**Gene Flow and Genetic Drift Practice Sheet**

**Matching**

**Directions: Match each term with the correct description.**

1. Change in trait frequencies as individuals migrate
2. Gene flow
3. Bottleneck
4. Trait frequency
5. Microevolution
6. Genetic drift
7. Founder effect
8. Macroevolution

into or out of a population.

1. Random fluctuations in trait frequencies over time

due only to chance.

1. The abundance of each kind of trait in an entire population.
2. Changes in the trait frequency of a population, brought about

by gene flow, genetic drift, or natural selection.

1. A lack of variation in traits in a very small population is

often the result of this process.

1. Darwin’s finches colonizing new islands, carrying their unique

trait frequencies with them, is an example of this.

1. Changes that cause ancestral animals to diverge and evolve

 into new species over a very long period of time.

**Directions: Identify each description as being an example of gene flow or genetic drift.**

1. A random change in allele frequencies over the generations, brought about by chance alone.
2. Emigration-
3. Prior to the turn of the century, hunters killed all but twenty of a large population of northern elephant seals.
4. When allele frequencies change due to individuals leaving a population or new individuals entering it.
5. Long ago, sea birds, winds or ocean currents carried a few seeds from the Pacific Northwest to the Hawaiian islands to establish plant populations.
6. A population of deer discovers a new piece of land and migrates to that area.
7. A massive storm killed off many organisms of rabbits. Only the few remaining existed, so genetic variation decreased dramatically.
8. Immigration-
9. Only 20,000 cheetahs have survived to the present.
10. Scrub Jays make hundreds of round trips carrying acorns from oak trees as much as a mile away to soil in their home territories for winter storage; this introduces new alleles to the oak trees.
11. A large lake divides a previously mating population of squirrels.
12. A stampede of elephants kills a beetle population with only a few remaining.
13. A population of polar bears attempts to move to a cooler area due to survive a warming climate.