

Levels 3 & 4 Overview of units

	Unit A	Unit B	Unit C	Unit D
Title / theme	Staying Safe Online	Images and Animation	Coding and Robotics	Data
Summary / intention	<p>Students complete the five lessons in the "Be Secure" Unit Plan.</p> <p>Students develop skills to "protect their personal information and prevent unsafe or unwanted contact."</p> <p>Students complete their personal online security plan</p>	<p>Students learn to use a variety of apps to create and save images and animations.</p> <p>Students create simple playdough animations; rolling a ball, building a tower and making a creature emerge from a blob of playdough. Students use a green screen app to add static backgrounds to their animations.</p>	<p>Students revise simple robotics concepts. They use the WeDo 2.0 Lego kits to make and program robots.</p> <p>Students take photos of their robots and make screenshots of their program. They use Google classroom to access their activities and submit their work.</p>	<p>Students experiment with different ways to collect and represent data using Google Docs and Sheets.</p> <p>They collect and analyse data to solve a specific environmental problem around the school. Investigations could include reducing water use (drink bottles vs drink taps) or reducing paper usage for class worksheets.</p>
Approximate number of hours	5	8	8	8
Assessment piece or pieces	Personal Online Security Plan and participation in class discussions.	Playdough creature animation with green screen background	Google Doc including a photo of robot and screenshot of program. Verbal description of program.	Google Slideshow showing data they collected and represented and the proposed solution to their problem.
Hardware and software tools used	<p>Google Slides</p> <p>Be Secure Unit Resources https://www.esafety.gov.au/educators/classroom-resources/be-secure</p>	<p>iPad Apps</p> <p>Camera and Photos</p> <p>iMotion Pro</p> <p>Green Screen by Dolink</p>	<p>Lego WeDo 2.0 Robotics Kits</p> <p>Lego WeDo 2.0 Chromebook App</p> <p>Google Classroom</p> <p>Google Docs</p>	<p>Google Classroom, Docs and Sheets.</p>
Curriculum Content Descriptions addressed:	<p>DIGITAL SYSTEMS</p> <p><input checked="" type="checkbox"/> VCDTDS019</p> <p>DATA AND INFORMATION</p> <p><input type="checkbox"/> VCDTDI020</p> <p><input type="checkbox"/> VCDTDI021</p> <p><input checked="" type="checkbox"/> VCDTDI022</p> <p>CREATING DIGITAL SOLUTIONS</p> <p><input type="checkbox"/> VCDTCD023</p> <p><input type="checkbox"/> VCDTCD024</p> <p><input checked="" type="checkbox"/> VCDTCD025</p>	<p>DIGITAL SYSTEMS</p> <p><input checked="" type="checkbox"/> VCDTDS019</p> <p>DATA AND INFORMATION</p> <p><input type="checkbox"/> VCDTDI020</p> <p><input type="checkbox"/> VCDTDI021</p> <p><input checked="" type="checkbox"/> VCDTDI022</p> <p>CREATING DIGITAL SOLUTIONS</p> <p><input type="checkbox"/> VCDTCD023</p> <p><input type="checkbox"/> VCDTCD024</p> <p><input checked="" type="checkbox"/> VCDTCD025</p>	<p>DIGITAL SYSTEMS</p> <p><input checked="" type="checkbox"/> VCDTDS019</p> <p>DATA AND INFORMATION</p> <p><input type="checkbox"/> VCDTDI020</p> <p><input type="checkbox"/> VCDTDI021</p> <p><input type="checkbox"/> VCDTDI022</p> <p>CREATING DIGITAL SOLUTIONS</p> <p><input checked="" type="checkbox"/> VCDTCD023</p> <p><input checked="" type="checkbox"/> VCDTCD024</p> <p><input checked="" type="checkbox"/> VCDTCD025</p>	<p>DIGITAL SYSTEMS</p> <p><input checked="" type="checkbox"/> VCDTDS019</p> <p>DATA AND INFORMATION</p> <p><input checked="" type="checkbox"/> VCDTDI020</p> <p><input checked="" type="checkbox"/> VCDTDI021</p> <p><input checked="" type="checkbox"/> VCDTDI022</p> <p>CREATING DIGITAL SOLUTIONS</p> <p><input type="checkbox"/> VCDTCD023</p> <p><input type="checkbox"/> VCDTCD024</p> <p><input checked="" type="checkbox"/> VCDTCD025</p>
<p>DIGITAL SYSTEMS</p> <p>VCDTDS019: Explore a range of digital systems with peripheral devices for different purposes, and transmit different types of data</p> <p>DATA AND INFORMATION</p> <p>VCDTDI020: Recognise different types of data and explore how the same data can be represented in different ways</p> <p>VCDTDI021: Collect, access and present different types of data using simple software to create information and solve problems</p> <p>VCDTDI022: Individually and with others, plan, create and communicate ideas and information safely, applying agreed ethical and social protocols</p> <p>CREATING DIGITAL SOLUTIONS</p> <p>VCDTCD023: Define simple problems, and describe and follow a sequence of steps and decisions involving branching and user input (algorithms) needed to solve them</p> <p>VCDTCD024: Develop simple solutions as visual programs</p> <p>VCDTCD025: Explain how student-developed solutions and existing information systems meet common personal, school or community needs</p>				

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