

## **LEARNING JOURNEY**

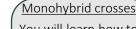
## Biology

### 3.7.1 Inheritance to 3.7.3 Populations and Evolution

Inheritance

#### Genetic terms

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



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



### Dihybrid Crosses

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

### <u>Epistasis</u>

You will learn how to fully label genetic diagrams to predict the results of crosses involving epistasis You will learn how to use genetic diagrams to predict the results of sex-linkage or autosomal linkage

Linkage

### Chi squared

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

**Populations** 

and evolution

VOCABULARY
Genotype
Phenotype
Allele
Gene
dominant

Codominant recessive Locus Homozygous Heterozygous Haploid

sex-linkage Autosomal linkage epistasis

# ratios

### Hardy-Weinberg

You will learn that species exist as more than one population and how to calculate the frequency of alleles in those populations



## Variation and structure

diploid

You will learn how genetic and environmental factors can genotype and phenotype



You will learn how a separation of two populations can lead to an accumulation of differences in the gene pool

