



Evolution Senior Intern (Total XP = 35 available. Needs 62 **total** to unlock next level)

G. Click “Next” Gene Flow (http://evolution.berkeley.edu/evolibrary/article/0_0_0/evo_21) and write out the paragraph **(5 XP)**

Gene flow, also called _____, is any movement of _____ from one _____ to another. Gene flow includes lots of different kinds of events, such as _____ being blown to a new destination or people moving to new cities or countries. If _____ are carried to a population where those genes previously did not _____, _____ can be a very important source of genetic _____. In the graphic on the website, the gene for _____ coloration moves from one population to another.

Explain gene flow in your own words:

H. Click “Next” Sex and Genetic Shuffling (5XP)
(http://evolution.berkeley.edu/evolibrary/article/0_0_0/evo_22)

How does sex produce variation and diversity in a population?

When organisms reproduce _____, some _____ “_____” occurs, bringing together new combinations of _____.

This shuffling is important for evolution because it can introduce _____ combinations of _____ every generation. However, it can also break up "good" combinations of genes.

Give an example where you think gene shuffling has produced a “good” combination of genes

I. “Genetic Drift” (http://evolution.berkeley.edu/evolibrary/article/0_0_0/evo_24) (5XP)

In any population, some individuals will have more kids than other individuals (just by chance). Some of those individuals will be “lucky” and survive. Explain the cartoon and how it shows this idea.

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J. Click “Next” Natural Selection (http://evolution.berkeley.edu/evolibrary/article/0_0_0/evo_25) (10XP)

Natural Selection is the most important mechanism behind evolution. This webpage gives you an example of natural selection involving beetles. Read the descriptions and look at the cartoons. Explain what has happened to this population of beetles starting from the initial population.

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Explain each term:

*If you have
variation,*

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differential reproduction,

--

and heredity,

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you will have evolution by natural selection as an outcome. It is as simple as that.

K. Click “Next” Natural Selection at work
(http://evolution.berkeley.edu/evolibrary/article/0_0_0/evo_26) (4XP)

Give two examples of modern day natural selection.

L. Click “Next” What about fitness

(http://evolution.berkeley.edu/evolibrary/article/0_0_0/evo_27) (6XP)

Fitness is an often misunderstood term. It does not necessarily mean that the fittest individual is the strongest. What does fitness mean?