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-