



# Scheme of Work

Year One IT and Computing

Three lessons every two weeks

**Homework:** This can and may be set but **not** each week.

The Autumn Term has the objective of levelling, securing and extending digital skills and knowledge (**digital literacy**) to be applied across all subjects. Throughout the year core computing, ICT and digital citizenship skills are covered and re-enforced in context.

Topic	Learning objective(s)	Term/Sequence	Notes and pupil assessment	Core IT and Computing Skills
<b>digital footprints</b>	<p>To create a digital piece(s) that educates and raises awareness on an aspect(s) of digital life (citizenship).</p> <p>To know about the aspects of digital citizenship - such as digital laws, digital commerce, safe passwords etc.</p> <p>To use a variety of core iPad apps on their own and in collaboration. To enable confident use across the curriculum</p>	Autumn. 1	<p>Tasks set on Google classroom.</p> <p><b>digital pieces uploaded to Classroom</b></p> <p>Unit graded on 1-7 scale with comment.</p> <p>Pupils can read each other work - good pieces published to website.</p> <p>Show pupils how to use the core apps listed in the right hand-side column</p>	<p><b>Core iPad apps:</b> book creator, explain everything, Nearpod, Padlet, comic life, Post-it Plus, iMovie, Skitch, quizzlet, popplet, Google Docs, Google Classroom, Google Drive, Gmail. Airserver to present (see iPad portal)</p> <p><b>Core Skills:</b> saving to Google Drive, Submitting to Google Classroom, using the iPad to collaborate iPad/web apps, firefly planner and using the apps to present work on aspects on digital citizenship.</p> <p>Understanding of digital citizenship elements - for</p>

	<b>IPad/Desktop use 8-9 Lessons - ½ term</b>			example Security on the web, e-mail etiquette.
<b>desktop Apps</b>	<p>To use and understand the features of a word processor, spreadsheet and image editing desktop applications.</p> <p>To enable confident use across the curriculum</p> <p><b>Desktop use 7 Lessons</b></p> <p>Other desktop apps are covered within subjects areas - see their SOW e.g. Photoshop in Art and CAD in DT</p>	Autumn. 1/2	<p>Task set on Google classroom.</p> <p><b>Digital pieces (a doc, spreadsheet and an image uploaded to Classroom</b></p> <p>Unit graded on 1-7 scale with comment.</p>	<p><b>Core skills:</b></p> <ul style="list-style-type: none"> <li>• Word processing - docs and word - features of them and functional skills.</li> <li>• Citation and referencing</li> <li>• Spreadsheet - modelling, handling data, creating charts</li> <li>• Image editing desktop applications - Adobe</li> <li>• Ethical/Social implications of image manipulation</li> </ul>
<b>BBC Microbit</b>	<p>To get hands on and code (block based and text) some projects.</p> <p>To enable class-sets (2) to be used by Maths/Design Tech/Art and Science subjects (STEAM), confident that pupils have some literacy in using them.</p> <p>To understand where microprocessors are used along with sensors, processing, and outputs required for given systems.</p>	Autumn. 2	<p>Task set on Google classroom.</p> <p>Digital evidence uploaded to Classroom by <b>screencast and/or screen grabs with comments.</b></p> <p>Unit graded on 1-7 scale with comment.</p> <p><b>Core skills:</b> control, programming, electronics, STEAM.</p>	<ul style="list-style-type: none"> <li>• Using Google Classroom and Drive along with Features of Google Docs to evidence.</li> </ul>

	<p>To develop general core IT and Computing skills</p> <p><b>Desktop and iPad use 10 lessons</b></p>			
<p><b>3D Design and Print</b></p>	<p>To use computer aided design, ultimately to 3D print a custom pencil top charm</p> <p>To reuse and re-purpose existing objects in the shard library.</p> <p><b>Desktop 3 Lessons</b></p>	<p>Spring 1</p>	<p>Pupils can use Tinker CAD ( web based) to create their model - export as .STL file for collection and printing - Via DT technician</p>	<p><b>Core Skills:</b></p> <ul style="list-style-type: none"> <li>• Using CAD software to work in 3D for printing</li> <li>• To understand value and potential for 3D printing in many areas - such as Healthcare, Construction and aerospace.</li> </ul>
<p>Starting <a href="#">Koding with Kodu</a></p>	<p>To Use Microsoft's Kudo Xbox game creation software to create a multi-player Xbox game</p> <p>To understand and apply coding that is event and object based.</p> <p>To integrate the BBC Microbit (knowledge and understanding from previous unit) in the designed and created game.</p> <p>To develop general core IT and Computing skills</p> <p><b>Desktop use 8 lessons</b></p>	<p>Spring 1</p>	<p>Task set on Google classroom.</p> <p>Digital evidence uploaded to Classroom by a <b>2-4 minute screencast recorded by the pupil.</b></p> <p>Unit graded on 1-7 scale with comment.</p> <p><b>Core skills:</b></p> <ul style="list-style-type: none"> <li>• Computational thinking</li> <li>• programming</li> </ul>	<p><b>Core skills:</b></p> <ul style="list-style-type: none"> <li>• Computational thinking</li> <li>• Applying programming using if then else approach</li> <li>• Evidencing design using iPad</li> <li>• Google Classroom and perhaps Docs use.</li> </ul>

<p><u>Computer Science unplugged</u></p>	<p>To develop computational thinking skills</p> <p>To explore computational concepts with a range of activities.</p> <p>To develop general core IT and Computing skills</p> <p><b>iPad use 7 lessons</b></p>	<p>Spring 2/ Summer 1</p>	<p>Task set on Google classroom.</p> <p>Digital evidence - <b>annotated pdf</b> uploaded to Classroom by the pupil. (iPad app - Notability)</p> <p>Unit graded on 1-7 scale with comment.</p> <p><a href="http://csunplugged.org/">http://csunplugged.org/</a>  <a href="http://www.cs4fn.org/">http://www.cs4fn.org/</a>  <a href="https://barefootcas.org.uk/">https://barefootcas.org.uk/</a></p>	<p><b>Core skills:</b></p> <ul style="list-style-type: none"> <li>• iPad apps - Notability, iMovie, pages</li> <li>• computational thinking skills</li> <li>• <b>Annotated pdf</b> uploaded to Classroom by the pupil. (iPad app - Notability used)</li> <li>• Google Classroom use</li> </ul>
<p><u>Web shop</u></p>	<p>To understand the difference between the web and the Internet.</p> <p>To identify and use some &lt;HTML&gt; Javascript tags and script</p> <p>To create a desktop and mobile presence for a new shop. This will require a variety of skills using a variety of applications.</p> <p><b>10 Lessons Desktop use</b></p>	<p>Summer 1/ Summer 2</p>	<p>Task set on Google classroom.</p> <p>Digital evidence uploaded to Classroom by a <b>2-4 minute screencast recorded by the pupil.</b></p> <p>Unit graded on 1-7 scale with comment.</p> <p>Use of Serif Webplus X8 - a core program and Adobe Fireworks/Photoshop</p>	<p><b>Core skills:</b></p> <ul style="list-style-type: none"> <li>• effective searching for information</li> <li>• Image editing/creation desktop app and/or web apps.</li> <li>• How the web works - key common vocabulary - bit rate, DNS etc. - (see website page)</li> <li>• What is HTML/HTTP and publishing pages - FTP client - server?</li> <li>• The nature of the WWW and the Internet.</li> <li>• Presenting information using a variety of tools - web/iPad and desktop</li> </ul>