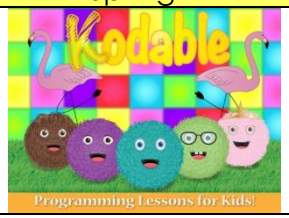
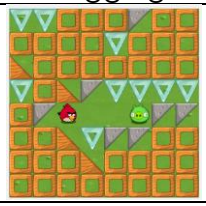
# Curriculum Overview: Computing

**Computing at Morningside**

*Ensuring every Morningside child is a confident and safe digital citizen*

Our computing curriculum aims to evolve at the same rate as the digital world around us and teaches children to be ready for and to embrace these changes. Updated annually, our children learn how to confidently use the internet and digital devices to enhance their learning, share with others and develop computational thinking skills. Units are either ***Computer Science*** or ***Information Technology*** based and each lesson incorporates digital citizenship to ensure children have the skills to remain safe online, both in and out of school. Digital learning is not exclusive to computing lessons; key skills children are taught so that children can apply these into their learning across the curriculum and beyond school.

| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|---|---|---|---|---|---|---|
| Year 1 | | |  | | | |
| | **Programmable Toys**<br>• Directional language<br>• Precise instructions<br>• Predicting behaviour<br>• Debugging | **We are Tourists**<br>• Photos<br>• Multi-media skills | **Kodables**<br>• Algorithms<br>• Conditionals<br>• Unplugged | **We are TV chefs**<br>• Filming – tablets<br>• Selecting and editing<br>Saving to the cloud | **Code Spark Academy**<br>• Pre reader<br>• Block coding<br>• Create story<br>• Create a game | **We are Historians**<br>• Safe searches<br>• Saving images<br>• Typing and voice recording<br>• Saving and retrieving |
| Year 2 |  | | | | | |
| | **Code.org**<br>• Word level algorithms<br>• Repeat<br>• Conditional | **We are Animators**<br>• Stop frame animation<br>• Adding text<br>• J2E (laptops) / LGFL | **Scratch Jr**<br>• Varying inputs<br>• Changing direction<br>• Making objects disappear | **We are E-Book Authors**<br>• Add photos and text<br>• Planning content<br>• Styling the page<br>• Adding sound<br>• Sharing and editing | **Tinkerbots**<br>• 'if' and 'repeat' statements<br>• Debugging<br>• Laptops/iPads | **We are Newsreaders**<br>• filming – **tablets**<br>• editing iMovie<br>• Sharing |

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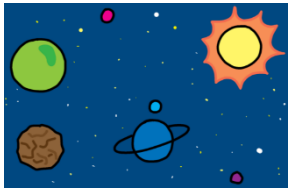
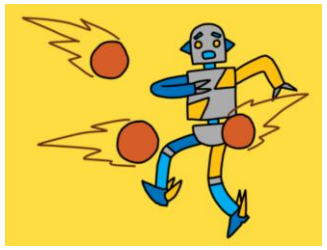
| Year 3 | | | | |  | |
| | **Code.org**<br>• Sequences<br>• Loops<br>• debugging | **We are Time Travellers**<br>• Research<br>• Filming<br>• Adding text<br>• Blogging | **Code.org**<br>• Conditional statements<br>• Creating stories<br>• debugging | **We are Presenters**<br>• Research<br>• Data collection and analysis<br>• Presenting | **Scratch**<br>• Change costume<br>• Loops<br>• Conditionals<br>• Variables<br>• Broadcast | **We are Publishers**<br>• Creating own art<br>• Adding images<br>• Creating text<br>• Adding links<br>• Publishing |
| Year 4 |  | | | | | |
| | **Scratch**<br>• Sound<br>• Lists<br>• Clones<br>• Variables<br>• Conditionals | **We are Producers**<br>• Film and photography<br>• Editing<br>• Digital footprint<br>• Publishing | **Scratch**<br>• Loop<br>• Create own blocks<br>• Broadcast messages<br>• Inputs<br>• Vectors | **We are Animators**<br>• Planning<br>• Modelling<br>• Animation<br>• Editing<br>• | **Sphero**<br>• Input device<br>• Loops<br>• De-bugging<br>• Outputs<br>• Variables | **We are Opinion Pollsters**<br>• Using database<br>• Representing data<br>• Excel skills<br>• Analysing results<br>• Publishing findings |

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Morningside Primary School and Children's Centre
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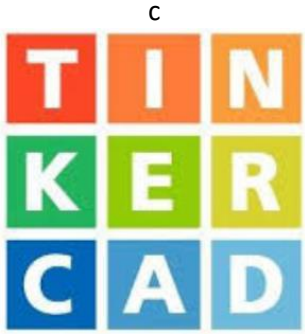
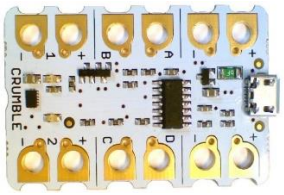
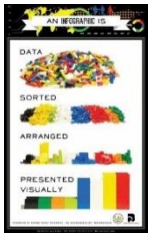
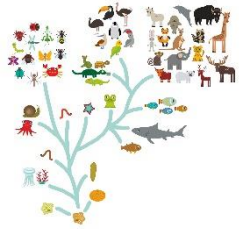
| Year 5 | | |  | |  | |
| | **Kodu**<br>• When/do commands<br>• Create landscape<br>• Deconstruct code<br>• Follow a track<br>• Create pathways | **We are Time travellers**<br>• Filming<br>• Types of shot<br>• Research<br>• Publishing | **CAD**<br>• Create, select and move 3D objects<br>• Resize<br>• Alter<br>• Rotate<br>• Reposition<br>• Designing | **We are Travel Agents**<br>• E-Book<br>• Publishing<br>• Multimedia<br>• Email | **Physical computing**<br>• Integrating an electronic switchboard into a DT model<br>• Programming using scratch | **We are Presenters**<br>• Collect data<br>• Create charts<br>• Use databases<br>• Excel skills (calculations and functions)<br>• Using spreadsheets |
| Year 6 | |  | |  | | |
| | **Physical computing, Networks and WWW**<br>• Inside a computer<br>• Building computers<br>• Naming parts of computer<br>• Servers | **We are Publishers**<br>• Research<br>• Choosing appropriate software for a purpose<br>• Publishing | **Search Engines and communication**<br>• Safe searching<br>• How results are selected and ordered<br>• Web crawlers<br>• IP addresses | **We are Animators**<br>• Camera angles and special effects<br>• Editing<br>• Publishing | **Web Page Creation**<br>• Web page layout<br>• Copyright<br>• Google sites<br>• Bread-crumbs<br>• Hyper-links | **We are Digital Authors**<br>• Typing skills<br>• Text boxes<br>• Illustrations<br>• Sound effects<br>• Copyright and google searches<br>• Digital illustrations |

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