



Computing Subject knowledge, discipline and vocabulary
Year 2 Spring

Unit	Robot Algorithms	Pictograms
Previous Learning	• Make predictions about the outcome of commands. • Make comparisons between different movements. • Plan and program sequences. • Experiment with move and turn commands. • Use problem-solving to identify potential solutions.	• I can group objects into categories. • I can categories to group objects. • I can compare groups of objects. • I can record my findings.
Subject Knowledge (what)	Understanding computer programming. NC: – <i>Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions</i> – <i>Create and debug simple programs</i> – <i>Use logical reasoning to predict the behaviour of simple programs</i> – <i>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.</i> • Commands need to be precise, clear and unambiguous. • Commands must be given in a specific order (sequence). • The same commands can have different outcomes when used in a different sequence. • Design in programming also includes artwork and audio. • At times, programs need to be debugged. • Programmers need to plan what they want to achieve before starting programming.	Understanding how digital photographs are capture and manipulated. NC: - <i>use technology purposefully to create, organise, store, manipulate and retrieve digital content</i> - <i>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</i> • A pictogram is a chart or graph which uses pictures to represent data in a simple way. • People can be described by ‘attributes’. • Data can be presented in other types of charts, such as block diagrams. • A tally chart makes it easy to record data as it happens. • When tallying, objects can be counted quickly and easily at the end. • Pictograms can make the data memorable. • Pictograms can be harder to count quickly.
Subject Discipline (how)	• Choose words that can be enacted as a sequence. • Create different algorithms from given commands. • Make predictions about the outcome of commands. • Make comparisons between predictions and outcomes. • Plan and program sequences. • Create algorithms using sequences of commands. • Use problem-solving to identify potential solutions.	• Record and compare tally charts and pictograms. • Use computers to enter and manipulate data. • Use pictograms to answer questions. • Use tally charts to create pictograms. • Group objects/people using common attributes. • Use computer programs to represent data in different ways.

Key Vocab	• Decomposition- breaking a task into smaller chunks. • Sequence- the order commands are given. • Unambiguous- only having one meaning. • Algorithm- a set of rules followed by a computer. • Program- a detailed plan or procedure for solving a problem with a computer. • Order- the arrangement on a sequence. • Command- an instruction given to a computer. • Prediction- a statement about what might happen in the future. • Artwork- paintings, drawings or illustrations. • Design- a plan or drawing to show the function of objects. • Route- the course taken to get to a destination. • Debugging- fix a sequence.	• More than • Less than • Most • Least • Organise- arrange in an order. • Data- facts. • Total- sum of. • Tally chart- each occurrence is recorded with a tally (vertical stroke). • Pictogram- a chart or graph which uses pictures to represent data in a simple way. • Compare- note similarities and differences. • More common- it occurs more often • Least common- it occurs the smallest amount. • Attribute- a characteristic or feature of someone. • Group- a collection of objects with a common feature. • Conclusion- an opinion formed after considering all the details.
------------------	---	---