

Natural Selection Assessment

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

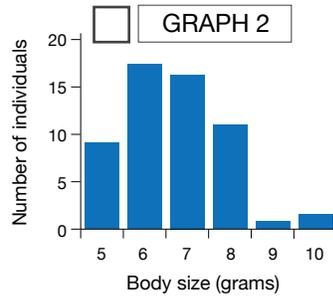
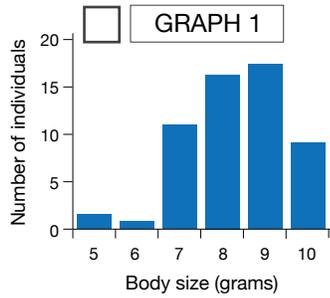
Natural selection happens because individuals have to fight one another to get resources and find a mate. Only the strongest, fastest, and fiercest individuals get to reproduce and pass on their alleles. That's what "survival of the fittest" means.

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.

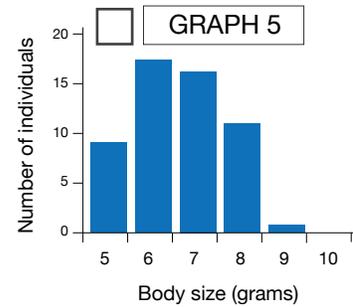
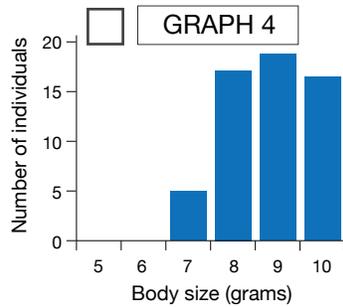
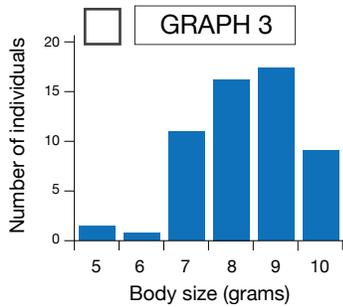
2. A rare genetic variation for smaller body size exists in a population of organisms.

a. Choose the graph that best supports the statement above.



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.



c. Compare the graphs you chose in parts a and b, and make a claim about the population.