Levels 5 & 6 Overview of units

** marks spotlighted unit for the school

	Unit A **	Unit B	Unit C	Unit D
Title / theme	Bloxels @ The Hive	Cardboard Challenge @ The Hive	Sphero SPRK+ @ The Hive	EV3 Mindstorms @ The Hive
Summary / intention	Video game creation via a series of challenges.	Inspired by Cain's Arcade, the Cardboard Challenge is a collaborative building project through which students design and create a cardboard arcade-style game.	A sequence of lessons for introducing Sphero leading up to a series of challenges: Battle Bots, Water Rescue and Chariot Races.	A sequence of lessons for introducing EV3 building up to a series of short space-related challenges.
Approximate number of hours	10-20	10-20	10-20	10-20
Assessment piece or pieces	Final game design (screen recording explanation) & portfolio.	Expo-style Arcade (final product)	Video journal	Video journal - evidence
Hardware and software tools used	Bloxels game (boxed set of tools) Bloxels website Bloxels app	Unplugged – teachers can follow an iTunes U course.	Sphero SPRK+ (class set) Sphero EDU app	EV3 Mindstorms

Curriculum Content Descriptions addressed:

DIGITAL SYSTEMS

VCDTDS026: Examine the main components of common digital systems, and how such digital systems may connect together to form networks to transmit data

DATA AND INFORMATION

VCDTDI027: Examine how whole numbers are used as the basis for representing all types of data in digital systems

VCDTDI028: Acquire, store and validate different types of data and use a range of software to interpret and visualise data to create information

VCDTDI029: Plan, create and communicate ideas, information and online collaborative projects, applying agreed ethical, social and technical protocols

CREATING DIGITAL SOLUTIONS

VCDTCD030: Define problems in terms of data and functional requirements, drawing on previously solved problems to identify similarities

VCDTCD031: Design a user interface for a digital system, generating and considering alternative design ideas

VCDTCD032: Design, modify and follow simple algorithms represented diagrammatically and in English, involving sequences of steps, branching, and iteration

VCDTCD033: Develop digital solutions as simple visual programs

VCDTCD034: Explain how student-developed solutions and existing information systems meet current and future community and sustainability needs

	Unit A **	Unit B	Unit C	Unit D
DIGITAL SYSTEMS	DIGITAL SYSTEMS	DIGITAL SYSTEMS	DIGITAL SYSTEMS	DIGITAL SYSTEMS
	☒ VCDTDS026	☐ VCDTDS026	☒ VCDTDS026	☐ VCDTDS026
DATA AND INFORMATION	DATA AND INFORMATION	DATA AND INFORMATION	DATA AND INFORMATION	DATA AND INFORMATION
	☐ VCDTDS027	☐ VCDTDS027	☒ VCDTDS027	☒ VCDTDS027
	☒ VCDTDS028	☐ VCDTDS028	☒ VCDTDS028	☐ VCDTDS028
	☒ VCDTDS029	☐ VCDTDS029	☒ VCDTDS029	☒ VCDTDS029
CREATING DIGITAL SOLUTIONS	CREATING DIGITAL SOLUTIONS	CREATING DIGITAL SOLUTIONS	CREATING DIGITAL SOLUTIONS	CREATING DIGITAL SOLUTIONS
	☒ VCDTDS030	☐ VCDTDS030	☒ VCDTDS030	☒ VCDTDS030
	☒ VCDTDS031	☐ VCDTDS031	☐ VCDTDS031	☐ VCDTDS031
	☒ VCDTDS032	☐ VCDTDS032	☒ VCDTDS032	☒ VCDTDS032
	☒ VCDTDS033	☐ VCDTDS033	☐ VCDTDS033	☐ VCDTDS033
	☒ VCDTDS034	☐ VCDTDS034	☒ VCDTDS034	☒ VCDTDS034