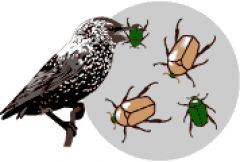
Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Class\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The Theory of Evolution**

**Natural Selection**

A mechanism for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in populations.

In nature, organisms produce\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ offspring than can survive.

In any population, individuals have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Individuals with certain \_\_\_\_\_\_\_\_\_\_\_ variations \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in their environment, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ those variations to the next generation.

“\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”

Over time, offspring with certain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ make up most of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and may look entirely \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from their ancestors.

Darwinian theory supported by genetics is known as the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Adaptations**

Any \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that \_\_\_\_\_\_\_ in an organisms chances of survival in its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Forms of adaptation:

1.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ example:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ example:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ example:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ example:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ example:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ example:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Physiological adaptations are changes in an organisms \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_.

Behavioral adaptations are the things organisms do \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Artificial Selection/Selective Breeding**

Process of breeding organisms with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to produce offspring with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Interpreting Evidence After Darwin**

What makes it difficult to comprehend evolutionary processes that occur over millions of years?

What is direct evidence of evolution?

Most evidence for evolution is indirect…meaning what?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are an important source of evolutionary evidence because they provide a \_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and evolutionary \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

As the fossil record becomes more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, the sequences of evolution become \_\_\_\_\_\_\_\_\_\_\_\_.

**Comparative Anatomy**

Structural features with a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ evolutionary origin are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ structures.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ structures can be similar in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, in \_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_.

The body parts of organisms that do not have a common evolutionary origin but are similar in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ structures.

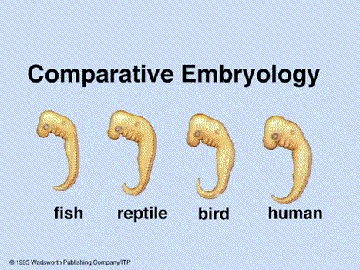
Although \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_structures don’t shed light on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ relationships, they do provide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of evolution.

Insect and bird wings probably \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ separately when their \_\_\_\_\_\_\_\_\_\_\_\_\_\_ ancestors adapted \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to similar ways of life.

**Embryology**

The science of dealing with the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_ activities of embryos.

Scientists have compared similarities in the \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of an embryo.

The embryo of a \_\_\_\_\_\_\_\_\_\_\_\_\_, a \_\_\_\_\_\_\_\_\_\_\_, and a \_\_\_\_\_\_\_\_\_\_\_\_ are almost \_\_\_\_\_\_\_\_\_\_\_\_\_\_ at certain points in their development.

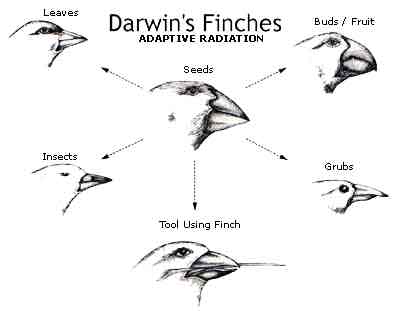
These similarities suggest \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ancestry.

Many species have very similar \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ development.

**Comparing DNA**

Nearly all organisms share some of the same \_\_\_\_\_\_\_\_\_ base pairs.

The more base pairs that are \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_, the more \_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_ the organisms are.

**Adaptive Radiation**

Where all deriving from a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ ancestor have over time successfully \_\_\_\_\_\_\_\_\_\_\_\_\_ to their environment via \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Speciation**

The evolution of a new \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs when members of \_\_\_\_\_\_\_\_\_\_\_\_ populations no longer

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to produce fertile offspring within their \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ environment.

A species is defined as a group of organisms that \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ and can \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to produce \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ offspring in nature.

Geographic isolation occurs whenever a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ barrier divides a population.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can result in new \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Genetic Variations**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, not \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, evolve.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ acts on the range of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a population.

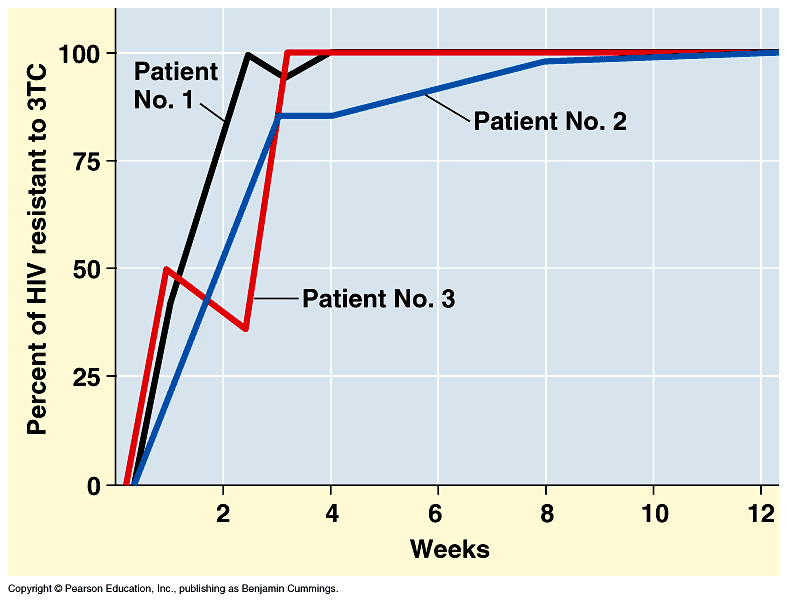
**Mutations**

Mutations: a form of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

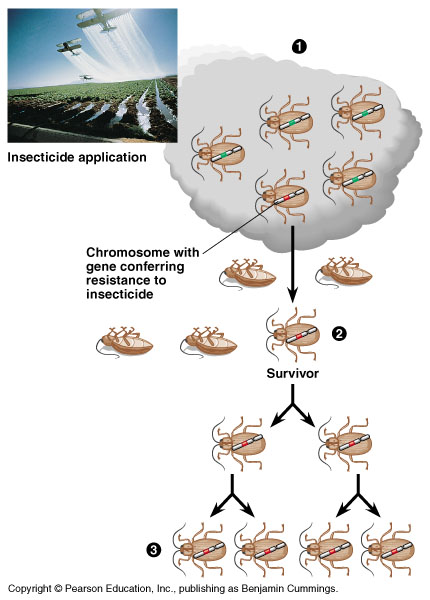
Usually mutations on genes are \_\_\_\_\_\_\_\_\_\_\_\_\_\_ to an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Occasionally a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ results in a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variation and that new \_\_\_\_\_\_\_\_\_\_\_\_ becomes part of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gene pool.

**The Evolution of Species**

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Over time, divided population may become \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ that may no longer \_\_\_\_\_\_\_\_\_\_\_\_\_, even if reunited.



\*\*Natural \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, Genetic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ all support evolution!

\*\*Evolution: the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ over \_\_\_\_\_\_\_\_\_\_\_\_\_.