Geography
Age 12-14

Measuring microclimates

- Energy
- Weather
- Climate change

Previous learning required

- Knowledge of taking a reading with a thermometer
- Familiarity with the difference between weather and climate

Learning outcomes

- To design and construct models to aid scientific enquiry
- To understand how to observe, measure, record, and present data

Equipment

- A thermometer to measure air temperature
- Pupil-made instruments to measure wind speed (an anemometer) and direction (a weather vane) – there are lots of free DIY tutorials available online
- Pencils, clipboards, graph paper
- Camera or other way to record findings

Activity

1. Involve pupils in identifying which areas of the school grounds have a fluctuating temperature and wind level. Choose several locations that are likely to provide contrast in the data collected.
2. Assign a group of pupils to measure the climate features at each location, giving each group time to create measuring devices following the instructions in your chosen tutorial.
3. Ask pupils to record the air temperature, wind speed, and wind direction at each location at specified times throughout the day and present the results in a table.

Check for understanding

- Encourage the pupils to analyse and interpret their findings. Questions to consider might include:
  - Do the results vary from location to location? Why? How wide are the variations?
  - Do the results vary throughout the day? Why?
  - How might these variations impact how the school grounds are used for learning and play (e.g. as a place to sit and socialise)?
  - What about the effects on plant growth in the school grounds?

Learning through Landscapes

If you would like to develop your outdoor learning knowledge and skills, take a look at our range of training courses: **ltl.org.uk/outdoor-learning-training**