

Module 3: Weather

Module 3 explores the science of weather and climate. This module draws on a range of different scientific fields including physics, earth science, geography, chemistry and biology.

The Module 3 Risk Assessment highlights potential risks and their management strategies. Please read the Risk Assessment document before commencing any of the sessions.

Feedback forms have been provided for students, parents/guardians and coordinators to complete at the end of each session. Feedback assists with continued improvement of your club experience and the resources.

Module 3.1: Weather Forecasting

This session explores the difference between weather and climate and the science behind weather forecasting. Students learn about our atmosphere, cloud formation and precipitation through theory and experimentation. Students explore key weather features observed by meteorologists and learn about measurement devices for air pressure, rainfall and wind direction / speed. In this session's challenge students build weather station elements to take home, and start a weather diary.

Module 3.2: Temperature

At the start of this session, students discuss their weather diaries and how their weather station elements performed. This session then explores temperature, and how it affects humans, the physical world and chemical reactions. Students build an understanding of scientific variables. Students delve into the history of temperature measurements and learn about the Galilean Thermometer. This session concludes with the challenge of building a working Galilean thermometer.

Module 3.3: Wild Weather and Natural Disasters

This session investigates some of the wild weather and natural disasters that impact Australia and around the world. Students learn about cyclones, thunderstorms, lightning, earthquakes and tsunamis, and designing structures to withstand these global occurrences. Experiments explore the shape and movement of tornadoes and cyclones, and investigate the generation and use of static electricity. In this session's challenge students design, construct and test a flood and wind proof structure.

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