**Student Worksheet: Covering data literacy**

**Directions**: Read the *Science News* article “[Heat waves cause more illness and death in U.S. cities with fewer trees](https://www.sciencenews.org/article/heat-waves-illness-death-cities-fewer-trees).” Analyze the figure(s) assigned to you by your teacher and answer the first set of questions with your group before presenting what you learned to the class. Answer the second set of questions as directed by your teacher.

**Digging into data visualizations**

1. What information is being displayed by your figure(s)? Describe the type of data visualization that is being used; identify the variables, parameters or data depicted by the figure; and identify and describe any axes if applicable. Highlight any special or important features of your figure.

2. Pick out two data points from your figure(s) and state them along with their units. How do the data points help you understand your figure(s)?

3. Where do the data in the figure(s) come from? Does the source look credible? How can you tell?

4. State the general trend or takeaway displayed by the figure(s).

5. In your opinion, did the figure present data in a clear, effective way? Was there anything that could have been potentially misleading or difficult to understand that could cause someone to misinterpret the data? Would there be a better way to represent the data? Why or why not?

6. Describe how what you learned from the data in your figure does or does not support the scientists’ conclusion that you read about in the *Science News* article.

**Diving into data literacy**

1. Write a definition for the term “data literacy.”

2. Why is it important for data visualizations to be clear and accurate?

3. How can data visualizations intentionally be used to promote misinformation? Can a data visualization contain accurate information but still promote misinformation? Explain and give an example. Think about choices such as relative sizing of different elements, axis scaling and colors.

4. What are some methods that can be used to identify whether a misleading data visualization is poorly designed or intentionally promoting misinformation?