

**MEASUREMENT AND SCIENTIFIC METHOD**

1. Complete the chart below

<b>Measurement</b>	<b>Instrument</b>	<b>Metric Unit</b>
Mass		
Volume		
Temperature		
Length		

2. List the steps of the Scientific Method.

3. Define the following:

Hypothesis:Independent variable:Dependent variable:Constant:

4. Explain how you make a wet-mount slide.

5. **e**

a) What would the letter above look like under the microscope?

b) What would happen to the letter under the microscope if you move the slide to the right?

**CELLS**

6. \_\_\_\_\_ first discovered cells in \_\_\_\_\_ by looking at a piece of cork.

7. How are plant and animal cells different?

8. Complete the chart below.

Cell Part	Function
<i>Nucleus</i>	
<i>Chloroplast</i>	
<i>Cytoplasm</i>	
<i>Cell membrane</i>	
<i>Cell wall</i>	
<i>Mitochondria</i>	
<i>Ribosomes</i>	
<i>Vacuole</i>	

9. What is osmosis?

10. In order to be considered alive an object must ... (6 things)

11. What does an organism need in order to remain alive?

**HUMAN BODY**

12. Complete the chart below.

Body System	Function
Circulatory	
Digestive	
Endocrine	
Muscular	
Nervous	
Respiratory	
Skeletal	
Urinary	

13. Complete the diagram below for organization within the human body.

Cells → \_\_\_\_\_ → \_\_\_\_\_ → \_\_\_\_\_

14. Identify the following vocabulary words:

Homeostasis:Voluntary movement

Name \_\_\_\_\_ Period \_\_\_\_\_

## Science Final Review

Involuntary movement:

Stimulus:

Tendon:

Ligament:

Joint:

Cardiac muscle:

Smooth muscle:

Skeletal muscle:

Proteins:

Fats:

Carbohydrates:

Veins:

Arteries:

Capillaries:

White blood cells:

Red blood cells:

Platelets:

Peristalsis:

Absorption

Hormones:

Diaphragm:

Nephrons:

Villi:

15. The \_\_\_\_\_ transports urine from the kidney to the bladder and the \_\_\_\_\_ removes urine from the body.

Name \_\_\_\_\_ Period \_\_\_\_\_

**Science Final Review**

- 16. Explain what happens to the concentration of oxygen and carbon dioxide in the bloodstream during gas exchange occurs in the alveoli of the lungs.
- 17. Explain mechanical and chemical digestion.

CLASSIFICATION

- 18. Name the seven levels of classification.
- 19. How would you correctly write the scientific name for a human?
- 20. What is a dichotomous key used for?
- 21. Two organisms are members of the same species if ...

KINGDOMS

- 22. Explain the difference between unicellular and multi-cellular.

23. Complete the chart below.

	Bacteria	Protist	Fungi	Plant	Animal
How many cells?					
Cell wall?					
Nucleus?					
Move from place to place?					
How they obtain their energy?					

- 24. What does a virus need in order to reproduce?
- 25. How are vertebrates different from invertebrates?
- 26. Name the eight Phyla of invertebrate animals studied and identify one main characteristic.
- 27. a) Name 5 classes of vertebrates. b) Identify body covering c) How they breathe? d) Where do they live?

Name \_\_\_\_\_ Period \_\_\_\_\_

**Science Final Review**

28. What is the difference between an ectotherm and an endotherm? Where does each of the five classes of vertebrates fit?

29. Explain the following types of reproduction. Be sure to include how the offspring compare(s) to the parent(s).

Asexual:

Sexual:

30. Define and give an example of an organism that does the following type of reproduction:

Regeneration:

Budding:

Fission:

The three types of reproduction above are considered \_\_\_\_\_ reproduction.

31. What is metamorphosis? Give an example of complete and incomplete metamorphosis.

32. What is photosynthesis?

33. What is needed for photosynthesis to occur?

34. What is made during photosynthesis?

35. What is cellular respiration?

36. What is transpiration? How can it be prevented?

37. What are the functions of xylem and phloem?

38. How does a seed get its energy while it is still underground?

39. Identify the function(s) of the plant parts below

<b>Part</b>	<b>Function</b>
Roots	
Stems	
Leaves	
Flowers	

40. Identify the flower part that performs the given function below.

- Pollen is made in the \_\_\_\_\_.
- The male part of the flower is the \_\_\_\_\_.
- The female part of the flower is the \_\_\_\_\_.
- This part protects the immature flower (bud) \_\_\_\_\_.
- The part that attracts insects is the \_\_\_\_\_.
- The \_\_\_\_\_ develops into a seed and the \_\_\_\_\_ develops into the fruit.

41. What happens during pollination?

42. What happens during fertilization?

### ECOLOGY

43. Identify the following vocabulary words.

Organism:

Population:

Community:

Ecosystem:

Biosphere:

Habitat:

Niche:

Biome:

Succession:

Biotic:

Abiotic:

Name \_\_\_\_\_ Period \_\_\_\_\_

## Science Final Review

Producer:

Consumer:

Decomposer:

Scavenger:

Herbivore:

Carnivore:

Omnivore:

Predator:

Prey:

Symbiosis:

Mutualism:

Commensalism:

Parasitism:

44. The ultimate source of energy comes from \_\_\_\_\_.

### GENETICS

45. \_\_\_\_ of your genetic material comes from your mother and \_\_\_\_\_ of your genetic material comes from your father.

46. Only red tulips result from the cross between pure red and pure white tulips. What can you conclude?

47. In squirrels, gray (G) is dominant over black (g). If a heterozygous gray squirrel is crossed with a black squirrel, what is the probability that the offspring will have black fur?

48. The \_\_\_\_\_ is the male reproductive cell and the \_\_\_\_\_ is the female reproductive cell.

Name \_\_\_\_\_ Period \_\_\_\_\_

**Science Final Review**

49. In summer squash, white-colored fruit is dominant over yellow-colored fruit. Draw a Punnett square to represent the possible outcomes for a cross between a pure yellow fruit squash and a hybrid white fruit squash.

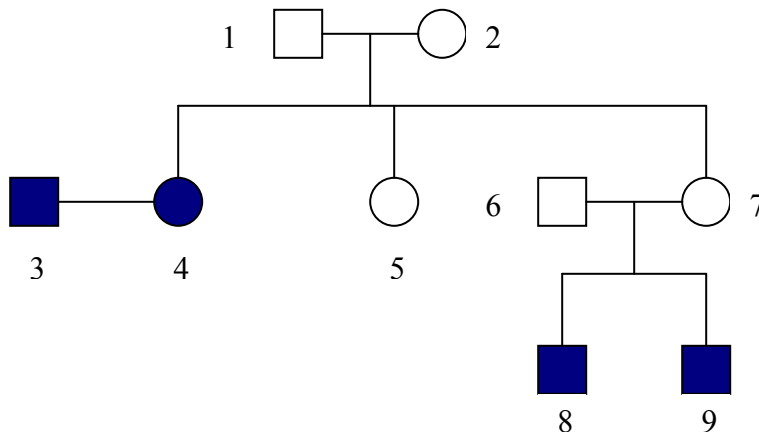
50. Short hair (H) is dominant over long hair (h). Buster has short hair and Cody has long hair.

A) Name the dog that has both the same genes for hair length. \_\_\_\_\_

B) Explain your choice.

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A Pedigree chart for length of eyelashes is shown below. Long (E) eyelashes are dominant over short (e) eyelashes. Shaded shows the recessive trait.



51. How many males are shown? \_\_\_\_\_

52. How many females are shown? \_\_\_\_\_

53. Determine the eyelash length for individual #2. \_\_\_\_\_

54. Determine the number of children #1 and #2 had. \_\_\_\_\_

55. Which individuals are homozygous recessive? \_\_\_\_\_

56. Individual #5 can have EE or Ee. Explain.

57. Individuals #6 and #7 both have long eyelashes but have children with short eyelashes. Explain how this is possible.

58. How many children are in the third generation? \_\_\_\_\_