

#1

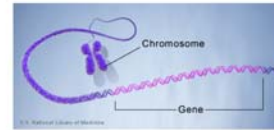
Chromosomes



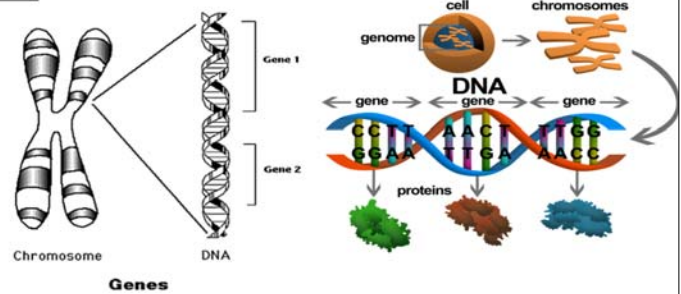
Threadlike structure that contains genetic information that is passed from generation to the next

Composed of DNA - we have **23 pairs** of chromosomes (**46 total**) in each cell that reproduces asexually

#2



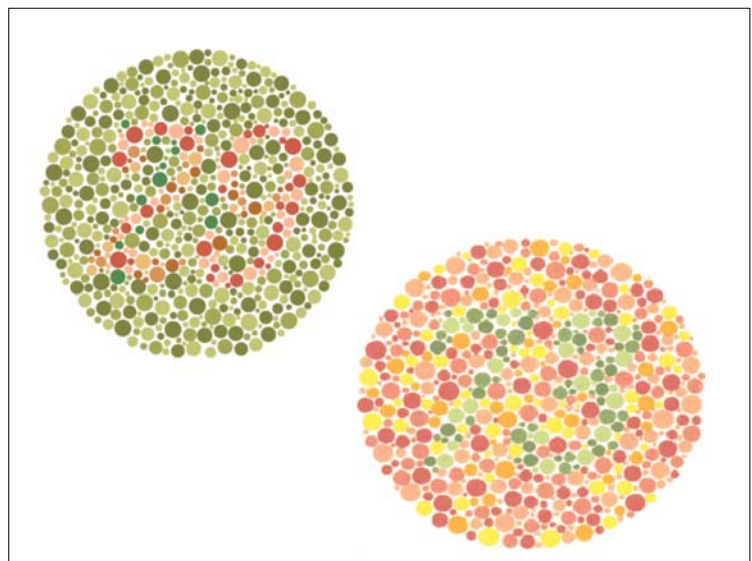
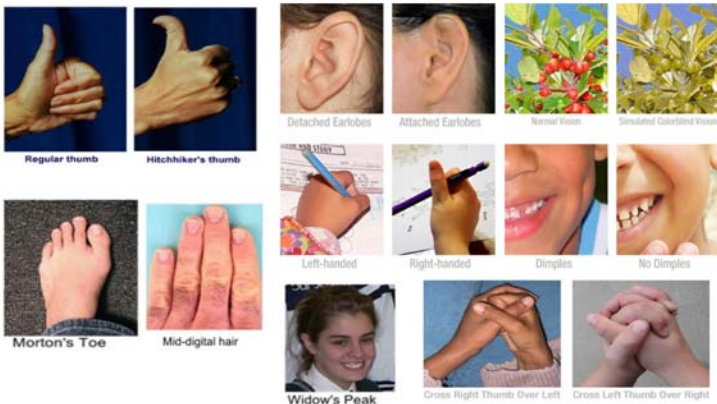
Genes



Sequence of DNA that codes for a protein and thus determines a trait

#3

Genetic trait - specific characteristic that varies from one individual to another



#4

Dominant traits



Expressed traits that mask other forms

Character	Dominant trait	Recessive trait	Character	Dominant trait	Recessive trait
Seed shape			Flower position		
Seed color				Stem length	
Flower color					
Pod shape					
Pod color					

Recessive traits



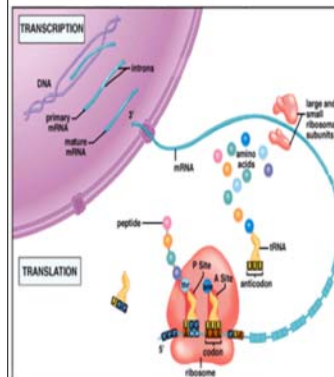
Traits that are masked by dominant traits; need 2 recessive traits from parents

Character	Dominant trait	Recessive trait	Character	Dominant trait	Recessive trait
Seed shape			Flower position		
Seed color				Stem length	
Flower color					
Pod shape					
Pod color					

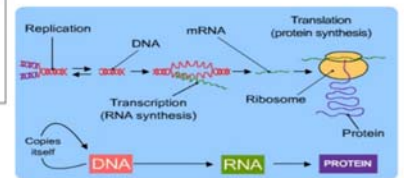
	Dominant Gene		Recessive Gene
Cleft Chin		No Cleft	
Widow's Peak		No Widow's Peak	
Dimples		No Dimples	
Brown/Black Hair		Blonde Hair	
Freckles		No Freckles	
Brown Eyes		Gray/Blue Eyes	
Free Earlobe		Attached Earlobe	

#5 How proteins are made

Parody Song

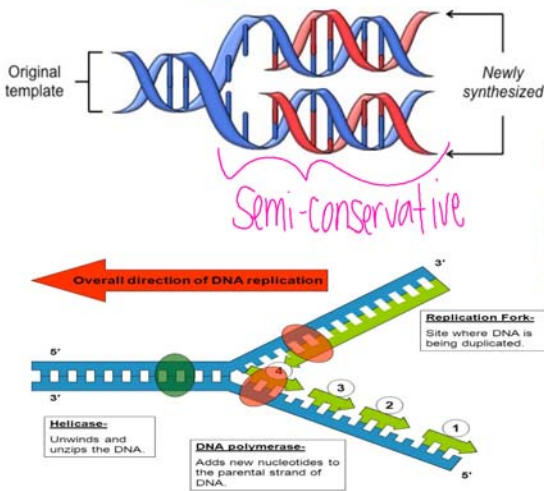


1. **Transcription:** DNA → mRNA
2. **Translation:** mRNA → Polypeptide
3. **Protein Formation**



Parody Song

#6 How DNA replicates



Helicase
DNA Polymerase
Ligase
(s) Interphase
prior to mitosis

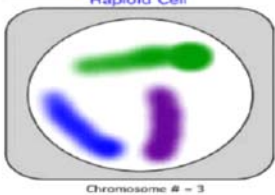
#7

Carries the determining factor for sex



Haploid

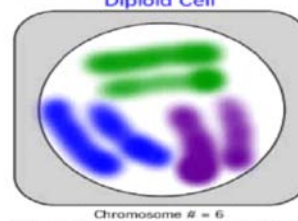
#8



Contain "**n**" number of chromosomes

Half the # of chromosomes for that species-
in humans: **23 - sex cells**

Diploid



Term used to refer to a cell that contains both sets of homologous chromosomes

Double/full amount of chromosomes

"2n" number of chromosomes - in humans **46**
(all cells minus sex cells)

#9

Gametes



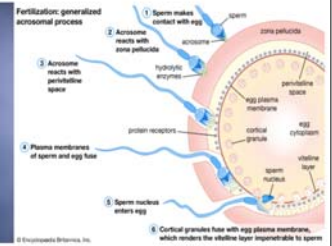
Gametes

Specialized cell involved in sexual reproduction

Sperm or egg cell
(Haploid cells)

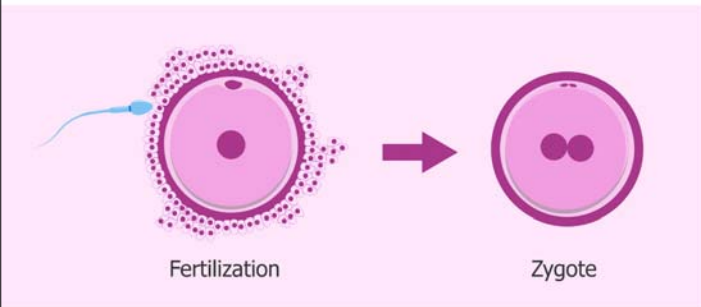


#10



Sperm meets/fuses with the egg

#11



A fertilized egg- diploid cell (23 + 23 = 46)

#12

Purpose of meiosis

To make 4 gametes with 1/2 (diploid) the number of chromosomes as the original cell

