



## **Mathematics**

### **Number - Number and Place Value**

- Your child will learn to read, write, compare and order numbers to at least one million, understanding the value of each digit.
- Children will work on rounding any number to the nearest 10, 100, 1000, 10 000 and 100 000.
- With negative numbers, children will practise counting forwards and backwards across zero.
- Children will learn how to read Roman numerals to 1000, recognising years which are written in these numerals.
- Children will be faced with problem solving and reasoning involving number and place value.

### **Number - Addition and Subtraction**

- In Year 5, your child will be taught how to use formal column written methods to add and subtract numbers with more than four digits.
- They will also be required to mentally calculate larger numbers e.g.  $11\,550 - 4\,300$ , using rounding to check answers.
- Finally, children will be solving subtraction and addition problems which involve two or more calculations to solve.

### **Number - Multiplication and Division**

- Your child will work on being able to identify factors (a whole number which divides equally into another whole number so there is never a remainder). They will also look for factor pairs, for example, the factor pairs of 9 are: 1 and 9 and 3 and 3, because  $1 \times 9 = 9$  and  $3 \times 3 = 9$ .
- They will also learn about prime numbers up to 100, numbers which have no positive divisor other than itself and 1, understanding that a composite number is a non-prime number.
- Children will learn how to multiply up to four digits by a one or two-digit number using formal methods, including long multiplication for two-digit numbers. They will also work on multiplying and dividing mentally using their knowledge of number facts.
- Regarding division of numbers, children will divide up to four digits by a one digit number using formal written methods of short division, including remainders. They will also work on multiplying and dividing decimals by 10, 100 and 1000.
- They will be learning about square and cube numbers. Square numbers are the answer to a number multiplied by itself e.g.  $2 \times 2 = 4$ ,  $3 \times 3 = 9$ ,  $4 \times 4 = 16$ . Cube numbers are created by multiplying a digit by itself three times, eg  $2 \times 2 \times 2 = 8$  and  $5 \times 5 \times 5 = 125$ .
- Children will then use their knowledge to solve word problems involving multiplication and division.

### **Statistics**

- Children will learn to solve problems using information presented in a line graph and interpret information presented in timetables.

## **Science**

### **Working Scientifically**

- Science is a great way to find out about the world around us.
- Your child will be encouraged to raise questions, plan and set up fair tests, take accurate measurements, look out for any patterns and record their data in the best way such as tables, scatter graphs or bar graphs.
- They will then use these results to make predictions leading to further tests and finally, reaching conclusions about their original question whilst understanding the level of reliability of their results.
- All of the following topics are taught through the 'working scientifically' science strand.

### **Forces**

- Children in Year 5 will learn about how gravity works in relation to the Earth and space.
- They will also look into how mechanisms such as levers and pulleys enable a smaller force to have a greater effect.
- Finally, children will be taught the effects of air resistance, friction between moving surfaces.

### **Earth and Space**

- Children will learn about the movement of the Moon in relation to the Sun, the movement of the Earth (or other planets) in relation to the Sun.
- Please note that Pluto has been reclassified as a 'dwarf planet' and children should be reminded never to look directly at the Sun.
- Finally, children will be taught how the Earth's rotation affects day and night and movement of the Sun across the sky.



## **Reading**

### **Reading Comprehension**

- Children in Year 5 will be encouraged to read a wide range of may listen to and discuss a variety of stories, non-fiction texts, poetry, plays and textbooks in order to understand that texts are structured in different ways and written for different purposes.
- Children will be more exposed to traditional stories, myths, legends and books from other cultures, becoming very clear on the structure and typical features of this style of text.
- They will be encouraged to complete book reviews, giving reasons for their opinions and making comparisons with other texts.
- Regarding poetry, they will, at some point in the next two years work on learning different poems off by heart, ready to perform, showing an understanding of how to perform by using the right tone, volume, timing and intonation so that it can be clearly understood by the audience.
- Children will be reminded to check their reading makes sense, discussing their understanding of the meaning of certain vocabulary as they read. They will also be encouraged to ask questions about the text to further develop their understanding of what is going on and draw inference about character actions, speech or motives, providing evidence. Inference involves using the clues in the story or picture to make a good guess. It involves figuring something out which isn't fully explained and draws on a child's existing knowledge of the world.
- Children will be encouraged to make predictions based on what they've already read, summarise key points to show good comprehension and look out for interesting phrases that authors use.
- In Year 5, children will practise distinguishing between fact and opinion, answer questions by referring back to the text and confidently challenge others in an appropriate manner about their opinions.

## **Writing**

### **Writing - Composition**

- Planning writing – Your child will be taught how to identify the audience and select the correct style and tone. They will be encouraged to note and develop their ideas and using their reading knowledge to plan interesting characters (if fiction) and settings.
- Drafting and writing – Year 5 children will practise selecting the correct grammar and vocabulary to match the reading audience and work on including dialogue and linking paragraphs together so that their writing flows nicely.
- Children will be taught to carefully select the correct structure for their text, including any necessary features such as bullet points, headings or captions.
- Evaluate and edit – children will be encouraged to regularly assess the effectiveness of their own writing and pieces written by others, focusing specifically on punctuation, grammar, vocabulary and spelling.
- Finally, children will be taught how to use intonation when reading their writing out loud and how they could vary the volume and include movement.

### **Writing - Vocabulary, Grammar and Punctuation**

- In Year 5, your child will work on converting adjectives or nouns into verbs using suffixes such as -ify, -ise and -ate and practise adding prefixes for example de-, mis- and re-.
- Your child will also work on relative clauses, clauses beginning with relative pronouns such as where, which, whose, that and who, for example, 'The boy, who fell and grazed his knee, cried.'
- Children will also be encouraged to include adverbs such as perhaps and surely as well as modal verbs such as will, must or might in order to indicate degrees of possibility.
- Children will work on making sure their writing flows nicely and ideas link cohesively, linking ideas across paragraphs using adverbials of time (later, after, before), number (secondly, thirdly) or place (in the distance).
- They will also learn how to use parenthesis (brackets), colons (:) and semi-colons (;) and refer to these new grammatical terms correctly.

### **Writing and Spelling**

- Your child will learn a different spelling rule each week and will bring home a selection of words matching this rule to practise. They will be tested on these words the following week.

### **Handwriting**

- By Year 5, your child should have developed their own handwriting style. They will be expected to write legibly and fluently. They will possibly be writing in pen, rather than pencil by this stage and in most cases, should be expected to join all the time.