### Digital Technologies – 5 and 6 _Collaboration_

<table>
<thead>
<tr>
<th>STRAND</th>
<th>Knowledge and understanding</th>
<th>Processes and production skills</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Digital Systems</td>
<td>Collecting, managing and analysing data</td>
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<td></td>
<td>Representation of data</td>
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<td>Content Description</td>
<td>Examine the main components of common digital systems and how they may connect together to form networks to transmit data (ACTDIK014)</td>
<td>Examine how whole numbers are used to represent all data in digital systems (ACTDIK015)</td>
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<table>
<thead>
<tr>
<th>Sequence of Lessons / Unit</th>
<th>Approx. time rq'd (hrs)</th>
<th>Year 5 or 6</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>CD</td>
<td>Achievement standard #</td>
</tr>
<tr>
<td>Digital citizenship</td>
<td>3</td>
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#### Years 3 and 4 Achievement Standard

**By the end of Year 4:**
- Students describe how a range of digital systems (hardware and software) and their peripheral devices can be used for different purposes.
- They explain how the same data sets can be represented in different ways. (2)
- Students define simple problems, design and implement digital solutions using algorithms that involve decision-making and user input. (3)
- They explain how the solutions meet their purposes. (4)
- They collect and manipulate different data when creating information and digital solutions. (5)
- They safely use and manage information systems for identified needs using agreed protocols and describe how information systems are used. (6)

#### Years 5 and 6 Achievement Standard

**By the end of Year 6:**
- Students explain the fundamentals of digital system components (hardware, software and networks) and how digital systems are connected to form networks. (1)
- They explain how digital systems use whole numbers as a basis for representing a variety of data types. (2)
- Students define problems in terms of data and functional requirements and design solutions by developing algorithms to address the problems. (3)
- They incorporate decision-making, repetition and user interface design into their designs and implement their digital solutions, including a visual program. (4)
- They explain how information systems and their solutions meet needs and consider sustainability. (5)
- Students manage the creation and communication of ideas and information in collaborative digital projects using validated data and agreed protocols. (6)

#### Years 7 and 8 Achievement Standard

**By the end of Year 8:**
- Students distinguish between different types of networks and defined purposes.
- They explain how text, image and audio data can be represented, secured and presented in digital systems. (2)
- Students plan and manage digital projects to create interactive information. (3)
- They define and decompose problems in terms of functional requirements and constraints. (4)
- Students design user experiences and algorithms incorporating branching and iterations, and test, modify and implement digital solutions. (5)
- They evaluate information systems and their solutions in terms of meeting needs, innovation and sustainability. (6)
- They analyse and evaluate data from a range of sources to model and create solutions. (7)
- They use appropriate protocols when communicating and collaborating online. (8)
Digital citizenship

Year Level 5                        TOPIC Collaboration

Digital citizenship is about positive and confident engagement with digital technology. A good digital citizen knows how to effectively use digital technologies to communicate with others, participate in society, and create and consume digital content in a safe and responsible manner. Digital citizens are aware that their behaviour online contributes to their own digital footprint. This includes engaging positively, respectfully and ethically when interacting online and making conscious choices and informed decisions about what information is shared, appropriate conduct and use of language. Digital citizens apply these protocols in situations such as interacting in a collaborative learning space, or creating a blog or website where their public profile is displayed.

### Flow of activities

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<tr>
<th>Questions to guide exploration</th>
<th>Short text</th>
<th>What’s this about?</th>
<th>The focus of the learning (in simple terms)</th>
<th>Supporting resources and tools purpose/context for use</th>
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</table>
| What makes a good digital citizen? | Online communication behaves appropriately online and agrees on a set of protocols. | Digital citizenship | Conduct an initial brainstorm of the question, “What makes a good digital citizen?” This can be used to assess students’ prior knowledge. Use an online collaboration tool such as Padlet, OneNote, BLACKc@rl or Poll Everywhere to share ideas in real time. Use an affinity map or concept map to sort ideas according to common themes. Broad categories could include: digital footprint; online safety; respectful online behaviour. Ask students to consider all the ways they connect with technology on a typical day and connect this back to being a good digital citizen. | Padlet
Padlet is an easy-to-use collaboration tool that enables students to share ideas in real time.

OneNote
Users’ notes (handwritten or typed), drawings, screen captures and audio-commentaries can be shared with other OneNote users over the network.

Digital Life 101
Gain a better understanding of students’ familiarity with digital media and vocabulary associated with digital life. Requires registration for free use of materials.

When I post something online; how permanent is it?
Investigate the permanency of online information and collaboratively develop a set of protocols around sharing information online.

Digital citizenship
Students learn to think critically about the user information that some websites request or require.

The Office of the Children’s eSafety Commissioner: Standalone lesson plans for primary classes

Google Docs
Collaborate on shared documents.

Seesaw
This portfolio platform can be used to share student work with parents and peers. It models a safe, closed online community.

Weebly
This is an easy-to-use tool for creating classroom websites. Videos, images and text can be added using the drag and drop website editor. Students can also collaborate with others via blogs with

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| Create a digital solution | A digital citizen | What makes a good digital citizen? | Online communication behaves appropriately online and agrees on a set of protocols. | Padlet
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<th>Digital Technologies – 5 and 6</th>
<th>iBrainstorm is a multi-device collaboration tool.</th>
<th>Online safety resources for primary schools, supported by lesson plans and multimedia resources.</th>
<th>Comment moderation features allowing open, moderated or closed discussions.</th>
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<td>Poll Everywhere</td>
<td>Poll Everywhere is a collaboration tool.</td>
<td>Digizen</td>
<td>Use this resource to discuss protocols.</td>
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<td><strong>Assessment</strong></td>
<td>Suggested approaches</td>
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<td>- Labelled diagram (affinity or concept map)</td>
<td>- Adapted worksheet covering understanding of what is safe to share online</td>
<td>- Artefact analysis</td>
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<td><strong>Achievement standard</strong> Manage the creation and communication of ideas and information in collaborative digital projects using validated data and agreed protocols.</td>
<td>- Ability to express the permanence of online information or charter of rules</td>
<td>- Students work collaboratively in an online space to design and create a short three-minute documentary to help younger students to be cyber safe</td>
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<td>- Artefact analysis</td>
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