

## Evolution

Name:

## Arthropod Taxonomy

Period:

You have been given a box of real arthropods encased in a thick plastic called lucite. Each block has a number that you will use to identify the arthropod. The classification of each arthropod is listed below. Use this information, and the arthropods themselves, to answer the questions on the next page.

Kingdom: Animalia

Phylum: Arthropoda

Class: Arachnida

Order: Scorpiones

Family: Buthidae (#9—Bark Scorpion)

Class: Insecta

Order: Blattaria

Family: Epilampridae (#11—Oriental Red & Black Roach)

Order: Coleoptera

Family: Chrysomelidae (#2—Frog-legged Leaf Beetle, #3—Blister Beetle)

Family: Lucanidae (#4—Stag Beetle)

Family: Scarabaeoidea (#1—Dung Beetle, #12—Flower Beetle)

Order: Hemiptera

Family: Fulgoridae (#6—Chu Ki)

Family: Pentatomidae (#8—Lychee Stink Bug)

Order: Hymenoptera

Family: Vespidae (#10—Paper Wasp)

Order: Omoptera

Family: Cicadidae (#5—Orange-wing Cicada)

Order: Orthoptera

Family: Gryllidae (#7—Field Cricket)

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1. What is the largest level of classification that these organisms have in common?

The largest level of classification is the \_\_\_\_\_

2. Look at the taxonomic chart on the first page. Based on the information in the chart, which organism is the **least** related to the others?

Block # \_\_\_\_\_, the \_\_\_\_\_

3. Name 3 physical characteristics that separate this organism from all of the other organisms in your set.

#1—

#2—

#3—

4. Look at block #9. This organism usually lives in a desert environment, filled with sand. What adaptation of this organism can you see that most likely helps it to survive in the desert?

5. Which order is most represented by the organisms in the blocks? \_\_\_\_\_

6. What is the common name of every organism in this particular order? \_\_\_\_\_

7. Why have these insects been grouped together in the same order? *Hint: look at the wings.*

8. Look at block #6 and block #8. Why have these insects been grouped together in the same order? *Hint: look at the wings.*

9. Look at block #7. What particular adaptation has this insect developed to survive?

10. Which insect would be most likely to survive in a forest full of green leaves? Block # \_\_\_\_\_

11. Now imagine it is fall, and most of the leaves have turned light brown. Which insect will natural selection now favor? Block # \_\_\_\_\_

12. A certain kind of lady insect prefers a mate with stripes on the wings and long antennae. What family does this insect belong to? \_\_\_\_\_