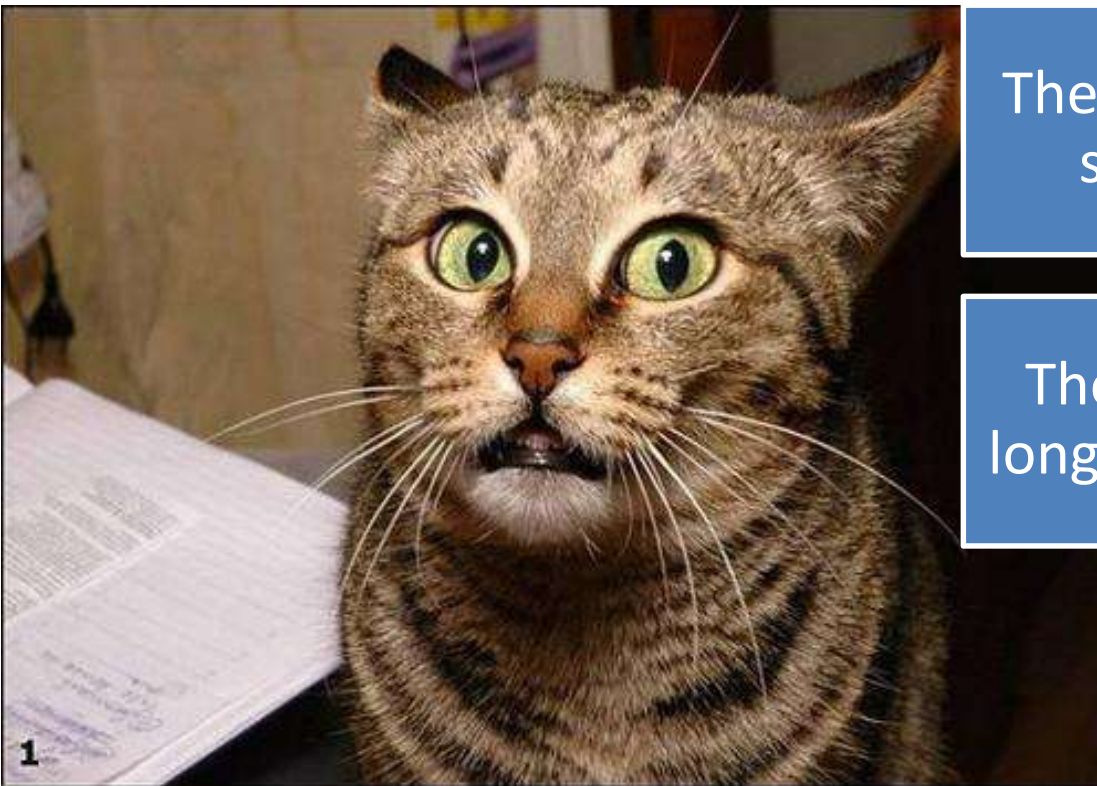


1st Semester Vocabulary

1. Qualitative Observation

Observation that involves descriptions and characteristics. Example: Color and appearance



The cat looks scared.

The cat has green eyes.

The cat has long whiskers.

The cat has a dry nose.

The cat has stripes.

2. Quantitative Observation

Observation that deals with numbers and can be measured. Example: Length, height, weight, and time.



The mouse weighs 0.5 kg.

The mouse has two ears.

The frog is 20cm long.

The frog has one tongue.

The mouse took a ride on the frog for 56 seconds.

3. Inferring

- An interpretation based on observations and prior knowledge.

Example: Your friend is eating dinner at your house and she asked for seconds so you infer that she likes it.



4. Hypothesis

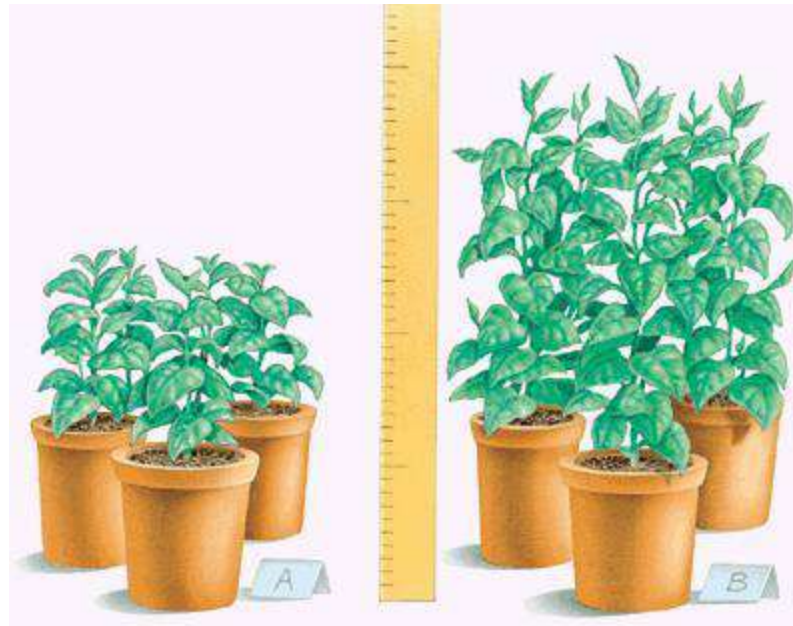
- A possible explanation for a set of observations or answer to a scientific question; must be testable.

Example: If the dog is offered Purina and Iams dog food, then the dog will prefer Purina dog food over Iams.

5. Controlled Experiment

- An experiment in which only one variable is changed at a time.

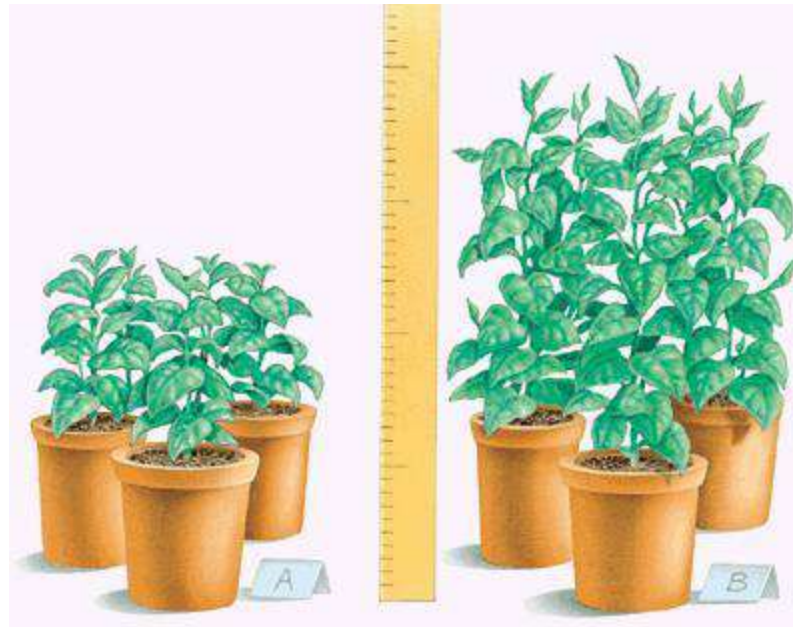
Group A is not treated with fertilizer and Group B is.



6. Independent Variable

- The factor that changes in an experiment.

Group A is not treated with fertilizer and Group B is.

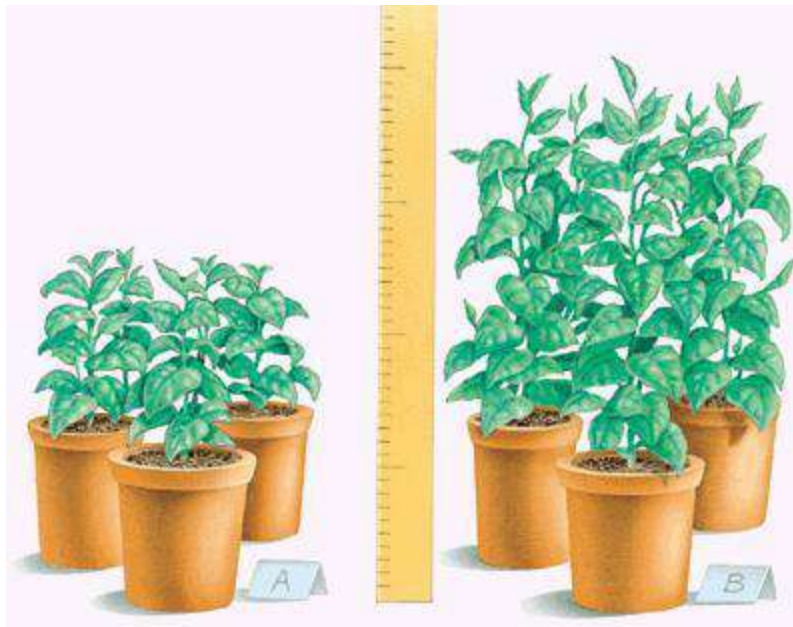


The independent variable is the fertilizer.

7. Dependent Variable

- The factor that changes as a result of changes to the independent variable; what you measure in an experiment.

The plants are measured weekly.

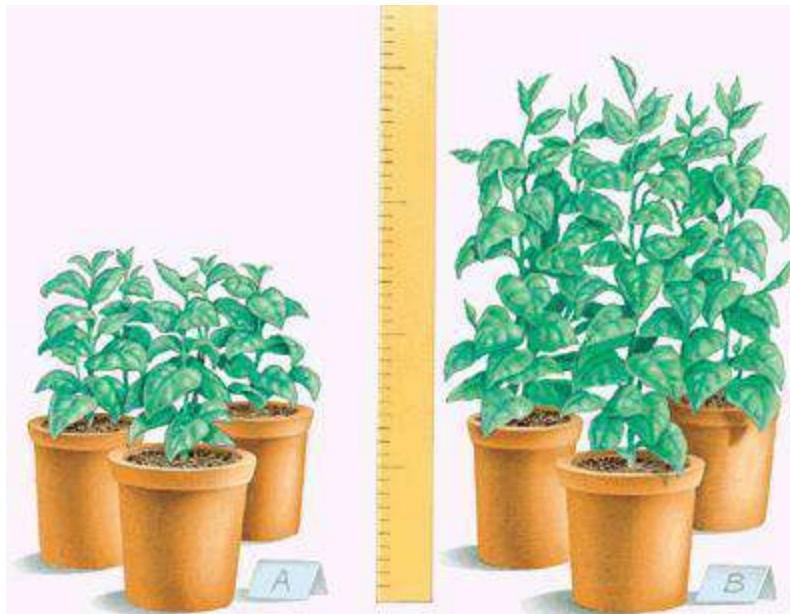


The dependent variable is the plant growth.

8. Controlled Variable

- Factors in an experiment that are held constant; also called a constant.

The plants are planted in the same pots with the same soil. They are given the same amount of water and are grown in the same area.



The controlled variables are same pots, soil, amount of water, and the area the plants were grown in.

9. Mass

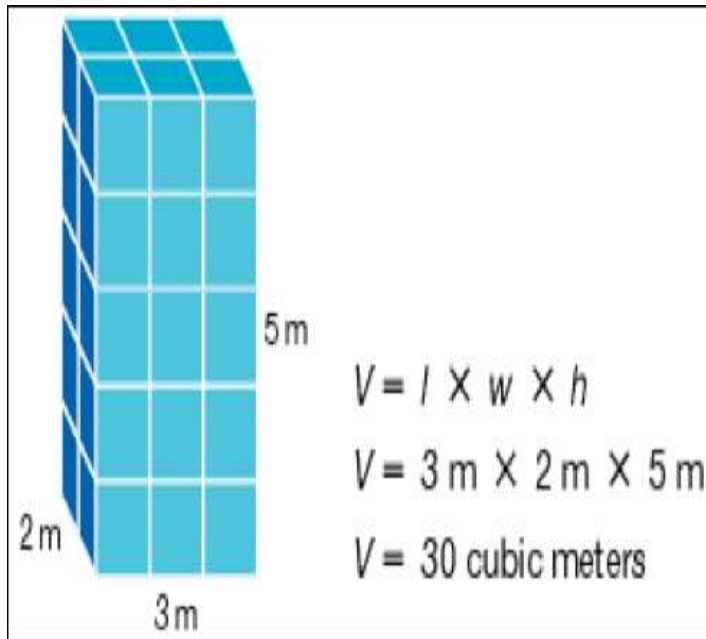
- A measure of how much matter is in an object.



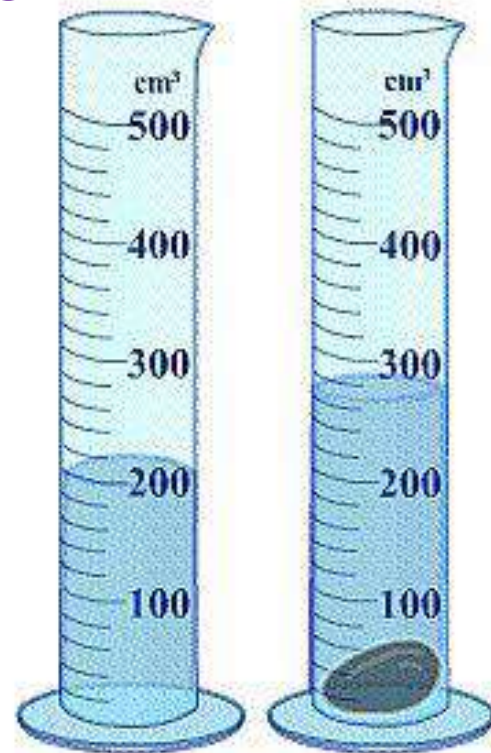
10. Volume

- The amount of space that matter occupies.

volume= length x width x height



<http://www.webquest.hawaii.edu/kaohi/mathdictionary/images/volume.png>



http://smithscience201.wikispaces.com/file/view/waterdis-main_Full.jpg/56482648/waterdis-main_Full.jpg

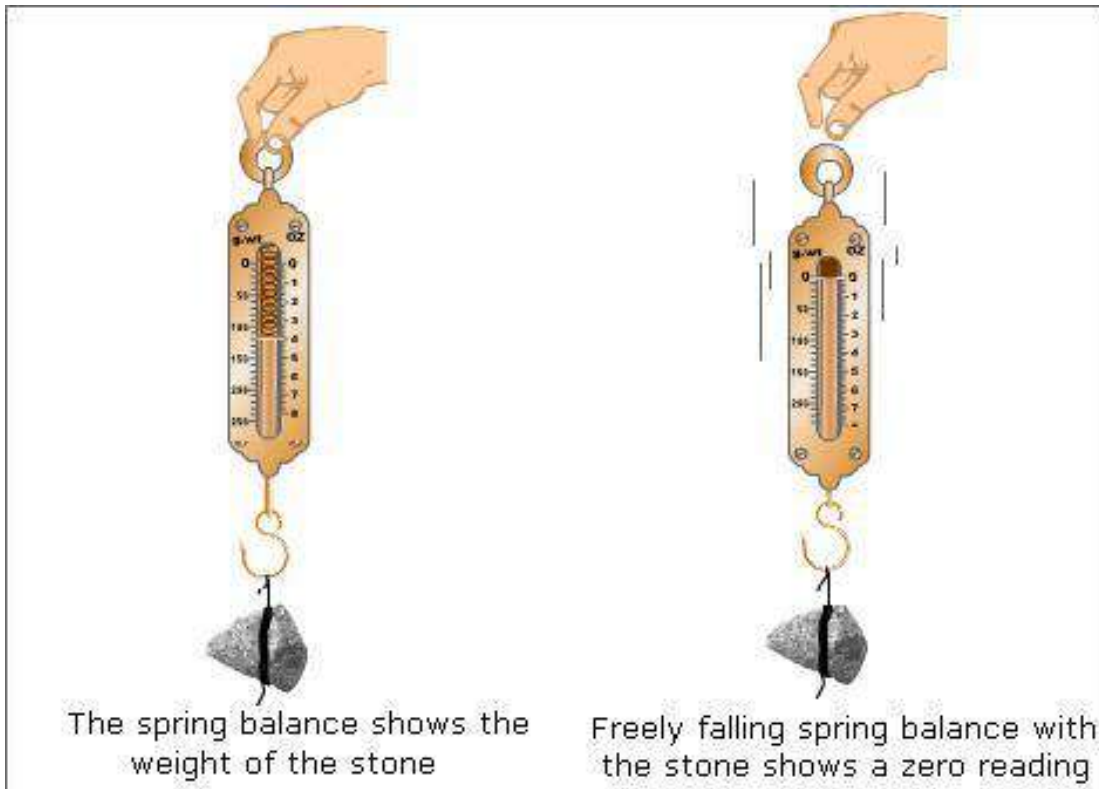
11. Density

- The measurement of how much mass of a substance is contained in a given volume. Units often used for density are g/mL or g/cm³.

$$\text{Density} = \text{Mass} \div \text{Volume}$$

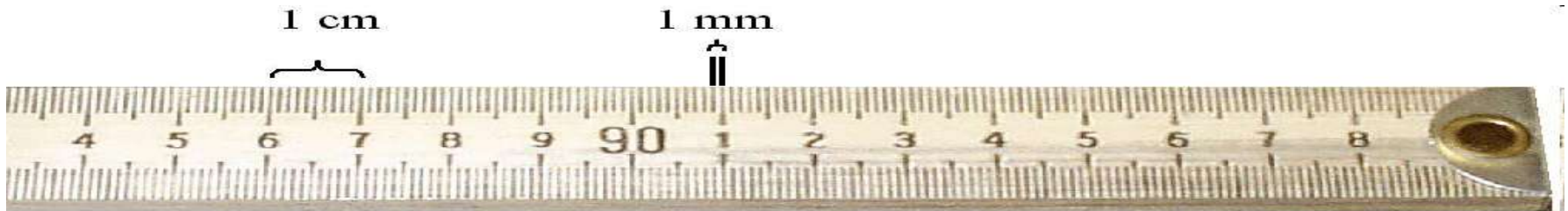
12. Weight

- A measure of the force of gravity acting on an object.



13. Meter

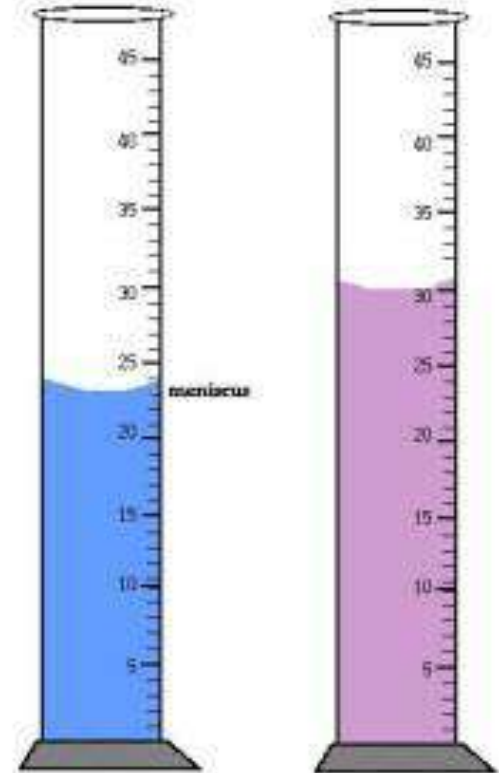
- The basic unit of length



- http://faculty.uncfsu.edu/jraynor/FicamsFrontpage/meter_stick_small.gif

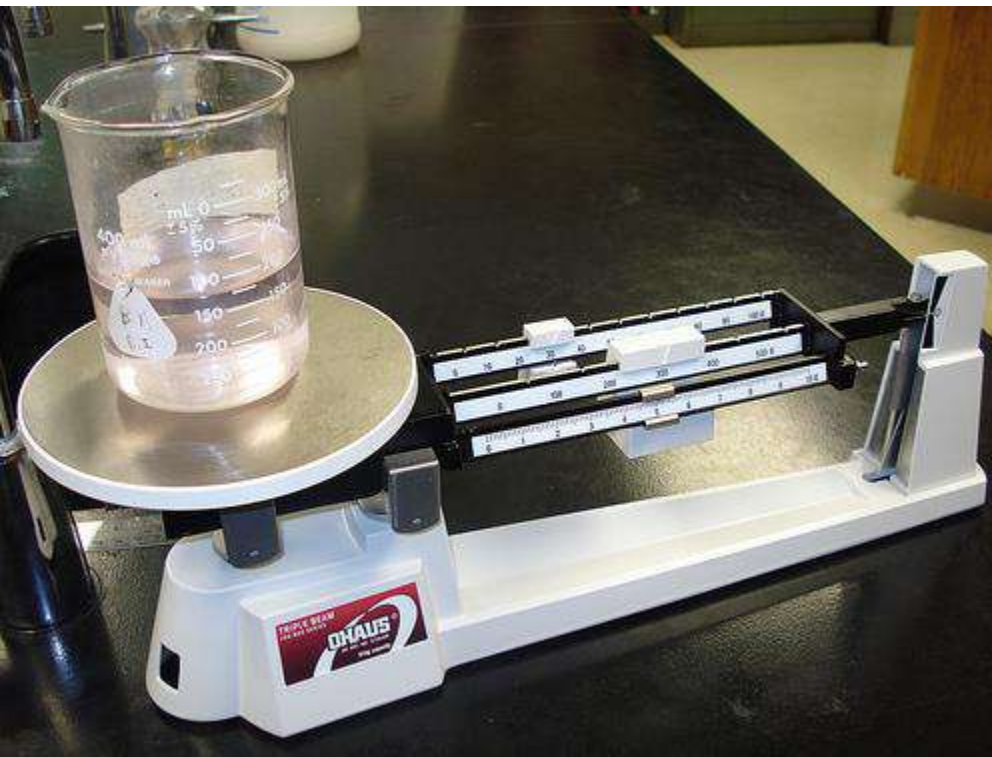
14. Liter

- The basic unit of volume



15. Gram

- Unit of mass



16. Chlorophyll

- A green pigment found in the chloroplasts of plants, algae, and some bacteria.



<https://www.organicfacts.net/wp-content/uploads/2013/06/Chlorophyll.jpg>

17. Autotroph

- Organisms that produce their own food.



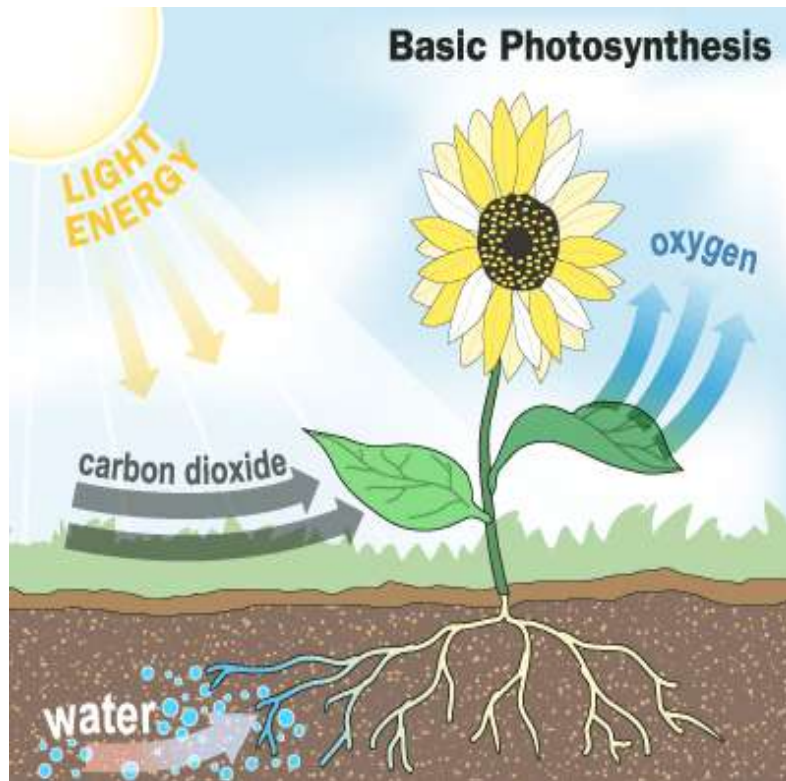
Bird of Paradise
Plant



Banyan tree

18. Photosynthesis

- The process by which plants and other autotrophs capture and use light energy to make food from carbon dioxide and water.

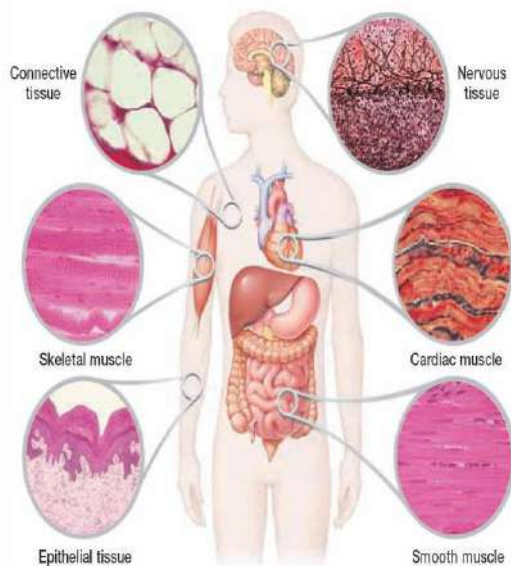


19. Tissue

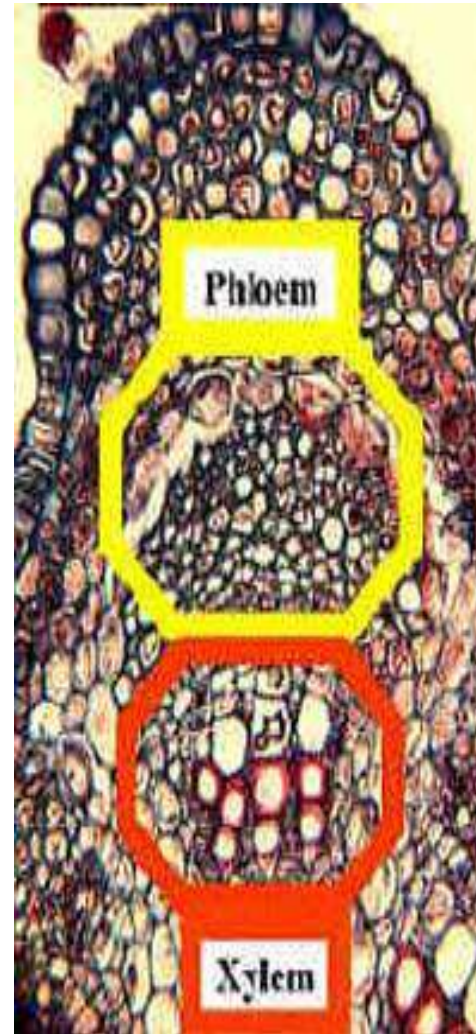
Plant Tissues

- A group of similar cells that perform a specific function.

Human Body Tissues



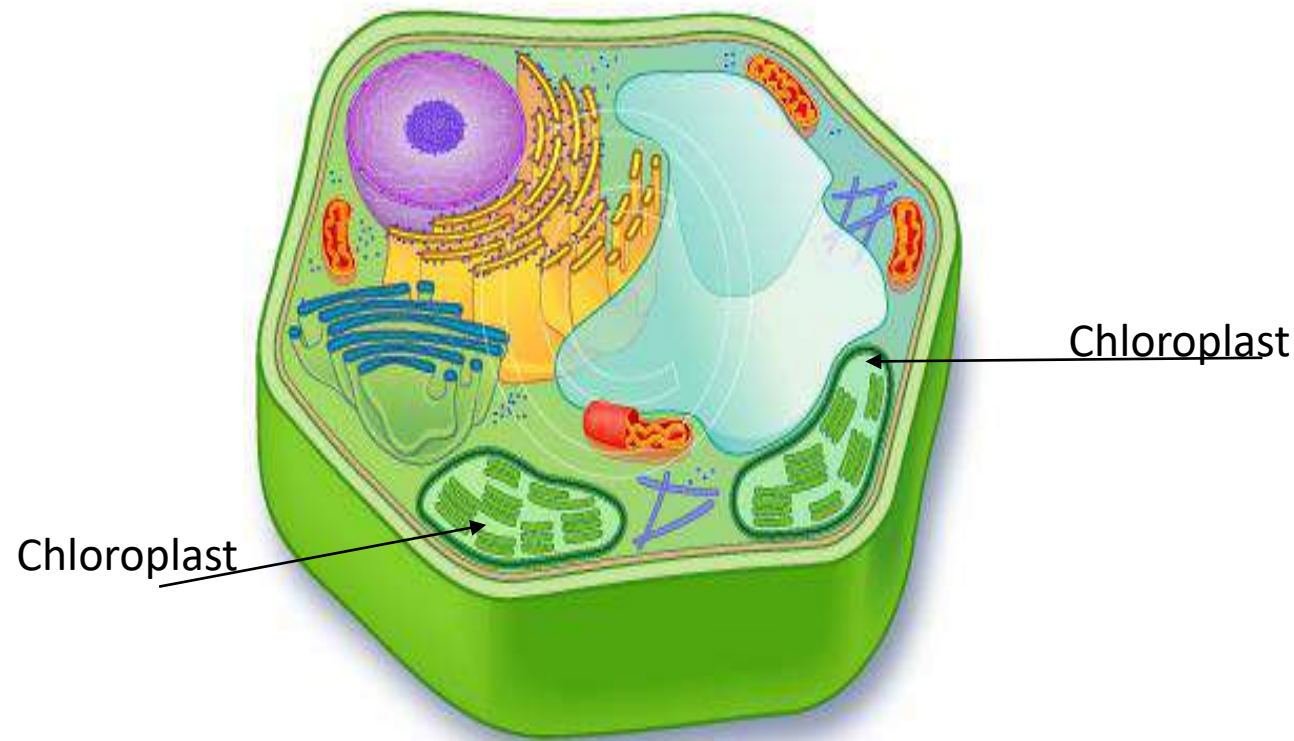
<http://s4.thingpic.com/images/H9/6heJLhmri7c2kem7BFFuS5U1.jpeg>



<http://f.tqn.com/y/biology/1/0/q/3/xylemphlo.jpg>

20. Chloroplast

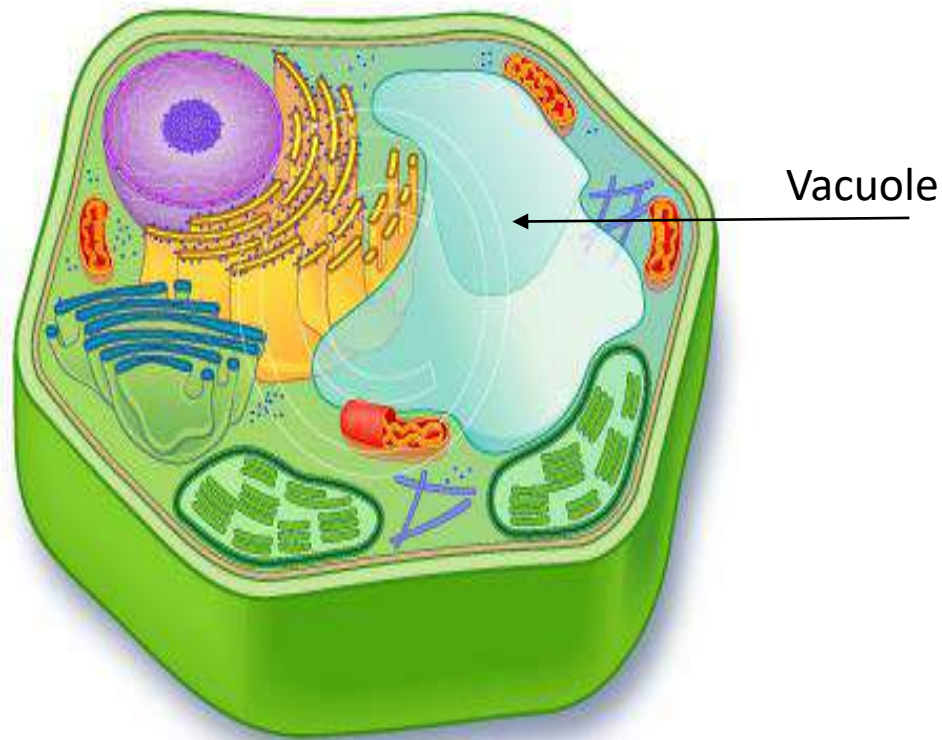
- An organelle in the cells of plants and other autotrophs in which food is made.



http://www.tokresource.org/tok_classes/biobiobio/biomenu/review_questions/review_eukaryotes/plant%20cell%20unlabeled.jpg

21. Vacuole

- A sac-like organelle that stores water, food, and other materials.



http://www.tokresource.org/tok_classes/biobiobio/biomenu/review_questions/review_eukaryotes/plant%20cell%20unlabeled.jpg

22. Vascular Tissue

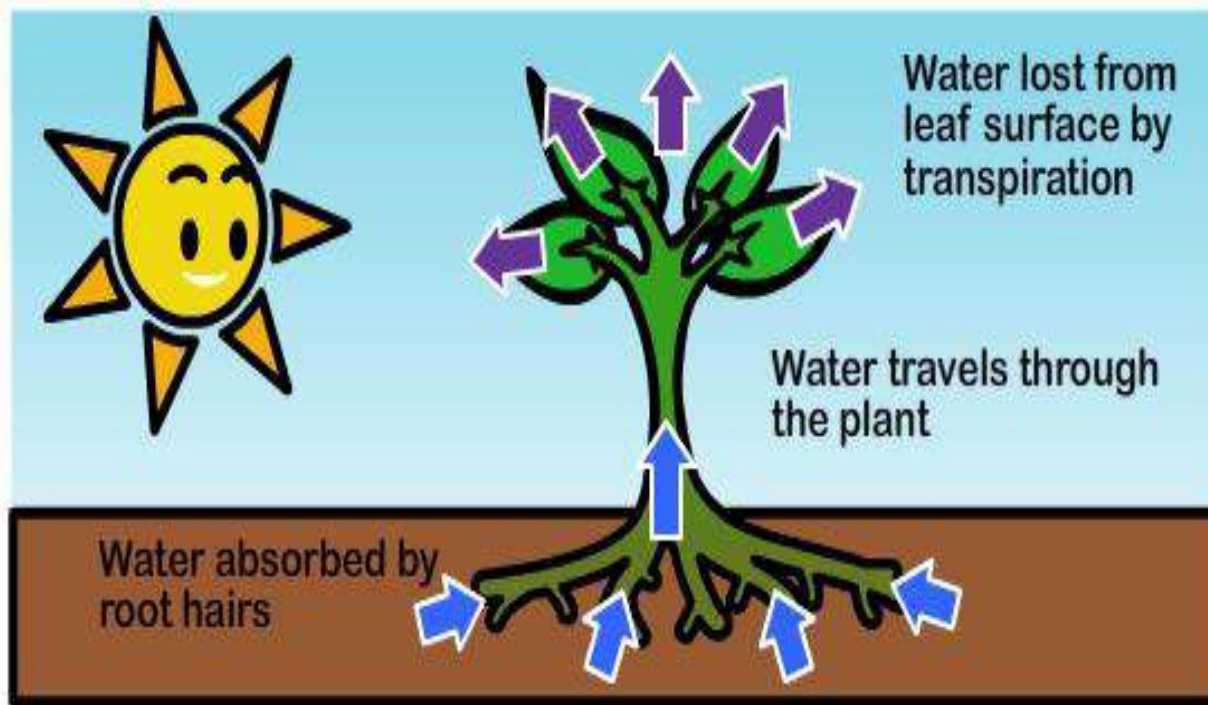
- A system of tube-like structures inside a plant through which water, minerals, and food move.



<http://change-in-petal-color.weebly.com/uploads/1/4/7/5/14754144/3415461.jpg?1355687440>

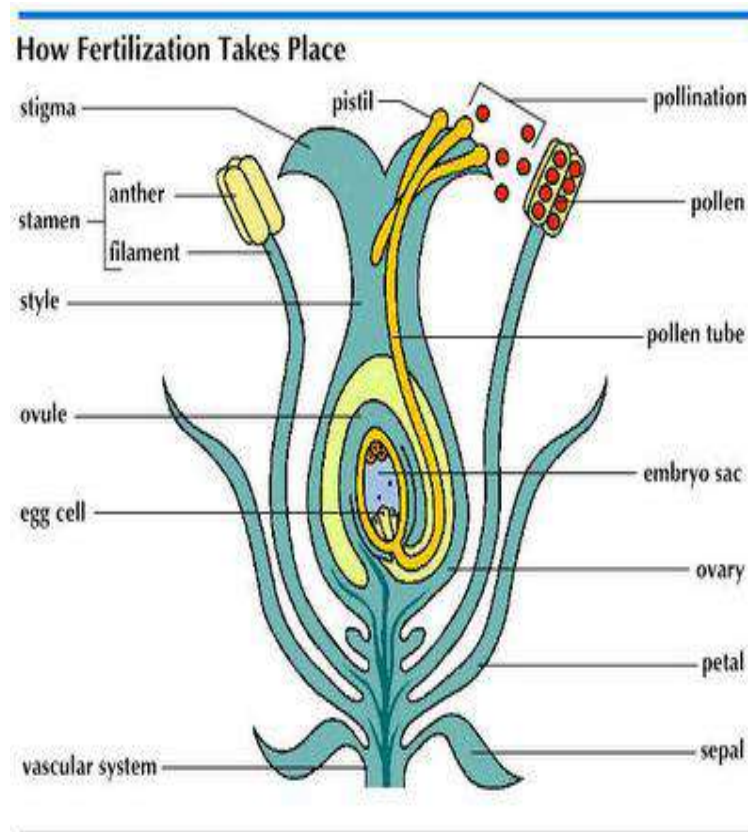
23. Transpiration

- The process by which water is lost through a plant's leaves.



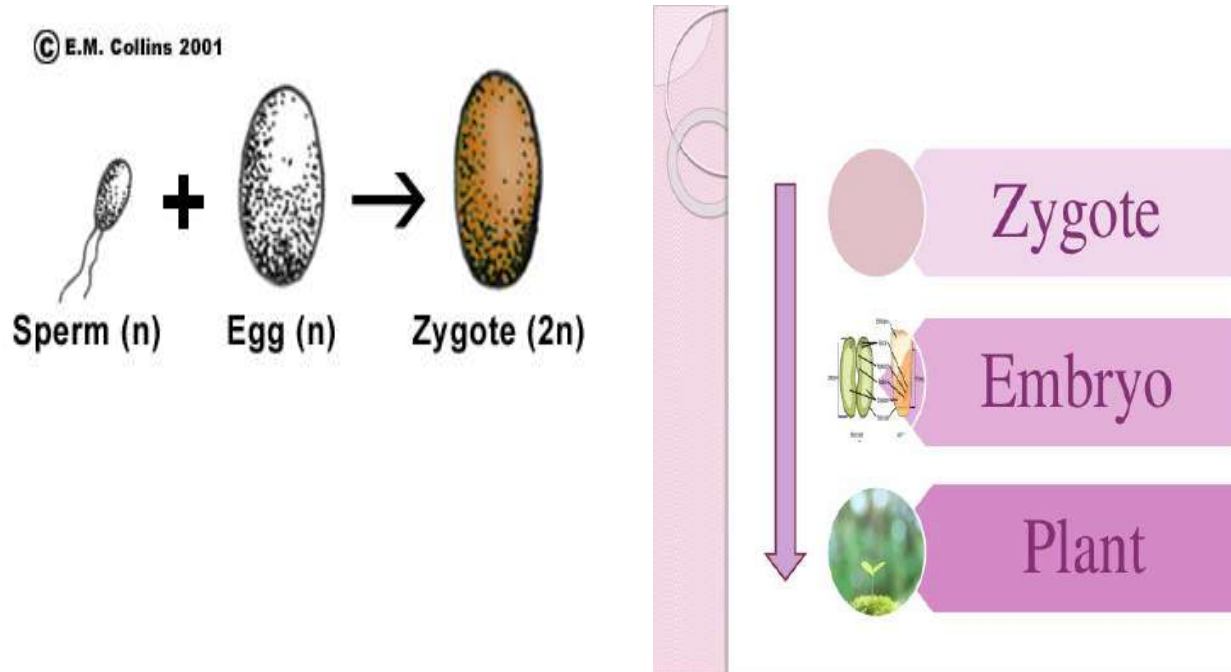
24. Fertilization

- The process in sexual reproduction in which an egg cell and a sperm cell join to form a new cell.



25. Zygote

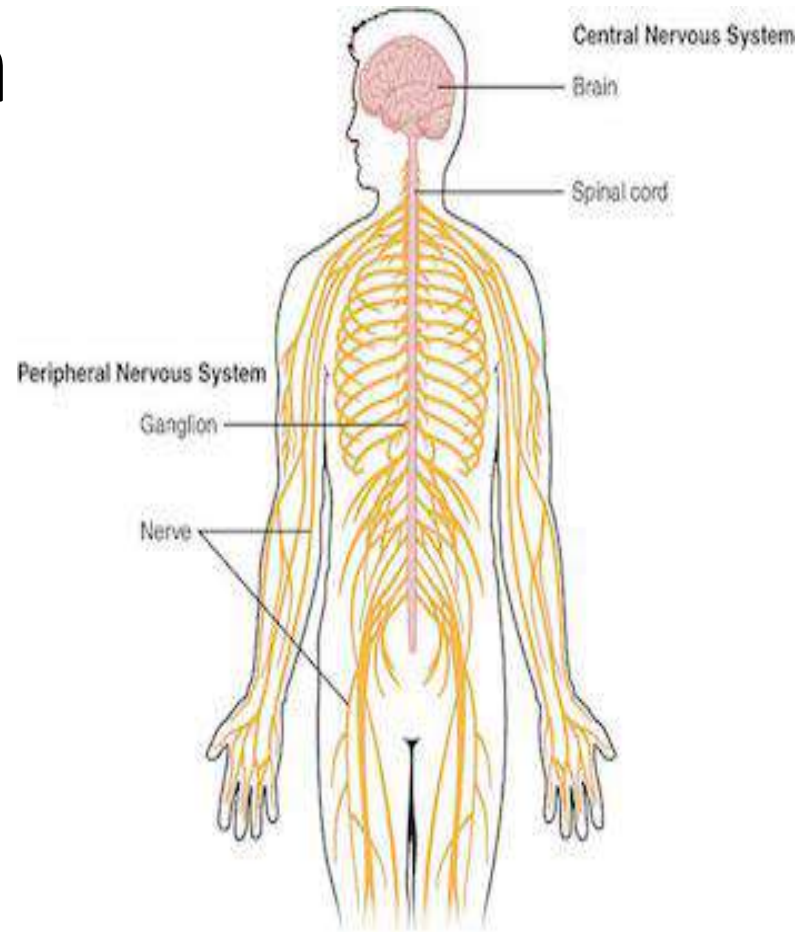
- A fertilized egg, produced in the joining of a sperm and an egg.



<http://image.slidesharecdn.com/monocotanddicot-navi-150327100837-conversion-gate01/95/monocot-and-dicot-navi-2-638.jpg?cb=1427468997>

26. Nervous System

- An organ system that receives information from the environment and coordinates a response.



http://study.com/cimages/multimages/16/pns_v_cns.png

27. Carnivore

- Animals that eat only other animals.



28. Herbivore

- Animals that eat only plants.



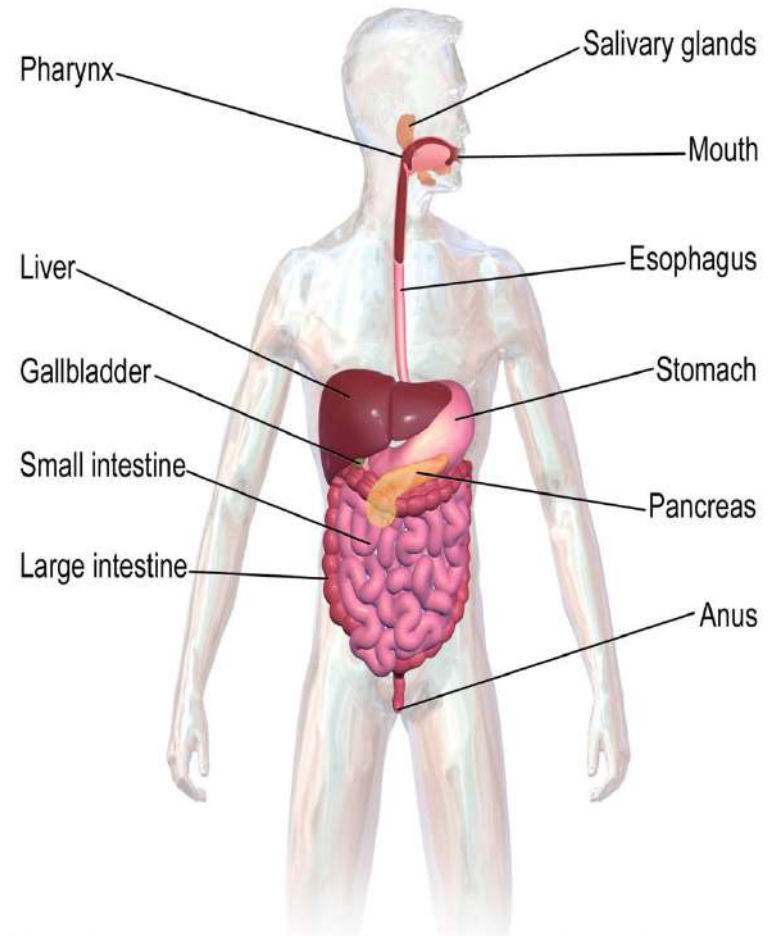
29. Omnivore

- Animals that eat both plants and animals.



30. Digestive System

- An organ system that has specialized structures for obtaining and digesting food.

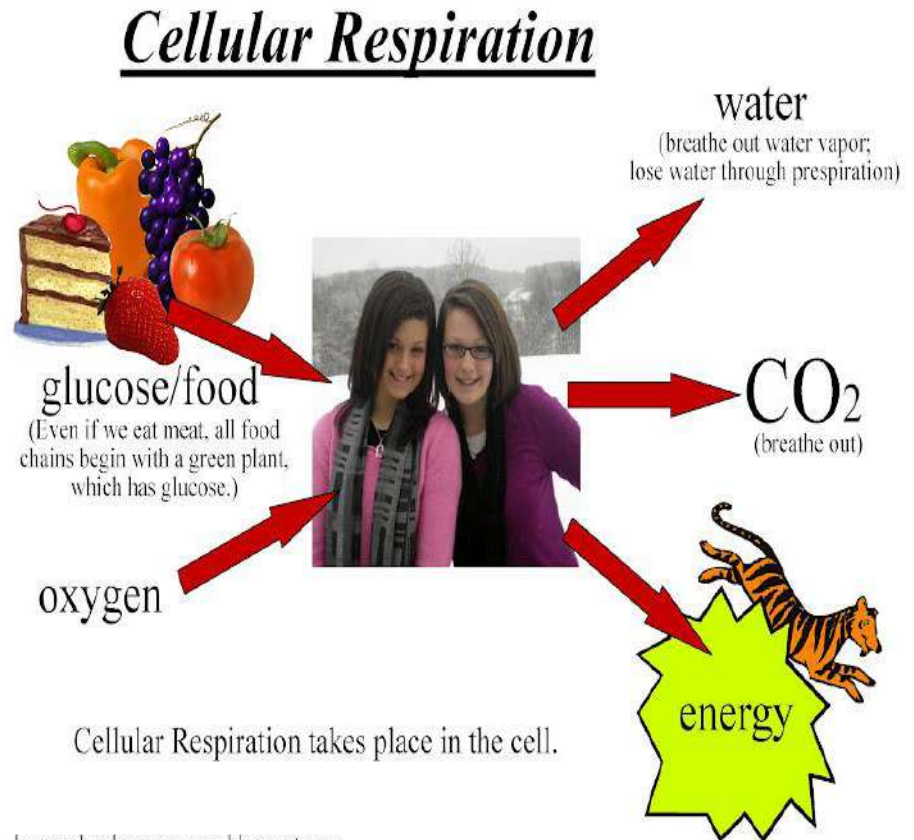


The Components of the Digestive System

https://upload.wikimedia.org/wikipedia/commons/1/14/Blausen_0316_DigestiveSystem

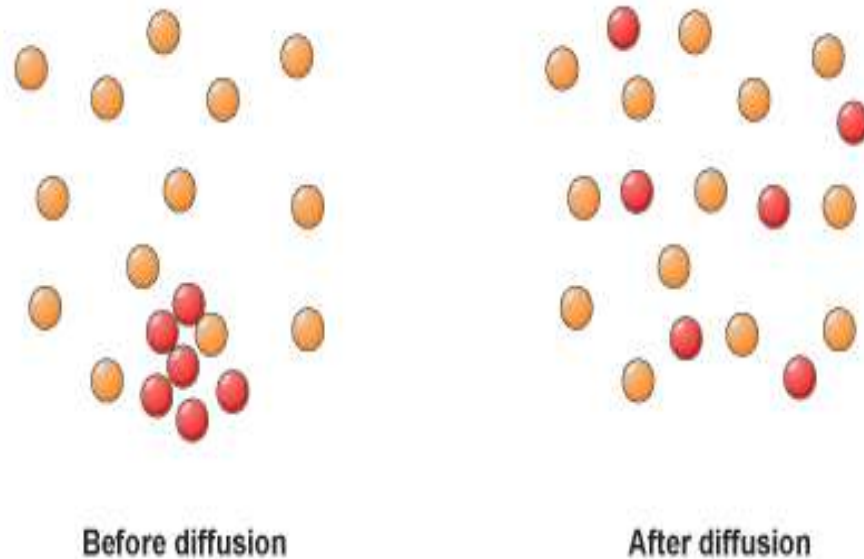
31. Cellular Respiration

- The process in which cells use oxygen and digested food to release the energy in food.



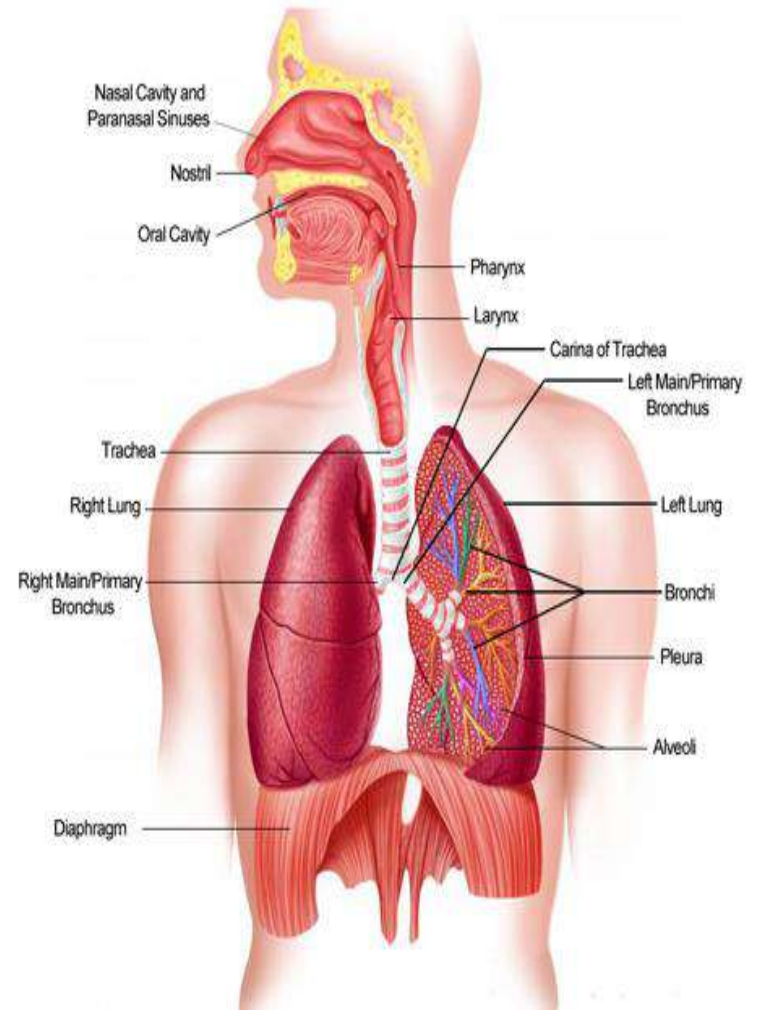
32. Diffusion

- The process by which molecules move from an area of higher concentration to an area of lower concentration.



33. Respiratory System

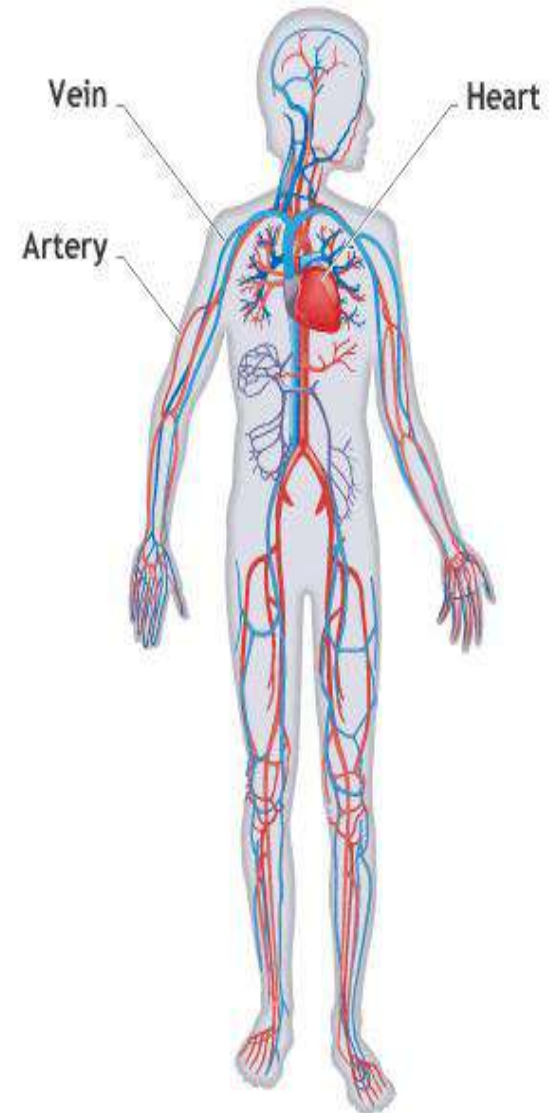
- An organ system that an animal uses to exchange gases with its surroundings.



<http://respiratorysystem.organsofthebody.com/images/respiratory-system.jpg>

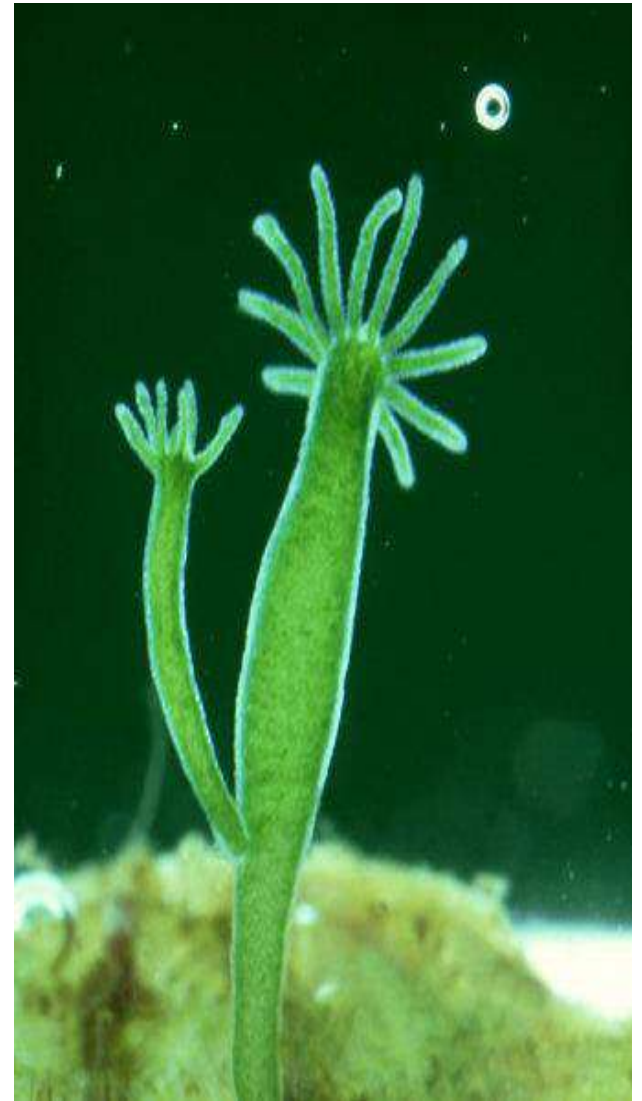
34. Circulatory System

- An organ system that transports needed materials to cells and removes wastes.



35. Asexual Reproduction

- One parent produces a new organism identical to itself.



<http://imagecache6.allposters.com/LRG/28/2814/6ZKOD00Z.jpg>

36. Sexual Reproduction

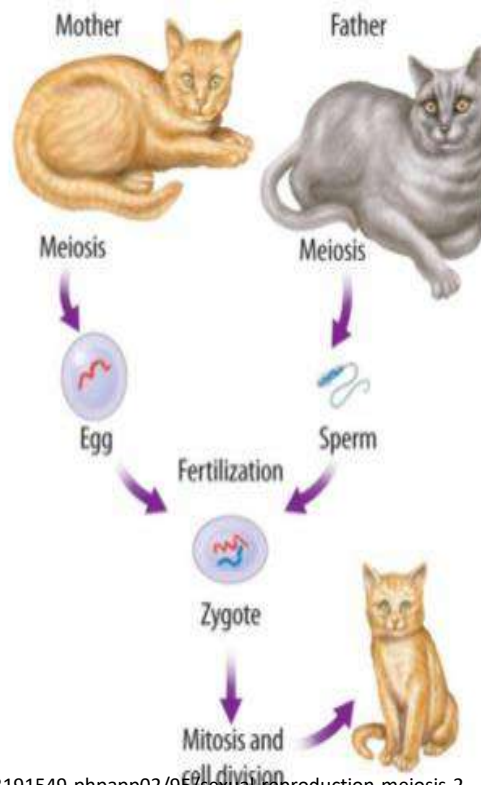
- Two parents produce an organism genetically different from the parents.

WHAT IS SEXUAL REPRODUCTION?

- **Sexual reproduction**

is a type of reproduction in which the genetic materials from two different cells combine, producing an offspring.

- The cells that combine are called **sex cells**.



37. Homeostasis

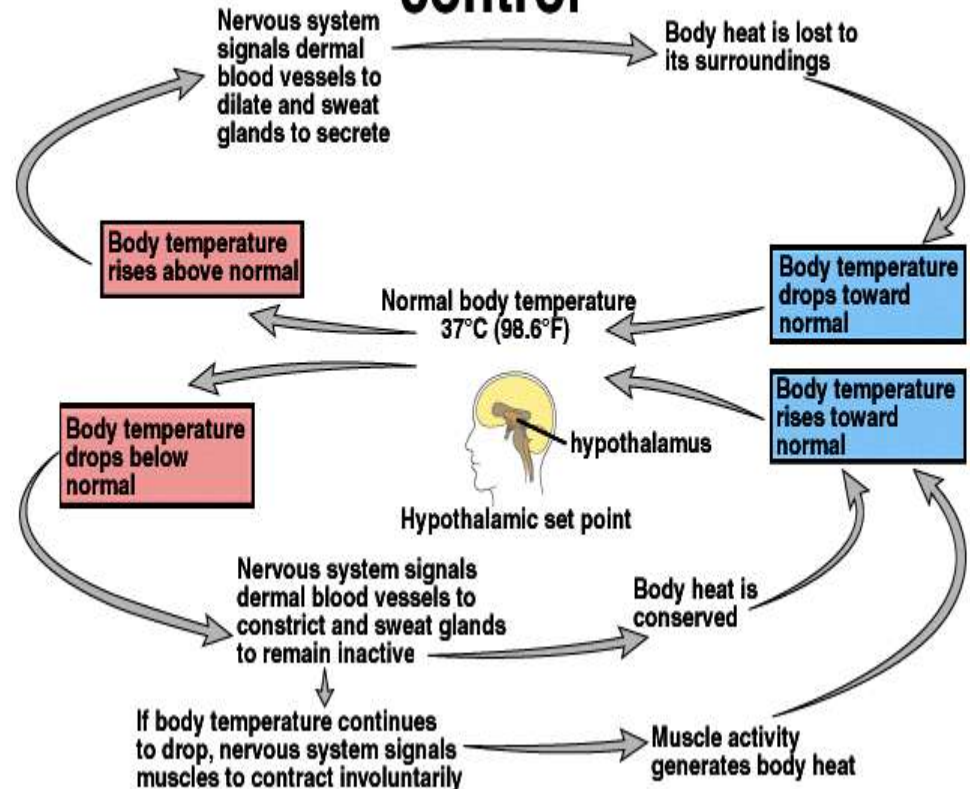
- The maintenance of a constant internal state in a changing environment.



http://www.bookofodds.com/var/site/storage/images/media/images/a0063-body-temperature/27405374-1-eng-US/A0063-Body-Temperature_leader.jpg

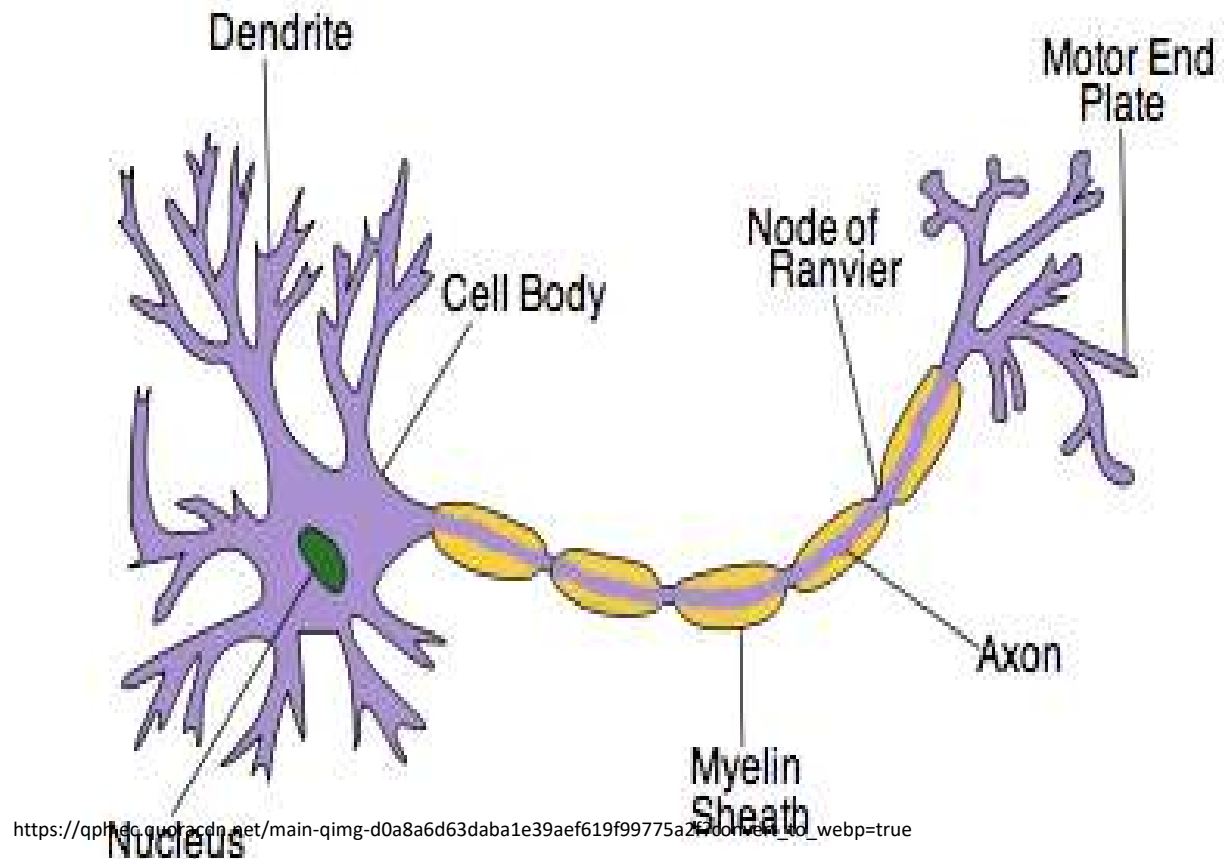
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Homeostasis and temperature control



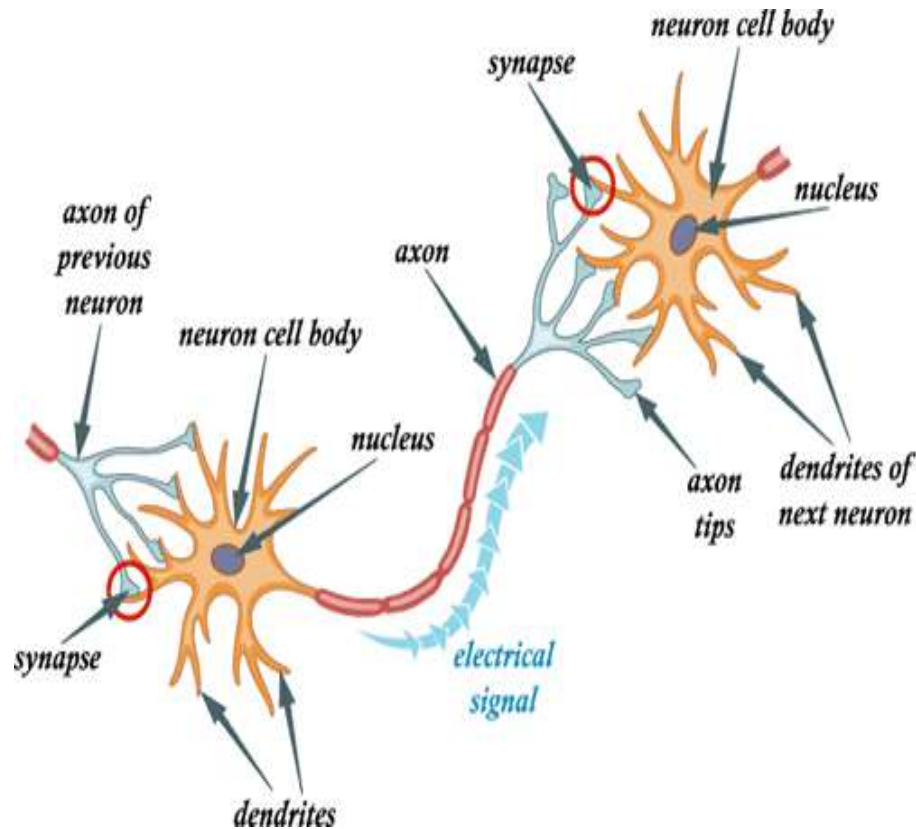
38. Neuron

- A cell that carries information through the nervous system.



39. Nerve Impulse

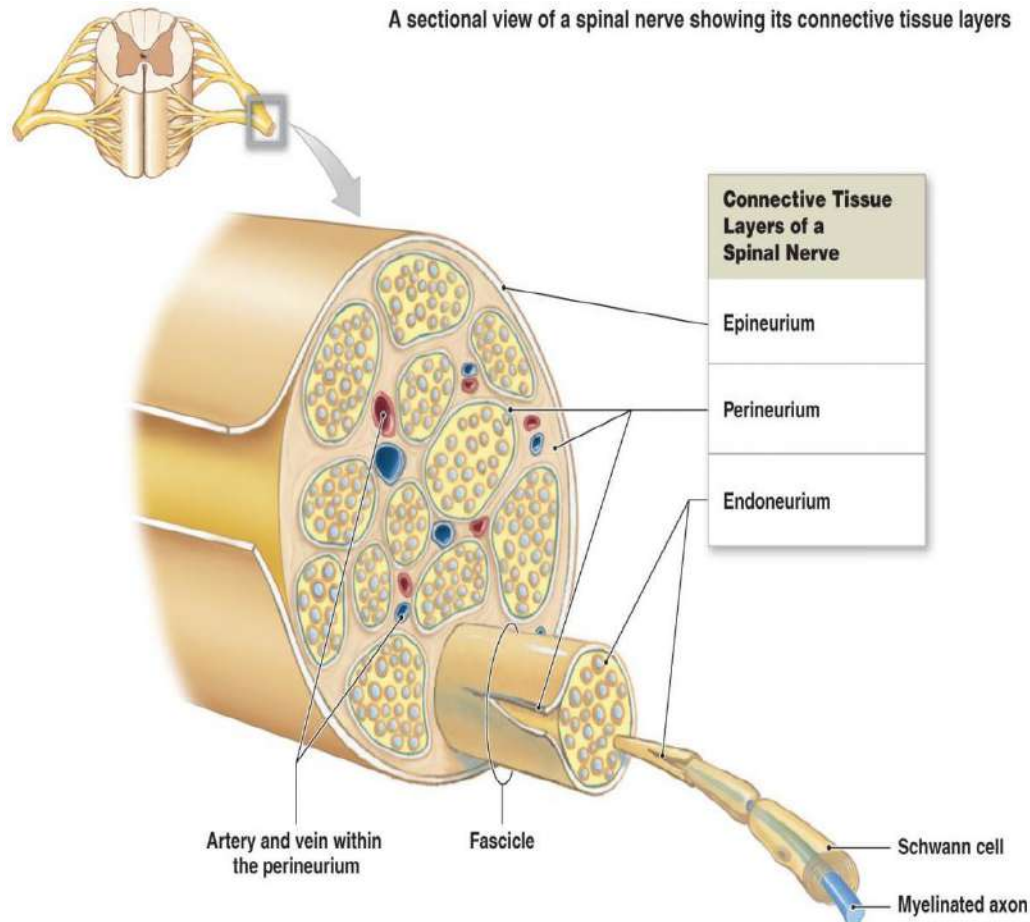
- The message carried by a neuron.



<http://4.bp.blogspot.com/-Z5LfY6yoIcE/U-OFKWHoAbI/AAAAAAAAAKo/yH6BzDLeo4/s1600/Picture-533.png>

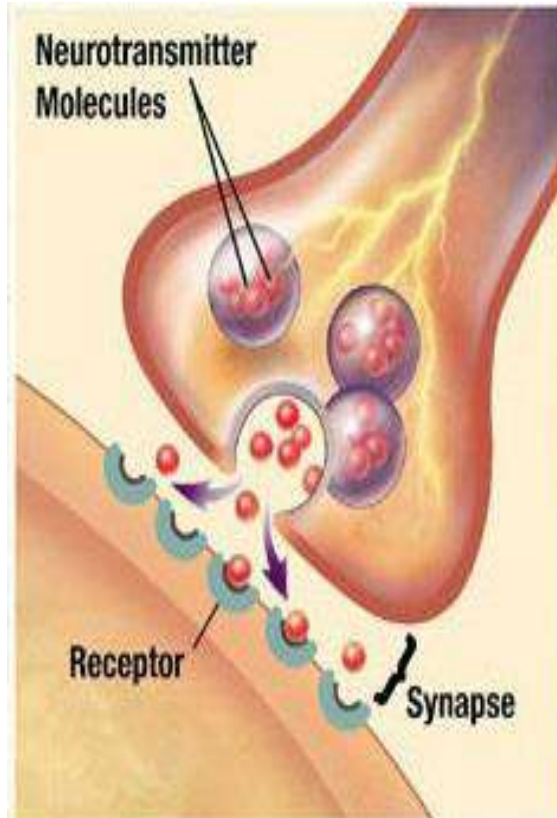
40. Nerve

- A bundle of nerve fibers.



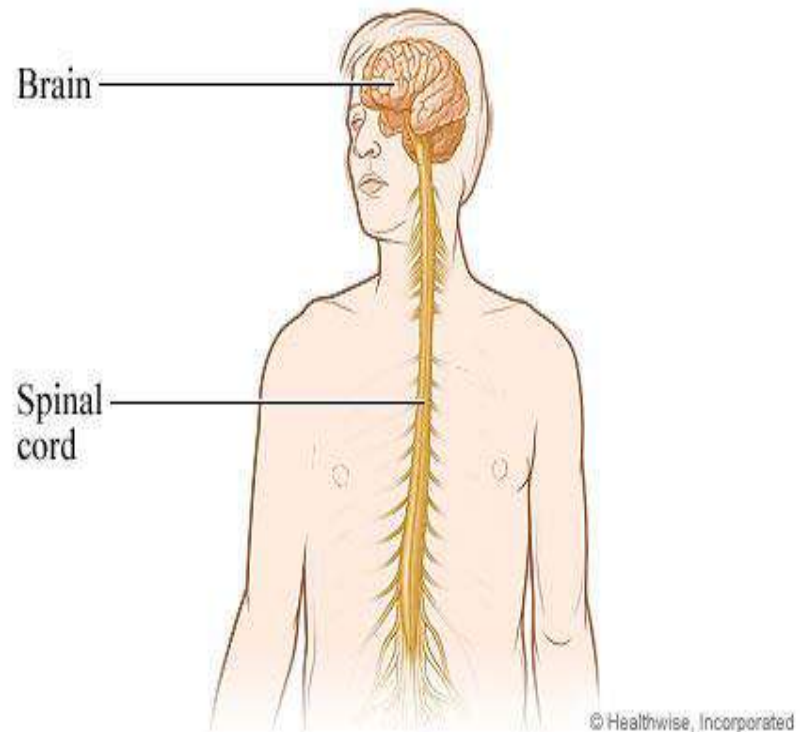
41. Synapse

- The place where a neuron transfers an impulse to another structure.



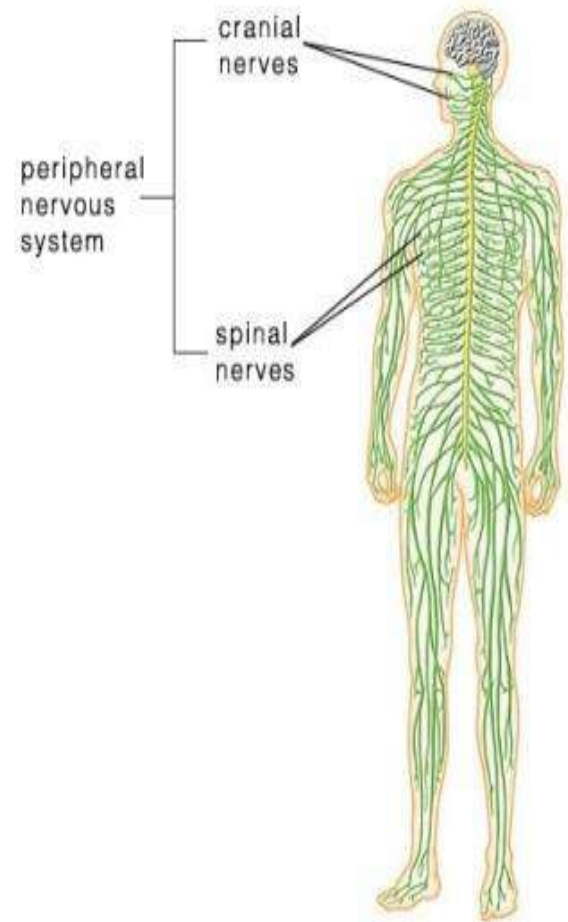
42. Central Nervous System

- The division of the nervous system consisting of the brain and spinal cord.



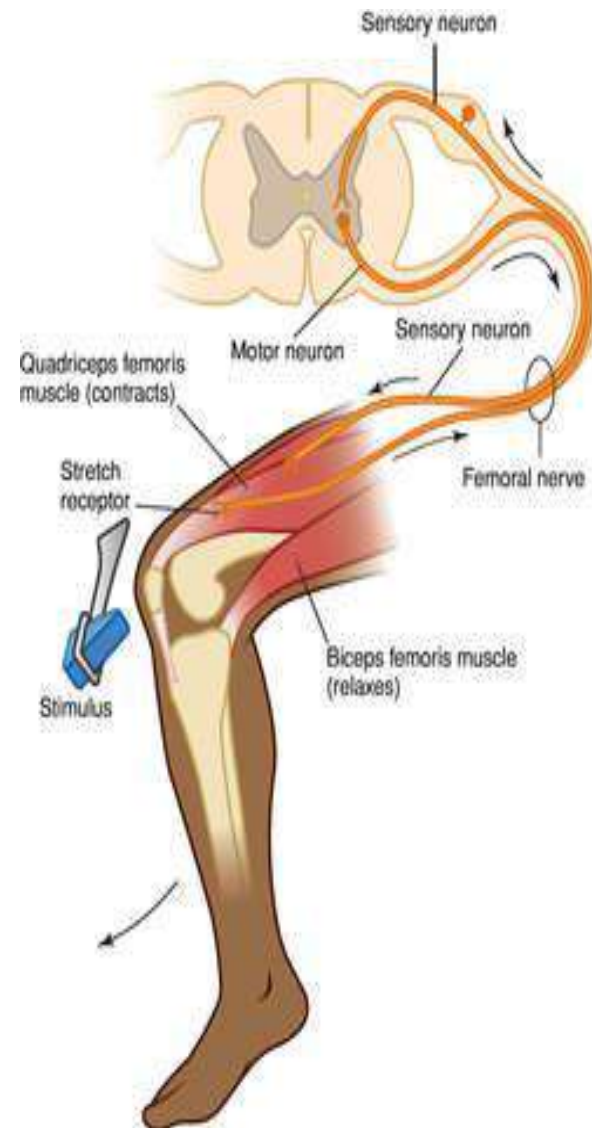
43. Peripheral Nervous System

- The division of the nervous system consisting of all the nerves outside of the central nervous system.



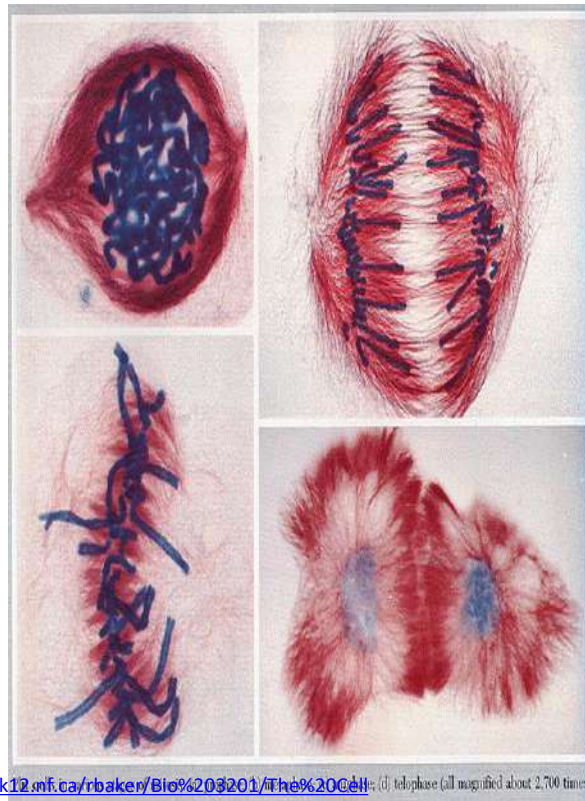
44. Reflex

- An autonomic response that occurs rapidly and without conscious control.

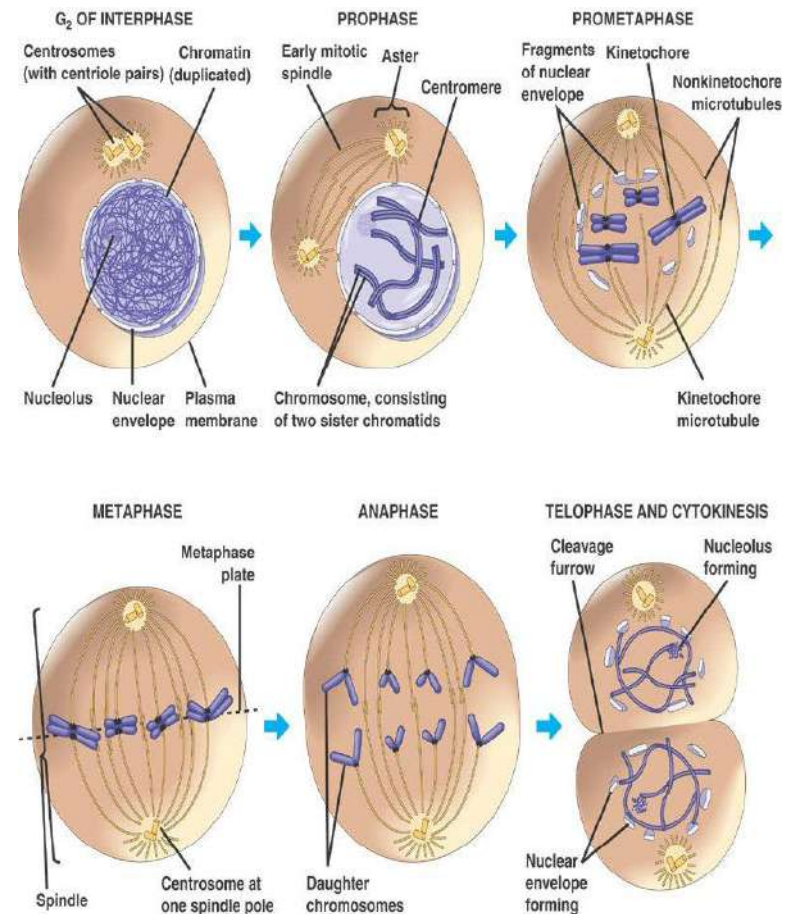


45. Mitosis

- The process in which a cell's nucleus divides into two new nuclei, each with the same number of chromosomes.



<http://www.evh.k12.mf.ca/baker/Bio%203201/The%20Cell%20Cycle/mitosis.gif>



46. Heredity

- The passing of traits from parents to offspring.



Detached Earlobes



Attached Earlobes

<http://learn.genetics.utah.edu/content/begin/traits/images/earlobes.jpg>



Widow's Peak Hairline

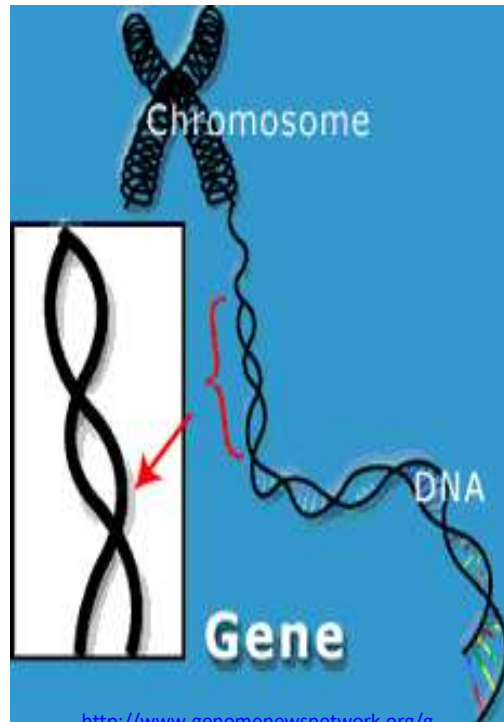


Straight Hairline

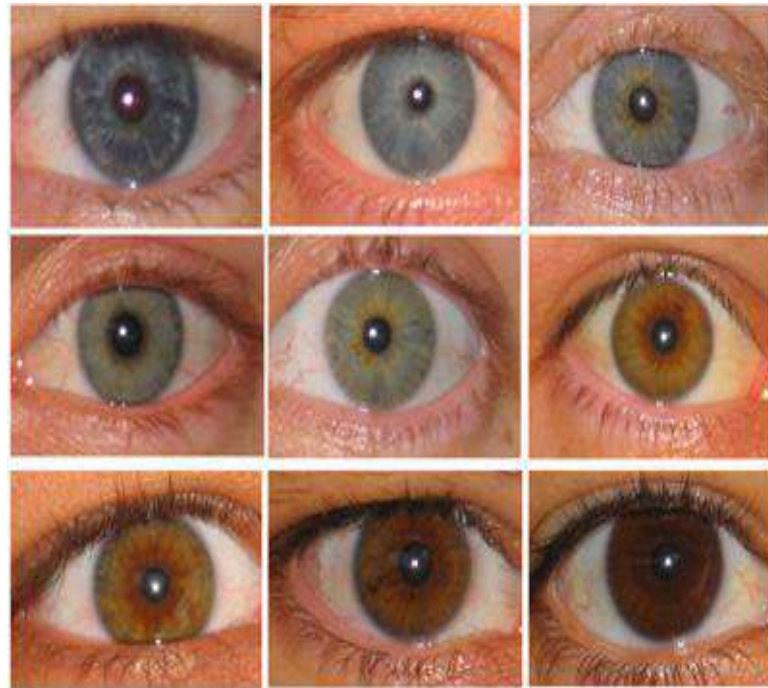
<http://learn.genetics.utah.edu/content/begin/traits/images/hairline.jpg>

47. Gene

- A sequence of DNA that determines a trait and is passed from parent to offspring.



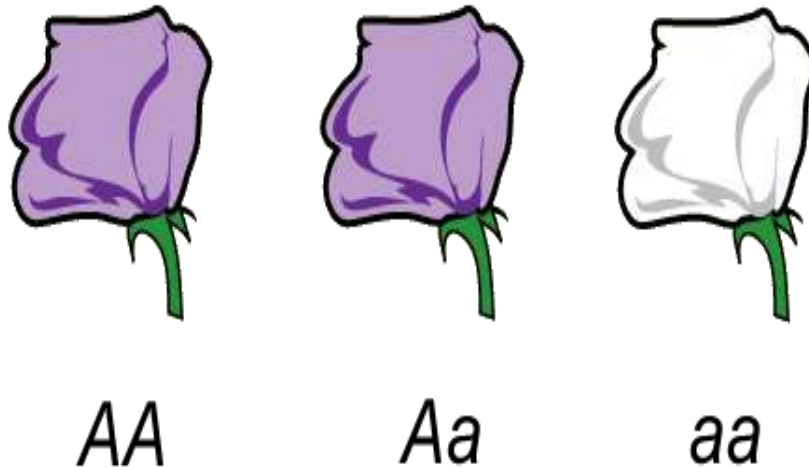
http://www.genomenewsnetwork.org/gnn_images/whats_a_genome/gene.gif



http://4.bp.blogspot.com/_dRj9DN75eul/Ry-Vlyer_XI/AAAAAAAAAP8/-KriwUeTtB4/s400/eyes-400.jpg

48. Allele

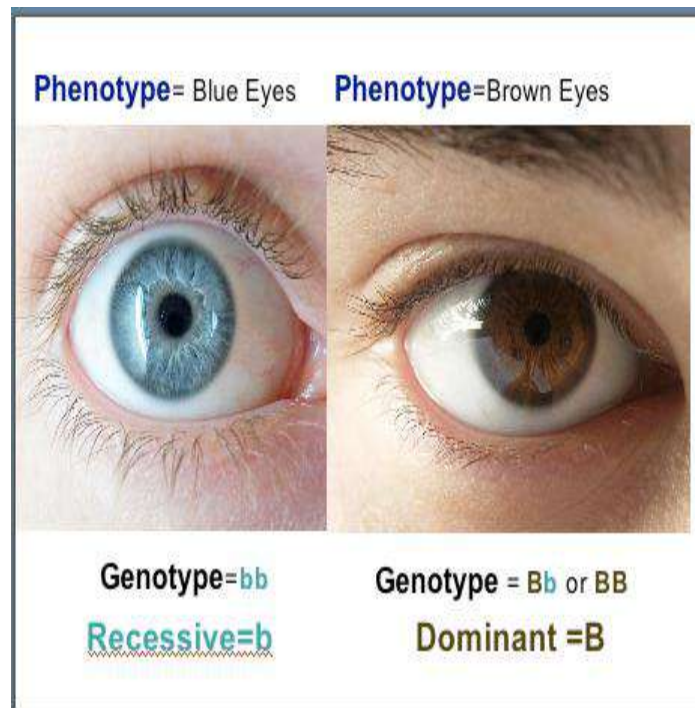
- The different forms of a gene.



<http://www.cubocube.com/files/images/opengenetics/chapter3/image3.png>

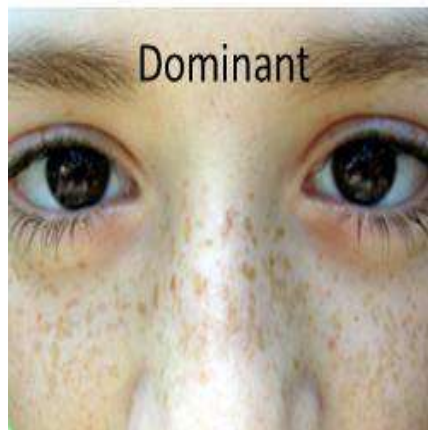
49. Dominant Allele

- An allele whose trait always shows up in the organism when the allele is present.



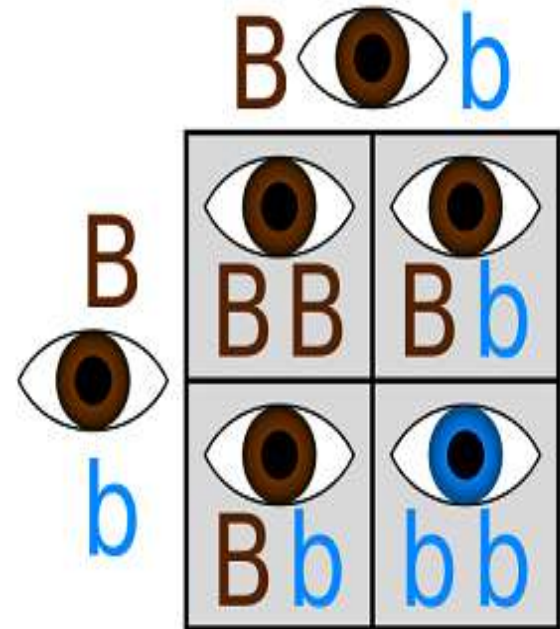
50. Recessive Allele

- An allele that is hidden whenever the dominant allele is present.



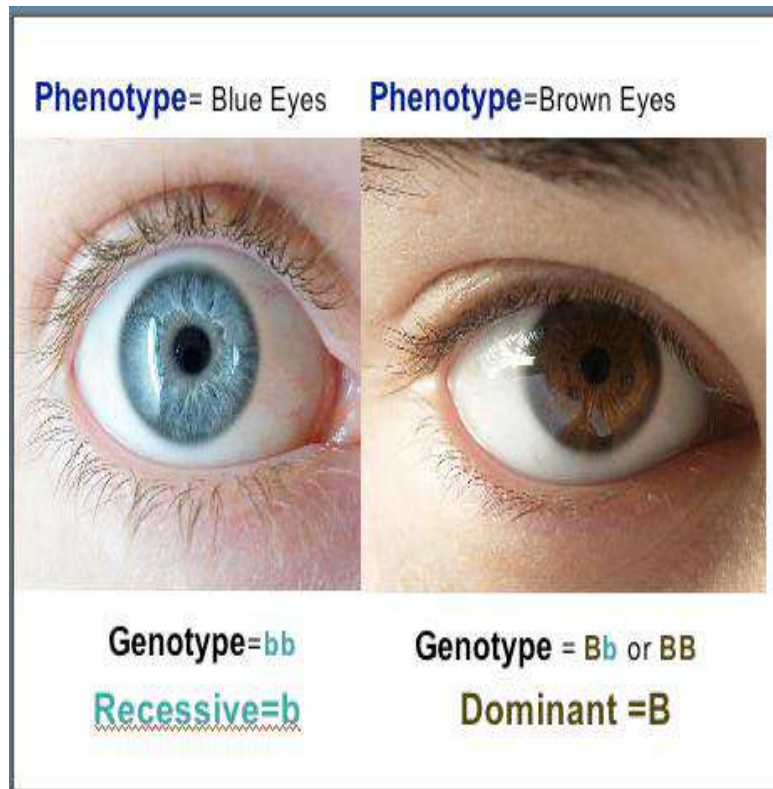
51. Punnett Square

- A chart that shows all the possible combinations of alleles that can result from a genetic cross.



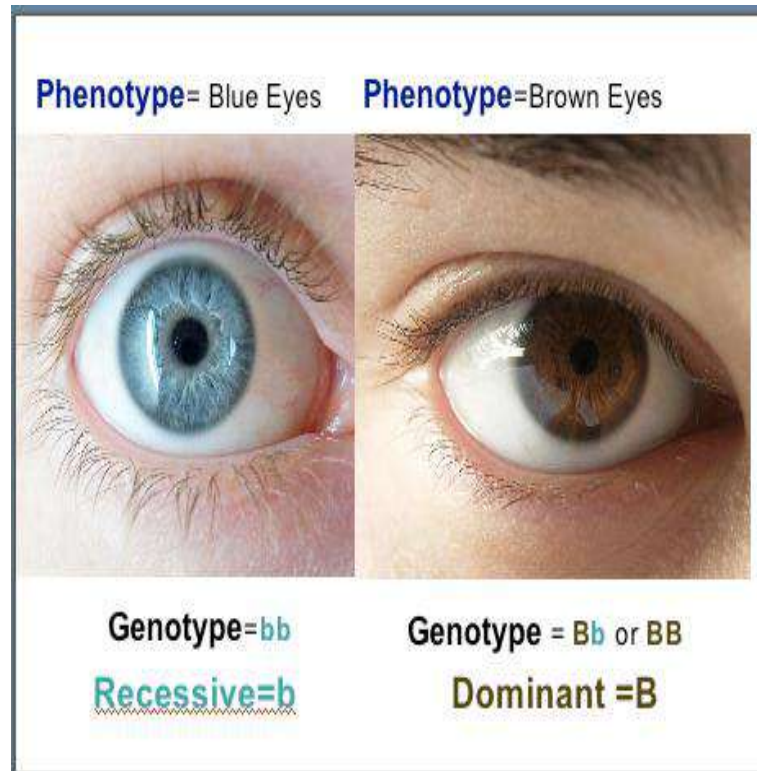
52. Phenotype

- An organism's physical appearance, or visible traits.



53. Genotype

- An organism's genetic makeup, or allele combinations.



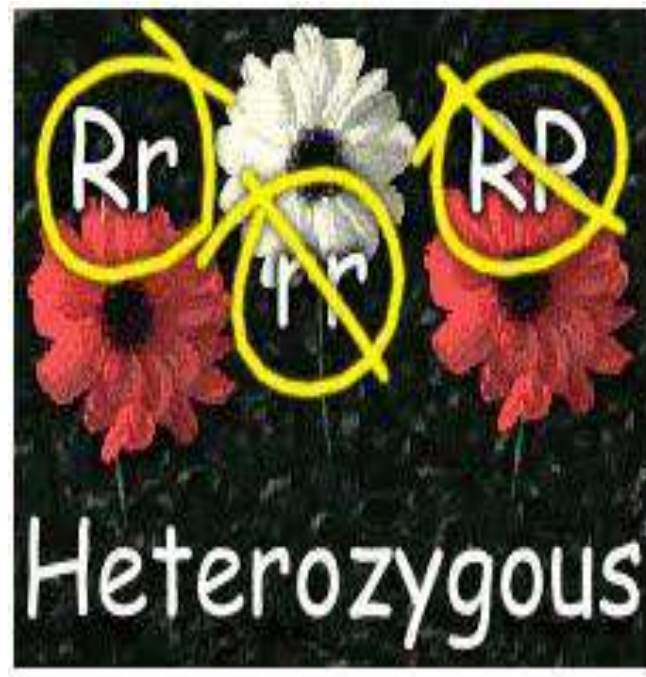
54. Homozygous

- Having two identical alleles for a particular gene.



55. Heterozygous

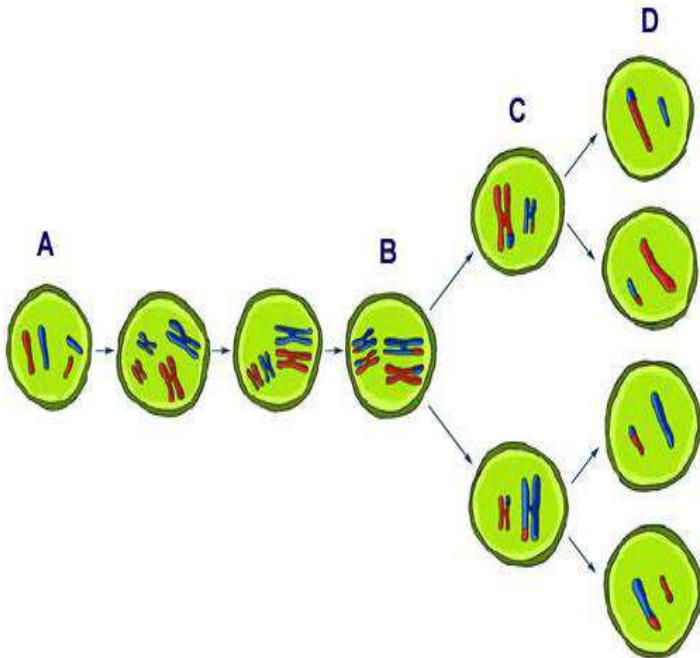
- Having two different alleles for a particular gene.



<http://1.bp.blogspot.com/-D7TNfP8EZRo/TX6ORvCO52I/AAAAAAAAABw/Z84kiPOKNPc/s1600/Dibujo8.bmp>

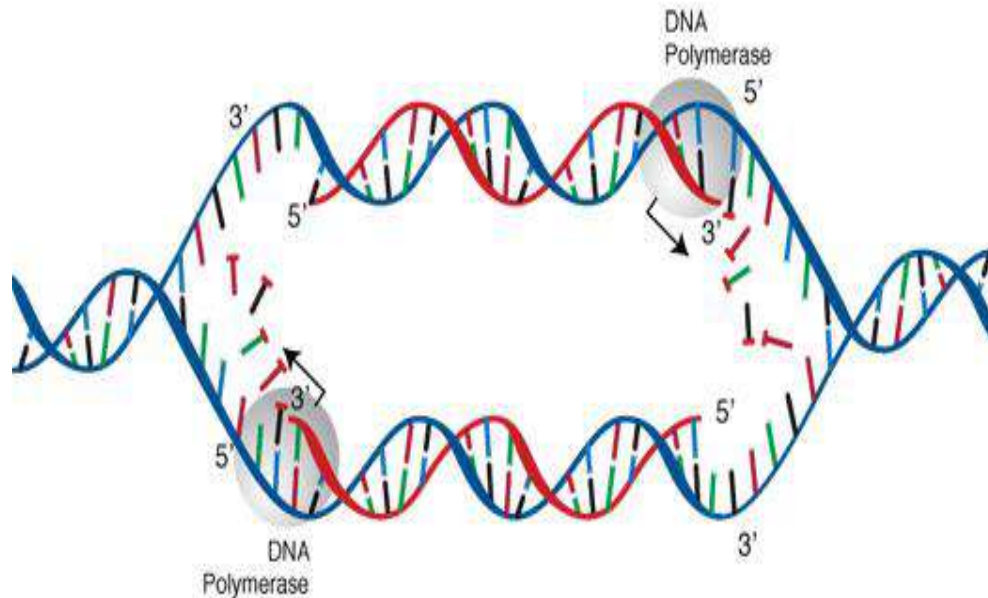
56. Meiosis

- The process that occurs in the formation of sex cells (sperm and egg) by which the number of chromosomes is reduced by half.



57. DNA Replication

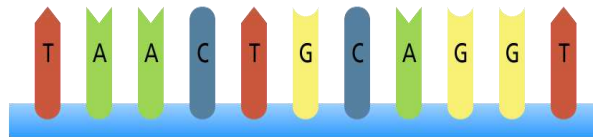
- Before a cell divides, the process in which DNA copies itself.



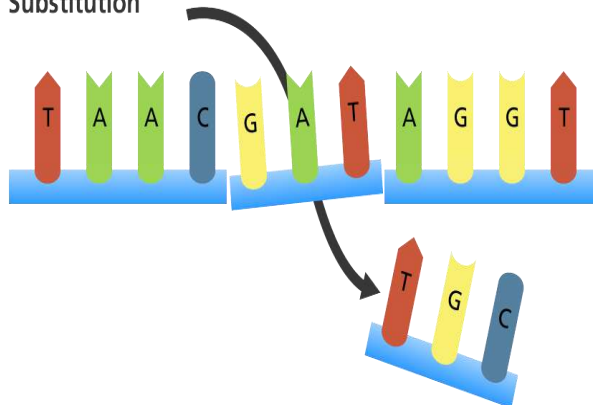
58. Mutation

- Any change in the DNA of a gene or a chromosome.

Original sequence

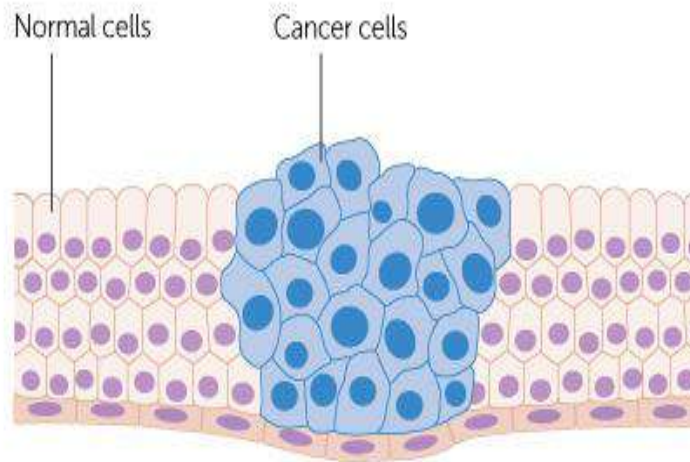


Substitution



59. Cancer

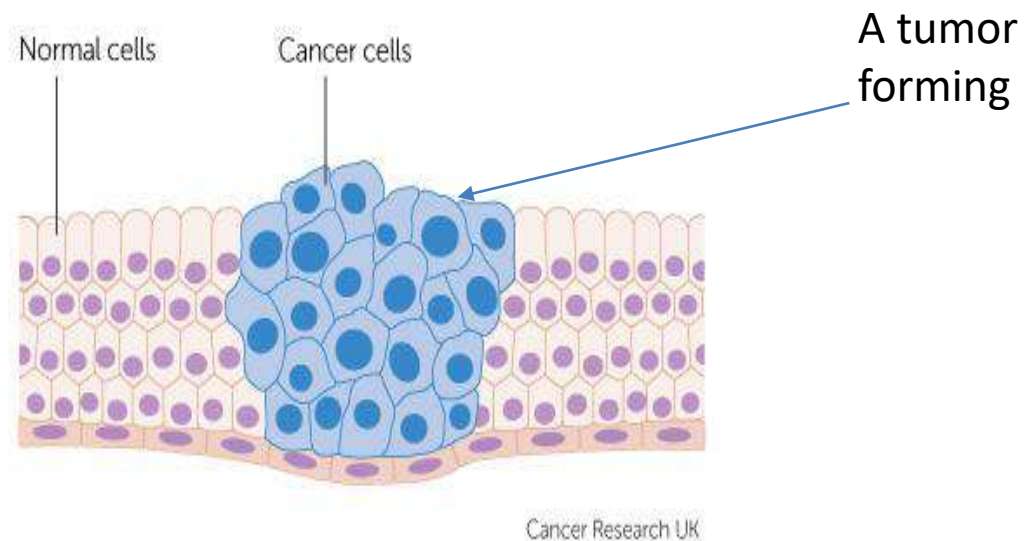
- A disease in which some body cells grow and divide uncontrollably, damaging the parts of the body around them.



Cancer Research UK

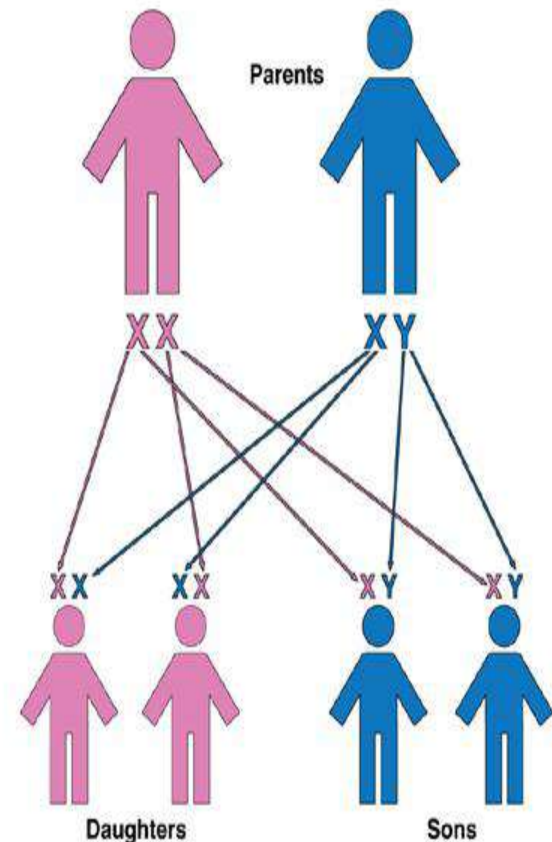
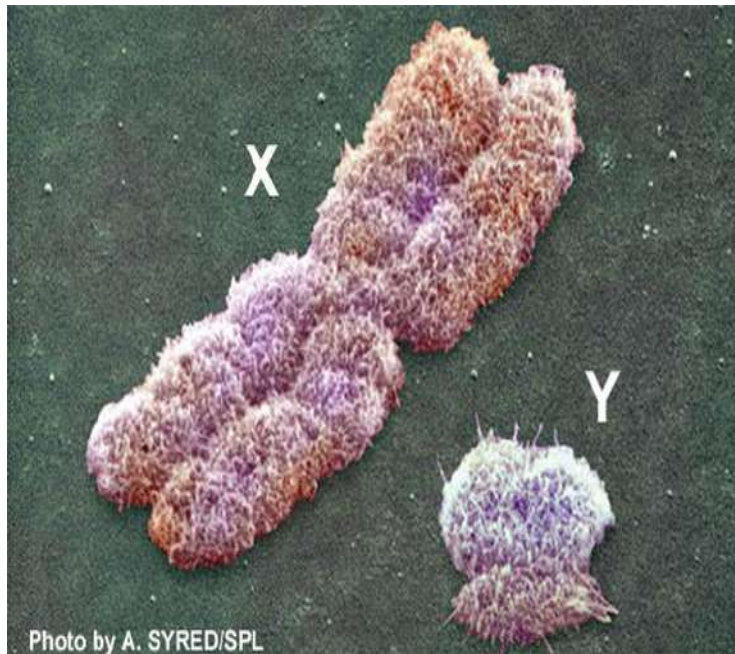
60. Tumor

- A mass of rapidly dividing cells that can damage surrounding tissue.



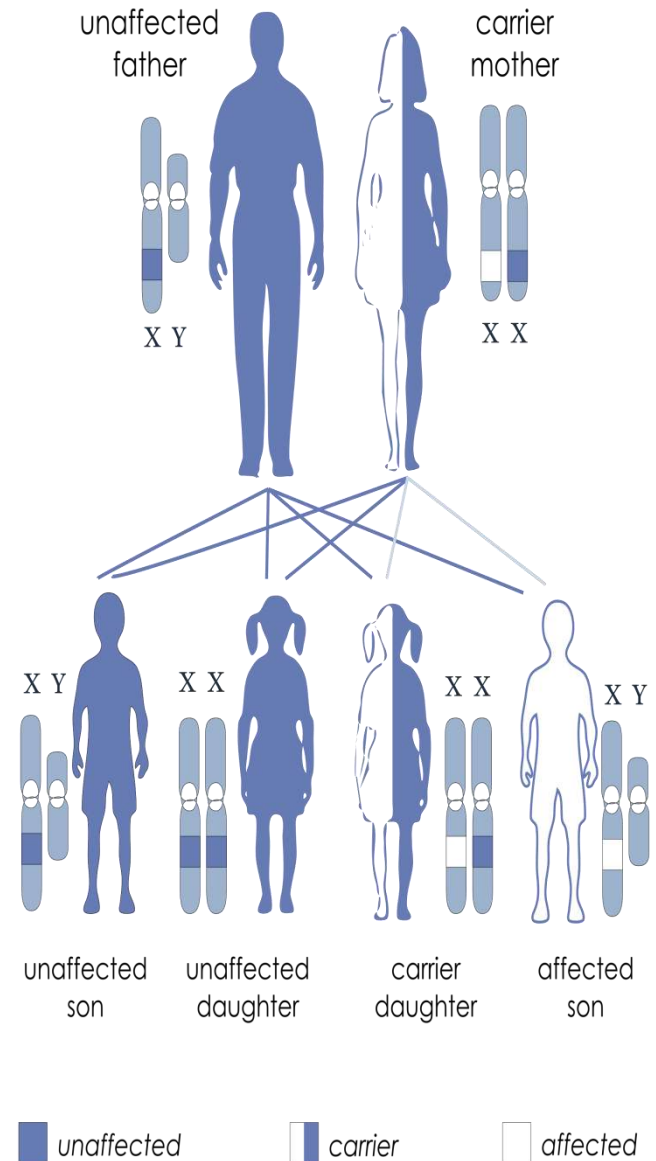
61. Sex Chromosome

- A pair of chromosomes carrying genes that determine whether a person is male or female.



62. Sex-linked Genes

- A gene that is carried on a sex (X or Y) chromosome.



63. Carrier

- A person who has one recessive allele and one dominant allele for a trait.

Example - Hemophilia

- Draw a Punnett square for cross between a carrier female and an unaffected male.
- Female: $X^H X^h$ Male: $X^H Y$

Carrier

	X^H	Y
X^H	$X^H X^H$	$X^H Y$
X^h	$X^H X^h$	$X^h Y$

64. Species

- A group of similar organisms that can mate with each other and produce fertile offspring.



65. Adaptation

- An inherited behavior or physical characteristics that helps an organism survive and reproduce in its environment.



<http://www.zooborns.com/.a/6a010535647bf3970b01116898bd5b970c-pi>



<http://ofcoursevegan.files.wordpress.com/2013/05/arctic-fox.jpg>

66. Evolution

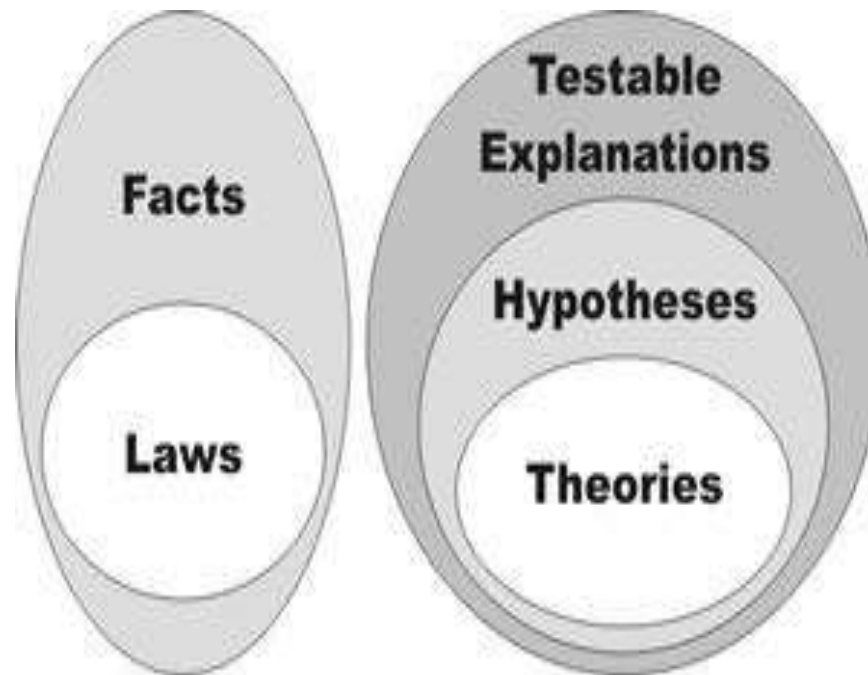
- Change over time



http://catherinephamevolution.weebly.com/uploads/4/9/7/3/49739619/189059_orig.jpg

67. Scientific Theory

- A well-tested concept that explains a wide range of observations.



68. Natural Selection

- The process by which organisms that are best adapted to their environment are most likely to survive and reproduce.



69. Homologous Structures

- Structures that are similar in different species and that have been inherited from a common ancestor.

