



| LTP Year 6:Computing          |                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                       |                                                                                                                                                                              |                                                                                                                                                                            |                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| Themes (Number of weeks/Term) | Autumn 1<br>Communication and collaboration                                                                                                                                                                                               | Autumn 2<br>Webpage creation                                                                                                                                                                                                                                          | Spring 1<br>Variables in games                                                                                                                                               | Spring 2<br>Introduction to spreadsheets                                                                                                                                   | Summer 1<br>3D modelling                                                                                                                                                                                                                                     | Summer 2<br>Sensing movement                                                                                                                                                                                                                                                                                                                                                                                           |
| NC Content/Coverage           | <b>Communication and collaboration</b> Exploring how data is transferred by working collaboratively online.                                                                                                                               | <b>Webpage creation</b> Designing and creating webpages, giving consideration to copyright, aesthetics and navigation.                                                                                                                                                | <b>Variables in games</b> Exploring variables when designing and coding a game.                                                                                              | <b>Introduction to spreadsheets</b> Answering questions by using spreadsheets to organise and calculate data.                                                              | <b>3D modelling</b> Planning, developing, and evaluation of 3D computer models of physical objects.                                                                                                                                                          | <b>Sensing movement</b> Designing and coding a project that captures inputs from physical devices.                                                                                                                                                                                                                                                                                                                     |
| Declarative knowledge         | <ul style="list-style-type: none"> <li>-I can explain the importance of internet addresses</li> <li>-I can recognise how data is transferred across the internet</li> <li>-I can recognise how we communicate using technology</li> </ul> | <ul style="list-style-type: none"> <li>-I can plan the features of a web page</li> <li>-I can consider the ownership and use of images (copyright)</li> <li>-I can recognise the need to preview pages</li> <li>-I can recognise the need to preview pages</li> </ul> | <ul style="list-style-type: none"> <li>-I can define a 'variable' as something that is changeable</li> <li>-I can choose how to improve a game by using variables</li> </ul> | <ul style="list-style-type: none"> <li>-I can choose suitable ways to present data</li> <li>-I can explain that formulas can be used to produce calculated data</li> </ul> | <ul style="list-style-type: none"> <li>-I can recognise that you can work in three dimensions on a computer</li> <li>-I can identify that digital 3D objects can be modified</li> <li>-I can recognise that objects can be combined in a 3D model</li> </ul> | <ul style="list-style-type: none"> <li>-I can create a program to run on a controllable device</li> <li>-I can update a variable with a user input</li> <li>-I can use a conditional statement to compare a variable to a value</li> <li>-I can design a project that uses inputs and outputs on a controllable device</li> <li>-I can develop a program to use inputs and outputs on a controllable device</li> </ul> |



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| Procedural knowledge | <ul style="list-style-type: none"> <li>-I can explain how sharing information online can help people to work together</li> <li>-I can evaluate different ways of working together online</li> <li>-I can evaluate different methods of online communication</li> </ul> | <ul style="list-style-type: none"> <li>-I can review an existing website and consider its structure</li> <li>-I can outline the need for a navigation path</li> </ul>                                             | <ul style="list-style-type: none"> <li>-I can explain why a variable is used in a program</li> <li>-I can design a project that builds on a given example</li> <li>-I can use my design to create a project</li> <li>-I can evaluate my project</li> </ul> | <ul style="list-style-type: none"> <li>-I can create a data set in a spreadsheet</li> <li>-I can build a data set in a spreadsheet</li> <li>-I can apply formulas to data</li> <li>-I can create a spreadsheet to plan an event</li> </ul> | <ul style="list-style-type: none"> <li>-I can create a 3D model for a given purpose</li> <li>-I can plan my own 3D model</li> <li>-I can create my own digital 3D model</li> </ul>                 | <ul style="list-style-type: none"> <li>-I can explain how selection directs the flow of a program</li> <li>-I can design a program that uses selection</li> <li>-I can create a program that uses selection</li> <li>-I can evaluate my program</li> </ul> |
| Key vocabulary       | <b>Communication and collaboration</b><br>protocol, data, address, Internet Protocol (IP), Domain Name Server (DNS), packet, header, data payload, slide deck, reuse,                                                                                                  | <b>Webpage Creation</b><br>Hypertext Markup Language (HTML), logo, layout,, media, purpose, copyright, fair use, , breadcrumb trail, navigation, hyperlink, subpage, evaluate, implication, external link, embed. | <b>Variables in Games</b><br>variable, change, name, value, set, design, event, algorithm, code, task, artwork,, project, code, test, share, assign, declare                                                                                               | <b>Introduction to Spreadsheets</b><br>collecting, cell reference, data item, format, formula, calculation, operation, range, sigma, data set, organised, sum, comparison, software.                                                       | <b>3D Modelling</b><br>TinkerCAD,, perspective,handle s, resize, lift, lower, recolour, group, cylinder, cube, cuboid, sphere, cone, prism, pyramid, placeholder, hollow, choose, combine, modify. | <b>Sensing Movement</b><br>Micro:bit, MakeCode, input, flashing, USB, trace, condition, variable, random, sensing, accelerometer, value, compass, direction, navigation, task, step counter, test,                                                         |