



# Australian Curriculum: Design and Technologies — Year 8

## *TES- Engineering principles and systems*

### **Band Plan-2021**

CURRICULUM	YEAR 8	
	SEMESTER 1-Repeat in SEMESTER 2	
	Term 1- Repeat in Term 3	Term 2- Repeat in Term 4
<b>Unit name</b>	Automotive design	Driverless cars
<b>Unit description</b>	In this unit, students will explain the contribution of design and technology innovations and enterprise to society through an investigation of the automotive industry. They will design and create a circuit board to be used in the following unit.	In this follow on unit, students will use their learning about the importance of technology in society (robotics technologies and the internet of things) as they design, build, test and evaluate their driverless car. They will also explain factors that influence the design of a driverless car using Micro:bits.

ASSESSMENT		YEAR 8	
		SEMESTER 1- Repeat in SEMESTER 2	
		Automotive design-AT1	Autonomous vehicle-AT2
<b>Range and balance of summative assessment conventions</b>	<b>Technique</b>	Exam	Project
	<b>Type of text</b>	Short response	Portfolio with 3D model
	<b>Mode</b>	Written	Physical
	<b>Conditions</b>	<ul style="list-style-type: none"> <li>Individual</li> <li>In-class exam conditions</li> </ul>	<ul style="list-style-type: none"> <li>In class and at home.</li> <li>Access to online resources.</li> <li>Some teacher and peer assistance.</li> <li>9 Weeks</li> </ul>

Aspects of the achievement standard		
explain factors that influence the design of products, services and environments to meet present and future needs		✓
explain the contribution of design and technology innovations and enterprise to society	✓	
explain how the features of technologies impact on designed solutions and influence design decisions for each of the prescribed technologies contexts		✓
create designed solutions for each of the prescribed technologies contexts based on an evaluation of needs or opportunities		✓
develop criteria for success, including sustainability considerations, and use these to judge the suitability of their ideas and designed solutions and processes		
create and adapt design ideas and make considered decisions		✓
communicate to different audiences using appropriate technical terms and a range of technologies and graphical representation techniques	✓	
apply project management skills to document and use project plans to manage production processes		✓
independently and safely produce effective designed solutions for the intended purpose		✓

Term 1
Term 2
Term 3
Term 4
✓

indicates opportunities that summative assessments provide for students to demonstrate evidence against aspects of the achievement standard