

Name: _____

Period: _____

Physical Science Ch. 1 Homework Packet

1.1 Graphing

Time (s)	Temperature (Celsius)
1	100
2	50
3	25
4	12
5	6
6	3
7	1

1. Graph the above data (using a line graph)

Title: _____



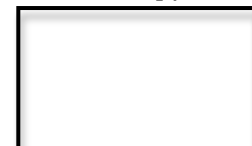
Topic and Units: _____

2. How would doubling the time affect the temperature? (Use complete sentences)

Pg. 25 – Question 5 (Use complete Sentences to Answer)

3. When would you choose a line graph to present data?

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4. When would you choose a bar graph to present data?

1.2-Measurements (from pgs. 14-20 in book)

Match the SI base unit with the quantity that is used to measure.

SI Base Unit	Quantity
_____ 1. meter	a. Mass
_____ 2. kilogram	b. Time
_____ 3. kelvin	c. Length
_____ 4. second	d. Temperature

Fill in the following table:

SI Prefixes			
Prefix	Symbol	Meaning	Multiply Unit By
giga-	G		1,000,000,000
mega-	M	million (10^6)	
kilo-	k	thousand (10^3)	1000
deci-	d		0.1
centi-		hundredth (10^{-2})	0.01
	m	thousandth (10^{-3})	0.001
	μ	millionth (10^{-6})	0.000001
nano-		billionth (10^{-9})	0.000000001

5. Is the following sentence true or false? Units in the SI system include feet, pounds, and degrees Fahrenheit. _____

6. Circle the letter of the value that is expressed as 3×10^8 .

- a. 300 b. 300,000
c. 30,000,000 d. 300,000,000

7. Why is scientific notation useful? _____

8. What does "SI" mean? (What are SI units?)

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1.3 – Scientific Method

Scientific Methods (pages 7–9)

1. Name three types of variables in an experiment.

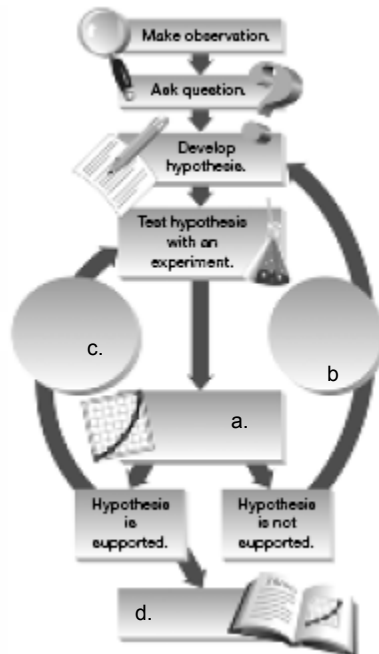
a. _____ b. _____ c. _____

3. Is the following sentence true or false? If the data from an experiment do not support your hypothesis, you can revise the hypothesis or propose a new one. _____

2. How does a scientific theory differ from a hypothesis? _____

Match the following vocabulary terms to the correct definition.

Definition	Vocabulary Terms
_____ 3. Information that you obtain through your senses	a. theory
_____ 4. A well-tested explanation for a set of observations	b. hypothesis
_____ 5. A proposed answer to a question	c. observation



Continue

6. Complete the model **on the previous page** of a scientific method by filling in the missing steps.

- a. _____ b. _____
c. _____ d. _____

Scientific Laws (page 9)

7. Is the following sentence true or false? A scientific law attempts to explain an observed pattern in nature. _____
8. All scientists may accept a given scientific law, but different scientists may have different _____ to explain it.

Scientific Models (page 10)

9. Why do scientists use scientific models? _____

10. Circle the letters that correctly state what scientists do if data show that a model is wrong.

- a. Change the model. b. Replace the model.
c. Ignore the data. d. Revise the data.

Working Safely in Science (page 11)

11. Circle the letters of safety precautions to follow whenever you work in a science laboratory.

- a. Study safety rules. b. Never ask questions.
c. Read all procedural steps. d. Understand the procedure.

12. Why should you wash your hands after every experiment? _____

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