

SHAMBLEHURST PRIMARY SCHOOL ENQUIRY PLANNING MODEL

Year Group: 5
SHAMBLEHURST PRIMARY SCHOOL

SMSC
<p>Spiritual:</p> <ul style="list-style-type: none"> • being reflective about their own beliefs and perspective on life • knowledge of, and respect for , different people’s faith, feelings and values • Sense of enjoyment and fascination in learning about themselves, others and the world around them • Use of imagination and creativity • Willingness to reflect on their experiences <p>Moral:</p> <ul style="list-style-type: none"> • Recognise the difference between right and wrong and to readily apply this understanding in their own lives, recognise legal boundaries, respect civil and criminal law • Understand the consequences of their behaviour • Interest in investigating and offering reasoned views and moral and ethical issues and ability to understand and appreciate the viewpoints of others <p>Social:</p> <ul style="list-style-type: none"> • Work and socialise with other pupils • Participate in a variety of communities and social settings, including volunteering, cooperating well with others and being able to resolve conflicts effectively • Acceptance and engagement of fundamental British Values – DEMOCRACY, RULE OF LAW, INDIVIDUAL LIBERTY, MUTUAL RESPECT , TOLERANCE of those with different faiths and beliefs <p>Cultural:</p> <ul style="list-style-type: none"> • Understanding and appreciation of wide range of cultural influences that have shaped their heritage and that of others • Understanding and appreciation of a range of different cultures in the school and further afield • Recognise and value things we share in common – cultural, religious, ethic, socio-economic • Knowledge of British democratic parliamentary system and its central role in shaping history and values • Willingness to participate in and respond positively to artistic, musical, sporting and cultural opportunities • Interest in exploring, improving understanding of and showing respect for different faiths and cultural diversity and the extent to which they understand, accept and respect diversity

Concepts

Creativity	Resilience	Dedication	Dreams
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Enquiry Question

How does failure help us succeed?

Global Neighbour

Explain how their lives are connected with people and places across the globe and the effects of local actions on the wider world

Discuss and develop an understanding of the nature, causes and effects of poverty, disadvantage, injustice and exploitation of the natural world.

English

Non-chronological report on the rocky planets.

Diary and journal entries

Newspaper report

Descriptive setting writing

Design Technology

Describe and explain the purpose of their products with increasing confidence

- Indicate, describe and explain, with reasoning, the design features which will appeal to the intended users
- Know and understand the different research types there are – surveys, interviews questionnaires and web-based resources. Use one of these to gather the views of others which will impact on their design link to the needs, wants and preferences
- Know and develop their own design technique
- Know how to use prototypes and pattern pieces in the design process
- Know how to use annotated sketches, cross-sectional drawings and exploded diagrams in the design process
- Know how to use a computer aided design program to develop and communicate their ideas

Know how to generate innovative ideas, drawing on their research and making decisions taking into account constraints, such as, resources, time and cost

How does failure help us to succeed?

Science

Describe the movement of the Earth, and other planets, relative to the Sun in the solar system

Describe the movement of the Moon relative to the Earth

Describe the Sun, Earth and Moon as approximately spherical bodies

Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky

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

Computing

Design create and debug a program based on their own ideas

- Begin to program physical systems to complete specific things (Crumble Boards)
- Plan solutions to problems using decomposition. (Break the problem into parts)
- Use sequence, selection (if, then, else) and repetition (repeat until) in programs with increasing conditions.
- Write programs that use a variety of inputs (keyboard/mouse) and have a number of outputs (visual/sound)
- Explain how algorithms work and what given algorithms will do using logical reasoning.
- Use logical reasoning to detect errors in algorithms and explain what they are.
- Understand how web pages are created and transmitted

Key Learning From main trunks – use Skills and Progression documents to inform planning. What will the children learn?	How? What opportunities am I going to give the children so that they can learn?	Outcomes What will the learning look like? How will the learning be recorded?
<p>Describe the movement of the Earth, and other planets, relative to the Sun in the solar system</p> <p>Describe the movement of the Moon relative to the Earth</p> <p>Describe the Sun, Earth and Moon as approximately spherical bodies</p> <p>Use the idea of the Earth’s rotation to explain day and night and the apparent movement of the sun across the sky</p> <p>Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p> <p>Identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect</p> <p>Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets</p> <p><i>Exploring and planning</i></p>	<p>How?</p> <p>What opportunities am I going to give the children so that they can learn?</p> <p>Make scaled models of the planets and the sun for children to see the size comparisons https://www.exploratorium.edu/ronh/solar_system/</p> <p>Create a model of how the planets orbit around the sun (Link this to length of year) Model how Earth’s rotation causes day and night. (Introduce using concept cartoons for children to make predictions)</p> <p>Create a model of the moon’s orbit and identify how the shape changes over time. Track changes in a moon diary.</p> <p>https://explorify.wellcome.ac.uk/en/activities/watch-if-the-sun-rotated-and-the-earth-didnt</p> <p>https://explorify.wellcome.ac.uk/en/activities/watch-if-there-was-no-moon</p> <p>https://explorify.wellcome.ac.uk/en/activities/watch-if-the-earth-wasnt-on-an-axis</p> <hr/> <p>Use planning pro forma to plan investigation about air resistance</p> <ul style="list-style-type: none"> - How does the length of the helicopter wing affect the time of the fall? - How does material of the parachute affect the time of the fall? 	<p>Predictions using the concept cartoons and then explanations of how things happened after the learning.</p> <p>Pictures and video of investigations. Using Apps like Thinglink to label the pictures and the models (These could be shared on school website/Seesaw)</p> <p>Guided Reading Texts in Enquiry books</p> <hr/> <p>Same/Change/Measure plans in enquiry books with predictions, results and conclusions.</p>

<p>Begin to independently explore ideas and ask my own questions about scientific phenomena</p> <p>Begin to plan different types of scientific enquiry to answer questions</p> <p>Begin to decide which variables to control</p> <p><u>Gathering and presenting evidence</u></p> <p>Make accurate and precise measurements</p> <p>Decide what to observe, how long to observe for and whether to repeat them</p> <p>Take accurate and precise measurements using standard units</p> <p>Select equipment on my own and can explain how to use it accurately</p> <p>Set up a range of comparative and fair tests</p> <p>Begin to explain which variables need to be controlled and why</p> <p>Begin to suggest improvements to my test, giving reasons</p> <p>Begin to record data and results of increasing complexity</p> <p>Begin to develop my own keys and other information records to classify and describe</p> <p><u>Interpreting results/evidence</u></p> <p>Begin to draw scientific, causal conclusions using the results of an enquiry to justify my ideas</p> <p>Begin to communicate findings using detailed scientific language</p> <p><u>Explaining</u></p> <p>Begin to explain my conclusion using scientific knowledge and understanding</p> <p>Begin to distinguish opinion and facts</p> <p>Begin to use my findings to make predictions and set up further enquiries</p> <p>Begin to use abstract models to explain my ideas</p>	<p>(Children will use results of this to help design features of Mars Rovers)</p> <p>Use planning pro forma to plan investigation about friction</p> <ul style="list-style-type: none"> - How does depth of tread affect friction? - How does the width of tyre improve grip? - How does the roughness of a surface affect friction? <p>Use planning pro forma to plan investigation about properties of materials</p> <ul style="list-style-type: none"> - What material should Armstrong's suit be made out of? 	
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<p>Design create and debug a program based on their own ideas</p> <ul style="list-style-type: none"> - Begin to program physical systems to complete specific things (Crumble Boards) - Plan solutions to problems using decomposition. (Break the problem into parts) - Use sequence, selection (if, then, else) and repetition (repeat until) in programs with increasing conditions. - Write programs that use a variety of inputs (keyboard/mouse) and have a number of outputs (visual/sound) - Explain how algorithms work and what given algorithms will do using logical reasoning. - Use logical reasoning to detect errors in algorithms and explain what they are. - Understand how web pages are created and transmitted 	<p>Introduce the concept of algorithms using the jam sandwich lesson.</p> <p>Introduce debugging and sequencing through the playground games lessons.</p> <p>Create the following games and programmes on scratch:</p> <ul style="list-style-type: none"> - Smoking Car Game - Slug Trail Game - Selection Investigation - Crab Maze <p>Use these to introduce decomposition, repetition, selection and to have a variety of inputs</p> <p>Children use crumble boards to complete some challenges for their Mars Rovers.</p> <ul style="list-style-type: none"> - drive exactly 2 metres straight - drive around a metre square - Create an obstacle course / maze and programme the rover to drive around it. <p>Possibly introduce the crumble boards by using the sparkles to animate a model of the moon phases. Cut correctly shaped holes in the circles and then light up at night.</p>	<p>Children will record their algorithms on Seesaw for the Jam Sandwich.</p> <p>Children to verbally explain the bugs they have corrected using Seesaw</p> <p>Children can share their games from scratch with other groups and discuss if they have made them in the same way.</p> <p>Mars Rover Days to allow children to make their buggies work.</p>


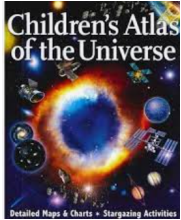
Key Learning From main trunks – use Skills and Progression documents to inform planning. What will the children learn?	How? What opportunities am I going to give the children so that they can learn?	Outcomes What will the learning look like? How will the learning be recorded?
<p>Design Describe and explain the purpose of their products with increasing confidence Indicate, describe and explain, with reasoning, the design features which will appeal to the intended users Know and develop their own design technique Know how to use prototypes and pattern pieces in the design process Know how to use annotated sketches, cross-sectional drawings and exploded diagrams in the design process Know how to use a computer aided design program to develop and communicate their ideas Know how to generate innovative ideas, drawing on their research and making decisions taking into account constraints, such as, resources, time and cost</p> <p>Make Name a range of different tools and equipment and select the one most suitable for the task Explain their choice of tools and equipment in relation to the skills and techniques they will be using Name a range of materials and components which are suitable for the task and explain their choice according to their function and aesthetic qualities Know how to create a step-by-step plan as a guide to making understand that it would</p>	<p>Use Curiosity book and NASA Mars Rovers Owner Manual to look at design process with sketches of the Mars Rover</p> <p>Use square paper to create Isometric drawings of their Mars Rover and annotate the features (This will partly be based on the results from their science experiments earlier on in the term.)</p> <p>Discuss measurements and how big or small to make the rover. Think about implications, both positive and negative (e.g weight / ease to make)</p> <p>Children to create frame for Mars Rovers using dowling wood. They will also need to measure the frames to create the panels to stick on this.</p> <p>Children could calculate the cost of their Rover based on the invoices of ordering the wood and glue. They could also compare this to the cost of the actual Mars Rovers.</p>	<p>Children will have sketches, designs and evaluations in their enquiry books.</p> <p>In small groups they will create Mars Rovers. These will be connected to the crumble boards to complete a series of challenges</p>

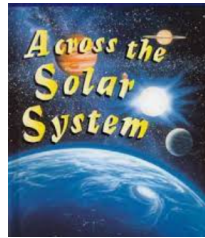
<p>support the process of making the product, include a list of tools, equipment and materials</p> <p>Know, understand and follow all safety rules and procedures for the tools, equipment and materials they are using during the making process</p> <p>Know how to accurately measure, mark out, cut and shape materials effectively using the most appropriate tools and equipment</p> <p>Know how to accurately assemble, join and combine materials and components, including adding and applying a range of finishing techniques</p> <p>Know how practically problem solve when coming up against a problem or an issue</p> <p>Evaluate</p> <p>Explain how particular parts of the products work</p> <p>Know the strengths and weaknesses of their own products and understand the need for suggesting areas for improvement</p> <p>Know that taking into consideration the views of the intended users will impact on the design and making of their product</p> <p>Critically evaluate their design and design criteria to adapt their product during the making process</p> <p>As part of the design, making and evaluation process children should investigate and analyse:</p> <p>How much products cost to make</p> <p>How innovative products are</p> <p>How sustainable the materials in products are</p> <p>What impact products have beyond their intended purpose</p>		
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Key Learning From main trunks – Global Neighbours What will the children learn?	How? What opportunities am I going to give the children so that they can learn?	Outcomes What will the learning look like? How will the learning be recorded?
<p>Explain how their lives are connected with people and places across the globe and the effects of local actions on the wider world</p> <p>Discuss and develop an understanding of the nature, causes and effects of poverty, disadvantage, injustice and exploitation of the natural world.</p> <p>Confidently challenge and confront injustice and inequality as articulate advocates of change.</p>	<p>Discuss with the children about the trip to space that Jeff Bezos and his brother are taking to space - link to <u>World Habitat Day (4/10/21)</u> theme of carbon emissions.</p> <p>Engage in the Anti-Bullying Week activities - 'One Kind Word'.</p>	<p>Children could write persuasive letters. Discussions take place in P4C lessons.</p> <p>Children to produce a poster detailing the positive and kind things they can do to halt hurtful behaviour in its tracks.</p> <div data-bbox="1444 758 2004 1141" style="text-align: center;"> </div>

		<p>Step 5 explain how their ideas about <i>interpretation</i> may affect their experiences and others' experiences.</p>
<p>PSHE - Being My Best (Autumn 1) and Me and My Relationships (Autumn 2)</p>	<p>Y5 - Being My Best</p> <div data-bbox="884 470 1377 837" style="border: 1px solid blue; padding: 5px;"> <p>Unit Lesson Plans</p> <ul style="list-style-type: none"> Getting fit It all adds up! Different skills My school community (2) Independence and responsibility Star qualities? Basic first aid </div> <p>Y5 - Me and My Relationships</p> <div data-bbox="862 965 1377 1332" style="border: 1px solid blue; padding: 5px;"> <p>Unit Lesson Plans</p> <ul style="list-style-type: none"> Collaboration Challenge! Give and take How good a friend are you? Relationship cake recipe Being assertive Our emotional needs Communication </div>	<p>Children will be able to:</p> <ul style="list-style-type: none"> ● Know two harmful effects each of smoking/drinking alcohol. ● Explain the importance of food, water and oxygen, sleep and exercise for the human body and its health. ● Understand the actual norms around smoking and the reasons for common misperceptions of these. ● Demonstrate how to respond to a wide range of feelings in others; ● Give examples of some key qualities of friendship; ● Reflect on their own friendship qualities. ● Explain what is meant by the terms negotiation and compromise; ● Describe strategies for resolving difficult issues or situations ● Identify what things make a relationship unhealthy; ● Identify who they could talk to if they needed help. ● Recognise basic emotional needs, understand that they change according to circumstance; ● Identify risk factors in a given situation (involving smoking or other scenarios) and consider outcomes of risk taking in this situation, including emotional risks.

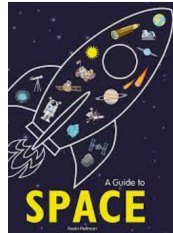
English Learning Journey

<p>Year 5</p> <p><u>English learning journey</u></p> <p><u>Outcome:</u></p> <p><u>Task : Nonchronological report / Information text on Rocky Planets</u></p> <p>Audience: Shamblehurst website and parents.</p> <p>Purpose: To inform and entertain</p>	<p><u>Text drivers:</u></p> <p>Why Space Matters to me.</p>  <p>Children's Atlas of the Universe</p>  <p>Across the Solar System</p>	<p>Key writing objectives from NC:</p> <ul style="list-style-type: none"> To take notes To develop initial ideas Use technical and precise language Use organisational devices Engage audience through appropriate headings and subheadings To vary sentence length to engage and entertain the reader. To use conjunctions to offer opposite facts . To use relative clauses To use brackets for added information. <p>VGP</p> <p>Key reading objectives from NC:</p> <ul style="list-style-type: none"> Discuss understanding of what has been read. Understanding meaning of text in context. To understand subject specific vocabulary. Various Information Texts with information about planets. <p>Themes and conventions:</p> <p>Comprehension:</p> <p>Language for effect:</p>
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Various Information
Texts with
information about
planets.

A guide to Space



Armstrong The
Adventurous
Journey of a
Mouse to the Moon

Outcome:

Task : Diary entry (2
weeks)

Newspaper report (2

Identify how language, structure, and presentation contribute to meaning - Discuss how language used has an effect on the reader.

Transcription: -

Place the possessive apostrophe accurately in words with regular plurals.

Use the first two or three letters of a word to check its spelling in a dictionary.

Spell words, which are often misspelt.

Use further prefixes and suffixes and understand how to add them.

Spell further homophones.

To identify the features of non-chronological report using a worked example.

To retrieve and record information on rocky planets and identify the features of non-chronological writing.

To use research to gather information.

To explore unfamiliar language in context.

To explore technical and precise vocabulary.

To use a variety of sentence types.

To use commas in a list.

To use rhetorical questions to engage the reader.

The use of conjunctions to add detail.

To use a noun, which , who , where sentence type.

To use conjunctions to add information.

To use generalisers to quantify.

To use modal verbs to show degrees of certainty.

To write in the present tense.

To use a relative clause sentence type to add detail.

The use of contrasting conjunctions to offer opposite facts.

Use organisational devices to help reader.

To use parenthesis to add / clarify information

To edit and improve and publish work for an audience.

To imitate features of a non- chronological report .

<p>weeks)</p> <p>Letter (2 weeks)</p> <p>Audience: Seesaw parents and</p> <p>Purpose: To write emotive / convey emotion To inform</p> <p>To recount events</p>		
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<p><u>Purpose:</u> Inform</p> <p><u>Audience:</u> Children from other year groups</p> <p><u>Form:</u> Non-chron on rocky planets publish on Adobe Spark (share on school website)</p> <p>https://theplanets.org/venus/</p>	<p>Key reading statements:</p> <p>Discuss understanding of what has been read</p> <p>Understanding meaning of text in context</p> <p>To understand subject specific vocabulary</p> <p>Distinguish between fact and opinion</p> <p>Retrieve, record and present information extracted</p>	<p>Key writing statements:</p> <p>To take notes</p> <p>To develop initial ideas</p> <p>Use technical and precise language</p> <p>Use organisational devices</p> <p>Engage audience through appropriate headings and subheadings</p> <p>To vary sentence length to engage and entertain the reader.</p> <p>To use conjunctions to offer opposite facts.</p> <p>To use relative clauses</p> <p>To use brackets for added information</p>
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