



Curriculum links

Robot Responders

Australian curriculum links v9

Year 5 and 6

Design and Technologies

Robot design challenge, drawing and labelling robots, explaining solutions.

AC9TDE6P01

Investigate needs or opportunities for designing, and the materials, components, tools, equipment and processes needed to create designed solutions.

AC9TDE6P02

Generate, iterate and communicate design ideas, decisions and processes using technical terms and graphical representation techniques, including using digital tools.

AC9TDE6P03

Select and use suitable materials, components, tools, equipment and techniques to safely make designed solutions.

Digital Technologies

Robot components (sensors, processing, movement), simple systems thinking.

AC9TDI6P01

Define problems with given or co-developed design criteria and by creating user stories.

Science

Understanding the problem, real-world robotics applications and solutions, community impact

Biological sciences

AC9S6U01

Investigate the physical conditions of a habitat and analyse how the growth and survival of living things is affected by changing physical conditions.

Science as a human endeavour

AC9S5H01 & AC9S6H01

Examine why advances in science are often the result of collaboration or build on the work of others.

AC9S5H02 & AC9S6H02

Investigate how scientific knowledge is used by individuals and communities to identify problems, consider responses and make decisions.

Science inquiry

AC9S5I02 & AC9S6I02

Plan and conduct repeatable investigations to answer questions, including, as appropriate, deciding the variables to be changed, measured and controlled in fair tests; describing potential risks; planning for the safe use of equipment and materials; and identifying required permissions to conduct investigations on Country/Place.

Year 7 and 8

Design and Technologies

Trade-offs, iteration, improving robot designs.

AC9TDE8P01

Analyse needs or opportunities for designing, and investigate and select materials, components, tools, equipment and processes to create designed solutions.

AC9TDE8P02

Generate, test, iterate and communicate design ideas, processes and solutions using technical terms and graphical representation techniques, including using digital tools.

AC9TDE8P03

Select, justify and use suitable materials, components, tools, equipment, skills and processes to safely make designed solutions.

AC9TDE8P04

Develop design criteria collaboratively including sustainability to evaluate design ideas, processes and solutions.

Digital Technologies

Robotics systems, logic, and game concepts.

AC9TDI8P04

Define and decompose real-world problems with design criteria and by creating user stories.

AC9TDI8P08

Generate, modify, communicate and evaluate alternative designs.

AC9TDI8P10

Evaluate existing and student solutions against the design criteria, user stories and possible future impact.

Science

Testing robots, evaluating designs, understanding impact.

Science as a human endeavour

AC9S8H01

Explain how new evidence or different perspectives can lead to changes in scientific knowledge.

AC9S7H03

Examine how proposed scientific responses to contemporary issues may impact on society and explore ethical, environmental, social and economic considerations.

Science inquiry

AC9S7I02 & AC9S8I02

Plan and conduct reproducible investigations to answer questions and test hypotheses, including

identifying variables and assumptions and, as appropriate, recognising and managing risks, considering ethical issues and recognising key considerations regarding heritage sites and artefacts on Country/Place.