

Name _____

Period _____

Ms. Lowe - Science – Basic Principles

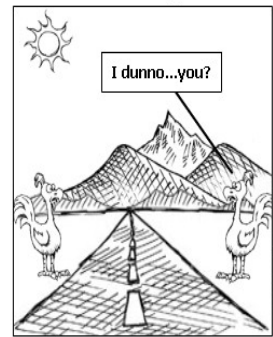
1. What are at least four ways to learn? (Remember the steps of SCARED) (4)

2. Why must you do SCARED in order? (1)

3. Which is a good source to ask for answers to your questions? (1)

- A. Parents
- B. Friends
- C. Books
- D. Internet
- E. All of these are good

The Ultimate Question by Ellie May



4. These are steps of the scientific method. Please put them in order (7)

- | | |
|----------|---------------|
| 1. _____ | Experiment |
| 2. _____ | Hypothesis |
| 3. _____ | Evaluate |
| 4. _____ | Observations |
| 5. _____ | Theory |
| 6. _____ | State Problem |
| 7. _____ | Results |

5. What does hypothesis mean? _____ (1)

6. What is a theory? _____ (1)

7. Why is it important to evaluate? _____ (1)

8. Which of the following is an inference? (1)
- A. A crime had been committed.
 - B. Footprints were found at the scene.
 - C. The footprints suggest the attacker was a man.
 - A man was arrested for the crime.



9. Why is it necessary to have a control in an experiment? _____ (1)

10. How can you show respect to... (3)

A. The teacher? _____

B. Other students? _____

C. Plants? _____

11. What is the rule regarding running on the lab? (1)

- A. Only run when on fire
- B. Only run if there is a spill
- C. Never run, unless all glass is put away
- D. Never run
- E. All of the above

12. Why is it a bad idea to eat in the lab? (1)

- A. It is against the rules
- B. You might get caught
- C. You might accidentally eat chemicals
- D. It may ruin your experiments
- E. All of the above



13. Suppose you accidentally break a test-tube full of a strange chemical. What should you do? Use logic to put these in order. (4)

- _____ R. Tell the teacher
- _____ S. Put the glass in the trash
- _____ T. Clean up the mess
- _____ U. Tell people nearby so they don't get hurt

14. What is the danger of bias in scientific experiments? _____

_____ (1)

15. Why shouldn't you sniff chemicals? _____

_____ (1)

16. True / False If you can't find Ms. Lowe's basket, hand her your paper.

17. What is the proper way to unplug a microscope? _____

_____ (1)

18. Label each of these topics as science, pseudo-science or non-science (S PS NS) (6)

Literature _____ Psychic powers _____

Meteorites _____ Religion _____

Dinosaurs _____ Loch Ness Monster _____



19. In order for something to be science it must be (1)

- A. boring, old and on public television
- B. done in science class
- C. provable, repeatable and measurable
- D. causing explosions



20. Isidor Isaac Rabi said, "...asking good questions...made me become a scientist." Explain (A) – what this means, and (B) why questions help people think like scientists. (2)

A. What did Mr. Rabi mean?

B. How do questions help people think like scientists?

21. Some people believe that science is more important than non-science. Do you agree or disagree? Be sure to tell me why or you won't get full credit. (3 points)

22. You are trapped in a very dark room with a single lit candle and a dog. The people who locked you in the room have left you some stew and left the dog some dog food. They will be back in one hour to free you. You have the assignment to find out as much as possible about this room using **all** of your senses. In one or two paragraphs, please tell me what you do. Be sure to list all the senses. (7 points)

