Natural Selection and Adaptation

TEKS

- B.7.E - Analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species.
- B.7.C - Analyze and evaluate how natural selection produces change in populations, not individuals.
- B.7.D - Analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success.
- B.7.F - Analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination.

Textbook Chapters

- Chapter 11

Videos

- Video: The Making of the Fittest: Natural Selection and Adaptation
  

Other Resources

- Website: Wikipedia
  
  - Natural Selection
    

- Website: Berkely.edu
  
  - Hooked on Natural Selection
    
    - http://evolution.berkeley.edu/evolibrary/article/bergstrom_02
15 The concept of gene flow is demonstrated when a cow is driven off from its herd, joins another herd, and reproduces. When the cow contributes to the gene pool of the new herd, which of these most likely increases?

A Natural selection  
B Genetic variation  
C Environmental fitness  
D Reproductive mutations

34 Plants have developed many methods of seed dispersal. The table below shows seeds of two different plants.

<table>
<thead>
<tr>
<th>Plant</th>
<th>Mass of Seed (g)</th>
<th>Seed Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milkweed</td>
<td>0.00588</td>
<td></td>
</tr>
<tr>
<td>Dandelion</td>
<td>0.0026</td>
<td></td>
</tr>
</tbody>
</table>

How has the seed dispersal method developed by these plants given them a reproductive advantage?

F The method ensures that offspring will be dispersed and reduces competition for resources.
G The method reduces the chance that herbivores will consume the seeds.
H The method lengthens the life cycle of each of these plants.
J The method reduces the plants’ need for water and other nutrients.

50 Which condition is essential for natural selection to result in a new species?

F Unlimited resources  
G An inherited variation  
H A static environment  
J A long life span