

Inheritance

What is an allele?

Inheritance

Dominant allele

Inheritance

Recessive allele

Inheritance

Homozygous or heterozygous: TT, Tt, tt?

Inheritance

Genotype versus phenotype

Inheritance

What is polygenic inheritance?

Inheritance

Tt × Tt: what are the offspring genotypes and phenotypes?

Inheritance

Two unaffected parents have an affected child. What does this show?

An allele that is expressed in the phenotype even when only one copy is present.

A different version (alternative form) of the same gene.

TT and tt are homozygous (two identical alleles). Tt is heterozygous (two different alleles).

An allele that is only expressed in the phenotype when two copies are present.

A feature controlled by several genes working together, such as height. Most features are polygenic.

Genotype is the alleles an organism has. Phenotype is the characteristic that is expressed.

The characteristic is recessive and both parents are carriers (heterozygous).

1 TT : 2 Tt : 1 tt, giving 3 tall : 1 short.

Inheritance

What is the probability of a recessive child from two carrier parents?

Inheritance

Which sex chromosomes do females and males have?

Inheritance

Why is there a 50% chance of a boy or a girl?

Females are XX. Males are XY.

1 in 4 (0.25 or 25%). A 3 : 1 ratio means 1 in 4, not 1 in 3.

All eggs carry X. Half of the sperm carry X and half carry Y, so the sperm decides the sex.