take a real-life situation, decompose it and think about the level of abstraction.
- To design a decomposed feature of a real-life situation.