Chapter Review

The Nature of Science

Part A. Vocabulary Review

Directions: *Complete the following sentences using the terms listed below.*

model	**mass**	**graph**	**hypothesis**
standard	**dependent variable**	**independent variable**	
technology	**theory**	**control**	**volume**
constant	**experiment**	**scientific law**	**society**

_____ **1.** The factor in an experiment that is changed by the experimenter is the _____.

_____ **2.** A visual display of information or data is a(n) _____.

_____ **3.** An idea, event, or object is represented by a(n) _____.

_____ **4.** A test of a hypothesis is a(n) _____.

_____ **5.** A standard for comparison that is used in an experiment is a(n) _____.

_____ **6.** A rule of nature that tells you what will happen under certain conditions is a(n) _____.

_____ **7.** The independent variable in an experiment may cause a change in the _____.

_____ **8.** The amount of space occupied by an object is called its _____.

_____ **9.** A testable prediction is a(n) _____.

_____ **10.** Another term for applied science is _____.

_____ **11.** A variable that doesn't change in an experiment is called a _____.

_____ **12.** An explanation based on many observations supported by experimental results is a(n) _____.

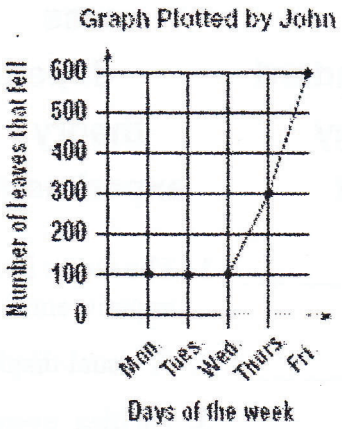
_____ **13.** An exact quantity that people agree to use for comparison is a(n) _____.

_____ **14.** A measurement of the quantity of matter is _____.

_____ **15.** A group of people that share similar values and beliefs form a _____.

Part B. Concept Review

Directions: *John counted the number of leaves that fell from a tree for a five-day period. John used a graph to show his data. Use John's graph to answer questions 1–6.*



1. What type of graph did John use to display his data? _____
2. What is the dependent variable in John's graph? _____
3. What is the independent variable in John's graph? _____
4. On which day of the week did the greatest number of leaves fall? _____
5. On what days of the week did the number of leaves that fell remain constant?

   _____
6. On what other type of graph could this data be shown? _____

Directions: *Convert the following.*

7. 200 m = _____ km
8. 1.2 L = _____ mL
9. 0 K = _____ °C
10. 12 cm^3 = _____ mL
11. 10°C = _____ K
12. 1 L = _____ cm^3
13. 124 mm = _____ cm
14. 12,000 mg = _____ g

Directions: *Answer the following questions on the lines provided.*

15. How have moral and ethical issues influenced science?

    _____

    _____
16. How does the value of technology differ between developing countries and industrialized countries?

    _____

    _____
17. How do social forces shape technology?

    _____

    _____