

5/6 Robotics

Description

Learning in Design and Technologies builds on concepts, skills and processes developed in earlier years, and teachers will revisit, strengthen and extend these as needed.

Student Feedback and Assessment: Students engage with ideas beyond the familiar, exploring how design and technologies and the people working in a range of technologies contexts contribute to society. They seek to explore innovation and establish their own design capabilities. Students are given new opportunities for clarifying their thinking, creativity, analysis, problem-solving and decision-making.

Australian Curriculum Outcomes for the course are based on the following:

Responding:

- Students define problems in terms of data and functional requirements and design solutions by developing algorithms to address the problems.
- They explain how their solutions met the requirements of the challenges.

Making:

- Develop project plans that include consideration of resources when making designed solutions individually and collaboratively
- Negotiate criteria for success that include sustainability to evaluate design ideas, processes and solutions

| Outcomes | Content | Skills and Knowledge | Feedback/Assessment |
|-------------------|---|--|---|
| <i>Responding</i> | Students are given new opportunities for clarifying their thinking, creativity, analysis, problem-solving and decision-making. | <ul style="list-style-type: none">• Investigate how electrical energy can control movement, sound or light in a designed product or system• Identify the components of a service or system that contribute to its success and assessing potential risk or failure | <ul style="list-style-type: none">• Teacher check |
| <i>Making</i> | Students create designed solutions for each of the prescribed technologies contexts suitable for identified needs or opportunities. | <ul style="list-style-type: none">• Computer interface (PC)• File management• Trial and error | <ul style="list-style-type: none">• Teacher check• Student checklist |

Achievement Standards covered from Australian Curriculum:

By the end of Year 6, students will have had the opportunity to create designed solutions at least once in three technologies contexts: engineering principles and systems, food and fibre production and food specialisations; and materials and technologies specialisations. Students should have opportunities to experience designing and producing products, services and environments.

Students work individually and collaboratively to identify and sequence steps needed for a design task. They negotiate and develop plans to complete design tasks, and follow plans to complete design tasks safely, making adjustments to plans when necessary. Students identify, plan and maintain safety standards and practices when making designed solutions.