

"Flowers and Bees" Writing Assignment

In Charles Darwin's theory of evolution, one of the most important ideas is that of natural selection. In the face of environmental challenges, plants and animals with characteristics that help them meet those challenges are more likely to survive and reproduce than others. Those characteristics are the outward and frequently beautiful expressions of the genes a plant or animal carries deep inside its cells. As the surviving plants and animals reproduce, so do their genes, giving rise to ever-greater proportions of plants and animals that exhibit the desirable traits.

In the case of flowers, one characteristic that helps insure survival is the ability to attract bees – the insects flowers rely on to bring their pollen to other flowers, which enables them to reproduce. Bees prefer landing on certain kinds of flowers – usually the ones whose colors and shapes we would describe as most beautiful, although our opinion does not matter here. The display is tailored to its intended audience – the bee.

So through the process of natural selection, the flowers that bees find beautiful are more likely to catch the bee's attention, survive, and reproduce. Human beings have perhaps an even greater effect on flower survival, by selecting a few very lucky kinds of flowers – like the tulip - for breeding, cultivation, and distribution all over the world.

1. Find a spot at school or home where bees forage.
2. Record the number of times a bee(s) visit a particular flower(s) in a 3 minute time frame.
3. Compile and represent the results of these observations in a bar graph.
4. Answer the following questions: (5-10 sentences EACH)
 - Which flowers do bees find beautiful? Which ones do they prefer?
 - Which flowers are more likely to be pollinated?
 - Which flowers will most likely be more widely distributed in future seasons?
 - How is this bee and flower observation related to natural selection?
 - How is human preference for and selection of "beauty" in flowers the same as and different from the bees preference and selection of flowers?