Student Comprehension Worksheet

Directions: After reading the online *Science News* article "<u>If bacteria band together, they can survive for years in space</u>," answer the following questions. A version of the story, "Bacteria can survive for years in space," can be found in the September 26, 2020 issue of *Science News*.

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1. Why is outer space not friendly to most known life-forms?
2. What type of bacteria did scientists use in an experiment on the International Space Station? Why did scientists choose to study these bacteria?
3. What was the purpose of the experiment? Describe the experimental procedure in your own words.
4. What were the independent and dependent variables of the experiment? Explain how you know.
5. What were the results of the experiment? Explain.
6. What is the maximum estimated time the bacteria in 1,000-micrometer pellets could survive in outer space, according to the researchers' estimates?
7. How might bacteria unintentionally end up in outer space, according to the researchers? Can you think of another way bacteria could end up in outer space?
8. What implications do the findings have for life elsewhere in the universe?

9. Find a word or concept in the story that is new to you. Define it using the context given in the article.
10. What makes the experiment an example of a successful collaboration in science, technology, engineering and math (STEM)?