**Evolution is one of the unifying themes of biology. Evolution involves change in the frequencies of alleles in a population. For a particular genetic locus in a population, the frequency of the recessive allele (*a*) is 0.4 and the frequency of the dominant allele (*A*) is 0.6. w2**

1. **What is the frequency of each genotype (*AA*, *Aa*, *aa*) in this population? What is the frequency of the dominant phenotype?**
2. **How can the Hardy-Weinberg principle of genetic equilibrium be used to determine whether this population is evolving?**
3. **Identify a particular environmental change and describe how it might alter allelic frequencies in this population. Explain which condition of the Hardy-Weinberg principle would not be met.**