

Empirical Evidence: A Definition - Worksheet



Read the article and then answer the questions.

1. Empirical evidence is _____ acquired by _____ or _____ . (3 pts)
2. How do scientists use empirical evidence? (3 pts)
3. Why do scientists use empirical evidence? (3 pts)
4. How do scientists start the scientific method? (3 pts)
5. What is empirical research? (3 pts)
6. What is empirical data? (3 pts)
7. With the data/knowledge that scientists have collected they carefully _____ their _____ . (3 pts)

8. Before any pieces of empirical data are collected, scientists carefully design their research methods to ensure the _____, _____ and _____ of the data. (3 pts)
9. What are the two research methods used to gather empirical measurements and data? _____ and _____. (2 pts)
10. _____ research examines the reasons behind human behavior. It involves data that can be found using the human senses. It is often done in the beginning of an experiment. (1 pt)
11. _____ research involves methods that are used to collect numerical data and analyze it using statistical methods. This data is more exact in its measurements, including mass, size or volume. It is often used at the end of an experiment to refine and test the previous research. (1 pt)
12. What are some things one can look for when determining if evidence is empirical:
- Can the experiment be _____ and _____? (1 pt)
 - Does the experiment have a _____ about the _____, _____ and _____ used? (4 pt)
 - Is there a _____ of the group or _____ being studied? (2 pts)
13. The strength of any scientific research depends on the ability to gather and analyze empirical data in the most _____ and _____ fashion possible. (2 pts)
14. Is a scientific laws the same thing as empirical laws? Why or why not?
- Yes or No (circle one) (1 pt)
- Why? (3 pts)