

Wind Turbine Investigation Activity (70 – 90min)



Toohey Forest
**Environmental
 Education
 Centre**

Overview

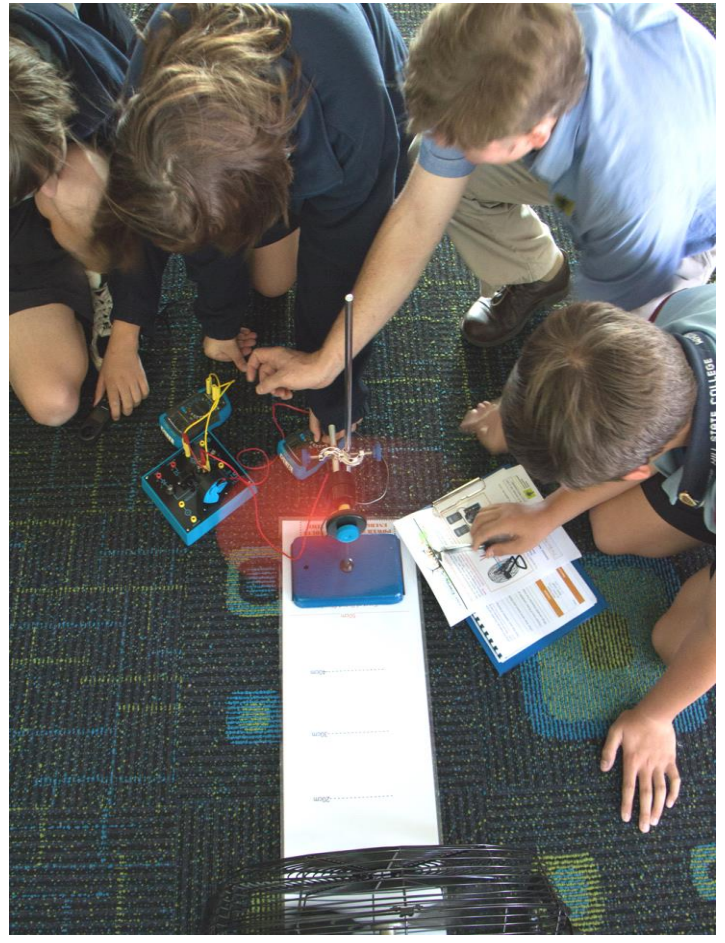
This student centred activity focuses on fair testing and variables, using the context of renewable energy generation and associated advantages and disadvantages. The Wind Turbine Investigation enables to students to design, construct and test a model wind turbine.

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

- Energy from a variety of sources can be used to generate electricity. (ACSSU219)
- With guidance, pose questions to clarify practical problems or inform a scientific investigation, and predict what the findings of an investigation might be (AC SIS232)

Year 7

- Some of earth's resources are renewable, but others are non-renewable. (ACSSU116)
- In fair tests, measure and control variables, and select equipment to collect data with accuracy appropriate to the task (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 causes change within systems. (ACSSU155)
- Identify questions and problems that can be investigated scientifically and make predictions based on scientific knowledge (AC SIS139)