1) There are 2 types of worms: worms that eat at **night** (**nocturnal**) and worms that eat during the **day** (**diurnal**). The **birds** eat during the **day** and eat **ONLY** the **diurnal** worms. The nocturnal worms are *hiding* in during this time. Each spring when the diurnal worms *reproduce*, they have about 500 babies but **only** 100 of these 500 ever become old enough to reproduce.



- a. What worm has natural selection selected **AGAINST**? \_\_\_\_\_\_ **FOR**? \_\_\_\_\_
- b. Why did the worms that were naturally selected FOR survive?
- 2) There are 3 types of polar bears: bears with **thick** coats, bears with **thin** coats and bears with **medium thick** coats. It is fall, soon to be winter. The temperatures are getting cold and the bears must be kept warm, or they will freeze to death. Many of the bears have had 2 babies each, but due to the cold temperatures, many mothers only have one cub (baby) left.



- a. What bear will natural selection select AGAINST? \_\_\_\_\_\_FOR? \_\_\_\_\_
- b. Why will this bear die more than the other bears?



There are two kinds of **ostrich**: some that run **fast** and those that run **slowly**. The **fast** birds can run up to **40** miles an hour while the slow birds can only run **30** miles an hour.

**Tigers** love to **eat** ostrich, and they can run up to **35** miles per hour.

- a. What ostrich will natural selection select AGAINST? \_\_\_\_\_\_ FOR? \_\_\_\_\_
- b. Why do you think this kind of ostrich will  ${f NOT}$  survive?

4) There are two types of rabbits: rabbits that eat **grass** and rabbits that eat **berries** and **flowers**. One year, a drought (no rain) happens and the plants have problems producing any berries.

The rabbits have had babies all year long but many are eaten by other animals. Because of no rain, many have starved to death (had no food and died).



a. What rabbit will natural selection select <b>AGAINST</b> ?	
FOR?	

b. Why would this kind of rabbit will **NOT** survive?



5) <u>Bob</u> believes that giraffes have long necks because they have **stretched** their necks to try and reach food that is high in trees. Since the parent had **stretched its** neck, it passed the long neck on to its offspring (babies). <u>Ryan</u> believes that giraffes have long necks because the giraffes with long necks were able to reach the food, and those with short necks could not and died. The long necked giraffes reproduced, and soon all of the giraffes had long necks.

- a. Who do you think is correct? Ryan or Bob? \_\_\_\_\_
- b. Which person do you think agrees with the theory of natural selection? Why?