**Bioflix: Mechanisms of Evolution** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_\_\_

Go to this site and watch the animation: <http://media.pearsoncmg.com/bc/bc_0media_bio/bioflix/bioflix.htm?8apevolution>

1. Watch the animation
2. Click on ‘Tutorials’. Complete the activity.
3. Click on Study Guide. On the back of this sheet, create the same chart and complete it with thorough answers. ALSO, answer the question at the end.
4. Then, go to this site and answer the questions: <http://wps.pearsoncustom.com/pls_1269930281_campbell_biology_hcc/245/62952/16115848.cw/content/index.html> . How many were correct? \_\_\_\_\_\_\_

In case the site goes down, here are the questions:

**Mechanisms of Evolution**

*BioFlix*

*This activity contains 5 questions.*

Top of Form

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| Question 1 | http://wps.pearsoncustom.com/wps/media/objects/15735/16113152/_skins_/P/places_blue/pixel.gif | http://wps.pearsoncustom.com/wps/media/objects/15735/16113152/_skins_/P/places_blue/ps_bkgd_upper_right.gif |
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| 1**Open Hint for Question 1 in a new window** | **The evolution of populations due to chance is** |
|   |

|  |  |
| --- | --- |
|    | gene flow. |
|    | genetic variation. |
|    | genetic drift. |
|    | natural selection. |
|    | has more effect in large populations than in small populations. |

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| Question 2 | http://wps.pearsoncustom.com/wps/media/objects/15735/16113152/_skins_/P/places_blue/pixel.gif | http://wps.pearsoncustom.com/wps/media/objects/15735/16113152/_skins_/P/places_blue/ps_bkgd_upper_right.gif |
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| 2**Open Hint for Question 2 in a new window** | **If color is an inherited trait in beetles, and birds are more likely to eat brown beetles than green beetles,** |
|   |

|  |  |
| --- | --- |
|    | the frequency of the brown allele will increase. |
|    | this causes the population to evolve due to genetic drift. |
|    | the frequencies of the brown and green alleles will not change. |
|    | the frequency of the green allele will increase. |
|    | this causes the population to evolve due to gene flow. |

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| Question 3 | http://wps.pearsoncustom.com/wps/media/objects/15735/16113152/_skins_/P/places_blue/pixel.gif | http://wps.pearsoncustom.com/wps/media/objects/15735/16113152/_skins_/P/places_blue/ps_bkgd_upper_right.gif |
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| 3**Open Hint for Question 3 in a new window** | **In a population with brown and green alleles for color, genetic drift** |
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|   | has more effect on the evolution of a large population. |
|   | occurs when individuals move into or out of a population, changing the allele frequencies in the population. |
|   | always increases the frequency of brown alleles in the population. |
|   | causes populations to become better adapted to their environments. |
|   | has more effect on the evolution of a small population. |

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| Question 4 | http://wps.pearsoncustom.com/wps/media/objects/15735/16113152/_skins_/P/places_blue/pixel.gif | http://wps.pearsoncustom.com/wps/media/objects/15735/16113152/_skins_/P/places_blue/ps_bkgd_upper_right.gif |
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| 4**Open Hint for Question 4 in a new window** | **Color is an inherited trait in beetles. If brown beetles move into a population from a nearby island, which of the following statements is correct?** |
|   |

|  |  |
| --- | --- |
|    | Natural selection causes the frequency of the brown allele to increase. |
|    | Natural selection causes the frequency of the green allele to increase. |
|    | Gene flow causes the frequency of the green allele to increase. |
|    | This is an example of genetic drift. |
|    | Gene flow causes the frequency of the brown allele to increase. |

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| Question 5 | http://wps.pearsoncustom.com/wps/media/objects/15735/16113152/_skins_/P/places_blue/pixel.gif | http://wps.pearsoncustom.com/wps/media/objects/15735/16113152/_skins_/P/places_blue/ps_bkgd_upper_right.gif |
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| 5**Open Hint for Question 5 in a new window** | **Remember that color is an inherited trait in beetles. Which of the following is an example of natural selection?** |
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| --- | --- |
|    | A storm kills more green beetles than brown beetles by chance. |
|    | Green beetles and brown beetles always leave the same number of offspring. |
|    | Green beetles migrate out of the population. |
|    | Green beetles leave more offspring than brown beetles because they are better at finding food. |
|    | Green beetles migrate out of the population, and brown beetles migrate into the population. |

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| **Clear Answers/Start Over** |  |

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