Physical Science Chapter 1 Notes Outline

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

**Science Skills – Pages 1-28**

1-1 What is Science?

Science from Curiosity-

**Science-**

Science and Technology-

**Technology-**

Branches of Science-

**Chemistry-**

**Physics-**

**Geology-**

**Astronomy-**

**Biology-**

The Big Ideas of Physical Science-

Space and Time-

Matter and Change-

Forces and Motion-

Energy-

Science and your Perspective-

**SECTION QUESTIONS**

**1.) How does the scientific process start and end?**

**2.) How are science and technology related?**

**3.) Why do scientists seek to discover new laws of the universe?**

**4.) Advances in science do not always lead to advances in technology. Why are such scientific advances still valuable?**

1-2 Using a Scientific Approach-

Scientific Methods-

**Scientific method-**

Making Observations-

**Observations-**

Forming a Hypothesis

**Hypothesis-**

Testing a hypothesis-

**Manipulated variable-**

**Responding variable-**

**Controlled experiment-**

Drawing Conclusions-

Developing a Theory-

**Scientific theory-**

Scientific Laws-

**Scientific law-**

Scientific Models-

**Model-**

Working Safely in Science-

**SECTION QUESTIONS-**

**1.) What is the goal of scientific methods?**

**2.) How does a scientific law differ from a scientific theory?**

**3.) Why are scientific models useful?**

**4.) Suppose you wanted to find out how running affects your pulse rate. What would your hypothesis be? Explain how you could test your hypothesis.**

1-3 Measurement-

Using Scientific Notation-

**Scientific notation-**

SI Units of Measurement-

Base Units and Derived Units-

**Length-**

**Mass-**

**Volume-**

**Density-**

Metric Prefixes-

**Conversion factor-**

Limits of Measurement-

**Precision-**

**Significant figures-**

**Accuracy-**

Measuring Temperature-

**Thermometer-**

**\*\***Common Temperatures Chart – page 20

**SECTION QUESTIONS-**

**1.) Why do scientists use scientific notation?**

**2.) What system of units do scientists use for measurement?**

**3.) List the SI units for mass, length, and temperature**

**4.) Write the following measurements in scientific notation**

**a.) 0.0000000000372 g**

**b.) 45,000,000,000 km**

1-4 Presenting Scientific Data-

Organizing Data-

Data Tables-

Line Graphs-

**Slope-**

**Direct proportion-**

**Inverse proportion-**

Bar Graphs-

Circle Graphs-

Communicating Data-