



## 3.7.4 Populations in ecosystems

### Populations in ecosystems

#### Ecosystems

You will learn how there are several versions of genes called alleles which determine our characteristics

#### Variation in population sizes

You will learn how to use genetic diagrams to predict the results of crosses involving recessive, dominant and codominant alleles

#### Investigating populations

You will learn how to use genetic diagrams to predict the results of crosses involving multiple alleles

#### Succession

You will learn how to use genetic diagrams to predict the results of sex-linkage or autosomal linkage

#### Conservation

You will learn how to fully label genetic diagrams to predict the results of crosses involving epistasis

#### Conservation evidence

You will learn how to use the chi-squared test to compare observed phenotypic ratios with expected ratios

#### VOCABULARY

**Stimulus**

**Receptor**

**Hormones**

**Action potential**

**Depolarisation**

**Synapse**

**Neurotransmitter**

**Neurone**

**Contraction**

**Antagonistic**

This module revisits topics concepts previously studied in GCSE such as genetic crosses. You will build on these topics greatly by developing your ability to predict the genotype of more complicated dihybrid crosses.

This module will introduce the use statistics to calculate the ratio of alleles within a population and predict how these may change over time due to selection pressures.