

Student Discussion Worksheet

Directions: Discuss the first set of questions with a partner. Then read the online *Science News* article "[Why do some people succeed and other fail? Outliers provide clues](#)" and discuss the second set of questions as instructed by your teacher. A version of the article, "Look to the Outliers," appears in the February 26, 2022 issue of *Science News*.

Outlining outliers

1. Draw a picture or diagram that describes the meaning of an outlier.
2. Describe what an outlier is in words. How would you tailor your definition to apply to math or science?
3. Why do outliers occur? Name as many reasons as you can.
4. What are some techniques used to identify outliers in math and science datasets?
5. In what ways can outliers impact data analysis? Should outliers always be removed from a dataset? Explain.

Positive deviance

1. Explain the positive deviance approach that is described in the *Science News* article. How can positive deviance be useful for solving societal problems?
2. Choose an example of positive deviance from the article and explain it.

3. Revisit your answer to question No. 5 in the previous set of questions. Would you change or modify your original answer after reading the article? Explain why or why not.

4. Brainstorm your own example of positive deviance. What is a study that could be done in which investigating the outliers might lead to important insights or information?

