

Student Discussion Worksheet

Directions: Read the online *Science News* article "[Spiraling footballs wobble at one of two specific frequencies](#)" and answer the questions as instructed by your teacher.

Step by step

1. What is a recent problem you solved? For example, did you fix something that didn't work, mend tensions with a friend or family member or figure out how to get to the next level in a video game?
2. Break down how you solved the problem into steps. How did you know there was a problem to solve? How did you decide to take the action you did, etc.? List the steps.
3. The scientific method is a systematic way to solve problems and answer questions in science and engineering. List the steps of the scientific method. Use an external resource if necessary.
4. Read the *Science News* article "[Spiraling footballs wobble at one of two specific frequencies.](#)" Using the steps of the scientific method from your answer to the previous question, give an example of each step from the article.

Science in sports

1. What is your favorite sport? Do you like to play it? Do you watch it on TV? Have you ever watched it played professionally? Do you have a favorite professional team?
2. Choose a position in your favorite sport. What are some skills required to be successful in the position? For example, a soccer player that takes free kicks needs to be able to angle their foot correctly to put spin on the ball to get it over a wall of players.

3. Search for your sport in the [Science News Explores archive](#) and choose an article to read. What is the article about? What scientific question does it ask? If you can't find an article about your chosen sport, check out these examples:

[Why sports are becoming all about numbers – lots and lots of numbers](#)

[Let's learn about the science of the Winter Olympics](#)

[These young researchers take aim at sports](#)

4. Come up with a testable, measurable question you'd like to explore about the sport of your choice. When brainstorming a question, it might help to think about things related to your sport such as skills, health and physical abilities, performance, statistical averages, etc.

5. Explain how you would attempt to answer the question using the steps of the scientific method. What would you do for each step?

