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INTERACTIVE BIOLOGY ACTIVITY:
NATURAL SELECTION, VARIATION, and MICRO-EVOLUTION

INSTRUCTIONS:

1. Enter the following url: ats.doit.wisc.edu/biology/lessons.htm or just google "University of Wisconsin Interactive Biology Lessons".
2. Under the "Evolution" tab, click on "Natural Selection".
3. You will be completing Topic 1: "Defining Natural Selection", Topic 2: "The Genetic Basis of Variation", and Topic 3: "Micro-evolution: Evolution in a Population"
4. Answer all of the questions below.

TOPIC ONE: Defining Natural Selection

1. What are the 3 major ways evolution has been misunderstood?
 - a)
 - b)
 - c)
2. A "fit" individual is one that _____ and _____.
3. What are the two main categories of reasons why fitness differs between individuals?
 - a)
 - b)
4. Describe the relationship between the plant *Euphorbia damarana* and the animal called a Gemsbock.

5. In which population was natural selection not the reason for the difference in fitness?
6. Why were the long-tongued salamanders more "fit"?
7. If you chose "Fast flies...no... and tongue length", open the windows that explain these answers.
8. Does natural selection work on existing variation OR create variation?
9. Take the Word Bank quiz at the end of Topic One. Write the complete and correct statement below:

TOPIC TWO: The Genetic Basis of Variation

1. Play the "Fitness Fever" game

TOPIC THREE: Microevolution: Evolution in a Population

1. Hunt for moths.
2. Use the "Help" features to calculate allele frequencies.
3. Use Part 2 of the Help feature to practice calculations. HINT: The calculator feature is there for a reason.
4. Use Part 3 of the Help feature.
5. Did the population of moths evolve? Explain.
6. What was the selective pressure?
7. Does natural selection act on phenotype or genotype?
8. Is natural selection causing the moth population to become better adapted? How?