

Welcome!

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Glossary

- **Cardinal Directions:** the four main compass directions which are north, south, east, and west
- **Engineers:** people that design and build products, machines or structures
- **Geological fault:** a crack in the Earth's crust
- **Hydroelectric power:** power generated from moving water
- **Hexagon:** a polygon shape with 6 sides and 6 angles
- **Mantle:** very deep, gushy rock below the Earth's crust
- **Meteorologist:** a weather forecaster
- **Plate tectonics:** Earth's crust is made up of giant plates that are always moving
- **Tsunami:** a series of waves often caused by an earthquake or volcano
- **Vortex:** spinning flow of fluid or gas



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THE ADVENTURES OF Spriggy & Twiggy

Spriggy and Twiggy are Sprowteez. They live with their Sprowtee friends on Sprowt Island. They are clever, funny and kind little scientists and always very curious...

It was January 5 and Spriggy and Twiggy were on an airplane flying from Sprowt Island to New York City, NY.



As the Sprowteez walked off the plane, freezing cold air hit them in the face and the Sprowteez gasped!



Bundled up in their new winter clothes, the Sprowteez had wonderful adventures exploring New York. They saw the Statue of Liberty, Times Square, the Empire State Building, and Central Park.



What an amazing city! Who knew ice skating would be so much fun.

It sure is an exciting city, but it's way too cold to play soccer.

After a wonderful week of adventures, the Sprowteez got back on the airplane.



Good bye New York!
Hello Sydney, Australia!

At least we will have all the right clothes for winter. I didn't realize it got so cold.

After a long flight, the Sprowteez walked off the plane in Sydney.



Oh my goodness!
What's going on?
It's so hot!

G'day mates! You're going to be pretty hot if you wear all those clothes here. It's the middle of summer and it is 89 degrees Fahrenheit. That's a nice temperature to put on a bathing suit and check out our awesome beaches.

Beaches! Summer? I don't understand. How can it be summer in Sydney when it is winter in New York?

It's fun in the sun, our adventure has begun!

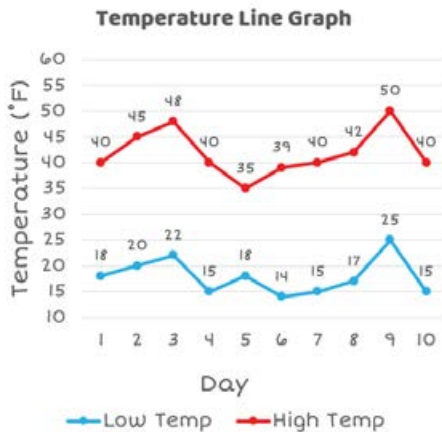


Join Spriggy and Twiggy as they discover what causes different types of weather and natural disasters.

Help Spriggy & Twiggy Pack Their Suitcases

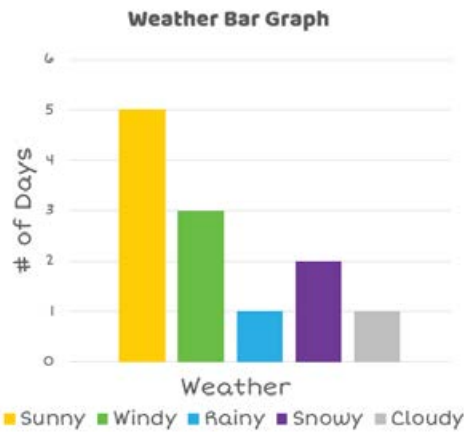


- * A meteorologist is a weather forecaster. Meteorologists use science to explain, understand, observe, and predict how the atmosphere will affect Earth and life on our planet.
- * One science tool they use is a graph. Graphs are pictures that help us compare information.



Line Graphs

Line graphs use points to show a number. Then we connect each point with a line. The line shows how things have changed.



Bar Graphs

Bar graphs use different size rectangles (bars) to show a number.

Experiment: Climate Check!



What you need:

- ⊙ Climate check chart (on next page)
- ⊙ Crayons, colored pencils or markers



TIME: 20 MINUTES

LET'S DO IT!

- * Use your Climate Check Chart on the next page to help the Sprowteez pack for their adventure by advising them of the climate in each place they will visit.



JULY

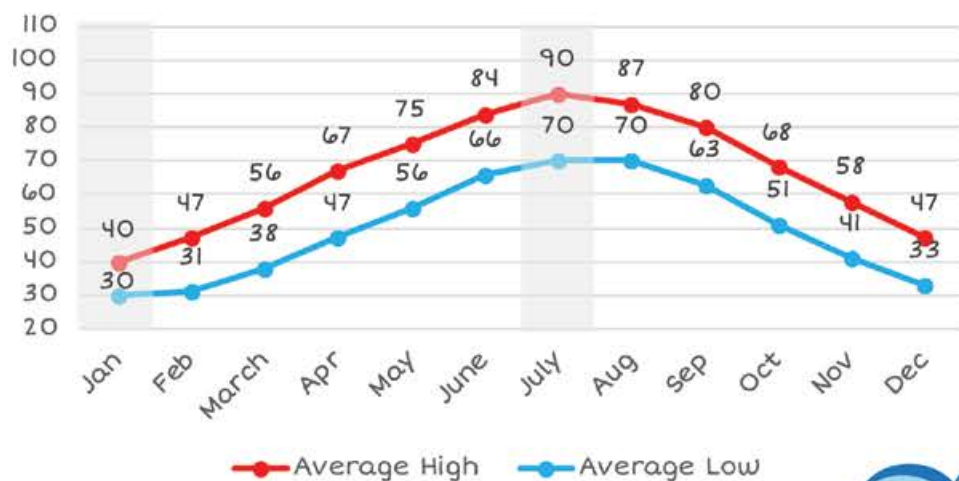
	Season (Winter or Summer)	Avg High Temp (°F)	Avg Low Temp (°F)	Help Pack Their Suitcase
1 Washington, DC	Summer	80°	50°	Shorts
2 Buenos Aires, Argentina				
3 Paris, France				
4 Queenstown, New Zealand				

Climate Check!

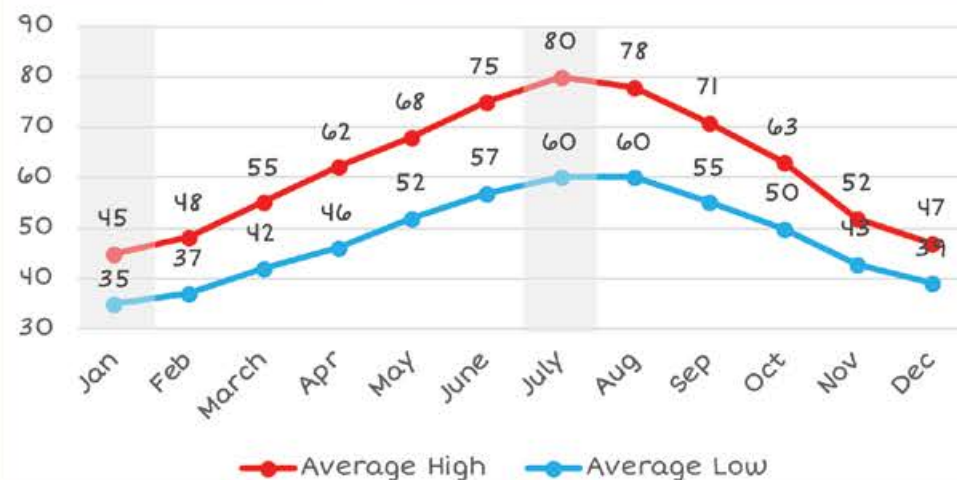
Help the Sprowteez Pack Their Suitcases



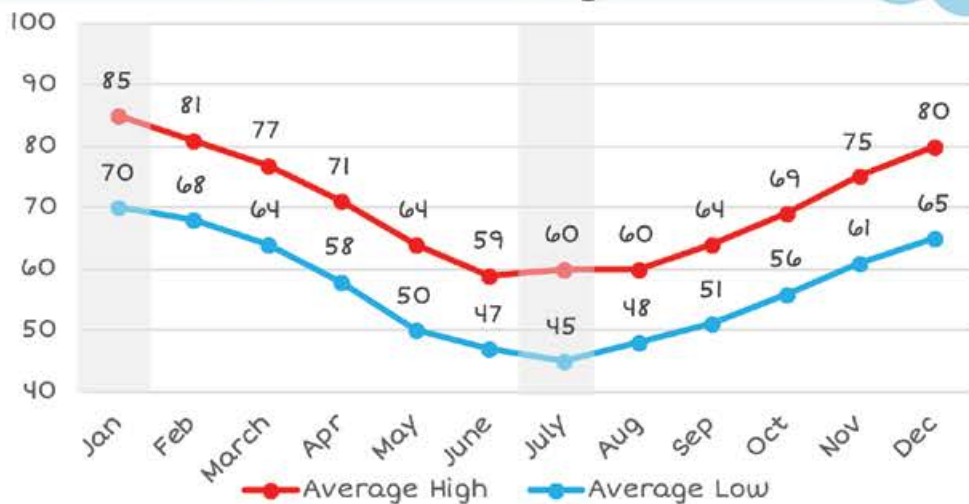
Washington, DC



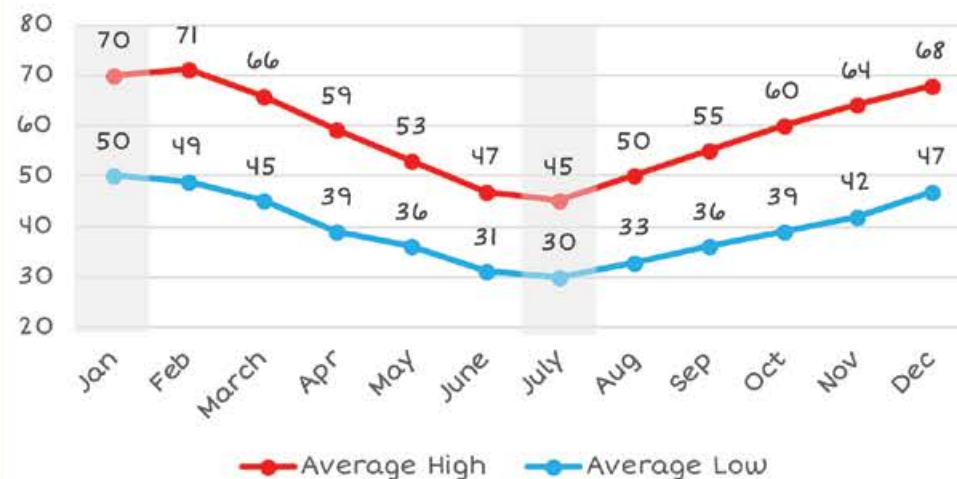
Paris, France



Buenos Aires, Argentina



Queenstown, New Zealand



Experiment with Spriggy: Be a Meteorologist!

GET READY



What you need:

- ⦿ "What's It Like In Your Neighborhood" Chart (see pages 10 - 11)
- ⦿ Crayons, colored pencils or markers



TIME: 5 MINUTES PER DAY FOR 10 DAYS

LET'S DO IT!

1. Fill in "What's It Like In Your Neighborhood" chart on the next page.
2. Record the temperature for 10 days. Be sure to record at the same time of the day.
3. Give a presentation of the weather forecast to a friend, class, or family member. With an adult's permission, consider making a video.



I PREDICT After you have recorded your temperature for 10 days, look at the patterns in your graph. What would you predict the temperature to be on the 11th day?



The highest temperature was _____ .
The lowest temperature was _____ .
The days with the biggest change in temperature from one day to the next were _____ .



ADVANCED METEOROLOGIST

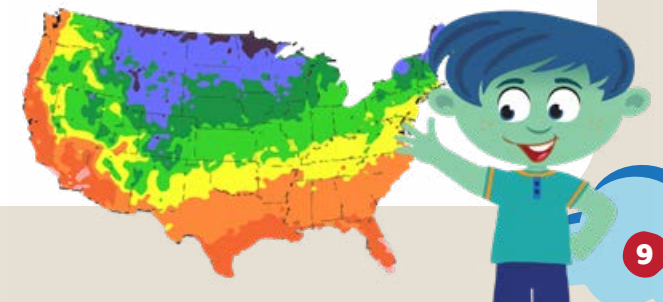
Research and teach us about the weather in a different place on the same time of day for 5 days.

Ideas:

- * Places you have always dreamed of going.
- * Places where your family or friends live.
- * Places where your grandparents grew up.
- * Places where your family came from a long, long time ago.



WRITE IT! Imagine that you are going to be a meteorologist on television describing the weather in this location. Describe the location, the weather patterns, and make a prediction of what you think tomorrow's weather will be like.



What's It Like In Your Neighborhood?



Experiment: Be a Meteorologist!

Chart Your weather. Give a presentation as a meteorologist.

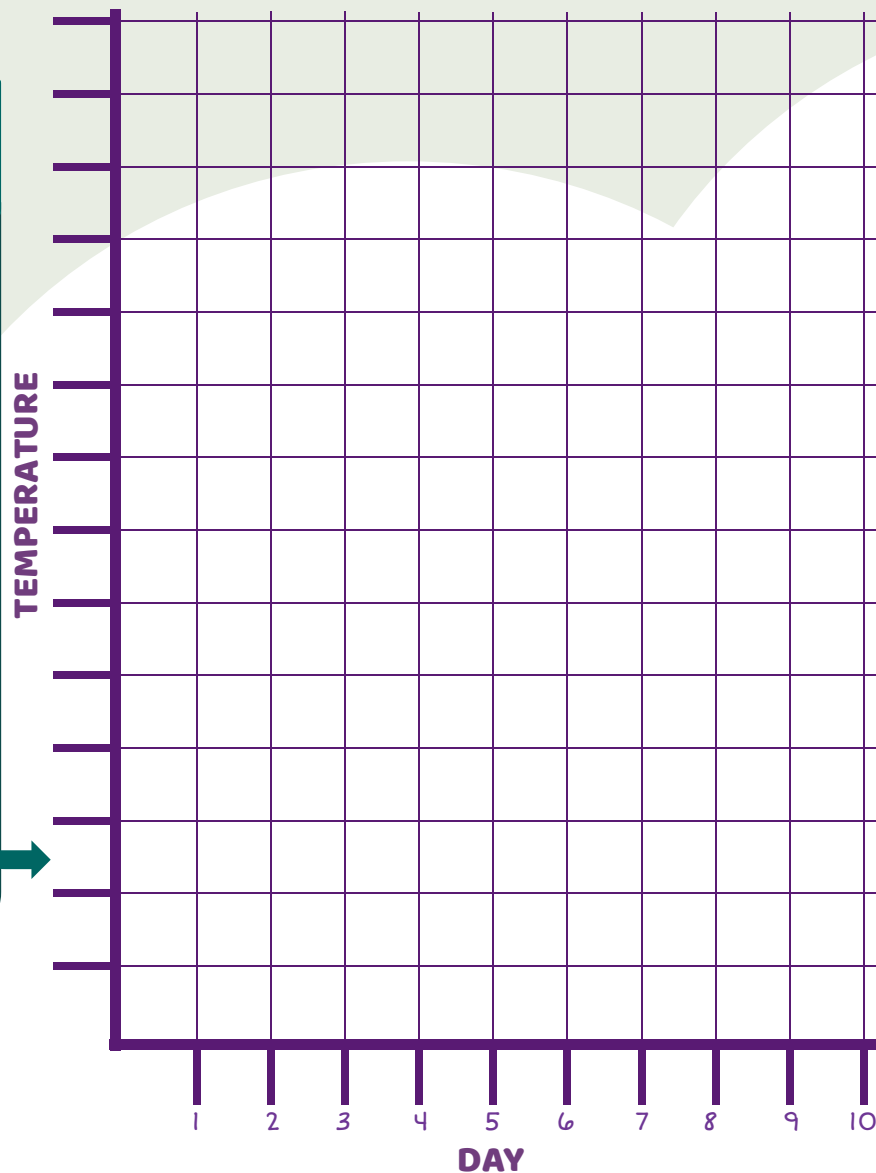
Line Graph

Plot your temperature each day, then connect the dots. Use a red pen for high and a blue pen for low temperature.

Fill in the lowest temperature you expect it to be in the next 2 weeks and write it here (example: 35).

Then add 5 to each number and write in each line above. example: 40, 45, 50.

Keep writing in numbers until you to the top of the fill all the way chart.



Fill in the bar chart by coloring in each block that represents that day's weather.

Some days have many types of weather. Choose the type of weather that fits that day the most.

