Genetic Variation Worksheet   Name_____
Date_____   Period_____

Below are scenarios in which a population's gene pool is affected. Remember, we discussed 3 ways in which a population's gene pool can be affected (recall in text). After reading the scenario, write which of the 3 ways is demonstrated and explain using 2 complete sentences why you chose this answer.

Scenario #1 In a population of spiders, there is a protein that is coded in the DNA to make venom. In a particular spider, there was a protein variation due to a change in the *genetic code. This protein variation caused the spider's venom to be stronger to kill its* prey. This genetic variation was passed down to offspring and was favored due to the amount of time shortened to eat its prey.
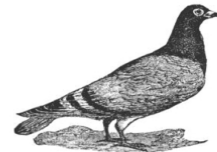
Event Causing Genetic Variation in the Gene Pool:

Explaination:

Scenario #2 In a population of pigeons, there are genotypes for iridescent feathers and non iridescent feathers. Over time, the females of the population would prefer mates with iridescent feathers 75% of the time. Eventually, the phenotype of non iridescent feathers has decreased dramatically.

Event Causing Genetic Variation in the Gene Pool:

Explaination:

Scenario #3 In a population of tropical fish, there are two types of genotypes that predict if the fish to survive better in cooler water. Industry has created a pipeline that goes from the plant to the habitat of this fish. In the pipeline was a cold water byproduct from cooling a machine. Since the water has been added to the habitat, those with the recessive genotype have ended up dead.

Event Causing Genetic Variation in the Gene Pool:

Explaination: