

## **Genetic Drift**

Genetic drift is a change in the frequency of an allele within a population over time. This change in the frequency of the allele or gene variation must occur randomly in order for genetic drift to occur. There are no environmental influences that cause genetic drift to occur. Examples of genetic drift are more evident in smaller populations of organisms.

### **Examples of Genetic Drift:**

1. The American Bison was hunted to near extinction and even today as the population has recovered, the result is a population of bison with little genetic variation
2. A population of rabbits can have brown fur and white fur with brown fur being the dominant allele. By random chance, the offspring may all be brown and this could reduce or eliminate the allele for white fur.
3. A mother with blue eyes and a father with brown eyes can have children with brown or blue eyes. If brown is the dominant allele, even though there is a 50% chance of having blue eyes, they might have all children with brown eyes by chance.
4. A bird may have an allele for two different beak sizes. Depending on which alleles show up in the offspring, genetic drift could cause one of the beak sizes to disappear from the population thus reducing the genetic variation of the birds gene pool.
5. A certain type of plant can produce blue or yellow flowers. During a fire, many yellow flowers are destroyed and now since blue is the dominant allele, the plant reproduces plants that only produce blue flowers.