Chapter 1 Pretest -- Science Practices

Multiple Choice
Identify the choice that best completes the statement or answers the question.

_____   1.   A good hypothesis is:
   a.   a prediction based on observations.
   b.   a wild guess.
   c.   a question.
   d.   an observation.

_____   2.   What professionals use scientific knowledge to create or improve inventions that solve problems?
   a.   Astronomers
   b.   Biologists
   c.   Earth scientists
   d.   Engineers

_____   3.   What type of model would a scientist use to forecast ocean temperature change?
   a.   Physical
   b.   Conceptual
   c.   Mathematical
   d.   Computer

_____   4.   Sophia plays the piano. Which of the following would be an **opinion** by Sophia about her piano?
   a.   I enjoy playing the piano.
   b.   My piano has 88 keys.
   c.   My piano has 3 pedals.
   d.   The last key on my piano is a C.

_____   5.   Valid experimental observations are **objective** and **repeatable**. Why is this important?
   a.   Data must be accurate to be accepted by scientists everywhere.
   b.   Scientific knowledge changes and grows, and is based on previous experiments.
   c.   Scientists share information and repeat others' investigations to gain a better
       understanding of what is happening in an experiment.
   d.   All of the above

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Answer Section

MULTIPLE CHOICE

1. ANS: A   PTS: 1   DIF: basic   REF: section 1.2
2. ANS: D   PTS: 1   DIF: basic   REF: section 1.3
3. ANS: D   PTS: 1   DIF: intermediate   REF: section 1.3
4. ANS: A   PTS: 1   DIF: intermediate   REF: section 1.1
5. ANS: D   PTS: 1   DIF: intermediate   REF: section 1.2

__A__   1.

__D__   2.

__D__   3.

__A__   4.

__D__   5.