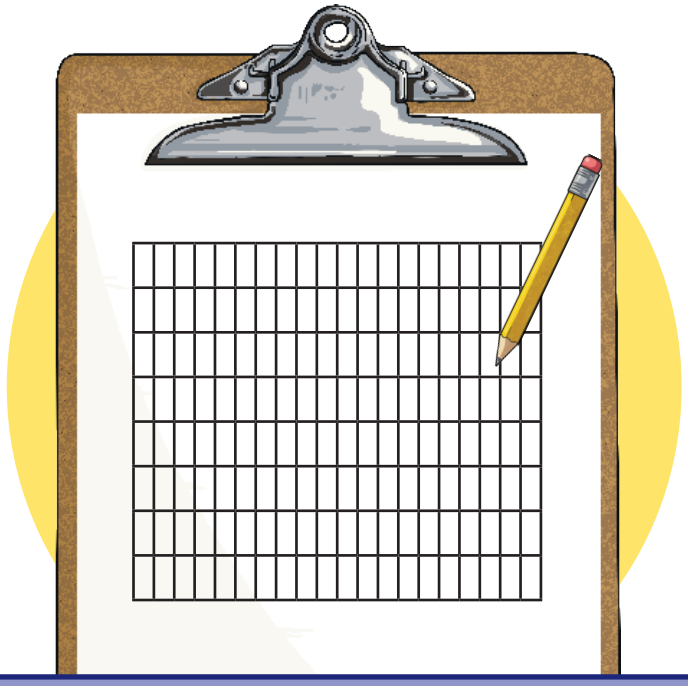
SunSmart UV Investigation



Your Task

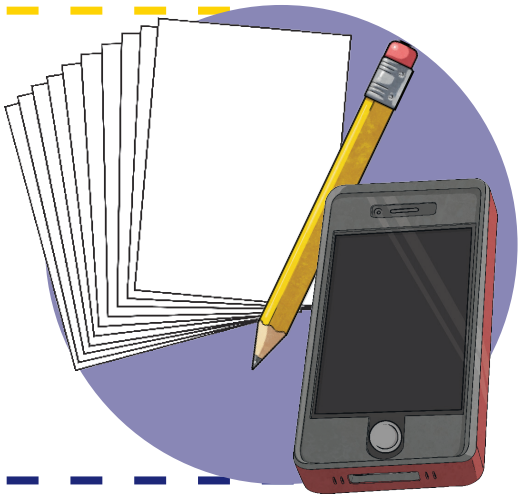
Your task is to collect the UV (ultraviolet radiation) data every half hour over a school day and then to repeat the process a month later. When you have collected your data, you will use it to create a data display graph, interpret the information you have collected and compare it to the data collected by your classmates. Negotiate start times with other members of the class so that data is collected in half hour increments with different starting times. This will enable you to look at a wider range of data across the day.

Key Questions:

- How does the UV rating vary throughout the day?
- How does the UV rating vary month to month?
- How can we use UV data to help us be SunSmart?

You will need:

- Your data recording sheet and a pencil.
- Access to the UVNZ app on a smartphone or tablet.



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Date of First Data Collection: _____

Time	UV Rating

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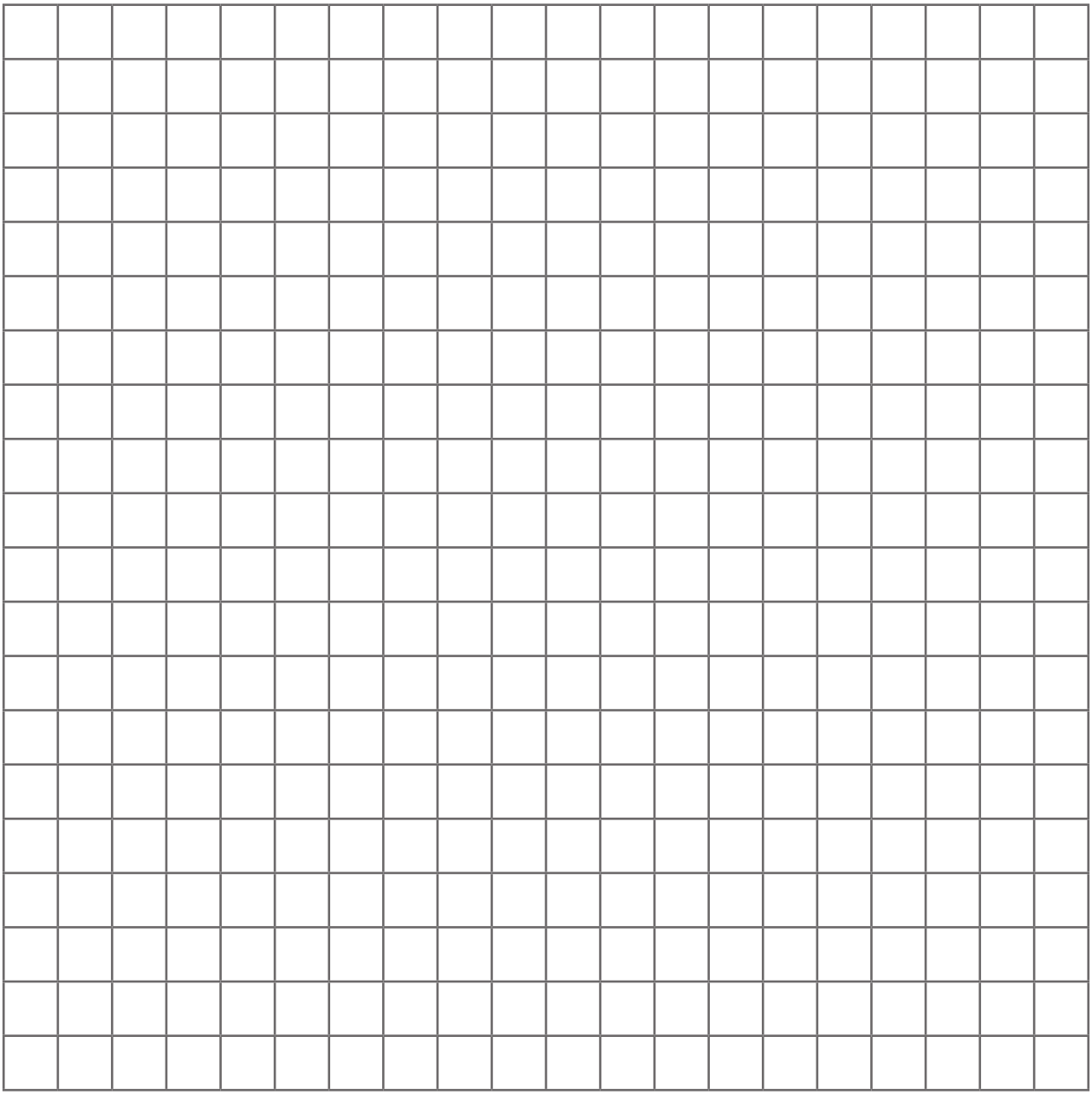
Date of Second Data Collection: _____

Time	UV Rating

SunSmart UV Investigation – Creating a Data Display

Create a bar graph to show the UV rating over the time you collected your data.

Make sure you label your axes!



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1. What was the highest UV rating that you recorded?

2. What was the lowest UV rating that you recorded?

3. What time were the highest UV ratings recorded on each day? Did you get the same UV rating more than once? If so, how many times did it occur? Were the times this occurred consecutive?

4. What did you find interesting about this data?

5. What was something that surprised you about this data?

6. What questions do you have that arose from this investigation?

7. What advice would you give someone about when the best time to spend outside would be?

8. How do you think this data would be different six months from now?

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Team up with another person who has collected data and created a graph at a different time of the day to you. Work together to compare your findings and answer the following questions:

1. Which time of day had the higher UV rating (on average) and why do you think this is?

2. What did you find interesting when you compared this data?

3. What was something that surprised you when you compared this data?

4. What questions do you have that arose from this investigation?

5. What advice would you give to someone who wanted to spend time outside based on the information from both sets of data? Why?

6. What time of day do you think would be safest to be outside? Use your data to support your answer.

7. What are three tips that you would give someone who wanted to spend time outside today?

SunSmart UV Investigation - Teacher Guidance

This investigation requires students to record the UV rating in half hour increments over two days with a month long gap in between. To do this, students will need access to the UVNZ app on a smartphone or tablet.

The investigation pack contains a student cover sheet with details of the task, a record sheet to collate their data, a data display sheet for graphing purposes, and a data analysis sheet and data comparison sheet with questions to engage students with their data.

Your students will need to select different start times and record data every half hour throughout the day. Data collection can be done by individuals, pairs or small groups, depending on the needs of your students.