

| KNOWLEDGE OVERVIEW GRID                                                                                     |                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                             |
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|                                                                                                             | Subject: Computing                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                             | Year Group: 1                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                             |
|                            | Autumn 1                                                                                                                                                                                                                                                                                                                                                    | Autumn 2                                                                                                                                                                                                                                                                                          | Spring 1                                                                                                                                                                                                                                                                                                                                                    | Spring 2                                                                                                                                                                                                                                                                                             | Summer 1                                                                                                                                                                                                                                                                                            | Summer 2                                                                                                                                                                                                                                                                                                                                                    |
|                                                                                                             | Hour of Code Block 1 Course A                                                                                                                                                                                                                                                                                                                               | Theory Technology Around Us                                                                                                                                                                                                                                                                       | Hour of Code Part 2 Course A                                                                                                                                                                                                                                                                                                                                | Microsoft Word                                                                                                                                                                                                                                                                                       | Digital Paint                                                                                                                                                                                                                                                                                       | Beebots.                                                                                                                                                                                                                                                                                                                                                    |
| <b>NC Objectives Covered</b><br><b>(Taken directly from the National Curriculum)</b>                        | <p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> | <p>Recognise common uses of information technology beyond school</p> <p>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</p> | <p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> | <p>Select, use and combine a variety of software to design and create a range of programs, systems and content.</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact..</p> | <p>Select, use and combine a variety of software to design and create a range of programs, systems and content.</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> | <p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> |
| <b>Digital Literacy Strand</b>                                                                              | Privacy and Security AUP<br>Password settings                                                                                                                                                                                                                                                                                                               | Online Relationships and Online bullying.                                                                                                                                                                                                                                                         | Health Well Being                                                                                                                                                                                                                                                                                                                                           | Self-Image and Identity                                                                                                                                                                                                                                                                              | Managing Online Information.<br><br>Copywrite                                                                                                                                                                                                                                                       | Online reputation                                                                                                                                                                                                                                                                                                                                           |
| <b>Previous Knowledge</b><br><b>-What have children learnt previously that will support this next step?</b> | No previous Hour of Code knowledge. Some experience with Algorithms using Beebots                                                                                                                                                                                                                                                                           | Some use of mouse in EYFS?                                                                                                                                                                                                                                                                        | Some Hour of Code Autumn 1.                                                                                                                                                                                                                                                                                                                                 | None in school.                                                                                                                                                                                                                                                                                      | New unit 2023-2024                                                                                                                                                                                                                                                                                  | Some use EYFS Summer 2.                                                                                                                                                                                                                                                                                                                                     |
| <b>Misconceptions</b><br><b>-What are the common misconceptions in knowledge for this unit?</b>             | <p>Sharing the work – driver navigator video worth showing – link below.</p> <p>Touching the screen instead of using keyboard.</p> <p>That computers can't read between lines – actually they just do what we ask of them.</p> <p>Not knowing what a password does.</p>                                                                                     | <p>Upper and lowercase letters and the impact these can have on logging in.</p> <p>Letters are not in alphabetical order. The letters are all capitals.</p> <p>Some of the keys have more than one thing on them</p>                                                                              | <p>Sharing the work – driver navigator. Touching the screen instead of using keyboard.</p> <p>That computers can read between lines – actually they just do what we ask of them</p> <p>Not understanding that all families have different rules and that it works best when there is a set of agreed family boundaries.</p>                                 | <p>Upper and lowercase letters and the impact these can have on logging in.</p> <p>Letters are not in alphabetical order. The letters are all capitals.</p> <p>Some of the keys have more than one thing on them</p>                                                                                 | New unit 2023-2024                                                                                                                                                                                                                                                                                  | That computers can read between lines – actually they just do what we ask of them.                                                                                                                                                                                                                                                                          |

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| <p><b>Learning Sequence</b></p> <p>-Detail the learning sequence using key questions in an ordered sequence.</p> <p>-The questions should have a sequential build up to answer the overall learning challenge.</p> <p><b>Red= Declarative knowledge ('knowing that')</b></p> <p><b>Blue= procedural knowledge ('knowing how')</b></p> | <p><b>1. Acceptable Use Policy Lesson.</b> Recap features of good programming – e.g good partner work (driver navigator), what good programming looks like, what to do if I'm stuck. <a href="#">Driver navigator video</a></p> <p>2. Can I learn how to drag and drop?</p> <p>3. Can I use Happy Maps - unplugged?</p> <p>4. Can I sequence with Scratch</p> <p>5. Can I programme with Scratch</p> <p>6.Can I programme with Rey?</p> <p>E Safety Warm Up content:</p> <p>Know that Passwords protect information, accounts, devices.</p> <p>Detailed examples of what personal information is.</p> <p>Why it is important to ask an adult before giving information</p> | <p>1. Can I learn about technology in our classroom?</p> <p>2 Can I understand how we use technology?</p> <p>3. Can I develop mouse skills</p> <p>4. Can I use a computer keyboard?</p> <p>5. Can I develop keyboard skills?</p> <p>6. Do I know how to use a computer responsibly?</p> <p>E Safety Warm Up content:</p> <p>I can describe how to behave online in ways that don't upset others.</p> <p>I can use internet with adult support.</p> <p>I can explain why it is important to be kind and considerate</p> <p>I can explain why somebody may find something funny that is not seen same way as others.</p> <p>I can given examples of why I should ask permission.</p> | <p>1Recap features of good programming – e.g good partner work (driver navigator), what good programming looks like, what to do if I'm stuck. <a href="#">Driver navigator video</a></p> <p>2. Can I use loops with Scratch?</p> <p>3. Can I do loops with Lauel?</p> <p>4. Can I make an ocean scene using loops?</p> <p>5. Can I learn about Event blocks (offline)?</p> <p>6. Can I create a mini project?</p> <p>E Safety Warm Up content:</p> <p>I can explain rules sot keep myself safe when using technology in and out of home.</p> | <p>1What is the purpose of word – how do computers help us with writing? Can I explore the keyboard?</p> <p>2. Can I add and remove text?</p> <p>3. Can I explore the toolbar?</p> <p>4. Can I make changes to the text?</p> <p>5. Can I explain my choices?</p> <p>6. Can I decide between pencil and keyboard?</p> <p>E Safety Warm Up content:</p> <p>I can recognise that there may be people online who could make someone feel sad, embarrassed or upset.</p> <p>If something makes me feel this way, I can give examples of when and how to speak to an adult I trust.</p> | <p>1. How can we paint using computers?</p> <p>2. Can I use shapes and lines?</p> <p>3. Can I make careful choices?</p> <p>4. Can I explain why I used a tool?</p> <p>5. Can I use my skills in an independent project?</p> <p>6. Can I compare computer art and painting?</p> <p>E Safety Warm Up content:</p> <p>I can explain why work I create using technology belongs to me.</p> <p>I can say why it belongs to me</p> <p>I can save my work under title so people know it belong to me.</p> <p>I understand work created by others doesn't belong to me even if I make a copy.</p> <p>I can give e.g.s of how to find information using digital technologies e.g search engines</p> <p>I know that we encounter a range of things online that we like and don't like and which are reach or make believe.</p> <p>I know how to get help from a trusted adult.</p> | <p>Can I understand buttons on Beebots?</p> <p>Can I understand how to change direct?</p> <p>Can I go forward and backwards?</p> <p>Can I use 4 directions?</p> <p>Can I get there?</p> <p>Can I create different routes?</p> <p>E Safety Warm Up content:</p> <p>I can recognise that information can stay online and could be copied.</p> <p>I can describe what information I should not put online without asking a trusted adult first.</p> |
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| <b>Curriculum End Points</b><br><br>-What will children know and be able to do by the end of the unit?<br>-What will the children produce to demonstrate this knowledge?                                                  |                                                                       | Course A Lessons 1-6 completed. Each lesson allows for completion of Hour of Code task to meet procedural knowledge.                                                                                                                                  | Children have an understanding of technology that we use in society and have developed their keyboard skills. | Course A Lessons 6- 12 completed. Each lesson allows for completion of Hour of Code task to meet procedural knowledge.                                                                                                                                                | Children create a poster using previously scaffolded content loaded onto pupil desktop.                                                            | Children complete piece of their own artwork using shapes/lines different brushes etc.                  | Children can control Beebot and create their own route and guide their Beebot to reach it.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Knowledge Sentences</b><br><br>-Using the end points, what are the key statements children need to remember by the end of the unit? (I know that...)<br><br>(To share with children when it is taught during the unit) |                                                                       | I know that the features of good programming include:<br>1) thinking about the most efficient way to achieve an outcome.<br><br>2) be able to test that your code works effectively.<br><br>To make my programme work I must:<br><br>1. Drag and drop | I know that a computer needs a screen, a keyboard and a mouse.                                                | I know that the features of good programming include:<br>1) thinking about the most efficient way to achieve an outcome.<br><br>2) be able to test that your code works effectively.<br><br>To make my programme work I must:<br><br>1. Drag and drop<br>2. Use loops | I know that Microsoft Word is a piece of software to create text documents.<br><br>I can use Microsoft word to:<br><br>1. Add and remove the text. | I know that we can use paint to make our own design or alter another image by drawing shapes and lines. | Algorithms are a set of rules to be followed in order.<br><br>Algorithms are used to control electronic devices such as an iPad.<br><br>Algorithms must follow a set of clear instructions.<br><br>To be safe online, I must:<br>1) Alert an adult if something worries me.<br>2) Always be with an adult when on a device.<br>3) Turn the off the device if something worries me.<br><br>I know that acceptable behaviour when using technology is:<br>1) Look after the device.<br>2) Listen to the adult who will help me.<br>3) Not to talk to strangers online.<br>4) Use respectful language. |
| <b>Key Vocabulary</b><br>(To share with children and add to working walls/knowledge mats)                                                                                                                                 |                                                                       | Event blocks<br>Block coding<br>Debug<br>Algorithm                                                                                                                                                                                                    | Mouse<br>Keyboard<br>Space bar etc.                                                                           | Event blocks<br>Block coding<br>Debug<br>Algorithm                                                                                                                                                                                                                    | Mouse<br>Keyboard<br><br>Space bar etc.<br><br>Text.<br><br>Delete/Backspace.                                                                      | Shapes, lines, brushes.                                                                                 | Forwards, backwards, routes, Algorithm, debug.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>What does this look like</b>                                                                                                                                                                                           | <b>Enrichment Activities</b><br>(trips, residentials, speakers, SMSC) | Digital Leader assembly                                                                                                                                                                                                                               | Digital Leader assembly                                                                                       | Change One Thing Competition<br><br>Digital Leader Parent Presentation ‘ Parenting in a digital world’.<br>(SharePoint/Annual Events)                                                                                                                                 | Digital Leader assembly                                                                                                                            | Digital Leader assembly                                                                                 | Digital Leader assembly                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                           | <b>Physical Resources</b><br>(artefacts)                              | <a href="#">Hour of Code Course A</a><br><br><a href="#">Digiduck</a>                                                                                                                                                                                 | <a href="#">1 Techonology Around Us</a>                                                                       | <a href="#">Hour of Code Course A</a><br><br><a href="#">Digiduck</a>                                                                                                                                                                                                 | <a href="#">Teach Computing Digital Writing</a>                                                                                                    | <a href="#">Microsoft Painting KS1</a><br><br><a href="#">Digiduck</a>                                  | <a href="#">KS1 Beebots</a><br><br><a href="#">Digiduck</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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|  |                                                                                        |    | <a href="#">Digiduck</a><br><br><a href="#">Teach Computing Files on Theory Unit</a> |                                   |    |                                                       |  |
|  | <b>Cross Curricular learning (Include opportunities for writing and quality texts)</b> | NA | NA                                                                                   | Change One Thing Competition Link | NA | Link to art - Kadinsky.                               |  |
|  | <b>Local Learning including outdoor learning</b>                                       | NA |                                                                                      |                                   |    |                                                       |  |
|  | <b>Opportunities for cultural Diversity</b>                                            | NA |                                                                                      |                                   |    | PowerPoint linked to history/science/geography topic. |  |