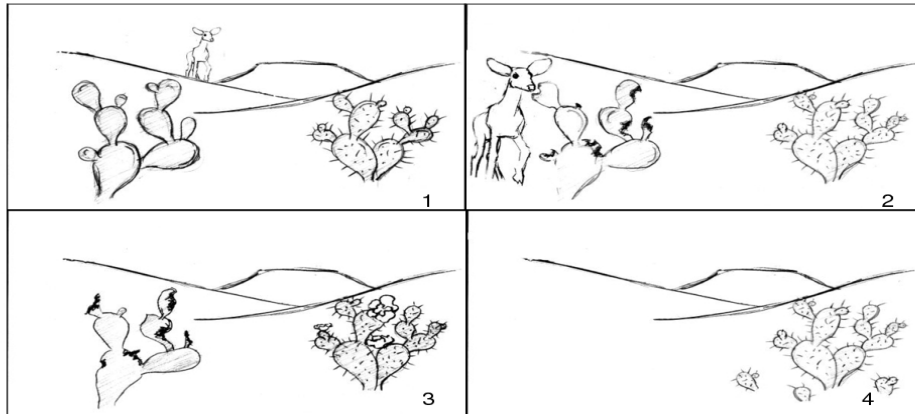


Natural Selection

Name _____



Recall that there are four parts of natural selection to take place.

Below is a series of pictures representing changes in a population of cacti. Pictures 1 and 2 show what happened when a deer came to eat, picture 3 shows the cacti a few weeks later (notice the flowers on the right-hand cactus), and picture 4 shows the situation a few months later.

- 1) What is **overproduction**?
- 2) **Genetic Variation** within the population: In picture 1, what is the main difference between the cactus on the left and the cactus on the right?
- 3) **Struggle to survive**: Why would a deer be more likely to eat the cactus on the left than the cactus on the right in picture 1?
- 4) **Survival of the Fittest**: What effect does the deer's behavior have on the survival and reproduction of these two types of cactus?
- 5) Do you think that evolution by natural selection is occurring in this cactus population? (Assume there is actually a large population of cacti, some look like each type of cacti shown above). Explain why or why not.
- 6) Describe what is happening in figures 1-3 to the right. Is the population of mice different in figure 3 than in figure 1? Explain why.

