

## Science 101

1. Purpose
2. Independent Variable
3. Dependent Variable
4. Controlled Variable
5. Results
6. Problems
7. Changes
8. Fairness
9. Precision
10. Accuracy
11. Quantitative
12. Qualitative
13. Mass
14. Length
15. Volume
16. Metric Conversions

## Density

17. Show the definition for density and how to calculate the density of any object
18. Show how the density of solids, liquids, and gases all compare to each other.
19. Show what happens to the density of an object when you cut a pure substance in half
20. Show what happens to the density of an object when mass is increased and volume stays the same
21. Show what happens to the density of an object when mass is decreased and volume stays the same
22. Show what happens to the density of an object when mass stays the same and volume is increased
23. Show what happens to the density of an object when mass stays the same and volume is decreased

## What is matter?

24. What is an atom?
25. What is an element and what are examples of elements?
26. What is a molecule and what are examples of molecules?
27. What is a compound and what are examples of compounds?
28. What are pure substances and what are examples of pure substances?
29. What are mixtures and how are they classified? What are examples of both classifications?

## Cells

22. What is a cell organelle?
23. **ALL** cells have Ribosomes which...
24. **ALL** cells have Cytoplasm which...
25. **ALL** cells have DNA which...
26. **ALL** cells have Cytoskeleton which...
27. **ALL** cells have a Cell Membrane which...
28. Prokaryotes...
  - a. Are...
  - b. And...
  - c. Include the following kingdoms:
29. Eukaryotes...

- a. Are...
  - b. Have...
  - c. Include the following kingdoms:
30. **MOST** Eukaryotic cells have a Nucleus which...
31. **MOST** Eukaryotic cells have a Mitochondria which...
32. **MOST** Eukaryotic cells have a Endoplasmic Reticulum which...
- a. Smooth
  - b. Rough
33. **MOST** Eukaryotic cells have a Golgi Apparatus and Vesicle which...
34. Passive Transport
- a. Diffusion
  - b. Osmosis
35. Active Transport vs Passive Transport

### **Human Body Systems**

- 36. Digestive System
- 37. Circulatory System
- 38. Respiratory system
- 39. Musculoskeletal system
- 40. Excretory system
- 41. Nervous system

### **Space Science**

- 42. Planets
- 43. Dwarf Planets
- 44. Moons
- 45. Comet
- 46. Asteroid
- 47. Solar Systems
  - a. What are they?
  - b. How many are there in our galaxy?
- 48. Astronomical Unit
- 49. Light years
- 50. Galaxies
  - a. What are they?
  - b. What are found within them?
  - c. How big are they?
  - d. How are they classified?
- 51. Milky Way Galaxy