**The Nature & Community Of Science** (p. 12 – 27)

**I. What Science Is And Is Not**

 **1. Define the term science.**

 Science –

 **2. Why is evidence necessary for scientific claims?**

 **3. Nothing can be scientifically proven.**

 Circle One : True False

 **4. Why should scientists be skeptical of new discoveries?**

**II. The Process Of Science**

 **1. Identify the steps of scientific method and the engineering design process.**

 (*We will do this in class.)*

 Scientific Method Engineering Design Process

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 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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 5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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 6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **2. Match the following terms with the correct definitions.** *(Continues on top of next side.)*

 1. \_\_\_\_\_ Controlled Variable A. Variable changed in an experiment

 2. \_\_\_\_\_ Correlation B. Numeric-based observations

 3. \_\_\_\_\_ Dependent Variable C. Specific statement of a hypothetical explanation

 4. \_\_\_\_\_ Hypothesis D. Categorical-based observations

 5. \_\_\_\_\_ Independent Variable E. Variable kept constant in an experiment

 6. \_\_\_\_\_ Model F. Testable idea that attempts to explain an idea

 7. \_\_\_\_\_ Prediction G. Variable that result from the experimental set-up

 8. \_\_\_\_\_ Qualitative Data H. Relationship among variables

 9. \_\_\_\_\_ Quantitative Data I. Representation of a system studied

**III. Community Analysis & Feedback**

 **1. Define the term peer review.**

 Peer Review –

 **2. Why must scientific data be replicated to become valid and reliable?**

 **3. How can scientific discoveries become a scientific theory?**

**IV. Benefits & Outcomes**

 **1. Define the term environmental ethics.**

 Environmental Ethics –

 **2. Match the terms with the correct definitions.**

 1. \_\_\_\_\_\_ Anthropocentrism A. The good of the many outweigh the individual

 2. \_\_\_\_\_\_ Biocentrism B. Human welfare is the greatest concern

 3. \_\_\_\_\_\_ Ecocentrism C. All living things are valued

 **3. Economic and societal differences affect the environmental treatment of people.**

 Circle One : True False

 **4. What is your goal for this class as an environmental scientist?**

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