Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_ Ast#: \_\_\_\_\_

**SCIENCE KNOWLEDGE QUESTIONS**

1. What does it mean to “infer”? (p. 346)

***to explain or interpret observations***

1. What is a scientific explanation? (p. 346)

***a generalization that makes sense of observations by using logical reasoning***

1. What is a model in science? (p. 347)

***a representation of an object or process***

1. What characterizes scientific thinking and ideas? (p. 353)

***a logical, objective way of reasoning based on evidence, not personal opinions or bias***

1. What is pseudoscience? (p. 353)

***a set of beliefs that may make use of science but whose conclusions and predictions are not based on observation, objective reasoning, or scientific evidence***

1. What is the difference between scientific ideas and pseudoscientific ideas? (p. 353)

***scientific ideas are testable, whereas pseudoscientific ideas cannot be tested***

1. Why is astronomy considered a real science while astrology is considered a pseudoscience? (p. 353)

***astronomy offers natural explanations based on observation and scientific evidence, while astrology uses supernatural explanations and makes connections between events without scientific evidence to support them.***

1. What is a scientific theory? (p. 354)

***a well-tested explanation for a wide range of observations or experimental results (provides details and describes causes)***

1. How is the word “theory” used differently in science than in everyday life? (p. 354)

***a scientific theory must be heavily-tested and well-supported by the evidence, while theories in everyday life are often not based on testing or evidence, but are merely an untested idea***

1. What happens once a scientific theory is accepted by the scientific community? (p. 354)

***it continues to be tested, adjusted, and explained***