

## Quick Introduction for Planet Wakynabi

There once was a town in England that had a large population of moths in the woods. The moths were the same species, but had a variation. There were a group of moths that had light colored wings and another group that had dark colored wings. The light colored population was much bigger than the dark group because they blended into the light birch trees much better. Because they were more hidden, they hid easily from predators such as birds and spiders. Soon a factory came to the countryside. An interesting phenomenon happened to the environment. As the years passed and the smoke stacks from the factory poured out grimy pollution, the trees' bark became darker. When the population of moths was measured once again (about 20 years after the first time) they found an interesting change. The population of dark colored moths had gone up and the population of light colored moths was virtually extinct.

Why is that? Because the ENVIRONMENT changed. When the ENVIRONMENT changes, we find that sometimes VARIATIONS in a species SPECIALIZED STRUCTURES don't work as well. If the VARIATIONS aren't helping the POPULATION to blend in and protect themselves, then they probably won't SURVIVE.

In this case, the dark colored moths now had a great environmental situation for their variations and their specialized structures worked really well!

### Intro to Terms for this Lesson

*Write on Board and Describe/Give Examples:*

*Population*—the number and kind of organisms in an area

*Environment*—the surroundings in which an organism lives

*Survival*—the continuation of life

*Specialized Structures*—body parts which help an organism survive

*Variations*—differences in the appearances of specialized structures or traits (that can help us survive in our environments)