Name _____ Period _____ Date _____

Salamander Dichotomous Key

Suppose you find a large colorful salamander while walking near a pond. Chances are the salamander has already been named and classified, but how can you learn its identity? As an aid to help others identify unknown organisms, biologists have developed classification keys. These classification keys are often called **dichotomous keys** (the word dichotomous comes from the word **dichotomy** meaning "two opposite categories"). A dichotomous key presents the user with two opposite statements about some trait of an organism. By choosing one of the two statements that best describes the unknown organism, the user is lead to further pairs of statements. By going from one set of statements to another, the name of the organism or its classification group is determined.

Pre-lab questions:

1. How many choices does a dichotomous key provide at each step?

2. What are some of the differences you see among the salamanders illustrated?

Procedure:

Use the dichotomous key provided on the back of this sheet to identify **at least 3 species** of salamanders (in addition to the two we will work through as a class). Begin by reading statements 1a and 1b. One of the statements describes the salamander; the other statement does not. Follow the directions for the statement that applies to that salamander and continue following the correct statements until you have identified it. Record the scientific and common names of the salamander in the data table below.

3. Repeat step 2 for each of the other salamanders in Figure 1.

Data table:

	Scientific name	Common name
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		

Post-lab questions: Answer the following using complete thoughts.

3. As you used the classification key to identify the salamanders, did the characteristics you used start out general and become more specific, or did you start with specific characteristics that became more general?

4. What two names make up the scientific name of each salamander?

Procedure

Part A: Using a Dichotomous Key

1. Examine the drawings of the salamanders in Figure 1. Choose one salamander to identify by using the key.

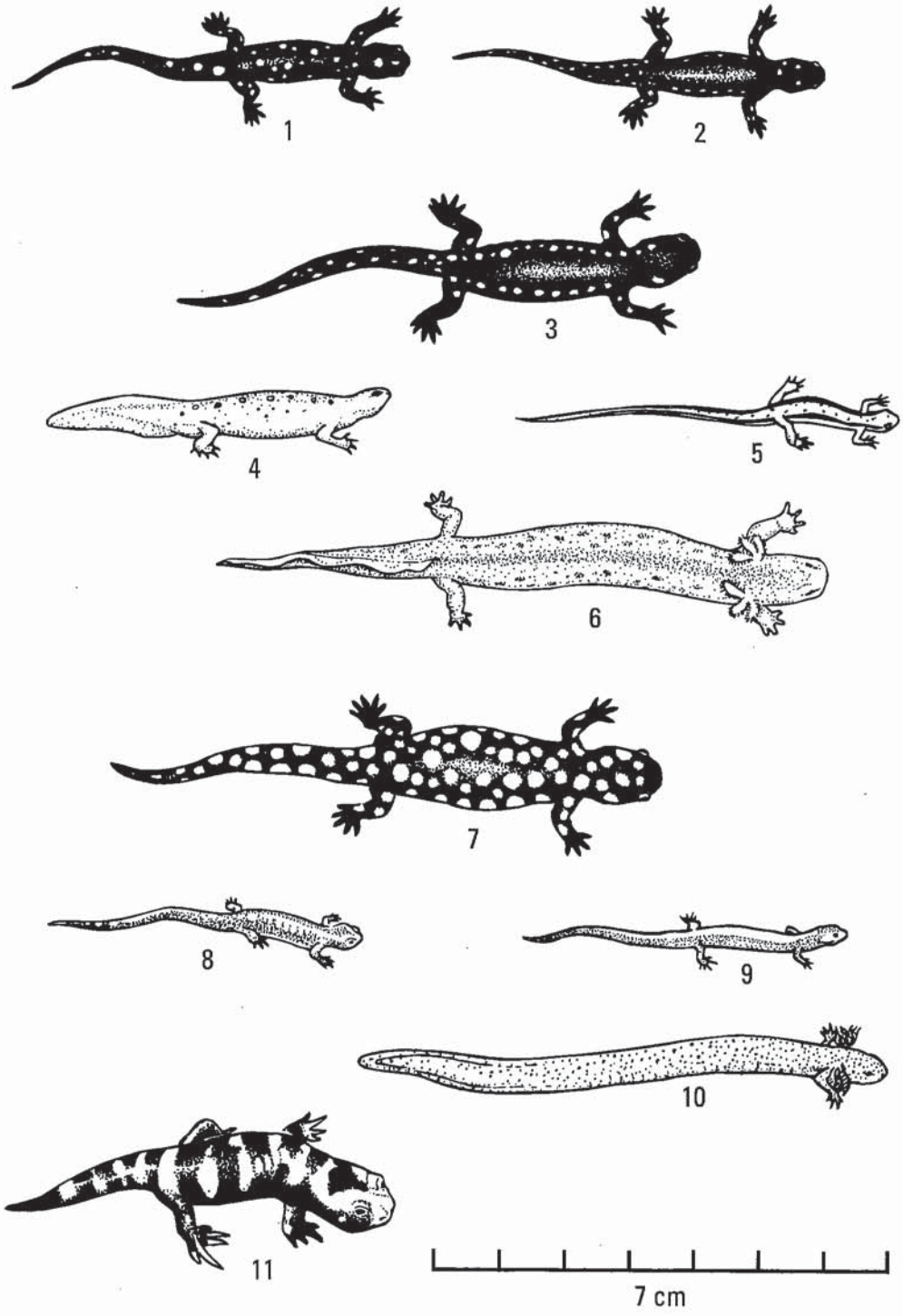

Figure 1