Overview

Changing Climate: Years 11-12

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Changing Climate program is a whole day program exploring concepts and beliefs surrounding climate change. During the program students identify why climate change is occurring and consequences of these changes. Using climate maps students identify patterns that provide evidence of climate change.

Students make and test predictions of energy consumption of a variety of household appliances (e.g. heater, fan, hairdryer, laptop) using energy data loggers (PowerMates). Running costs and greenhouse gas emissions are also calculated to assist students to learn about their own energy consumption and individual contributions to climate change.

Working in groups students design and construct a three-dimensional ecologically sustainable house and lifestyle. Groups justify, evaluate and modify their choices in order to reduce their ecological footprint using an avatar in an online modelling program.

The program helps students develop an appreciation of the links between personal lifestyle choices and environmental impacts. This enables students to identify practical initiatives they can adopt at home or school to reduce their contribution to climate change.

Changing Climate has been assessed as medium risk. A Curriculum Activity Risk Assessment is available on request. A student field booklet will be provided upon confirmation of your booking.

Curriculum Intent

Geography - Resources and the Environment – Living with Climate Change
- The earth’s climate system has demonstrably changed with some of these changes attributable to human activities (KI.2)
- These changes can be mapped and observed through temperature and precipitation (KI.2)
- Human activities have increased atmospheric concentrations of greenhouse gases (KI.3)
- The projected rate and magnitude of climate change can be lessened by reducing greenhouse gas emissions (KI.11)

Science 21 – Earth and Space
- Global cycles and the atmosphere (ES.2)

Sustainability
- The biosphere is a dynamic system providing conditions that sustain life on Earth (OI.1)
- Designing action for sustainability requires an evaluation of past practices, the assessment of scientific and technological developments, and balanced judgments based on projected future economic, social and environmental impacts (OI.8)