Reproduction Comparison & Punnet Squares

Asexual Reproduction

C-notes

In asexual reproduction there is only one cell: NO FERTILIZATION happens

The genes of the offspring are IDENTICAL

Sexual Reproduction

Requires two cells to get together

The two cells that come together are special they are called GAMETES

Gametes only have a total of 23 chromosomes

Sexual Reproduction

When the 2 gametes get together it is called FERTILIZATION

The two gametes combine the chromosomes to add up to 46

Since you get half from your mom and half from dad, the offspring are UNIQUE

C-notes

Genetics: Using Punnet Squares

A Punnet Square is used to calculate the PROBABILITY of the genotype of offspring:

Example 1

Eye Color

Brown (B) is dominant

Blue (b) is recessive

Dad has Bb genotype

Mom has bb genotype

Dad

	B	b
b	Bb brown	bb blue
b	Bb brown	bb blue

Brown = 50%

Blue = 50%

C-notes

Genetics: Using Punnet Squares

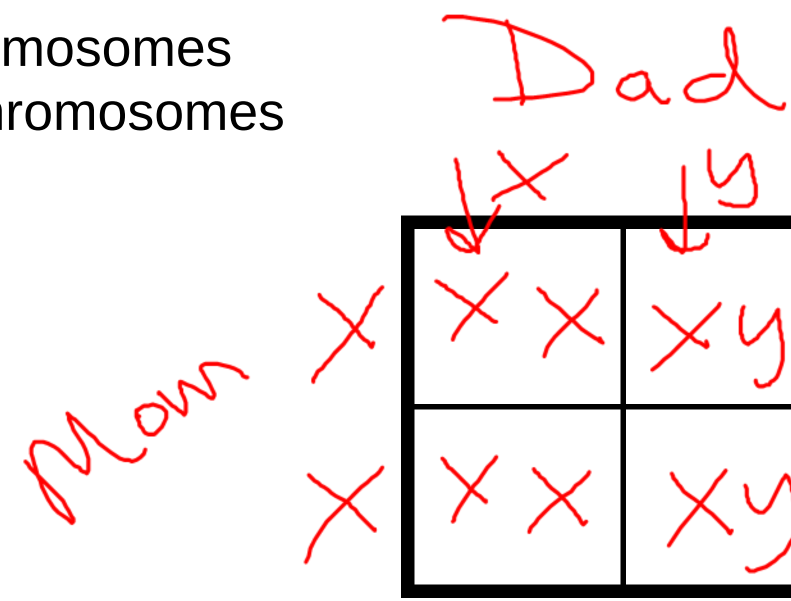
A Punnet Square is used to calculate the PROBABILITY of the genotype of offspring:

Example 2:

Gender- is not controlled by a gene but by a whole chromosome

Male: XY- chromosomes

Female XX- chromosomes



Punnet Square Practice 1

1. B= Brown eyes b= blue eyes Mom= Bb Dad= BB What are the eye color possibilities if they chose to have children?

Mom

		B	b
Dad	B	BB brown	Bb brown
	B	BB brown	Bb brown

Genotypes

BB

Bb

Phenotypes

~~BB~~

~~Bb~~

100% brown

0% blue