Topic 6 - The Best Selection

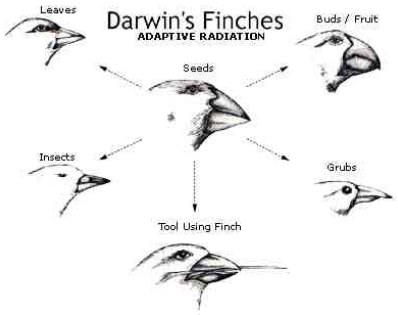
1. Long before the science of genetics started, people tried to reproduce organisms with only the most preferred traits, by allowing only those organisms with the desirable traits to reproduce. This method was not always successful, but it provided scientists with information to help them determine which alleles were responsible for specific traits through …
   A. organization
   B. trial and error
   C. scientific research
   D. opinion and thought

2. The process of intervention to produce more desirable organisms takes a long time to see results - usually many generations. Speeding up the artificial selection process by using cells to make new cells is called …
   A. cloning
   B. in vitro fertilization
   C. genetic engineering
   D. artificial insemination

3. Agricultural selective breeding programs bring positive characteristics of two different varieties together to create a new variety that has more desirable characteristics, such as the type created to produce flour that is good for making pasta, called …
   A. Canada Prairie Spring Wheat
   B. Hard White Spring Wheat
   C. Canadian Western Amber Durum
   D. Western Red Spring Wheat

4. The specimens and observations made by Charles Darwin about the diversity of life on the Galapagos Islands is detailed in his most famous book, *Origin of the Species*. Darwin was the first scientist to explain that selection process occurred …
   A. automatically
   B. instinctively
   C. artificially
   D. naturally

5. The Galapagos finches provide the best example of this theory – how the fittest, or best-adapted, organisms for a specific environment survive.



   The diversity of life in the Galapagos Islands helped Darwin explain his theory.

   His theory includes all of the following statements, **Except** …
   A. There is incredible variation within each species.
   B. All organisms produce more offspring than can possibly survive.
   C. Some of the variations increase the chances of an organism surviving to reproduce.
   D. Eventually, over time, variations stop being passed on through offspring.

6. Other examples that can be explained using Darwin's theory include what happened to this insect in industrialized England. The change in coloration enabled this species of moth to survive. The species is known as the …
   A. Salted Moth
   B. Sugared Moth
   C. Peppered Moth
   D. Black and White Moth