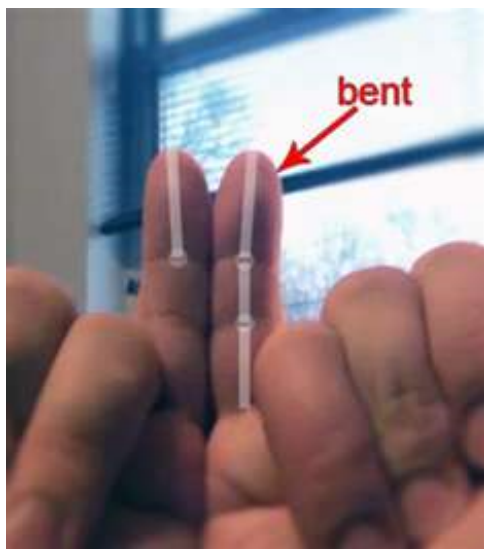
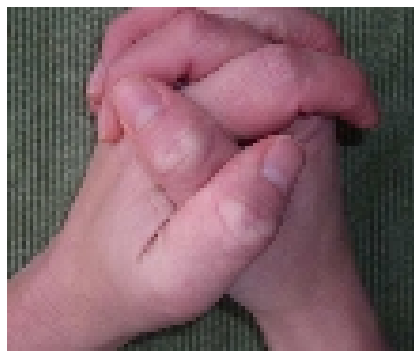


Trait	Type	Your Trait	Number in class
Bent Pinky	(Dominant)		
Dimples	(Dominant)		
Blue Eyes	(Recessive)		
Mid-Digital Hair	(Dominant)		
Tongue-rolling	(Dominant)		
Widow's Peak	(Recessive)		
Thumb Crossing	(Dominant)		
Free Ear Lobes	(Dominant)		
Hitchhiker's Thumb	(Dominant)		

<http://tami-port.suite101.com/dominant-human-genetic-traits-a38351>





Regular thumb

Hitchhiker's thumb

Size and shape



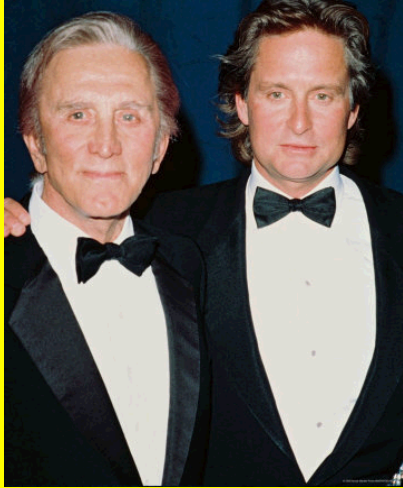
Diagram showing free (left) and attached (right) earlobes.

Genes and Heredity

Have you ever been able to identify a stranger as a member of a particular family ?

Red hair, high cheekbones, or a prominent nose can often be traced through family lineages. The observation that a young child resembles her grandmother suggest that physical characteristics are inherited. Similar observation can be made in the world of plants and animals.

ie. Flowers with white petals usually produce offsprings with whit petals



Genes and Heredity

Characteristics appear to be repeated from generation to generation.

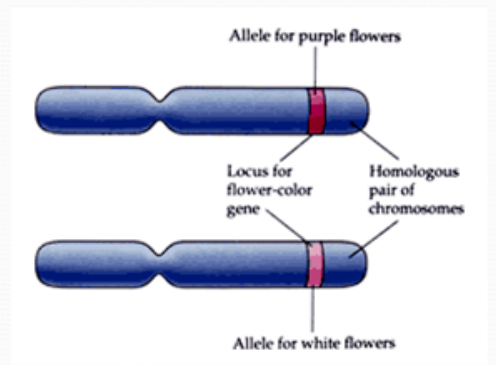
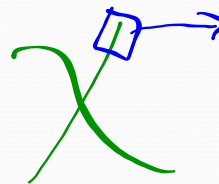
Heredity - the passing of traits from parents to offspring .

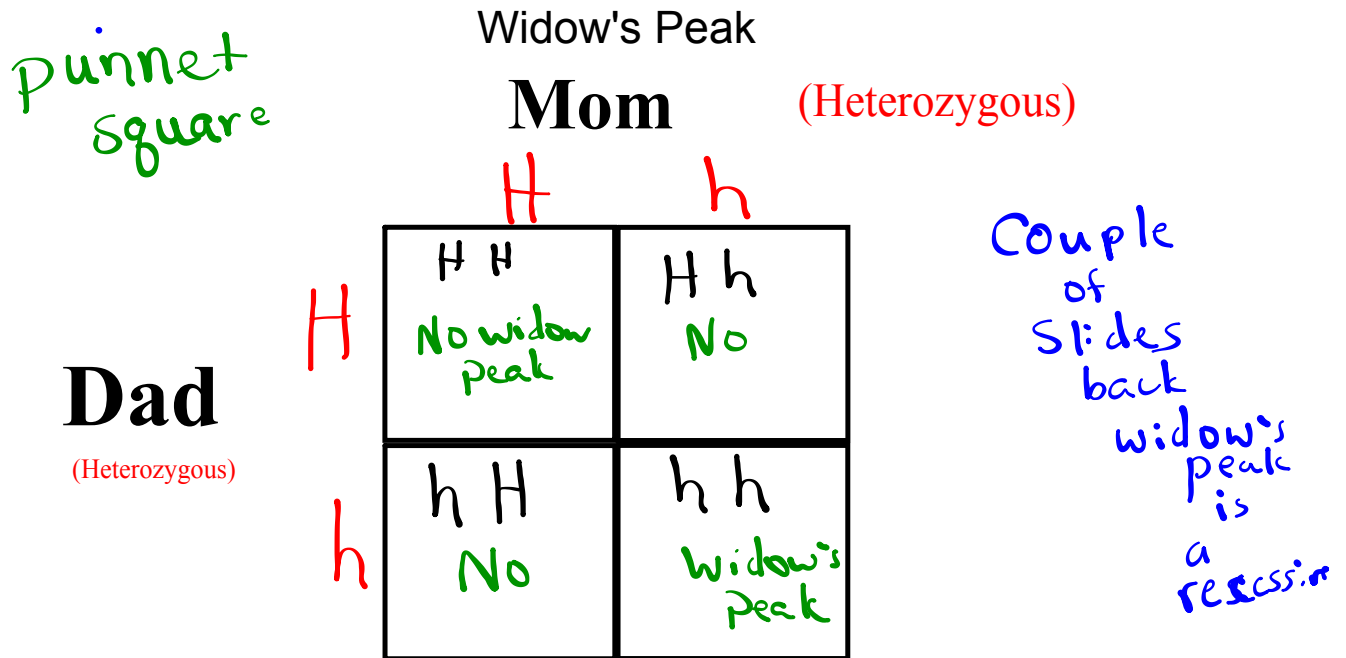
How is it possible for two parents with black hair to have a child with red hair?

Since you inherited half of your chromosomes from your mother and the other half from your father, your traits are a result of interactions of genes of both parents.

Alleles

- The different versions of genes are called alleles.
- For each gene, one allele is passed on from the father in the sperm.
- The other allele is passed from the mother in the egg.
- A chromosome contains many genes, and they occupy specific places on the chromosome.





W → have widow's peak
 w → straight hairline

Widow's Peak

Mom

Same Capital
(Homozygous dominant)

H H

Dad

(Heterozygous)

H

	H	H
H	H H	H H
h	h H	h H

→ Only way to get widow's peak hh

No chance

Widow's Peak •

Mom (Homozygous recessive)

Same

lower case

h h

Dad
(Heterozygous)
diff

H	hH	hH
h	hh	hh

Widow's peak
hh
P(widow's peak)
 $\frac{2}{4} = 50\%$

Widow's Peak

Mom

(Homozygous recessive)


h h

Dad
(Homozygous recessive)

h

h	hh	hh
h	hh	hh

100%

 Video
16 min

Attachments

Biologically_Speaking__Genetics_and_Hereditiy.asf