

What Characterizes Science? Page 6-7

1. What are the three branches of science?

2. Describe each of the three branches of science?

3. How are all the three branches of sciences similar, what do they have in common?

4. Why must a scientist share their investigations or results with other scientists?

5. What is empirical evidence? What is it not?

6. What are two things that characterize the practice of science?

What is a Scientific Explanation? Page 8-9

7. What is a scientific explanation?

8. What is needed in order for a scientific explanation to be valid?

9. Why do other scientists evaluate the scientific explanation?

10. What happens if an explanation is not supported?

11. What is the scientific explanation for how metal rusts?

12. What are the steps in evaluating a scientific explanation?

13. What evidence is there to help support the explanation of rust?

14. How could you test this explanation?

What is involved in scientific work? Page 10-11

15. What are the six characteristic traits that all scientists have in common?

16. What does it mean to be a careful observer?

17. What does it mean to be curious?

18. What does it mean to be creative?

19. What does it mean to be logical?

20. What does it mean to be skeptic?

21. What does it mean to be objective?

22. Why is it important to be objective and skeptical?

How is pseudoscience similar and different from science? Page 12-13

23. What is pseudoscience?

24. What are examples of pseudoscience?

25. How are science and pseudoscience similar?

26. How are science and pseudoscience different?

27. How can you tell if something is pseudoscience?

28. How can you tell if something is based on science?
