Student Comprehension Worksheet

Directions: Read the online Science News article “Scientists have mapped an insect brain in greater detail than ever before” and answer the following questions. A version of the article, “The fruit fly brain in exquisite detail,” appears in the April 22, 2023 issue of Science News.

1. What is a neuron, and what is a synapse?

2. In your own words, explain what neuroscientist Marta Zlatic and her colleagues accomplished.

3. What methods did the researchers use to conduct their research? How long did the research project take?

4. How many neurons and synapses did the researchers map in the larval fruit fly? What do you think it means that there are more synapses than neurons?

5. Visualizing a living system is difficult. How did the scientists present their findings to make their findings easier to understand?

6. Why did the scientists use larval fruit flies instead of adult fruit flies in their neuron study?

7. Many scientists use fruit flies in their research. Why do you think scientists consider fruit flies a good model organism to study? How was the fruit fly useful in Zlatic’s study?