Science and technology – learning sequence

## Resource considerations

This lesson sequence allows for continuity of student learning and could be adapted to fit in with your existing teaching and learning program. Students will be supported to meet outcomes from a Key Learning Area. Each task has a duration of 30 minutes and could be used in conjunction with your [framework, designed using the K-6 template](https://education.nsw.gov.au/teaching-and-learning/curriculum/learning-from-home/teaching-and-learning-resources/k-6-resources). This lesson sequence uses a balance of synchronous and asynchronous learning strategies. The tasks provide options for students with and without technology. They can be used with any online platform. Suggestions about how your school will plan students’ learning from home and ways to communicate with students can be found through the [Learning at home, school planning page.](https://education.nsw.gov.au/teaching-and-learning/curriculum/learning-from-home/school-planning) Assessment strategies are included to ensure evidence of learning is monitored and collected.

## Early Stage 1 learning sequence

### Strand: Earth and space

**Outcomes**

**STe-1WS-S** – observes, questions and collects data to communicate ideas

**STe-6ES-S** – identifies how daily and seasonal changes in the environment affect humans and other living things

**Learning sequence overview** – students explore daily changes in the weather. They make observations and predictions about the weather and record their observations in a weather chart. Students identify how the weather affects choices they make in their daily life.

**Key concepts** – daily changes in the sky

**Key language** – weather, sunny, cloudy, rainy, windy, stormy, warm, hot, cool, cold, change

**Key inquiry question** – How do daily changes in the weather affect me?

### Aim of lesson sequence

Students observe and record the weather each day and identify how changes in the weather can affect their daily choices.

### Teacher notes

* There are two 30 minute lessons in this learning sequence.
* Students need to be familiar with the key vocabulary for this topic. If students are unfamiliar with simple weather terms a list could be provided, such as weather, sunny, cloudy, rainy, windy, stormy, warm, hot, cool, cold, change.
* Students create their own chart and weather symbols for the week.

Activities

**Weather watching**

**Digital:**

* Pose the question in the online classroom: What is the weather like today? Suggest students look out a window, or if possible, go outside and observe the weather. Have them describe the weather, what it looks like and feels like. Encourage students to use key language in their description (weather, sunny, cloudy, rainy, windy, stormy, warm, hot, cool, cold, change). Record students' comments on a digital platform.
* View [How to draw different kinds of weather](https://www.youtube.com/watch?v=HloTVOBecJ0)
* Discuss the weather each day for a week. To record their daily weather observations, students create their own weather chart or use the printable [weather chart.](https://alittlepinchofperfect.com/free-printable-weather-char/)
* View [make a weather wheel](https://www.youtube.com/watch?v=ZdQJGBluA-8)
* Students create and draw their own weather symbols each day or cut and paste symbols into the student workbook.
* Record a prediction for the weather tomorrow. Student draws symbols to represent the prediction.
* Write a sentence. For example, I think the weather tomorrow will be [sunny/cloudy] and [warm/cool]. Tomorrow, they will compare their prediction with the actual weather and determine the accuracy of their prediction.
* View [How to read the weather](https://www.youtube.com/watch?v=GkE3F5AuWBQ) to demonstrate the use of symbols and the idea of predicting (forecasting).
* View [How’s the weather today?](https://www.youtube.com/watch?v=rD6FRDd9Hew)

**Weather watching**

Non-digital:

* In workbook, student draws different symbols for the weather e.g. sunny, cloudy, rainy and cold.
* Look out a window, or if possible, go outside and observe the weather.
* In workbook student draws the weather each day. Student writes what it looks like and feels like e.g (sunny, cloudy, rainy, windy, stormy, warm, hot, cool, cold, change).
* In workbook student writes a prediction for the weather tomorrow. For example, I think the weather tomorrow will be [sunny/cloudy] and [warm/cool].
* Student draws symbols to represent the prediction.
* Students reading the words and make up their own tune.

 *How’s the weather today?*

*How’s the weather? How's the weather? How's the weather today?*

*Is it sunny? Is it rainy? Is it cloudy? Is it snowing? How’s the weather today?*

*Let’s look outside. How’s the weather? Is it sunny today?*

*Let’s look outside. How’s the weather? Is it rainy today?*

*Let’s look outside. How’s the weather? Is it cloudy today?*

*Let’s look outside. How’s the weather? Is it snowing today?*

*How’s the weather? How's the weather? How's the weather today?*

*Is it sunny? Is it rainy? Is it cloudy? Is it snowing? How’s the weather today?*

**2. Effect of the weather on daily choices**

**Digital:**

* Pose question in the online classroom. How does the weather affect what you wear?
* Describe the clothes you wear if it is hot and sunny weather. Describe the clothes you wear if it is cold and rainy weather. Describe the clothes you wear if it is windy weather? Record students' comments on a digital platform.
* In workbook, student draws their favourite clothes they like to wear in either sunny, rainy, cloudy or cold weather.
* View [I don’t know what to wear today](https://www.youtube.com/watch?v=nkpnRvCLRRA)
* Pose question in the online classroom. How does the weather affect what you do?
* View [how to keep cool in hot weather](https://education.abc.net.au/home#!/media/86064/keeping-cool-in-hot-weather)
* Describe two activities you can do if it is sunny weather. Describe two activities you can do if it is rainy weather. Record students' comments on a digital platform.
* View [make a rain gauge](https://education.abc.net.au/home#!/media/30213/making-a-rain-gauge)
* Student makes a rain gauge
* Pose question in the online classroom. How does the weather affect what you eat?
* Describe the food you like to eat when the weather is hot. Describe the food you like to eat when the weather is cold. Record students' comments on a digital platform.
* View [What will the weather be like today?](https://www.youtube.com/watch?v=BgvbpxTX0rM)

**Non-digital:**

* How does the weather affect what you wear?

In the workbook student draw the clothes they would wear if it is hot and sunny weather. Write a sentence about the drawing. Student draws the clothes they would wear if it is cold and rainy weather. Write a sentence about the drawing. Student draws the clothes you would wear if it is windy weather. Write a sentence about the drawing.

* How does the weather affect what you do?

In workbook student draws two activities you can do if it is sunny weather. Write a sentence about the drawing. Student draws two activities you can do if it is rainy weather. Write a sentence about the drawing.

* Student makes a rain gauge

Equipment

A clear tall container, blocks the same size, marker and funnel.

Method

Use blocks the same size to mark lines on the container that are the same distance apart.

Place a funnel into the container.

Put it outside.

Check the rain gauge at the same time every day. You can see just how much rainfalls where you live.

* How does the weather affect what you eat?
	1. In workbook student draws two foods they like to eat when the weather is hot. Write a sentence about the drawing. Student draws two foods they like to eat when the weather is cold. Write a sentence about the drawing.

### Differentiation

* Differentiation is a targeted process recognising that individuals learn at different rates and in different ways. Differentiation refers to deliberate adjustments to meet the specific learning needs of all students.
* Here are some questions that you might consider when adapting the learning sequence to meet the needs of your students:
* What adjustments might you put in place for students who require additional support to access the task? For example, how will they get help when needed?
* Do you need to adjust the content to ensure it is adequately challenging and allows students to operate at their own level of thinking, skill and knowledge?
* Will you adapt the instructions so they are provided in a way that EAL/D students can easily interpret them? For example, through the use of visuals, checklists, diagrams or flow charts.
* Could you suggest ways that home language can be used as a tool to support learning? For example, bilingual dictionaries.
* Can you demonstrate that you value the Identity, culture, heritage and language of your Aboriginal students through your teaching practices?

### Assessment

Science and Technology K-6 Syllabus outcomes

**STe-1WS-S** – observes, questions and collects data to communicate ideas

**STe-6ES-S** – identifies how daily and seasonal changes in the environment affect humans and other living things

Working scientifically skills syllabus content:

Students: respond to questions about familiar events, make observations using senses and record observations using drawings, simple digital recording methods, oral descriptions and/or simple visual representations

In this learning sequence the weather chart created by students will demonstrate that students are able to make observations using their senses and record their observations using symbols (drawings and visual representations). When students discuss the daily weather with their parents/carers and make and record their weather predictions they are responding to questions about familiar events using oral descriptions to do so. If students digitally record and upload their conversations with parents/carers, teachers will have evidence of the detail used in their oral descriptions, using simple digital recording methods.

Earth and space syllabus content

Students: identify daily changes that occur in our environment and explore how living things respond to regular changes in their environment

In answering questions about the daily weather and how it changes, teachers will have evidence of a student’s ability to identify daily changes in their environment. In answering questions about how the weather affects the daily choices students make, teachers will have evidence of student understanding of how daily changes in the environment affect humans.

### Activity resources

* [How to draw different kinds of weather](https://www.youtube.com/watch?v=HloTVOBecJ0)
* [Weather chart](https://www.youtube.com/watch?v=FH8MovLeIdk)
* [make a weather wheel](https://www.youtube.com/watch?v=ZdQJGBluA-8)
	+ [How to read the weather](https://www.youtube.com/watch?v=GkE3F5AuWBQ)
	+ [How’s the weather today?](https://www.youtube.com/watch?v=rD6FRDd9Hew)
	+ [I don’t know what to wear today](https://www.youtube.com/watch?v=nkpnRvCLRRA)
* Student workbook
* Parent advice