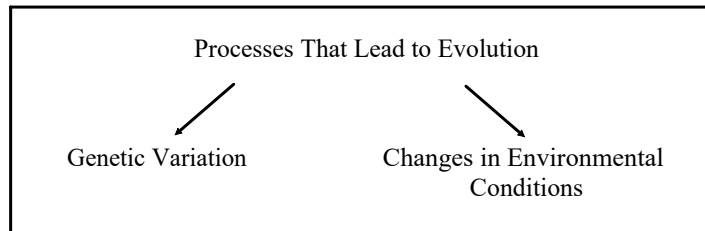


Notes - Biological Evolution, Adaptations and Natural Selection.pdf

Biological Evolution, Adaptations and Natural Selection

(Draper - Page 83)

biological evolution - change in inherited characteristics of a population from generation to successive generation
 - touted as the driving force of adaptation to environmental change



genes - segments of DNA found in chromosomes
 - impart certain inheritable traits in organisms

gene pool - sum of all genes possessed by the individuals of a population

mutations - random and unpredictable changes in DNA molecules that can be transmitted to offspring
 - can be caused by external environmental agents (X-rays, ultraviolet light) and toxic organic chemicals

genetic variability - result of millions of random changes in the DNA molecules of individuals in a population

adaptation - any genetically controlled characteristic (structural, physiological or behavioural) that enhances the chance for members of a population to survive and reproduce in their environment

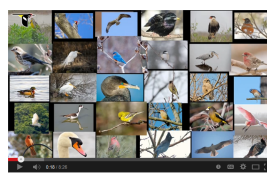
structural adaptations - coloration, mimicry, protective cover, gripping mechanisms

physiological adaptations - ability to poison prey, give off chemicals to repel predators, hibernate during cold weather

behavioural adaptations - migration, resource partitioning, species interactions (ie/parasitism)

natural selection - process by which the best adapted organisms survive and reproduce in a given environment

speciation - the formation of two or more species from one as the result of divergent natural selection in response to changes in environmental conditions



Speciation: An Illustrated Introduction

extinction - process by which a species is eliminated from existence when it cannot adapt genetically and reproduce successfully under new environmental conditions

EcoPoint Opportunity...

[Print Word Document and/or Email]

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- 2 species per adaptation (structural/physiological/behavioral)
- state the adaptation & need pictures for each

5 ecopoints per adaptation

**+ 5 BONUS for adding a video for
each adaptation**



Structural Adaptations...

Moose have a nostril path that doesn't allow water through.

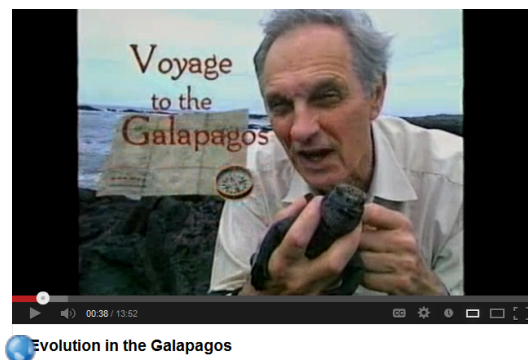


Moose antlers are used for competition with other male moose as well as for marking territory.

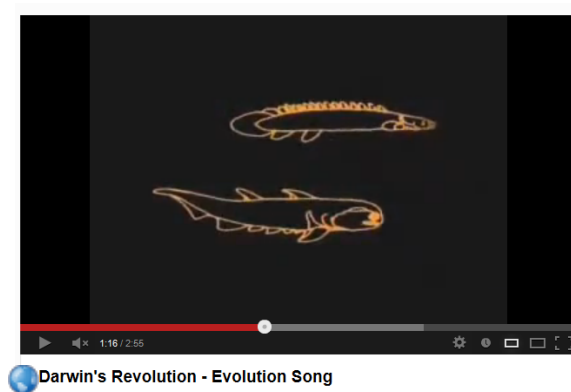
<https://www.youtube.com/watch?v=pN5PmOS34hI>

Processes that lead to Evolution...

1) Changes to the environment



2) Changes to the genetics



Attachments

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