

## TOPIC 7.4- Population Genetics

***Evolution is characterized by a change in the genetic makeup of a population over time and is supported by multiple lines of evidence.***

1. Explain how random occurrences affect the genetic makeup of a population.
  - Evolution is also driven by random occurrences—
    - a. \_\_\_\_\_ is a random process that contributes to evolution.
      - 1) Define evolution in your own words:
    - b. Genetic drift is a nonselective process occurring in \_\_\_\_\_ populations.
      - 2) List and describe the two types of genetic drift:
        - i. \_\_\_\_\_ -
        - ii. \_\_\_\_\_ -
    - c. Migration/gene flow can drive evolution.
      - 3) How would you describe migration? Define below:
2. Describe the role of random processes in the evolution of specific populations.

**~circle the correct choice in the following statement~**

  - Reduction of genetic variation within a given population can (*increase/decrease*) the differences between populations of the same species.

1) Give 3 examples of random processes involved in evolution:

i.

ii.

iii.

3. Describe the change in the genetic makeup of a population over time.

- Mutation results in genetic variation, which provides phenotypes on which \_\_\_\_\_ acts.

1) Describe 3 interesting examples of natural selection in the real world:

i.

ii.

iii.