Name _____ Class _____ Date _____

Laboratory Skills Checkup 3

Analyzing Elements of a Scientific Method

Read the following statements and then answer the questions.

1. You are a scientist walking through a forest on May 19, 1995, at 4:00 PM
2. You see a mouse run into a clearing from the east.
3. You see a rattlesnake spring from behind a bush and bite the mouse.
4. The mouse then runs away toward the west while the rattlesnake stays put.
5. After 3 minutes, the rattlesnake moves out of the clearing towards the west.
6. You follow and discover that the rattlesnake has found the mouse, which is dead.
7. This leads you to ask yourself: "Why did the rattlesnake follow the mouse's outgoing trail to the west rather than its incoming trail from the east?"
8. You think for a moment and come up with a possible explanation: "Seemingly, the only difference between the mouse when it arrived from the east and left toward the west was that when it left it had rattlesnake venom in it. So perhaps the snake followed the scent of its own venom."
9. You also suggest to a friend: "I believe a rattlesnake always follows the outgoing trail of an animal it has bitten."
10. To test your explanation, you tell your friend you will capture a rattlesnake and some mice and set up a situation where you can carefully observe the behavior of the rattlesnake again and again.

Questions

A. In which statement is a **prediction** made? _____

B. Which statement defines a **problem**? _____

C. In which statement is part of an **experiment** described? _____

D. Which statement contains a **hypothesis**? _____

E. Which statements contain **data**? _____

F. Which statements describe **observations**? _____