

Checklist

What you should know

After studying this subtopic you should be able to:

- Recognise that natural selection is the mechanism that drives evolutionary change.
- Explain the roles of mutation and sexual reproduction in generating variation.
- Identify and explain the biotic and abiotic factors that promote natural selection.
- Explain that differences in adaptation, survival and reproduction form the basis of natural selection.
- Recall that heritable changes lead to evolutionary change.
- Define sexual selection as a special case of natural selection.
- Describe the effects of sexual and natural selection through simulation of selection pressure.

Higher level (HL)

- Define the concept of a gene pool.
- Describe the changes that occur in allele frequencies in geographically isolated populations.
- State the causes for the changes in allele frequency in the gene pool.
- Differentiate among directional, disruptive and stabilising selection.
- Define Hardy-Weinberg equilibrium.
- Identify the Hardy-Weinberg conditions that need to be maintained for genetic equilibrium in a population.

