

Student Discussion Worksheet

Directions: Discuss and answer the first set of questions with a partner. Next, read an online *Science News* article assigned to you by your teacher and answer the second set of questions. Finally, use the last set of prompts to come up with a scientific research question.

I. Define scientific questions

1. What is a question and what is the purpose of asking one?
2. What makes a scientific question different from other types of questions? How is the answer to a scientific question determined?
3. When are scientific questions asked during the scientific method?
4. Where can you get ideas for a scientific question?
5. Why is it important to be able to ask scientific questions?

II. Identify testable questions

1. What was at least one scientific finding described in the article?
2. What idea could have led researchers to ask their scientific question?
3. What is one scientific research question that could have been asked by researchers to inform the study described in the article?

4. Explain why the question you wrote qualifies as being scientific. Be specific.

5. Were there additional questions that were asked? If so, what were they?

6. What makes the opportunity to do this study unique?

III. Create your own scientific question

1. In what ways, other than those mentioned in the article you read, has the pandemic changed society?

2. How might some of the changes provide unique opportunities for research? Make a list of things that you could study. Consider the following questions to help you generate your list: Is there a way to build on the research reported in the *Science News* article? Is there a scientific model or theory that could be used to explore or predict something new based on the circumstance? Is there a problem that needs a better solution in the future?

3. Break down your ideas into small, defined questions. Then determine which questions would be most interesting to investigate. Eliminate questions that cannot be answered by direct observation or experimentation.

4. Pick one scientific question that you'd like to study. Define the variables and determine whether you can investigate the question within the scope of your school laboratory or other research facilities. Think about the time and equipment you would need to get started, and outline the steps of your experiment.

