



## This World of Humans: Episode #3 Student Worksheets

### Traffic Pollution Shortens Children's Chromosomes

#### Vocabulary Worksheet

Below are a list of terms and phrases that you will encounter while reading the article and listening to the interview. Using a dictionary, provide definitions for each term or phrase. If you cannot find a formal definition, write down what you *think* the term or phrase might mean.

Telomere:

PAH – polycyclic aromatic hydrocarbon:

Ambient (e.g., ambient air pollution):

Critical length (e.g., telomere reaches critical length):

Carcinogen / Carcinogenic:

**Reading Guide and Worksheet**

Use this worksheet to guide your reading of the primary article. As you read, answer the questions in your own words. Whenever possible, make notes as to where in the text you found your answer (e.g., in the Methods section, in the fifth paragraph on page 446).

1. Who are the authors of the article? What information can you find about them in the article directly?
2. Who financially supported this research? How do you know?
3. What specific problem is this research attempting to address? (Another way to think of this: What reasons do the authors give for conducting this research?)
4. What group(s) of people does the research focus on?
5. What were the specific research questions the study attempted to answer? (Another way to think of this is: What were the researchers' hypotheses? What were they trying to find out?)
6. List the methods the researchers used to collect data.
7. What did the researchers find? Summarize the key points.
8. What questions were raised in your reading of the article?

**Scatter Plot Worksheet**

Scatter plots allow researchers to examine the relationship between multiple variables. The authors include “trend lines” in many of these plots, as well. Review the scatter plots provided below. Use what you learned in the reading *Using Graphs and Visual Data in Science* (<https://www.visionlearning.com/en/library/Process-of-Science/49/Using-Graphs-and-Visual-Data-in-Science/156>). Based on these plots alone, what can you conclude?

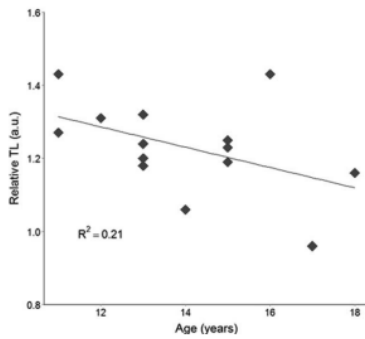


Figure 2

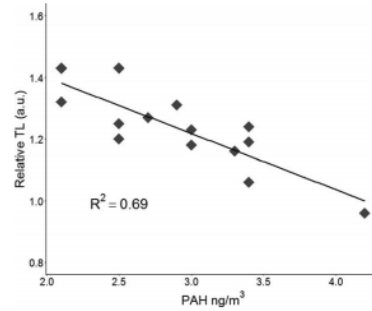


Figure 3

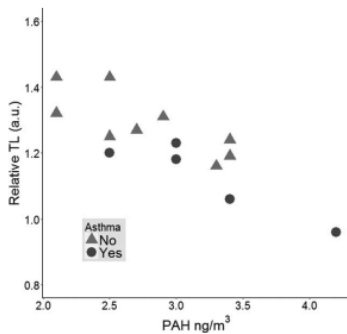


Figure 4

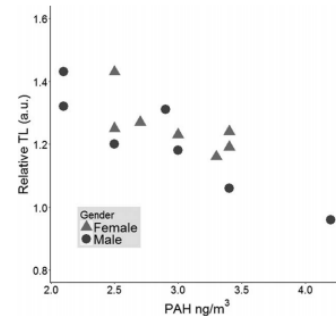


Figure 5

