



ALTERNATIVE ENERGIES

Course Overview



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As our society continues to use energy at an ever increasing rate we are being forced to think carefully about where we get our energy from and how we make the most effective use of it. Join us in learning about existing and possible future

In this unit of study, students will learn about existing energy sources and production as well as emerging and potential future alternative energy sources. Students will research solar power including investigating the operation of the PN Junction as well as investigating advancements in the production and efficiency of the solar cell. They will investigate how energy is transformed and stored, learning the chemistry and physics behind how batteries and fuel cells operate and learn about how electric motors work. Join us in exploring some of the big ideas in Alternative Energies.

Learning Focus

Students will explore a range of existing and developing alternative energy sources and how these relate to a push towards sustainable energy production.

By the end of this course students will have:

- Produced a report that investigates the limitations of a current energy production technology
- Made a working model of a motor or battery (or some other energy generating device)
- Modelled the operation of a PN Junction and how it relates to a solar cell

Homework

Students will be required to complete on average 1 hour of homework per week.

Assessment

For successful completion of this unit, students will be required to submit the following tasks:

- A investigative report on the limitations of a current energy production technology
- A stop motion video showing the operation of a PN Junction
- A working model of an energy generating device