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LESSON 4
WIND

CONTENT DESCRIPTIONS

Science Understanding

Earth and space sciences

Earth's resources, including water, are used in a variety of ways (ACSSU032)

Science as a Human Endeavour

Nature and development of science

Science involves asking questions about, and describing changes in, objects and events (ACSHE034)

Use and influence of science

People use science in their daily lives, including when caring for their environment and living things (ACSHE035)

Science Inquiry Skills

Questioning and predicting

Respond to and pose questions, and make predictions about familiar objects and events (ACSIS037)

Planning and conducting

Participate in different types of guided investigations to explore and answer questions, such as manipulating materials, testing ideas, and accessing information sources (ACSIS038)

Use informal measurements in the collection and recording of observations, with the assistance of digital technologies as appropriate (ACSIS039)

Processing and analysing data and information

Use a range of methods to sort information, including drawings and provided tables (ACSIS040)

Through discussion, compare observations with predictions (ACSIS214)

Evaluating

Compare observations with those of others (ACSIS041)

Communicating

Represent and communicate observations and ideas in a variety of ways such as oral and written language, drawing and role play (ACSIS042)

RESOURCES

Datalogger with temperature sensor
Instruction sheet for pinwheel (see page 19)
Scissors
Pins
Digital camera
Excel
Thick square card (to be folded)
Straws or icy pole sticks
Stimulus pictures of windsocks, weathervanes and anemometers

RESOURCES FOR EXTENSION

Internet

SKILLS

Interpreting data
Recording
Creating
Brainstorming
Analysing
Problem-solving

ACTIVITIES

- As a class, brainstorm a list of words related to wind: "air", "breeze", "strong", "gale force".
- Explain in simple terms that the wind is caused by different weather conditions, such as temperature and air pressure. Make explicit that the hot air rises and, when this air cools, it falls. The movement of rising and falling causes wind.
- Use a datalogger with a temperature sensor to record the temperature in the room. Record the temperature near the ceiling and close to the floor. Show the students the temperature variation, thus illustrating that hot air rises.
- Tell the students that they are going to make a pinwheel, a device to measure the wind.
- Divide students into pairs, ask them to collect all of the materials and follow the instructions on the task card on page 19.
- After the students have made their pinwheels, discuss how they think they will work. Take the students outside and test their pinwheels.
- At the same time each day for a week or longer, record the wind speed.
- Put the wind-speed data into a spreadsheet and graph the results. (An extension activity would be including the daily temperature in the spreadsheet.) Compare and analyse the results.
- Ask the students: "How do we know the direction of the wind?"
- Discuss windsocks, weathervanes and anemometers. Show stimulus pictures of these.
- Ask the students to generate their own list of questions about wind. Record these and answer them throughout the lessons.

EXTENSION

Ask the students to research a little information on windsocks, weathervanes and/or anemometers using the internet.

ASSESSMENT

Take a digital image of each student working and file this electronically or add to their electronic portfolio.

LANGUAGE

Introduce and explain the following terms:

weather	graph	pinwheel
weathervane	graphing	strong
windsock	probe	air
anemometer	sensor	breeze
thermometer	analyse	gale force
data	interpret	
datalogger	compare	

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LESSON 9
COMPARING MATERIALS 2

CONTENT DESCRIPTIONS

Science Understanding
Chemical sciences
Different materials can be combined, including by mixing, for a particular purpose (ACSSU031)

Science as a Human Endeavour
Nature and development of science
Science involves asking questions about and describing changes in, objects and events (ACSHE034)

Use and influence of science
People use science in their daily lives, including when caring for their environment and living things (ACSHE035)

Science Inquiry Skills
Questioning and predicting
Respond to and pose questions and make predictions about familiar objects and events (ACSIS037)

Planning and conducting
Participate in different types of guided investigations to explore and answer questions, such as manipulating materials, testing ideas and accessing information sources (ACSIS038)

Use informal measurements in the collection and recording of observations, with the assistance of digital technologies as appropriate (ACSIS039)

Processing and analysing data and information
Use a range of methods to sort information, including drawings and provided tables (ACSIS040)

Through discussion, compare observations with predictions (ACSIS214)

Evaluating
Compare observations with those of others (ACSIS041)

Communicating
Represent and communicate observations and ideas in a variety of ways such as oral and written language, drawing and role play (ACSIS042)

RESOURCES

A variety of sealed packaging with sticker labels, e.g:
Plastic bottles
Biscuit packets
Glass bottles
A television box
Large bowls (for soaking labels off objects)
Hot water
Envelopes with stamps
Foil
Wood
Icy pole sticks

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