N:

 D:

 C:

Study Guide for Nature of Science/Astronomy Exam

Fill in this table:

|  |  |  |
| --- | --- | --- |
| Measurement | Base Unit | Tool |
| Mass | 1. | 2. |
| Length/Distance | 3. | 4. |
| Volume/Capacity | 5. | 6. |

7-9.Make sure you can read the measurements on ALL three of the tools. Use the space below to test a neighbor by drawing a tool that is measuring something.

10. Explain how to determine volume of an irregular object using water displacement (pet rock high dive!).



11. Make qualitative and quantitative observations of this image:



12. Make an inference and an observation about this image:

13. Why is it important in labs to know why data are not all the same? (What makes errors happen?)

14. Why do theories change?

15. What are scientific ideas and theories based on?

16. Can scientific ideas change over time? How?

17. What did the Big Bang form?

18. How do we know the universe formed from a Big Bang?

19. What is the shape of our galaxy? What are other types of galaxies?

20. What is a light year used to measure?

21. List the following in order of size: solar system, galaxy, universe, supercluster, local group, sun

22. Why do messages not get to earth from places in space immediately? How long would it take to get a message from the sun?

23. Where are we in the Milky Way? (you can draw it…)

24. How many suns are in our solar system?

25. What is a galaxy made of?

26. What is the universe made of?

27. What is the Local Group made of?