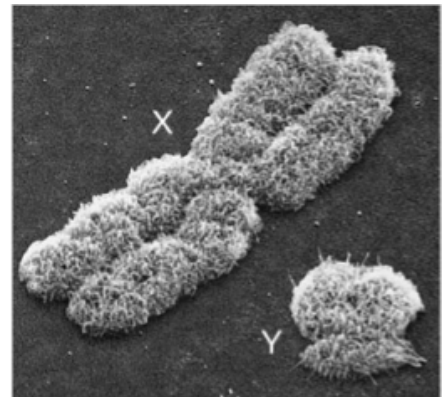
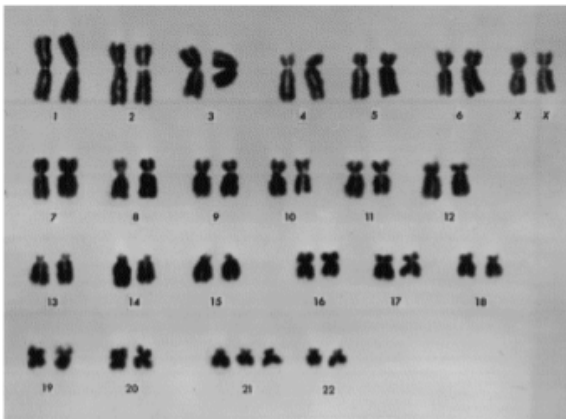
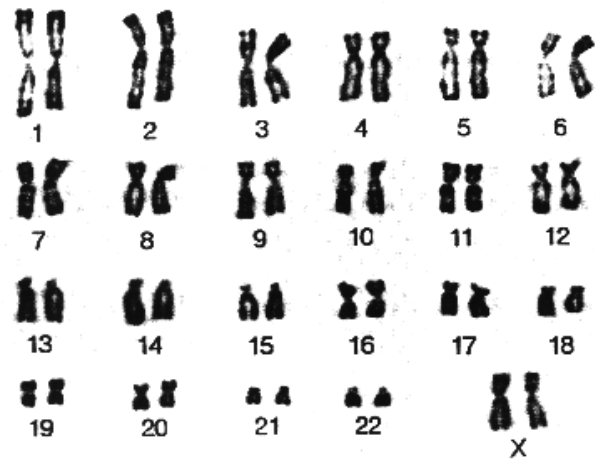
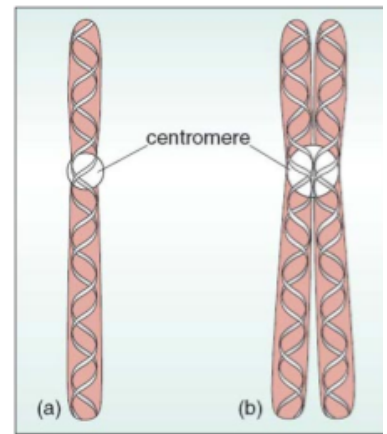
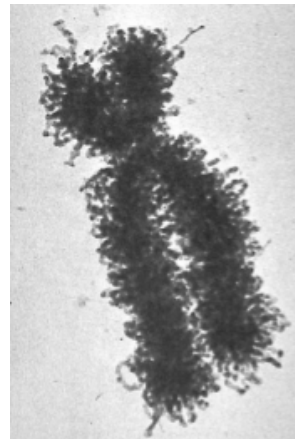
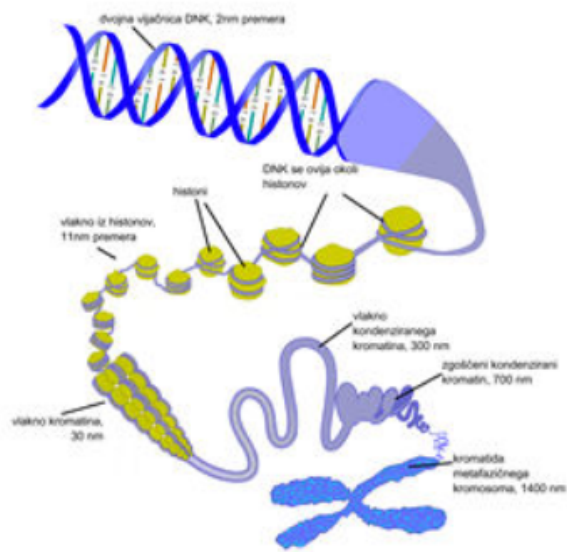


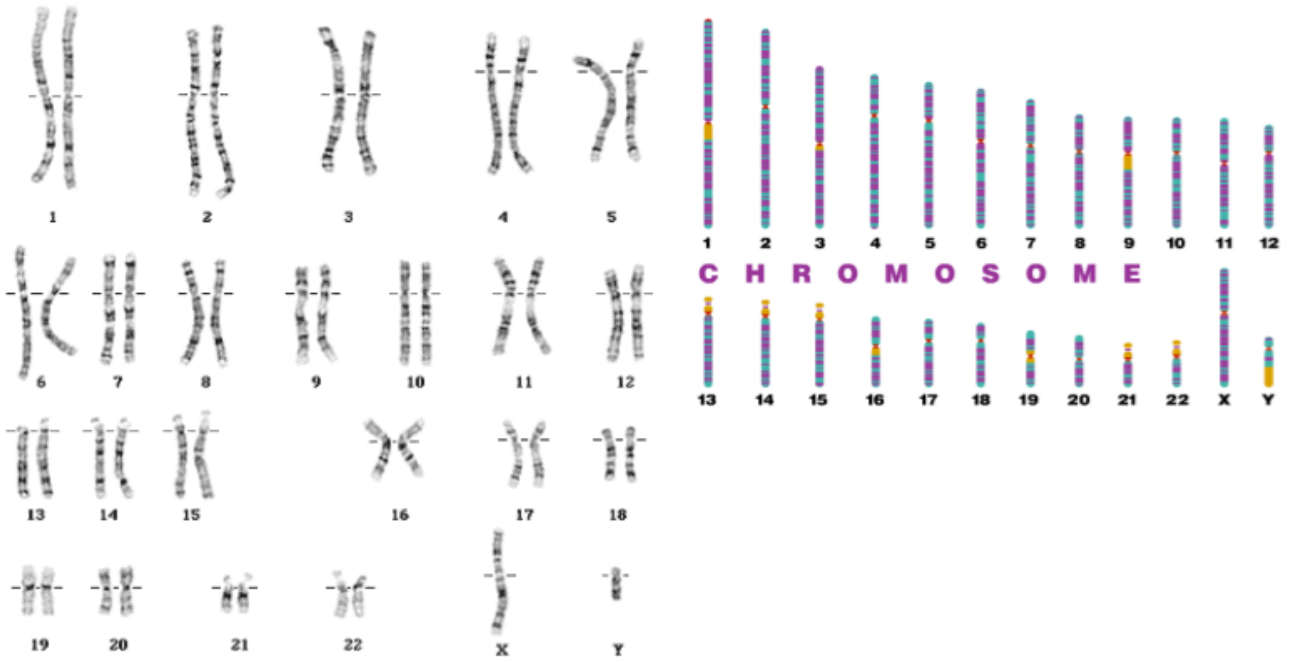
## Review of Chromosome structure



## Down's Syndrome



Chromosomes are wound up DNA. DNA has the genetic code to for protein synthesis.



Chromosomes can be stained to show different markings.



## Genetics Traits

1. What is the study of genetics?  
How the genes express themselves in a living organism
2. What does the word phenotype mean?  
The appearance of a genetic trait
3. What does the word genotype mean?  
The two genes, one from Mom and one from Dad, that determine the phenotype of a trait.
4. What is an allele?  
A variation of a gene. For example the gene for hair color comes in a blonde version as well as brown and black versions.

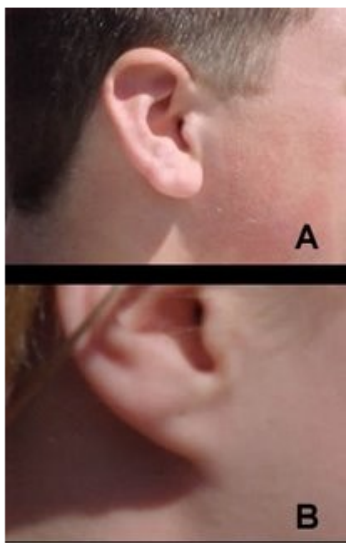
5. What does dominant mean?

A gene which always is expressed in the phenotype.

6. What does recessive mean?

A "weak" gene which only shows up in the phenotype when there are two of the genes are in the genotype.

Trait	Phenotype	Number	Number	Dominant	Recessive	Genotype
Earlobes Free or attached		free	attached			



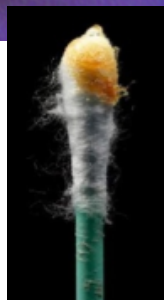
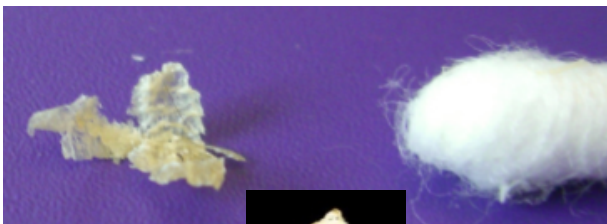
Widow's peak Present or absent		present	absent			
Hair body Straight or curly		straight	curly			
Hair whorl Clockwise or counterclockwise		clockwise	Counter-clockwise			



Cleft chin Present or absent		present	absent			
Dimples Present or absent		present	absent			



Freckles Present or absent		present	absent			
Eyelashes Long or short		long	short			
Ear wax Dry or wet		dry	wet			
Tongue rolling Present or absent		present	absent			



Double jointed thumb Present or absent		present	absent			
Last joint little finger Bent or straight		bent	straight			
Mid digit hair Present or absent		present	absent			
Handedness Left or right		left	right			



PTC paper Taste or not taste		taste	not taste			
Thiourea paper Taste or not taste		taste	not taste			
Sodium benzoate paper Taste or not taste		taste	not taste			