Natural Selection Assessment

1. A student explains how natural selection causes populations to change over time like this:

   Natural selection happens because individuals have to fight one another to get resources and find a mate. Only the strongest, fastest, and fiercest individuals get to reproduce and pass on their alleles. That’s what “survival of the fittest” means.

   The teacher says, “Wait a minute. What about sea sponges or oak trees? They can’t fight one another.”

   Construct an explanation of natural selection that applies to ALL living things.
2. A rare genetic variation for smaller body size exists in a population of organisms.

a. Choose the graph that best supports the statement above.
   - GRAPH 1
   - GRAPH 2

b. The variation for smaller body size allows the organisms that have it to use a resource that others cannot; it has no disadvantages.

Choose the graph that shows how the distribution of body size in the population is likely to change after many generations.
   - GRAPH 3
   - GRAPH 4
   - GRAPH 5

   Choose the graph you chose in parts a and b, and make a claim about the population.