

The Year 1 Learner will cover the following units:

| | UNIT SUMMARY | LEARNING EXPECTATIONS | THIS UNIT MEETS THESE OBJECTIVES FROM THE NATIONAL CURRICULUM: |
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| Year 1 | <p>Using a programmable toy</p> <p>In this unit, the children will program a toy to move around a map to find buried treasure. They will start by thinking of algorithms for their routes, then input these as stored programs for the robot. They predict how the robot will move and will debug their programs.</p> | <p><i>This unit will enable the children to:</i></p> <ul style="list-style-type: none"> understand that a programmable toy can be controlled by inputting a sequence of instructions develop and record sequences of instructions as an algorithm program the toy to follow their algorithm debug their programs predict how their programs will work. | <ul style="list-style-type: none"> Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs. Recognise common uses of information technology beyond school. |
| Year 1 | <p>Creating a video</p> <p>In this unit, pupils produce short videos of themselves making a healthy meal or snack. They also decompose a complex problem into smaller parts – an important idea from computer science.</p> | <p><i>This unit will enable the children to:</i></p> <ul style="list-style-type: none"> break down a process into simple, clear steps, as in an algorithm use different features of a video camera use a video camera to capture moving images develop collaboration skills discuss their work and think about how it could be improved. | <ul style="list-style-type: none"> Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Use logical reasoning to predict the behaviour of simple programs. Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school. |
| Year 1 | <p>Finding images using the web</p> <p>In this unit, the pupils will use web search engines to collect pictures of different types of animals and then explore ways in which those pictures can be organised.</p> | <p><i>This unit will enable the children to:</i></p> <ul style="list-style-type: none"> find and use pictures on the web know what to do if they encounter pictures that cause concern group images on the basis of a binary (yes/no) question organise images into more than two groups according to clear rules sort (order) images according to some criteria ask and answer binary (yes/no) questions about their images. | <ul style="list-style-type: none"> Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. |
| Year 1 | <p>Creating digital art</p> <p>In this unit, pupils will have the opportunity to create a digital greetings card, which could be used for a religious festival such as Diwali or Christmas, pupils' birthdays, or simply to say thank you or good luck.</p> | <p><i>This unit will enable the children to:</i></p> <ul style="list-style-type: none"> develop basic keyboard skills, through typing and formatting text develop basic mouse skills use the web to find and select images develop skills in storing and retrieving files develop skills in combining text and images discuss their work and think about whether it could be improved. | <ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. |

Alongside these units, children in Year 1 will be taught about online safety at an age appropriate level, and given many opportunities to develop what we call their core computing skills (for example, logging in, saving and retrieving work, creating different types of files, typing) that allow them to become competent and literate users of technology.