



### Introduction to our topic

*As well as researching, designing, and making our own robots, over the term we hope to answer some key questions:*

- Where did it all begin – when was the first robot invented?
- What did the first computer look like?
- Why and how have robots changed over time?
- What impact do robots have on our daily life?
- How have robots evolved and what will we see in the future?

### Our key learning this term

Personal and social development	<p><b>Independence</b></p> <p>This term, we will think about how to respond safely and appropriately to adults we may encounter who we do not know. We will understand better how to recognise who to trust and who not to trust, including times when we are on-line using the internet.</p> <p>To learn more about our bodies, we will identify that humans and some other animals have skeletons and muscles for support, protection, and movement.</p>
Technology	<p><b>Programming Turtle Logo and Scratch</b></p> <p>This term we will learn how to create and debug algorithms. We will use basic commands in Logo to move and draw using the turtle on screen and then further develop algorithms using the “repeat” command.</p>
Science	<p><b>Electricity</b></p> <p>This term we will look at how circuits work, the differences between mains and battery-powered electricity, how to make a switch, which materials are conductors and which are insulators, with plenty of opportunities for investigations and experiments along the way.</p>
The Arts (Art & Design, Music, Drama)	<p><b>DT</b> - Our major focus this term will be to investigate, research, develop and design a robot or machine. We will develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups. We will generate, develop, model, and communicate our ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. To create our product, we will need to understand and use mechanical systems in our products [for example gears, pulleys, cams, levers, and linkages]. Linked to our science topic, we will understand and use electrical systems in our products [for example series circuits incorporating switches, bulbs, buzzers, and motors].</p> <p><b>Music</b> – Our focus this term will be to preparing for Christmas!</p>
Humanities (RE, History, Geography)	<p><b>RE</b></p> <p>This term, we continue to explore ideas of what it is to be human and relate these ideas to religious and other beliefs.</p> <p><b>History / Geography</b></p> <p>We will learn about the origin of computers and robotic technology. We will investigate how robotic technology has been and continues to be developed globally.</p>
P.E.	<p><b>Swimming</b></p> <p>To increase our water confidence and improve our swimming technique.</p> <p><b>Gymnastics</b></p> <p>The children will learn how to perform basic movement skills, perform rolls and shapes confidently, improve their technique when performing balances and jumps.</p>

Modern Foreign Language	<p><b>Spanish – What's today's date?</b> We will continue, from Term 1, to revise numbers 1-31, months of the year and days of the week. We will focus on spelling the numbers, days, and months correctly. We will also be able to ask and say the date confidently.</p>
English	<p><b>Reading</b> – Our whole class text is <i>Operation Gadgetman!</i> by Malorie Blackman  <b>Fiction</b> – Science fiction - <i>The Iron Man</i> by Ted Hughes  <b>Non-fiction</b> - Explanation – <i>How a Robot Dog Works</i>  <b>Grammar, spelling and punctuation</b> – Exclamations; identifying tenses and writing grammatically correct sentences; adverbial, expanded noun and prepositional phrases; apostrophe for possession; pronouns; homophones; prefixes 'mis-', 're', 'in-', 'il-', 'im-' and 'ir -'; the /ɪ/ sound spelt 'y'; words ending with the /g/ sound spelt '-gue' and the /k/ sound spelt '-que; words with the /eɪ/ sound spelt 'ei', 'eigh' or 'ey; words with the /ʃ/ sound spelt 'ch; adding suffixes beginning with vowel letters to words of more than one syllable ('-ing', '-er', '-en', '-ed')</p>
Maths	<p><b>Addition and Subtraction</b> We will continue to add and subtract 3 or 4 digit numbers and begin to solve addition and subtraction problems.  <b>Multiplication and Division</b> For the final few weeks of term the children will apply their knowledge of times tables by looking at related calculations and efficient multiplication. Year 4 will also look at how place value is affected when multiplying and dividing by multiples of 10.</p>
<b>Activity Passport Experiences</b>	
<p>This term we will have an opportunity to...</p> <ul style="list-style-type: none"> <li>✓ Gain a Blue Peter badge (<i>carried over from last term</i>)</li> <li>✓ Take part in a class performance</li> </ul>	