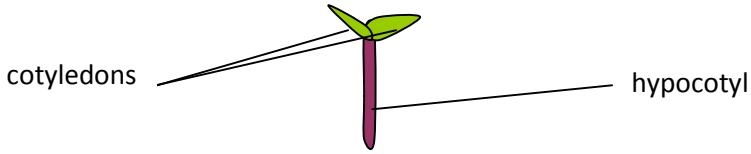
Eu-Sol Tomato Seeds Overview (9:3:3:1)

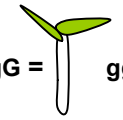
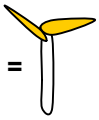
Eu-Sol Tomato Seeds show how dominant and recessive traits are passed from one generation to the next. To look at two traits at the same time (dihybrid inheritance) look at the colour of the seedlings' cotyledons and hypocotyls.

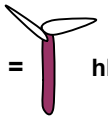
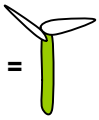
Cotyledons are also know as seed leaves and are the first leaves of a young seedling. There are visible from around 10 days after a seed has been sown. They are supported by a structure called the hypocotyl.



Eu-Sol Tomato seedlings have cotyledons which are either green or golden. The green colour is the dominant trait. Let's say it is controlled by the single gene **G**. The golden cotyledons are a recessive allele. Golden cotyledons are governed by the gene **g**.

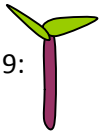
Eu-Sol Tomato seedlings hypocotyls either contain some purple or don't. The purple colour is the dominant trait. Let's say it is controlled by a single gene **H**. A completely non-purple (green) hypocotyl is a recessive allele governed by the gene **h**.

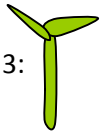
GG, Gg or gG =  **gg =** 

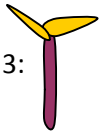
HH, Hh or hH =  **hh =** 

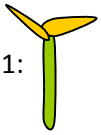
Eu-Sol Tomato Seeds are the offspring of plants with the genes **GgHh** and **GgHh**. The cross **GgHh** x **GgHh** produces the following ratio of offspring.

GgHh x GgHh	G H	G h	g H	g h
G H	GG HH	GG Hh	Gg HH	Gg Hh
G h	GG hH	GG hh	Gg hH	Gg hh
g H	gG HH	gG Hh	gg HH	Gg Hh
g h	gG hH	gG hh	gg hH	gg hh

9: 

3: 

3: 

1: 

By growing the seeds you will be able to see how this ratio expresses itself in the real world. You can grow the seeds, record what you see and then add your findings to, and compare them with, schools from across Europe.

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