**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

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

↓ ↓

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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