



Toohey Forest
**Environmental
Education
Centre**

Learning Goals:

- **Recognise** different sources and forms of energy
- **Identify** the advantages and disadvantages of renewable and non-renewable resources
- **Evaluate** data to determine the energy efficiency of products
- **Contribute** collaboratively to groups during investigations
- **Plan and execute** an investigation in renewable energy

Inspiring Science Beyond the Classroom

Time	Activity
9.30 – 9.40 (10 mins)	Introduction to program and facilities
9.40 – 10.10 (30 mins)	Classroom Presentation / Activity <ul style="list-style-type: none"> • Carbon Footprint • Non-renewable and renewable resources
10.10 – 10.40 (30 mins)	First Break
10.40 – 11.50 (1 hour 10 mins)	Green Energy Lab and PowerMate (data loggers) <ul style="list-style-type: none"> • Forms of energy (heat, light, kinetic, electrical, potential energy) • Energy transformation and transfers • Energy efficiency
11.50 – 1.20 (1 hour 30 mins)	Wind Turbine Investigation Small group activity where students design and construct a wind turbine to generate the maximum amount of energy through manipulating variables.
1.20 – 1.45 (25 mins)	Second Break
1.45 – 2.25 (40 mins)	K'nex Vehicle Investigation K'nex to build and compare different vehicles which utilise different power sources.
2.25 – 2.30 (5 mins)	Farewell and Departure

Students will need:

- Covered footwear
- Sun safe clothing and hat
- Sunscreen and insect repellent already applied
- Water Bottle
- Morning Tea and Lunch
- Field booklet, Clipboard, Pencil

Litter Free Lunch

We encourage students and staff to pack a litter free lunch. A litter free lunch contains no throwaway packaging. Everything in it can either be re-used, composted or recycled. Therefore food is brought in re-usable containers rather than disposable plastic wrap. Drinks are brought in refillable plastic bottles. Pre-packaged foods are discouraged.

