

Unit 1: Lesson 1- What is Science?

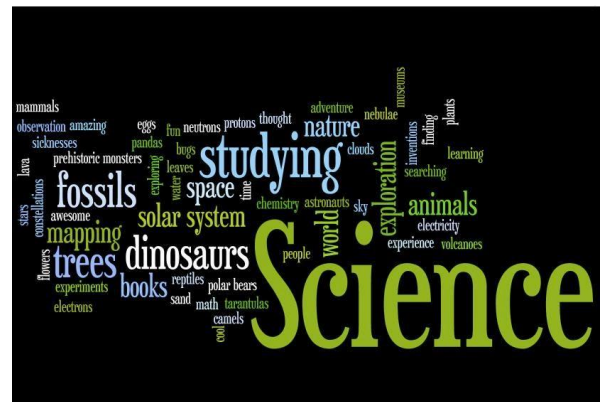
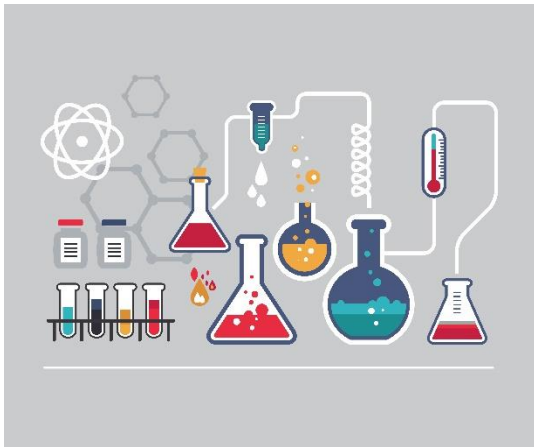
Vocabulary

1. Investigation (page 4)-

2. Science (page 5)-

3. Evidence (page 6)-

4. opinion (page 9)-



What All Scientists Do Pages 4-5

1. What do all scientists do?

2. What is a paleontologist?

3. Where do paleontologists work?

4. What kind of questions do paleontologists ask?

5. What is a question an astronomer might answer through investigation?

6. What are some skills that scientists use in science?

7. What kind of science skills does a paleontologist use when working in the field?

8. How does a scientist use their observation skills?

9. How do scientist use their comparison skills?

10. Why do scientists conduct investigations?

11. How do scientists study the natural world?

12. What is science?

Observe

Write one observation you could make about the fossil.

► Observe and compare these two skulls. List two ways they are similar and two ways they are different.

Similarities

Differences



Prove It! Page 6-7

13. What is evidence?

14. What is the difference between direct and indirect evidence?

15. What is an example of direct evidence?

16. What is an example of indirect evidence?

17. In 1660, what was the belief about where maggots came from?

18. Who was Dr. Redi and what did he discover?

19. When Redi set up his experiment, he arranged two setups, what were they?

20. What did the results of Redi's experiment show?

21. What did it prove wrong? _____

22. What was Redi's evidence to support his conclusion that living things could not come from nonliving matter?

23. When Redi said that living things can only come from other living things, where would he say maggots came from?



A Sticky Trap Page 8-9

24. What are three things scientists need to consider before drawing conclusions?

25. What are inferences?

26. Suppose you read a book about how spiders around the world get food. How might this help you draw different conclusions from those you might draw by only observing spiders around your home?

27. What is the difference between logical reasoning and an opinion?

28. You learn that every kind of spider in the world makes silk. You also know that not all spiders use silk to make webs. What might you infer about how some spiders use silk?

29. What is your opinion of snakes? Should your opinion affect how you investigate them?

30. What would make some scientific conclusions more useful or important than others?

Knowledge Grows Page 10-11

31. Who was Stephen Gray and what was he known for?

32. Why do you think he chose metal wires to demonstrate how electrical energy could travel?

33. Why is communication important in science?

34. Why should scientists repeat their investigations?

35. List several ways that we can communicate today.

36. Which of these methods might have been available to Stephen Gray in 1720 in how he would have communicated his results?

37. How does scientific knowledge grow?

38. Why is it important that scientific knowledge grows?



Meet Scientists pages 12-13

39. What is an astronomer?

40. What would you look for in the night sky if you had a telescope?

41. What is a botanist?

42. What other kinds of questions would a botanist investigate?

43. What is a taxonomist?

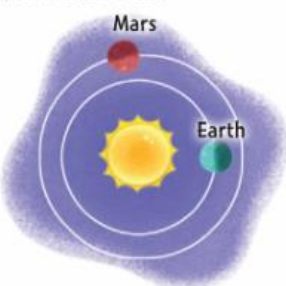
44. What is a zoologist?

Do the Math!
Use Fractions

Earth and Mars travel around the sun. Each time Earth makes one complete trip, Mars makes about $\frac{1}{2}$ of its trip.

1. How many trips does Earth make around the sun in the time it takes Mars to make one trip?

2. In the drawing below, put an X where Mars will be after Earth completes five trips around the sun.



Mars

Earth

Classify

Look at the butterflies on this page. What are some ways you could classify them?

Order

When you **order**, you place objects or events one after another in the correct sequence. Write the numbers 1, 2, 3, and 4 to show the order of the images below.

