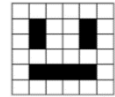


Levels 5 & 6 Overview of units

** marks spotlighted unit for the school

	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 selected activities from the CyberSmart Challenge to learn about “cyberbullying, protecting personal information, sharing images.”</p> <p>Students create a brochure showing other students how to remain safe online. Elements from these brochures are combined to make a final brochure to be distributed to all school families.</p>	<p>Students learn to use a variety of apps to create and save images and animations on the Chromebooks and iPads.</p> <p>Students storyboard and create Lego animations. They use animation and green screen apps to add backgrounds to their animations.</p>	<p>Students revise simple programming concepts and explore the use of sensors to control the behaviour of their robots. They use the WeDo 2.0 Lego kits to make and program robots to build a Moon base and sense a volcanic eruption. Students 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 Sheets.</p> <p>Students are introduced to the concept of Binary numbers and explore how they are used to store data in Digital Systems.</p>
Approximate number of hours	5	8	8	8
Assessment piece or pieces	Individual Online Safety Brochure	Lego Animation	Google Doc including a photo of robot and screenshot of program. Verbal description of program.	 Students created Binary code that can be used to create a picture in a grid.
Hardware and software tools used	Google Docs Cybersmart Challenge https://www.esafety.gov.au/educators/classroom-resources/cybersmart-challenge	iMotion Pro Green Screen by Dolnk Animation and Drawing by Dolnk	Lego WeDo 2.0 Robotics Kits Lego WeDo 2.0 Chromebook App Google Classroom, Google Docs	Google Sheets CS Unplugged Binary Numbers https://csunplugged.org/en/topics/binary-numbers/unit-plan/
Curriculum Content Descriptions addressed:	<p>DIGITAL SYSTEMS</p> <input type="checkbox"/> VCDTDS026	<p>DIGITAL SYSTEMS</p> <input type="checkbox"/> VCDTDS026	<p>DIGITAL SYSTEMS</p> <input type="checkbox"/> VCDTDS026	<p>DIGITAL SYSTEMS</p> <input type="checkbox"/> VCDTDS026
<p>DIGITAL SYSTEMS</p> <p>VCDTDS026: Examine the main components of common digital systems, and how such digital systems may connect together to form networks to transmit data</p> <p>DATA AND INFORMATION</p> <p>VCDTDI027: Examine how whole numbers are used as the basis for representing all types of data in digital systems</p> <p>VCDTDI028: Acquire, store and validate different types of data and use a range of software to interpret and visualise data to create information</p> <p>VCDTDI029: Plan, create and communicate ideas, information and online collaborative projects, applying agreed ethical, social and technical protocols</p> <p>CREATING DIGITAL SOLUTIONS</p> <p>VCDTCD030: Define problems in terms of data and functional requirements, drawing on previously solved problems to identify similarities</p> <p>VCDTCD031: Design a user interface for a digital system, generating and considering alternative design ideas</p> <p>VCDTCD032: Design, modify and follow simple algorithms represented diagrammatically and in English, involving sequences of steps, branching, and iteration</p> <p>VCDTCD033: Develop digital solutions as simple visual programs</p> <p>VCDTCD034: Explain how student-developed solutions and existing information systems meet current and future community and sustainability needs</p>	<p>DATA AND INFORMATION</p> <input type="checkbox"/> VCDTDS027 <input type="checkbox"/> VCDTDS028 <input checked="" type="checkbox"/> VCDTDS029	<p>DATA AND INFORMATION</p> <input type="checkbox"/> VCDTDS027 <input type="checkbox"/> VCDTDS028 <input checked="" type="checkbox"/> VCDTDS029	<p>DATA AND INFORMATION</p> <input type="checkbox"/> VCDTDS027 <input type="checkbox"/> VCDTDS028 <input checked="" type="checkbox"/> VCDTDS029	<p>DATA AND INFORMATION</p> <input checked="" type="checkbox"/> VCDTDS027 <input checked="" type="checkbox"/> VCDTDS028 <input type="checkbox"/> VCDTDS029
	<p>CREATING DIGITAL SOLUTIONS</p> <input type="checkbox"/> VCDTDS030 <input type="checkbox"/> VCDTDS031 <input type="checkbox"/> VCDTDS032 <input type="checkbox"/> VCDTDS033 <input checked="" type="checkbox"/> VCDTDS034	<p>CREATING DIGITAL SOLUTIONS</p> <input type="checkbox"/> VCDTDS030 <input type="checkbox"/> VCDTDS031 <input type="checkbox"/> VCDTDS032 <input type="checkbox"/> VCDTDS033 <input checked="" type="checkbox"/> VCDTDS034	<p>CREATING DIGITAL SOLUTIONS</p> <input checked="" type="checkbox"/> VCDTDS030 <input type="checkbox"/> VCDTDS031 <input checked="" type="checkbox"/> VCDTDS032 <input checked="" type="checkbox"/> VCDTDS033 <input checked="" type="checkbox"/> VCDTDS034	<p>CREATING DIGITAL SOLUTIONS</p> <input type="checkbox"/> VCDTDS030 <input type="checkbox"/> VCDTDS031 <input type="checkbox"/> VCDTDS032 <input type="checkbox"/> VCDTDS033 <input type="checkbox"/> VCDTDS034

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