



Wind Turbine Investigation Activity (90min)



Toohey Forest
Environmental
Education
Centre

Overview

This student centred activity focuses on fair testing and variables, using the context of renewable energy generation and associated advantages and disadvantages. The wind turbine investigation enables to students to design, construct and test a model wind turbine.

Working in small groups of 3-4, students are supported through the activity with guided investigations that lead them to question problems, predict outcomes, collect data and draw conclusions.

The wind turbine investigation culminates in a group challenge to manipulate variables in order to generate the maximum amount of power.

The activity is able to be delivered onsite at your school. A risk assessment is available on request.

Note: This activity requires a large open work space with access to multiple power points



Curriculum Intent

Science

Year 6

- Electrical energy can be transferred and transformed in electrical circuits and can be generated from a range of sources (ACSSU097)
- Decide variables to be changed and measured in fair tests, and observe measure and record data with accuracy using digital technologies as appropriate (AC SIS104)
- Reflect on and suggest improvements to scientific investigations (AC SIS108)

Year 7

- Some of earth's resources are renewable, including water that cycles through the environment, but others are non-renewable. (ACSSU116)
- Measure and control variables, select equipment appropriate to the task and collect data with accuracy (AC SIS126)
- Use scientific knowledge and findings from investigations to evaluate claims (AC SIS132)

Year 8

- Energy appears in different forms including movement (kinetic), heat and potential energy, and energy transformations and transfers cause change within systems. (ACSSU155)
- Identify questions and problems that can be investigated scientifically and make predictions based on scientific knowledge (AC SIS139)