

Name _____
Date _____ Period ____

**Speciation Packet – Must Like Long Walks, Dining by Candlelight, & Be of Same Species**

Answer Brainstorming questions below:

1) What is a **SPECIES**? Fill out the 4-Square Vocabulary square below to review this term.

<p>Scientific Definition of <u>Species</u></p> <p><b>A group of organisms that is similar enough that they can mate and give birth to live young that can also produce viable offspring.</b></p>	<p>Definition in my own words:</p>
<p>Visual:</p>	<p>Example:</p>

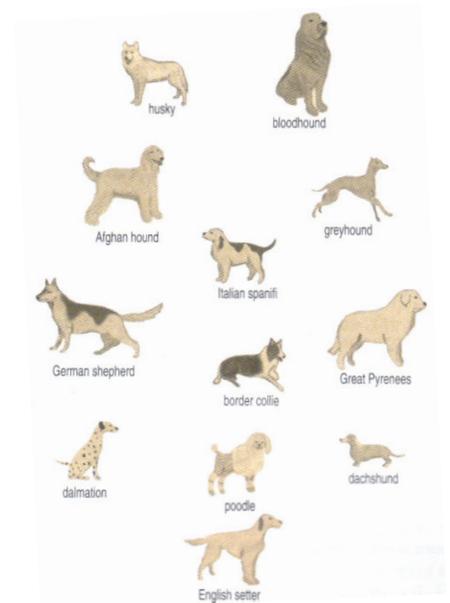
2) What criteria (or rules) would you use to identify an organism as belonging to a species?

**Activity: Of Fish and Dogs** (page 555)

1. Read the activity introduction on p. 555, what are cichlids and what makes them unique fish?

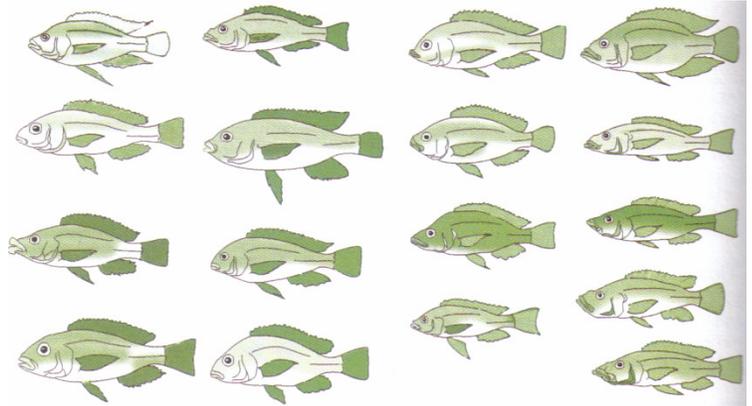
2. Look at the picture of dogs and cichlids in the book and identify how many different species there are in each picture. (The pictures have been provided in a smaller version so you can circle or mark them.)

a. Explain how many dog species you think there are below.



## Evolution Unit

- b. Explain how many cichlid species you think there are. (These are the fish pictured below.)



- c. After a class discussion, evaluate how close your predictions were to scientist's answer.

- d. Do you agree with the scientist's rationale (reasoning) for deciding how to distinguish between species? Why or why not?

### Reading: The Fundamental Unit (page 556-558)

1. What is the definition given for a species?

2. What is a hybrid (besides a car!)?

3. Examples of hybrids, bred in captivity:

-Male tiger + female lion = \_\_\_\_\_

-Male lion + female tiger = \_\_\_\_\_



4. What mystery (or "still unanswered question") relates to ligers and tigers?

Evolution Unit

5. Shade the map below to show approximately where lions and tigers are found today.

Map key:
<input type="checkbox"/> Tiger habitat
<input type="checkbox"/> Lion habitat



a. Do lions and tigers meet in the wild today? \_\_\_\_\_

b. How about in the past? \_\_\_\_\_ If so, when? \_\_\_\_\_

6. Why have lions and tigers failed to mate in nature? (Describe each point briefly!)

Factor	Lion	Tiger
Habitat		
Behavior		

7. What are the 4 features that tell different species their choice of mate is inappropriate?

- a. \_\_\_\_\_ c. \_\_\_\_\_  
 b. \_\_\_\_\_ d. \_\_\_\_\_

**Analysis:**

1. Explain why cichlids are considered different species, but dogs, the same species. Be sure to include in your explanation factors that would or would not influence hybridization.
2. Read the paragraph prompt on p. 558 (#3). Explain what you think this means in terms of species. How does this extend your understanding of the definition of species.

**Reading: Cichlids Past and Present** (p.558-559)

1. In what ways are the cichlid species of Lake Victoria different from one another?

2. Describe the impact of the introduction of the **nile perch** fish (pictured below) on the lake.



3. Create a concept map showing how the predation of the Nile perch on the cichlid has changed the ecosystem of Lake Victoria. (Words to include: fisherman, perch, cichlid, algae, oxygen, other fish, crustaceans.)

A large, empty rounded rectangular box intended for the student to draw a concept map.