Practice for Evolution Test - Key

1. **Evidence for Evolution Theory**

|  |  |  |
| --- | --- | --- |
| Direct observation – we see it happening today | Biogeography  | Comparative embryology |
| The fossil record | Comparative anatomy | Molecular Biology |

1. **Homology =** *The similarity in structures due to common ancestry* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* An example of it is: 
* How is homology an example of evolution? *Comparative anatomy – Shows common ancestry by virtue of the* most likely scenario that they all changed slightly from the common ancestor, compared to each evolving it separately.
1. **Evolution** = genetic change in a population over time
2. **What makes a trait an adaptation?** *Changes as environment changes – example sickle cell*
3. **How is sickle cell disease an adaptation?** *(talk about heterozygous benefit for malaria)*



1. **What are the two things needed for natural selection to occur?**
2. **Sexual Selection** is: *When a genetic trait becomes more abundant in a population because it helps you to get more mates, not because it helps you live longer (Think peacock)*
3. **Bottleneck effect** is an example of:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*(Genetic Drift)*
* How are elephant seals and example?
1. **What is the biological description of a species?** *The most commonly used definition of* ***species*** *is a population that is capable of interbreeding to produce healthy, fertile offspring.*
2. **How do reproductive barriers maintain species**? *reproductive barriers prevent members of different species from breeding.*
	1. Give 5 examples of barriers

|  |  |  |
| --- | --- | --- |
| **Behavioral isola6on:** Members of a species (identify each other through specific rituals.) | **Mating time differences**: Many species are able to reproduce only at specific times. | **Habitat isolation**: If species live in slightly different habitats, they may never meet |
| **Mechanical incompa6bility**: Members of different species (cannot mate because their anatomies are incompa1ble. | • **Gametic incompability**: The gametes (sperm and egg of different species usually cannot fer1lize each other. | • **Hybrid weakness**: Offspring of two species may be unfit, or they may be sterile. |