

**Can you solve the  
problem?**

**Term 6**

# LITERACY

<p style="text-align: center;"><b>Literacy Activities</b></p>	<ul style="list-style-type: none"> <li>• Recipes</li> <li>• Persuasive Texts</li> <li>• Writing an Investigation</li> <li>• Riddles/jokes</li> <li>• Introductions and conclusions</li> <li>• Posters</li> <li>• Information Leaflets</li> <li>• Infomercials</li> <li>• Jigsaw texts</li> </ul>
<p style="text-align: center;"><b>Recommended Texts</b></p>	<ul style="list-style-type: none"> <li>• Stories with alternative endings</li> <li>• Joke books</li> <li>• Detective Stories - Stormbreaker</li> </ul>

# NUMERACY

Possible projects	Why?
<p><b>KS1</b> Farm (Rare Breeds) Post Office Vets</p> <p><b>Lower KS2</b> Food business (ie: Pizza Express) Leisure industry (Julie Rose / Stour Centre) Theatre</p> <p><b>Upper KS2</b> Architects (design, shape 2D representations of 3D objects, scale ) Charity Fundraising Handy Man business / B &amp; Q Environmental Centre Bank</p>	<ul style="list-style-type: none"> <li>• Real life contexts for maths</li> <li>• Opportunities to be creative &amp; exciting</li> <li>• Maths links to everyday work</li> <li>• How maths links in to other areas</li> </ul>

# SCIENCE

YEAR	OBJECTIVES	SKILLS
<p style="text-align: center;"><b>1</b></p>	<p><b><u>Investigation</u></b></p> <p>Recreate favourite past experiment or introduce new investigation using open questions, and greater depth of knowledge.            Create a detailed and imaginative presentation of investigation and conclusions.            Study historical scientific progress in this area.            Study famous historical or modern scientist in this area.</p> <p><u>Share these presentations with other year groups. Science Fair?</u></p>	<p>During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>• asking simple questions and recognising that they can be answered in</li> <li>• different ways</li> <li>• observing closely, using simple equipment</li> <li>• performing simple tests</li> <li>• identifying and classifying</li> <li>• using their observations and ideas to suggest</li> <li>• answers to questions</li> <li>• gathering and recording data to help in answering questions.</li> </ul>
<p style="text-align: center;"><b>2</b></p>	<p><b><u>Investigation</u></b></p> <p>Recreate favourite past experiment or introduce new investigation using open questions, and greater depth of knowledge.            Create a detailed and imaginative presentation of investigation and conclusions.            Study historical scientific progress in this area.            Study famous historical or modern scientist in this area.</p> <p><u>Share these presentations with other year groups. Science Fair?</u></p>	<p>During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>• asking simple questions and recognising that they can be answered in</li> <li>• different ways</li> <li>• observing closely, using simple equipment</li> <li>• performing simple tests</li> <li>• identifying and classifying</li> <li>• using their observations and ideas to suggest</li> <li>• answers to questions</li> <li>• gathering and recording data to help in answering questions.</li> </ul>
<p style="text-align: center;"><b>3</b></p>	<p><b><u>Investigation</u></b></p> <p>Recreate favourite past experiment or introduce new investigation using open questions, and greater depth of knowledge.            Create a detailed and imaginative presentation of investigation and conclusions.            Study historical scientific progress in this area.            Study famous historical or modern scientist in this area.</p> <p><u>Share these presentations with other year groups. Science Fair?</u></p>	<p>During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>• asking relevant questions and using different types of scientific enquiries to answer them</li> <li>• setting up simple practical enquiries, comparative and fair tests</li> <li>• making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</li> <li>• gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</li> <li>• recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</li> <li>• reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</li> <li>• using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</li> <li>• identifying differences, similarities or changes related to simple scientific ideas and</li> </ul>

		<p>processes</p> <ul style="list-style-type: none"> <li>• using straightforward scientific evidence to answer questions or to support their findings.</li> </ul>
<b>4</b>	<p><b><u>Investigation</u></b></p> <p>Recreate favourite past experiment or introduce new investigation using open questions, and greater depth of knowledge.  Create a detailed and imaginative presentation of investigation and conclusions.  Study historical scientific progress in this area.  Study famous historical or modern scientist in this area.</p> <p><u>Share these presentations with other year groups. Science Fair?</u></p>	<p>During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>• asking relevant questions and using different types of scientific enquiries to answer them</li> <li>• setting up simple practical enquiries, comparative and fair tests</li> <li>• making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</li> <li>• gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</li> <li>• recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</li> <li>• reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</li> <li>• using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</li> <li>• identifying differences, similarities or changes related to simple scientific ideas and processes</li> <li>• using straightforward scientific evidence to answer questions or to support their findings.</li> </ul>
<b>5</b>	<p><b><u>Investigation</u></b></p> <p>Recreate favourite past experiment or introduce new investigation using open questions, and greater depth of knowledge.  Create a detailed and imaginative presentation of investigation and conclusions.  Study historical scientific progress in this area.  Study famous historical or modern scientist in this area.</p> <p><u>Share these presentations with other year groups. Science Fair?</u></p>	<p>During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>• planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li> <li>• taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</li> <li>• recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</li> <li>• using test results to make predictions to set up further comparative and fair tests</li> <li>• reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</li> <li>• identifying scientific evidence that has been used to support or refute ideas or arguments.</li> </ul>

<p><b>6</b></p>	<p><b><u>Investigation</u></b></p> <p>Recreate favourite past experiment or introduce new investigation using open questions, and greater depth of knowledge.          Create a detailed and imaginative presentation of investigation and conclusions.          Study historical scientific progress in this area.          Study famous historical or modern scientist in this area.</p> <p><u>Share these presentations with other year groups. Science Fair?</u></p>	<p>During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>• planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li> <li>• taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</li> <li>• recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</li> <li>• using test results to make predictions to set up further comparative and fair tests</li> <li>• reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</li> <li>• identifying scientific evidence that has been used to support or refute ideas or arguments.</li> </ul>
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## ICT

Year	Objectives	Skills
<b>R</b>	Explore that many everyday devices respond to signals and instructions	Pupils: <ul style="list-style-type: none"> <li>• Control a remote control toy</li> <li>• Use single step instructions to control a robot</li> <li>• Use mouse buttons, numbers and arrow keys</li> </ul>
<b>1</b>	Recognise that many everyday devices respond to signals and instructions, reason “if I do this the action is ...”	Pupils: <ul style="list-style-type: none"> <li>• Control a remote control toy</li> <li>• Explain how devices respond to signals and commands</li> <li>• Use single step instructions to control a robot</li> <li>• Use mouse buttons, numbers and arrow keys</li> <li>• Use logical reasoning to predict the behaviour of simple programs</li> <li>• Write and test a simple program</li> </ul>
<b>2</b>	Plan and give instructions to make things happen and describe the effects	Pupils: <ul style="list-style-type: none"> <li>• Give instructions to make control toys move how they want</li> <li>• Join single step instructions together to control a robot</li> <li>• Write or draw instructions for a control toy</li> <li>• Use logical reasoning to predict the behaviour of simple programs</li> <li>• Understand what ‘algorithms’ are and observe how they are implemented on digital devices (toys)</li> <li>• Understand that programs execute by following a sequence of instructions</li> </ul>

3	Use sequences of instructions to control devices and achieve specific outcomes	<p>Pupils:</p> <ul style="list-style-type: none"> <li>• Write, test and modify instructions for a control robot</li> <li>• Write, name and save a procedure for a robot or logo</li> <li>• Can use logo or a robot to create patterns</li> <li>• Design and write programs that accomplish specific goals</li> <li>• Solve problems by decomposing them into smaller parts</li> <li>• Use logical reasoning to explain how a simple algorithm works</li> <li>• detect and correct errors in algorithms and programs</li> </ul>
4	Use sequences of instructions to control devices and achieve specific outcomes and make predictions about the consequences of their decisions.	<p>Pupils:</p> <ul style="list-style-type: none"> <li>• Can explain why they may change their instructions after testing</li> <li>• Use logical reasoning to demonstrate how a simple algorithm works</li> <li>• Use sequence, selection and repetition in programs to accomplish set goals</li> <li>• Create algorithms and test their predictions</li> </ul>
5	Use ICT systems to control events in a predetermined manner and to sense physical data (e.g. heat, light, sound)	<p>Pupils:</p> <ul style="list-style-type: none"> <li>• Make simple predictions about the effects of changing a procedure</li> <li>• Can use wait and repeat commands</li> <li>• Solve problems by decomposing them into smaller parts</li> <li>• Can use a switch as a digital input to control events</li> <li>• Detect errors, edit and manipulate algorithms to control a device using input variables (light/sound/touch)</li> <li>• Use sequence, selection and repetition in programs; Work with variables and various forms of input and output</li> </ul>
6	Create sequences of instructions to control events, and understand the need to be precise when framing and sequencing instructions	<p>Pupils:</p> <ul style="list-style-type: none"> <li>• Solve problems by decomposing them into smaller parts</li> <li>• Can explore variables in a procedure (if and then)</li> <li>• Can control a series of outputs in a pre-determined way</li> <li>• Generate appropriate inputs and predicted outputs to test programs</li> <li>• Explore and implement various forms of input and output</li> <li>• Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs</li> </ul>
6+	<p>Understand how ICT devices with sensors can be used to monitor and measure external events (e.g. heat and light)</p> <p>Explore the effects of changing variables in an ICT based model and make predictions about the cause and effect of their choices</p>	<p>Pupils:</p> <ul style="list-style-type: none"> <li>• Independently choose appropriate hardware and software to apply their knowledge and understanding to a given task</li> <li>• Represent a process using flowchart using inputs and outputs, or similar</li> <li>• Can use analogue sensors to control the operation of a program</li> <li>• Can create more complex procedures to improve efficiency</li> <li>• Can use 2 or more sensors to detect environmental or physical changes over time</li> </ul>