

## Evolution Review Sheet - R

### Word Bank:

speciation	natural selection	analogous	mimic
common ancestor	inherited variation	genetic drift	genetic variation
cladograms	homologous	benefits	DNA similarities
adapt	punctuated equilibrium	vestigial	frequency

- The differences among the finches of the Galapagos Islands are due to \_\_\_\_\_
- The wings on birds and the wings on butterflies are \_\_\_\_\_ structures.
- \_\_\_\_\_ structures evolved from a common ancestor but have different functions.
- The similarities among embryos is evidence that they have a \_\_\_\_\_
- The most reliable evidence supporting evolution is \_\_\_\_\_
- Whales evolved from animals with hind limbs. The pelvis is a \_\_\_\_\_ structure in whales proving this.
- To avoid predation, some harmless species \_\_\_\_\_ harmful ones.
- Genetic variation increases the chances of survival if it \_\_\_\_\_ the species.
- \_\_\_\_\_ is when a single species results in several different species.
- \_\_\_\_\_ is a random event that results in a change in gene frequency.
- For natural selection to result in a new species \_\_\_\_\_ must be present so the traits are passed on to their offspring.
- \_\_\_\_\_ increases when gene flow occurs.
- \_\_\_\_\_ are diagrams used to show the evolutionary relationships among organisms.
- Animals survive and reproduce in different habitats because they \_\_\_\_\_ to their environments.
- If a gene helps offspring survive, the \_\_\_\_\_ of that gene will increase in the population.
- When a species has a sudden change then no change for a long time before changing again it is \_\_\_\_\_

12. Compare and contrast Genetic Drift and Gene Flow:

Genetic Drift	Gene Flow

**Evidences of Evolution – what do you know?**

**Matching** *On the line provided, write the letter of the definition that best matches each term on the left.*

- |                                 |   |
|---------------------------------|---|
| _____ 1. evolution              | a. change over time   |
| _____ 2. fossil                 | b. differences among individuals within a species   |
| _____ 3. natural variation      | c. the preserved remains of an ancient organism   |
| _____ 4. struggle for existence | d. survival of the fittest  |
| _____ 5. fitness                | e. all species are derived from common ancestors  |
| _____ 6. adaptation             | f. structures that develop from the same embryonic tissues, but have different mature forms |
| _____ 7. natural selection      | g. the ability of an individual to survive and reproduce in a specific environment          |
| _____ 8. common descent         | h. organs with little or no function  |
| _____ 9. homologous structure   | i. competition for food, space, and other resources among members of a species              |
| _____ 10. vestigial organ       | j. inherited characteristic that increases an organism's chance of survival                 |

**Match the type of evidence to its description.**

**WORD BANK: Biogeography, Embryology, Anatomy, DNA Comparison**

11. \_\_\_\_\_ Different organisms share **similar structures** that have very different functions, or have remnants of structures/organs that had a function in the past.
12. \_\_\_\_\_ In DNA sequencing, the more closely related two organisms are, the more similar their DNA.
13. \_\_\_\_\_ During the early stages of life, **embryos** of very different organisms appear to be very similar. As they continue to develop, they become increasingly different.
14. \_\_\_\_\_ Different habitats favor different traits and can establish separate populations that have a common ancestor.

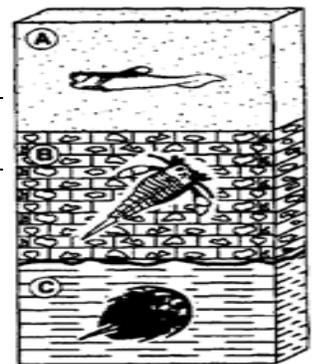
15. Using the diagram pictured, which of the fossils layers is the oldest? \_\_\_\_\_

How do you know? \_\_\_\_\_

16. How do analogous and homologous structures compare? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**Describe how evidence from the following fields of research support the theory of evolution:**

17. Fossil record \_\_\_\_\_

18. Comparative embryology \_\_\_\_\_

19. Comparative biochemistry (DNA) \_\_\_\_\_

20. Comparative anatomy \_\_\_\_\_