

Name: _____ Date: _____ Period: ____

Identifying Animal Taxa using Dichotomous Keys

Introduction

Organisms such as animals are classified into groups according to certain characteristics. Using these characteristics, dichotomous keys can be developed. Biologists develop these dichotomous keys so they can be used to identify unfamiliar organisms. Such keys are also useful in studying common characteristics and relationships among organisms. In this investigation, you will create a dichotomous key that another person can easily use to identify some animals.

Problem

How is a dichotomous key used to identify various animals?

Pre Lab Discussion

Read the entire investigation. Then, work with a partner to answer the following questions.

1. Into which nine major groups will you be classifying animals?

The nine phyla: Porifera, Cnidaria, Platyhelminthes, Nematoda, Annelida, Arthropoda, Mollusca, Echinodermata, and Chordata.

2. What information do you need in order to classify the animals provided in the jars?

You need to know their physical characteristics which differentiate them from one another.

Procedure

1. Researching Please write 2 sentences describing the main characteristics of each of the 9 Major Animal Phyla. This information may come from the research that you and your peers did. Also, name at least two organisms that belong to each phylum. The research that you did last night (which should be attached to this lab when submitted) will serve as a starting point for this but you must still complete ALL the information on page 2 and 3 of this packet.

2. Classifying Use the answer sheet on the next page for the following task. You have been provided with 13 numbered specimen jars. Use your information from question 1 to create a dichotomous key (first branched and then written/typed that classifies the organisms into their respective Phyla and/or Classes. You have been provided with the common names for these animals. After you keys are made, you will do some more online research to obtain the name for the Class to which each organism belongs.

3. Graphing Use the data provided earlier to construct three pie graphs representing **A** -the 9 Animal Phyla, **B** – the Arthropods and **C** – the Chordates (**Hint**: calculate the frequency of each phylum, multiply that by 360, and then draw pie slices with angles equal to that number). Pie graphs (**one per page**) must be **neat** and at least one **hand drawn, colored in, and must include pictures or drawings to represent each sub group shown.**

4. Questions Answer the questions at the end of this packet in complete sentences.