Honors Biology
Unit 6: Evolution

Keep to study!

Name: _____ Period: _____

6.3 MECHANISMS OF EVOLUTION REVIEW

For the diagrams below, identify what type of mechanism is being illustrated and describe how it works as a mechanism of evolution.

1.

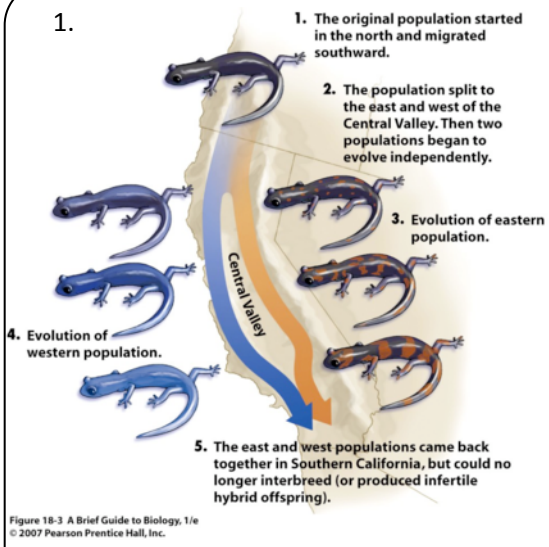
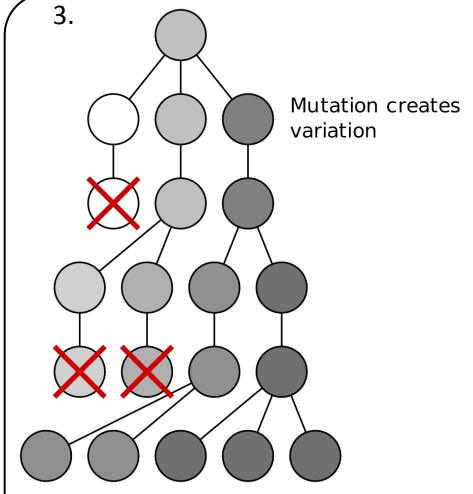


Figure 18-3 A Brief Guide to Biology, 1/e
© 2007 Pearson Prentice Hall, Inc.

2. Two male Sage Grouse fight in front of females:

3.



4.

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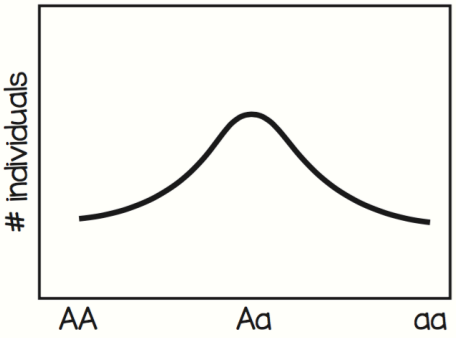
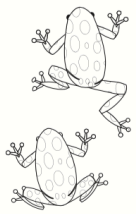
Answer the questions below.

A standard population in equilibrium is shown on the right. Read each scenario and draw a rough graph and label it with the type of natural selection that is acting on the population to produce each graph.
The possible choices are the following: directional, stabilizing, or disruptive

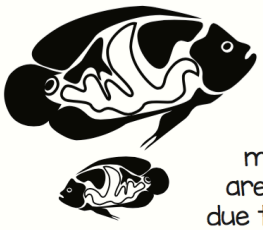
In all examples below:
"A" symbolizes a particular dominant allele.
"a" symbolizes a particular recessive allele in the same gene.
A is incompletely dominant over a. Aa individuals have an intermediate phenotype.



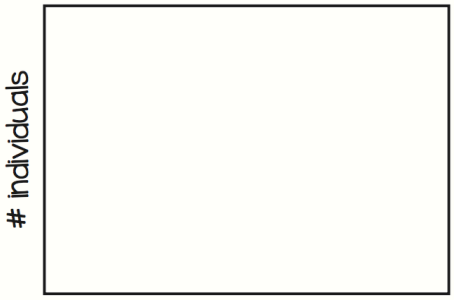


A population of tree frogs have a gene with two different alleles that affect how quickly their skin dries out when they are out of the water. One allele (A) helps to prevent their delicate skin from drying. AA individuals are especially good at surviving in dry environments. Initially in this population, there is no selection, as there is plenty of water normally in the environment. One year, a long drought hits the area and the area they live in becomes drier and drier. Show the selection that you predict would take place on the frog population and explain your answer.

1. _____

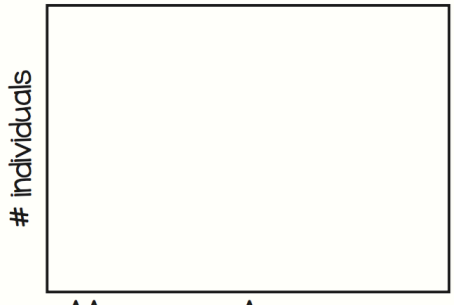


A population of cichlid (a fish) have a gene with two alleles that affect body size. AA individuals are large, Aa individuals are medium size, and aa individuals are dwarf. In a particular lake, due to sudden competition with other newly introduced fish species, the number of nesting areas is scarce. Two are available to cichlids: rocks with large caverns and very small empty snail shells on a shell bed. Show the selection that you predict would take place on the fish population and explain your answer.



2. _____

A population of kangaroos have a gene with two alleles that affects birth weight. AA individuals are much heavier at birth. Aa individuals are medium size at birth and aa individuals are very small at birth. Large babies sometimes during the birth process and very small babies often die from illness. Show the selection you predict is taking place on this population and explain your answer.



3. _____

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