

Name: \_\_\_\_\_

Block #: \_\_\_\_\_ Date: \_\_\_\_\_

Pod Name: \_\_\_\_\_

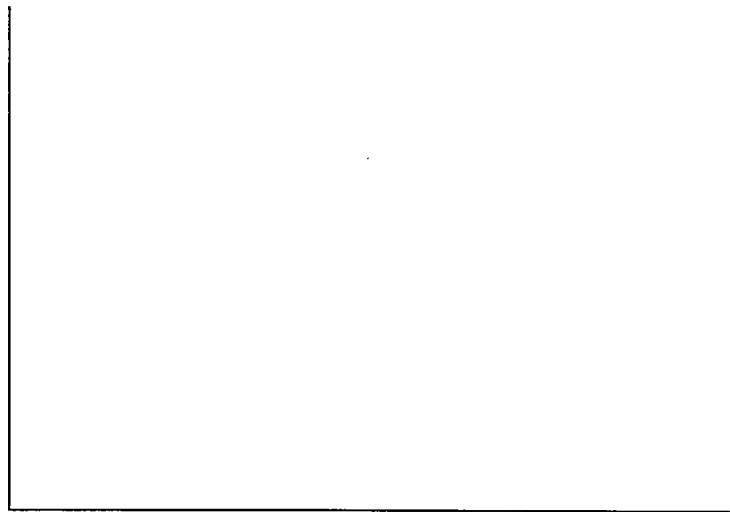
**No Excuses**

Fall 2002

## BIOLOGY DIAGNOSTIC (Beginning)

- 1) Use the grid to graph the data on the left. Please plot age on the x-axis and foot size on the y-axis. Please label your work.

Age	Average Foot Size (inches)
2	3.4
4	6.0
5	7.2
14	10.3
26	11.1
39	11.0
55	10.8
66	10.8
107	10.5

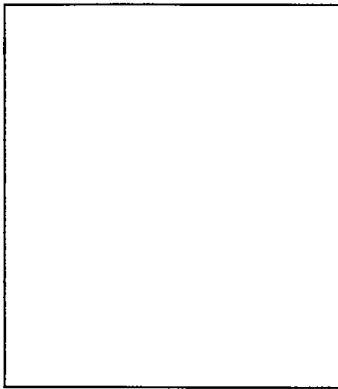


- 2) On this graph, what is the dependent variable? \_\_\_\_\_
- 3) What is the independent variable? \_\_\_\_\_
- 4) Describe the relationship between foot size and age as demonstrated by the graph.
- 5) Give a reason for this relationship.
- 6) If we were to find the average foot size of a 130 year old, in inches, predict their foot size.
- 9) How many centimeters (cm) are in a meter? \_\_\_\_\_
- 10) A meter is a measurement of what? \_\_\_\_\_

11) How many kiloliters are in a liter? \_\_\_\_\_

12) Would you use a ruler, meter stick, or a graduated cylinder to measure the length of a pencil?

13) In the box, draw a picture of a plant cell. Identify the cell wall, the nucleus, and the cytoplasm



What is the job of each of the following:

Nucleus: \_\_\_\_\_

Cell Wall: \_\_\_\_\_

Cytoplasm: \_\_\_\_\_

14) What is different between plant cells and animal cells?

15) How do plants get energy? \_\_\_\_\_

16) How do animals get energy? \_\_\_\_\_

17) What is the difference between osmosis and diffusion?

18) List and describe as many human body systems as you can.

19) What is the major difference between mitosis and meiosis?

20) What is a gene? \_\_\_\_\_

21) Give an example of a heterozygous genotype: \_\_\_\_\_

22) What would be the genotypes and phenotypes of the offspring if you crossed Tt (Tall) with another Tt (Tall)?

23) Arrange the following in order from most general to most specific: class, kingdom, genus, phylum, family, species, order

General \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Specific \_\_\_\_\_

24) What is a carnivore? \_\_\_\_\_

25) What is a habitat? \_\_\_\_\_

26) What type of adaptations might an organism living in the desert have?

27) Write down the steps of the scientific method in order. Briefly describe what a scientist would be doing in each step.