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 Lesson 1 • Playing outside

**Lesson 1**

**(Y5)**

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| To read the most recent version of this lesson, download associated resources, and view embedded professional learning including classroom videos and work samples, visit: [https://resolve.edu.au/teaching-sequences/year-5/statistics-time-to-play/lesson-1-playing-outside](https://resolve.edu.au/teaching-sequences/year-5/statistics-time-to-play/lesson-1-playing-outside?utm_source=docx&utm_medium=lesson_1&utm_campaign=time_play) |

# Lesson overview

Students decide which weather elements influence the best time to play outside and make a plan to collect data on these elements.

## Learning goals

When investigating what is “best”, we first need to define what best means. This informs the data that we need to collect.

## Resources

**Whole class**

* **Time to play PowerPoint**

**Each group**

* Access to computers

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| Lesson phase | Estimated time | Lesson type |
| **Problem | Playing outside** | 20 minutes | Whole class |
| **Plan | Making plans** | 30 minutes | Whole class |

# Teach this lesson

## Problem | Playing outside

Take the students for a walk or play outside as a way to prepare for a whole class discussion. Return to the classroom for the class discussion.

**Discuss:**

* *Was it a good time of day to play outside just now? Why, or why not?*
	+ Students should justify their answers as to why it was or was not a good time to play outside.
* *What is the “best time” of the day to play outside?*
	+ Discuss that “best time” means there are times that will be better than others to play outside. Allow students to share and discuss some of their initial thinking on the “best time”. It is likely that students will start to use different variables to justify their comments (e.g. temperature, time of day).
* *When we are deciding the best time to play outside, what factors impact our decision?*
	+ Some of these variables that impact the “best time” will be based on opinion, such as times when I can play with my friends, or times when it is raining because I love to play in the rain. Other variables will be based on factual information such as when the temperature is lower in the middle of summer. Make a list on the board of the different factors to be considered (variables) that students come up with. You might have students distinguish between those that are fact and those that are opinion.

Explain that the class will specifically collect factual data on weather factors to determine the best time to play outside during school hours. The weather elements that the class investigates will be dependent on your geographical location and context. For example, humidity will be a significant factor for some areas of Australia, while temperature may be more significant for other areas.

Brainstorm weather factors that might impact the best time to play outside. Some might include:

* Temperature
* Rainfall
* Humidity
* Wind speed
* UV Index

Discuss as a class the most relevant factors given your geographical location and context. Decide on two or three factors to investigate to determine the best time to play outside.

We use secondary data through this sequence. Some secondary data is more readily available that other data. You might limit what options students can investigate based on the ease of access to the required data.

### What secondary data is available for my location?

We use historical data accessed from the Bureau of Meteorology website through this sequence. The Bureau of Meteorology has ready access to historical data on the following elements for all locations across Australia:

* Temperature
	+ half-hourly actual temperature and “feels like” temperature for the most recent 5 days.
	+ maximum and minimum daily temperatures and monthly average temperatures across the years.
* Rainfall
	+ half-hourly rainfall measurements for the most recent 5 days.
	+ average daily or monthly rainfall temperatures across the years.
* Humidity: half-hourly humidity measurements for the most recent 5 days.
* Wind speed and wind gusts: half-hourly wind speed and wind gusts measurements for the most recent 5 days.
* UV Index: average annual, monthly and seasonal values of the UV Index.

You can request access to further data from the Bureau of Meteorology website (fees and charges may apply).

Historical data on UV Index can be accessed for a limited number of major Australian cities from [Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)](https://www.arpansa.gov.au/our-services/monitoring/ultraviolet-radiation-monitoring/ultraviolet-radiation-index).

## Plan | Making plans

**Ask:** *What might be the best time to play outside today while we are at school?*

This is the investigation question for the following two lessons. The question asks for the “*best time to play outside* ***today****...*”*.* As you progress through the investigation, keep referring back to the best time to play outside on the day that you complete this particular lesson (Lesson 1).

Explain to the students that they will investigate the nominated weather element for the time of the year in their location. Discuss the sort of data that needs to be collected and how it can be collected. While some data can be collected using measuring tools that are more readily available (e.g. a thermometer to measure temperature), other factors require tools that are less accessible (e.g. a UV meter to measure the UV index). Explain that data will be collected online, in other words, students will be using **secondary data**.

Discuss with the students how this data can be accessed easily on the internet from many different websites, however not all of these websites provide reliable data. Establish that we need to access our data from a reputable source, and identify the Bureau of Meteorology website.

Divide the students into groups of 3-4 students and explain that each group will investigate just one of the weather elements that the class has chosen to investigate. Allocate a factor to each group or allow students to choose which one they will investigate.

Show the students how to access weather data from the Bureau of Meteorology website for your school’s location.

### Accessing historical data on the Bureau of Meteorology website

The Bureau holds a vast archive of weather observations, analyses and statistics.

A section of the Bureau of Meteorology website is designed for teachers and students: <https://reg.bom.gov.au/climate/data-services/education.shtml>

On this page you will find a section called **“Weather planning”**. Under the sub-heading **“Within 24”**,select **“Current conditions”.**

This takes you to a new page: <https://reg.bom.gov.au/places/>. Here you can search for the closest weather station to your school and access nearly 20 years of climate data.

From this page you can search for the weather data for your specific location.

Allow students time to explore the Bureau’s website and the information that is available.

After students have had time to explore the website, convene a class discussion. Remind students that they are investigating the question *What might be the best time to play outside today during school hours?*. Show students slide 5 of **Time to play PowerPoint**. Discuss the questions that are posed, come to consensus on a plan for data collection, and record the decisions made by the class onto the slide for later reference.

* **What information do we need to collect to answer the question?**
	+ The information that we need to collect is the data on the weather elements. Emphasise that this information is “data”; this may not be immediately obvious to students.
	+ To answer the question *What might be the best time to play outside today while we are at school?* students will need to collect data over the course of the school day.
* **How will we collect our data?**
	+ The data will be collected from the Bureau of Meteorology website.
* **How will we record our data?**
	+ We suggest using a spreadsheet program like Microsoft Excel. Microsoft Excel is a useful tool for recording data, and it is easy to change between data representations, which will be important when students come to represent their collected data.
	+ There are many online tutorials on how to use Microsoft Excel if you or the students are unfamiliar with how to use the program to represent data.

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 Lesson 2 • Weather data

**Lesson 2**

**(Y5)**

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# Lesson overview

Students access secondary data on weather for their local area and determine the best way to represent this data.

## Learning goals

The data collected informs the form of representation used.

## Resources

**Whole class**

* **Time to Play PowerPoint**

**Each group**

* Access to computers or tablets

In this lesson, we use the Bureau of Meteorology website and Microsoft Excel to collect our data. We have included instructions on how to use the Bureau’s website and how to import data into Microsoft Excel. You may choose to use different tools, such as the [ARPANSA](https://www.arpansa.gov.au/our-services/monitoring/ultraviolet-radiation-monitoring/ultraviolet-radiation-index) website to access historical data on the UV Index, or CODAP (a free, online data analysis tool designed for students).

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| Lesson phase | Estimated time | Lesson type |
| **Data | Collecting data** | 25 minutes | Whole class/Small group |
| **Data | Representing data** | 25 minutes | Small group |

# Teach this lesson

## Data | Collecting data

**Revise:** *We started this investigation on* [the day that you completed Lesson 1, referred to for the rest of the lesson as "Monday"]*.* *We are investigating what was the best time to play outside on* [Monday] *while we were at school.*

Show students slide 4 of **Time to play PowerPoint**. Review the decisions made by the class on what data is needed, how this data will be collected, and how the data will be recorded. Remind students that they need to collect data for the day that the class completed Lesson 1 in this sequence, not the current day.

Show students how to access the data that they need on the Bureau of Meteorology website, and how this data can be imported into Excel. If you are using Excel, you can show students the short tutorial videos on slides 8 and 9 of **Time to play PowerPoint**, which explain how to access weather data on the Bureau’s website and how to import this data into Excel.

### Accessing historical data on the Bureau of Meteorology website

The Bureau holds a vast archive of weather observations, analyses and statistics.

A section of the Bureau of Meteorology website is designed for teachers and students: <https://reg.bom.gov.au/climate/data-services/education.shtml>

On this page you will find a section called **“Weather planning”**. Under the sub-heading **“Within 24”**,select **“Current conditions”.** This takes you to a new page: <https://reg.bom.gov.au/places/>. Here you can search for the closest weather station to your school and access nearly 20 years of climate data.

From this page you can search for the weather data for your specific location.

### Importing data from a website into Excel

This video explains how to import data from a website into Excel: <https://youtu.be/euyj5zim1uQ>.

### Accessing tables and graphs on weather elements on the Bureau of Meteorology website

This short video shows you how to access graphs on the [Bureau of Meteorology website](https://reg.bom.gov.au/climate/data/index.shtml): <https://youtu.be/vl0FRydxNHU>.

## Data | Representing data

**Revise:** *We are investigating what was the best time to play on* [Monday]*. We have our data, and we need to represent it in a way that clearly tells the story of the data.*

Explain to the students that they need to decide the best way to represent their data to tell the story of the weather for [Monday]. Encourage students to look at the following two items to inform their decisions:

* A pop-up box displays when you hover over the different graphing buttons in Excel. The pop-up gives details of the representation and why you might choose to use that particular graph.
* Look at the different representations used by the Bureau of Meteorology on their website. Much of their information is represented in tables, with some temperature data represented as a line graph and rainfall represented as a column graph.

Ask the groups to organise and represent their data in a way that makes it easy to read and analyse. It is important that the data representation indicates how the weather element changed over the course of the day. In Excel, it is easy to change between data representations. You can encourage students to look at different representations to decide on which is most appropriate.

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 Lesson 3 • Analysing weather data

**Lesson 3**

**(Y5)**

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| To read the most recent version of this lesson, download associated resources, and view embedded professional learning including classroom videos and work samples, visit: [https://resolve.edu.au/teaching-sequences/year-5/statistics-time-to-play/lesson-3-analysing-weather-data](https://resolve.edu.au/teaching-sequences/year-5/statistics-time-to-play/lesson-3-analysing-weather-data?utm_source=docx&utm_medium=lesson_3&utm_campaign=time_play) |

# Lesson overview

Students analyse their weather data to determine the best time to play outside.

## Learning goals

Data provides evidence to inform our decisions.

## Resources

**Whole class**

* **Time to play PowerPoint**

**Each group**

* Access to computers or tablets

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| Lesson phase | Estimated time | Lesson type |
| **Analyse | When is the best time?** | 25 minutes | Small group |
| **Analyse | Displaying data** | 20 minutes | Small group |
| **Conclusion | The day has been and gone!** | 5 minutes | Whole class |

# Teach this lesson

## Analyse | When is the best time?

Explain that each group needs to use their data to answer the question: *We collected weather data for* [the day that you completed Lesson 1, referred to for the rest of the lesson as "Monday"]*.* *Based on this data, when was the best time to play outside on* [Monday]*?*

Allow time for the groups to discuss the question and come to consensus on a group answer. Ensure students are providing evidence from the data to inform their answers.

Some points to discuss with students as they work:

* *How can we express the “best time”?*
	+ Providing an exact time, such as 10:30am, suggests that students should play for just 1 minute. Instead, providing a range, such as 10:00-11:30, allows a much longer time to play.
* *What if the data does not point to a better time during the day?*
	+ Some groups may find that their data does not point to a best time. For example, if students investigated rainfall on a day that did not rain, then the “best time” would be all day.

Each group should create a display, such as a short PowerPoint presentation or a poster in Word. Explain that their displays should include:

* the data collected and represented by the group.
* the answer to the question along with evidence from their data to support their answer.

You could ask students to print their displays so you can create a display of all the data in the classroom.

## Analyse | Displaying data

Ask each group to share their answer to the question: *We collected weather data for* [Monday]. *Based on our data, when is the best time to play outside?*. Students should provide evidence from their data to support their answer. Record the students’ answers to the question on the board as a list.

**Explain:** *Each group has determined the best time to play outside based on just one weather element. We have recorded these results on the board as times. Now, we need to answer the question using the data collected by each group.*

**Ask:** *How could we organise this data to work out the best time to play outside?*

Allow students to offer suggestions. Use one or two student ideas to arrange the data and discuss how these strategies help to analyse the data. One helpful way of arranging the data is illustrated below.

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**Discuss:** *What time was the best time to play outside?* Allow students to share their answers. Make sure they give evidence from the data to support their answer.

## Conclusion | The day has been and gone!

The purpose of this discussion is to establish that the collected data answers the question for a day that has already passed, and that we have missed the opportunity to play outside at the best time on that particular day. Collecting data over many days allows for patterns to be observed and more informed predictions to be made about the best time to play outside on future days.

**Discuss:** *We have the data to answer the question about the best time to play outside on* [Monday]*. That day has been and gone! Do we have enough evidence to predict tomorrow? Or next week? What about next term?*

Establish the need for data over a much longer period of time to make more informed predictions about the best time to play outside on any given day.

**Explain:** *We have a new question for investigation, “What is the best time of day to play outside for each month of the year?”.*

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 Lesson 4 • Yearly data

**Lesson 4**

**(Y5)**

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# Lesson overview

Students access historical weather data from reliable secondary sources and use this data to inform their decisions about the future.

## Learning goals

We can use historical data from reliable secondary sources to inform our decisions about the future.

## Resources

**Whole class**

* **Time to play PowerPoint**

**Each group**

* Computer access

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| Lesson phase | Estimated time | Lesson type |
| **Problem | The past four days** | 15 minutes | Whole class |
| **Plan | Years of data** | 10 minutes | Whole class |
| **Data | Historical data** | 25 minutes | Whole class/Small group |

# Teach this lesson

## Problem | The past four days

**Revise:** *We are now answering the question: What is the best time of day to play outside for each month of the year?*

Explain to students that they will start by looking back at the historical data for the past four days to see what general comments they can make about the temperature across a day, particularly when is the warmest and coolest times during the day. Access the weather data for the past four days for your location.

### Accessing historical weather data

The Bureau holds a vast archive of weather observations, analyses and statistics.

A section of the Bureau of Meteorology website is designed for teachers and students: <https://reg.bom.gov.au/climate/data-services/education.shtml>

On this page you will find a section called **“Weather planning”**. Under the sub-heading **“Within 24”**,select **“Current conditions”**. This takes you to a new page: <https://reg.bom.gov.au/places/>. Here you can search for the closest weather station to your school and access nearly 20 years of climate data.

Conduct a class discussion.

**Discuss:**

* *What general comments can you make about the temperature across the day for our location?*
	+ It is important that students see that the hottest part of the day is usually mid-afternoon to late afternoon or early evening. Students may have other general comments to share.
* *How can we use this information to help answer the question, “When is the best time to play outside for any given month of the year?”*
	+ The answer to this question will be dependent on location. For many places the best time to play outside in the colder months will be in warmest part of the day, but this time should be avoided in the hotter months.

## Plan | Years of data

Explain to students that to help make decisions about the different months of the year, they can look at weather data from the Bureau of Meteorology website. This data provides maximum and minimum daily temperatures and average monthly and yearly temperatures. It is not possible to access the hourly data for past years.

### Historical data available on the Bureau of Meteorology website

The Bureau of Meteorology has ready access to historical data on the following elements for all locations across Australia:

* Temperature:
	+ Daily temperatures – maximum and minimum daily temperatures
	+ Monthly temperatures – average maximum and minimum; highest and lowest temperature; highest lowest temperature in a month average and the highest lowest temperature in a month
	+ Average maximum temperatures over many years
* Rainfall: Average daily or monthly rainfall temperatures going back many years
* UV Index: average annual, monthly and seasonal values of the UV Index

Historical data on UV Index can also be accessed for a limited number of major Australian cities from [Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)](https://www.arpansa.gov.au/our-services/monitoring/ultraviolet-radiation-monitoring/ultraviolet-radiation-index).

You cannot access long range historical data on humidity and wind speed/gusts. You can request access to further data from the Bureau of Meteorology website (fees and charges may apply).

In this part of the sequence, we just use the temperature data to determine the best time to play outside.

### Different methods used to calculate average temperatures

The Bureau of Meteorology provides average daily, monthly and yearly temperatures. Different methods are used to calculate these averages.

**Average annual temperatures:** Average annual temperatures (maximum, minimum or mean) are calculated by adding daily temperature values each year, dividing by the number of days in that year to get an average for that particular year. The average values for each year in a specified period (1991 to 2020) are added together and the final value is calculated by dividing by the number of years in the period (30 years in this case).

**Average monthly temperatures:** Average monthly and seasonal temperatures are calculated by adding monthly and seasonal temperature averages (from daily data) and dividing by the number of years in the specified period.

**Average daily temperatures:** Mean temperatures are calculated by adding the daily maximum temperature and the daily minimum temperature and dividing by two.”

**Discuss:** *What does average temperature mean?*

* Students may be familiar with the term “average temperature” even though the concept of average is not introduced in the curriculum until the secondary years. The average temperature can be thought of as the central or typical temperature.

**Explain:** *We are now answering the question––“What is the best time of day to play outside for each month of the year?”. We will use what we have learnt so far about our location and historical weather data from previous years from the Bureau of Meteorology to make predictions on the best time to play outside for each month of the year.*

Show students slide 14 of **Time to play PowerPoint**. Explain that the class needs a plan for data collection. This slide presents the discussion questions listed below. Discuss and answer each question with the students. The first question has already been answered as part of this discussion. Record the decisions made by the class onto the slide for reference.

**Discuss:**

* *What information do we need to collect to answer the question?*
	+ Students will access monthly average maximum and minimum temperatures
* *What time period should the data cover?*
	+ Allow students to offer their suggestions. For each of their suggestions, ask students to consider how that data will help make more informed predictions about the best time to play outside.
	+ Establish with the students that they will need multiple years of monthly maximum and minimum temperatures. The Bureau provides easy access to average temperatures calculated over around 35 years.
* *How will we record our data?*
	+ The data that the students will access from the Bureau’s website is represented using tables and graphs. For this part of the investigation the students will just use the graphs. These graphs are available to be used under a Creative Commons licence which means that students can copy them for their own use.

## Data | Historical data

Ask students to return to their small groups. Allocate each group a category of data to collect—either daily or monthly maximum and minimum temperatures.

Show students slide 15 of **Time to play PowerPoint**. This slide provides a short video tutorial on how to access historical weather data for a given location from the Bureau of Meteorology’s website. The Bureau represents this data as tables and graphs. Remind students that they will be collecting the graphs.

### Accessing historical data on the Bureau of Meteorology website

The Bureau holds a vast archive of weather observations, analyses and statistics.

This short video shows how to access historical weather data from weather stations across the country: <https://youtu.be/vl0FRydxNHU>.

A section of the Bureau of Meteorology website is designed for teachers and students: <https://reg.bom.gov.au/climate/data-services/education.shtml>

On this page you will find a section called **Past weather, measuring instruments, data and statistics**. In this section and under the sub-heading **Types of Data**, select **Historical Weather Station Data** and then **Climate Data Online**: <https://reg.bom.gov.au/climate/cdo/about/map-search-guide.shtml>

Here you can search for the closest weather station to your school and access nearly 20 years of climate data.

The Bureau of Meteorology also provide a tutorial showing how to use the climate data online map tool - <https://reg.bom.gov.au/climate/cdo/about/map-search-guide.shtml>.

Provide the students time to explore the Bureau’s website and to access the graphs that they need. Remind students of the class data plan which is outlined on slide 14 as needed.

Ask the students to make a display of the graphs that they have collected.

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 Lesson 5 • The shape of our data

**Lesson 5**

**(Y5)**

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# Lesson overview

Students analyse the historical weather data that they have collected and decide the best time to play outside for the different months of the year.

## Learning goals

Data is used to inform our answers to questions.

## Resources

**Whole class**

* **Time to Play PowerPoint** with the temperature graph for your local area inserted on slide 19

**Each group**

* Computer access

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| Lesson phase | Estimated time | Lesson type |
| **Analyse | Using data to make predictions** | 30 minutes | Whole class |
| **Conclusion | Our data story** | 20 minutes | Whole class |

# Teach this lesson

## Analyse | Using data to make predictions

**Explain:** *Data tells us a story. The data that you have gathered tells your group a story that will help you predict an answer to our question: What is the best time of day to play outside for each month of the year?.*

Revise with students when they determined was the hottest part of the day. They will need to use this information and the data that they have collected to predict when the best time is to play outside for different months of the year.

Show students slide 18 of **Time to play PowerPoint.** This slide provides the following prompts and questions to guide students’ analysis of their data:

* Describe the shape of your data. How does the shape of your data help inform your predictions?
* Look at the range of the data, that is the warmest and coolest temperatures. How does the range of the data help inform your predictions?
* Is there data that seems surprising or different from the rest of the data? How might these observation impact your prediction/s?

Have each group analyse their data to determine the story that their data is telling. Ask the students to make a display which includes their data and their predictions for the best time to play outside for different months of the year.

## Conclusion | Our data story

Gather students together for a class discussion. Show students slide 19 of **Time to play PowerPoint.** This slide currently has a graph showing the average monthly temperatures for Canberra. Replace this with the graph from your local area.

### Accessing historical data for your local area

This short video show how to access historical weather data from weather stations across the country: <https://youtu.be/vl0FRydxNHU>.

Ask the students to share what they noticed about the data and the predictions that they made for the best time to play outside for the different months across the year.

Come to consensus as a class about the best time to play outside in the different months of the year. Explain to students that this is the story that the data is telling us. You might use the class conclusions to write a short narrative about the data and the best time to play outside.

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 Lesson 6 • The best time across Australia

**Lesson 6**

**(Y5)**

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# Lesson overview

Students compare the shape of data in weather graphs from diverse geographical locations across Australia.

## Learning goals

Analysing the shape of the data helps us see the story that the data is telling.

## Resources

**Whole class**

* **Time to play PowerPoint**

**Each group**

* Computer access

**Each student**

* **The best time across Australia Student sheet** with the temperature graph for your local area inserted in the space provided

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| Lesson phase | Estimated time | Lesson type |
| **Analyse | What about other places?** | 5 minutes | Whole class |
| **Analyse | Comparing different places** | 20 minutes | Small group/Individual |
| **Analyse | Class discussion** | 15 minutes | Small group/Individual |
| **Conclusion | Time to play** | 10 minutes | Whole class |

# Teach this lesson

## Analyse | What about other places?

**Revise:** *The question investigated was: What is the best time of day to play outside for each month of the year?. We have used historical data to predict the best times to play outside for our local area.*

Revise the different times for the different months of the year.

**Ask:** *Would our predicted times for the different months of the year be the same for all places in Australia?*

Allow students to share some of their initial thinking on the question. Ask them what evidence they have for their comments. Their evidence may be based on personal experience or knowledge of different geographic locations in Australia.

Establish the need for data to provide evidence for whether the best time to play outside would be the same or different for other parts of Australia.

## Analyse | Comparing different places

Provide students with **The best time across Australia Student sheet**. This sheet provides five different graphs for locations around Australia. In the space provided, add the temperature graph for your local area to this sheet, so students can make comparisons.

Provide students time to compare the graphs and make predictions about whether the best time to play outside would be the same or different to the students’ local area.

## Analyse | Class discussion

Gather students together for a class discussion.

**Discuss:**

* *How is the shape of the data similar across the graphs? What do these similarities tell us?*
	+ Each graph is curved with the lowest point of the curve in the middle (around July). The shape reflects the Australian seasons, and for each of these Australian locations we can say that they experience warmer weather during the summer months and cooler weather during the winter months.
* *How is the shape of the data different across the graphs? What do these differences tell us?*
	+ The curve is different in each graph. The curve is more pronounced in some graphs (e.g. Canberra) compared to other graphs (e.g. Cairns). This shows that the temperature range in Canberra is typically greater than in Cairns. It is important to note that the scales for the y-axis are different across the graphs.
	+ Students may make some observations such as the temperature range tends to be smaller for coastal areas compared to inland areas.
* *How does the shape of the different graphs inform our predictions for the best time each month to play outside in the different locations?*
	+ There will be some similarities in the best time to play, for example the best time is likely earlier in the day in summer compared to winter. As the range of temperatures is greater, the best time may be slightly different for each location.
* *What might the shape of the graph look like for a location in the Northern Hemisphere? What does the shape of the curve tell us about the best time to play outside in these locations?*
	+ The curve will be opposite—the highest point of the curve will be in the middle as summer is in the middle of the year for countries in the Northern Hemisphere.
	+ This means that the best time to play outside are likely to be different compared to Australia.

## Conclusion | Time to play

Allow the students time to play outside at the time they have predicted to be “best” for the local area and for that time of year. If the “best” time has already passed, provide time the following day to play.

**Discuss:**

* *We predicted that this would be the “best” time to play. Does that mean that on any day this month, it would be the best time?*
	+ There can be considerable variation across a month, for example, just because 11 a.m. is predicted to be the best time of the day to play in March, doesn't mean 11 a.m. every day on March is always going to be sunny and rain-free.
* *We played outside at [time]. How does this compare to the normal time we go outside to play?*
	+ The routine of a school day doesn't account for the "best" time to play outside. While it might not be possible to change break times, there might be other factors that the class could consider, such as when we do sport or PE, or why students must wear hats when playing outside.

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