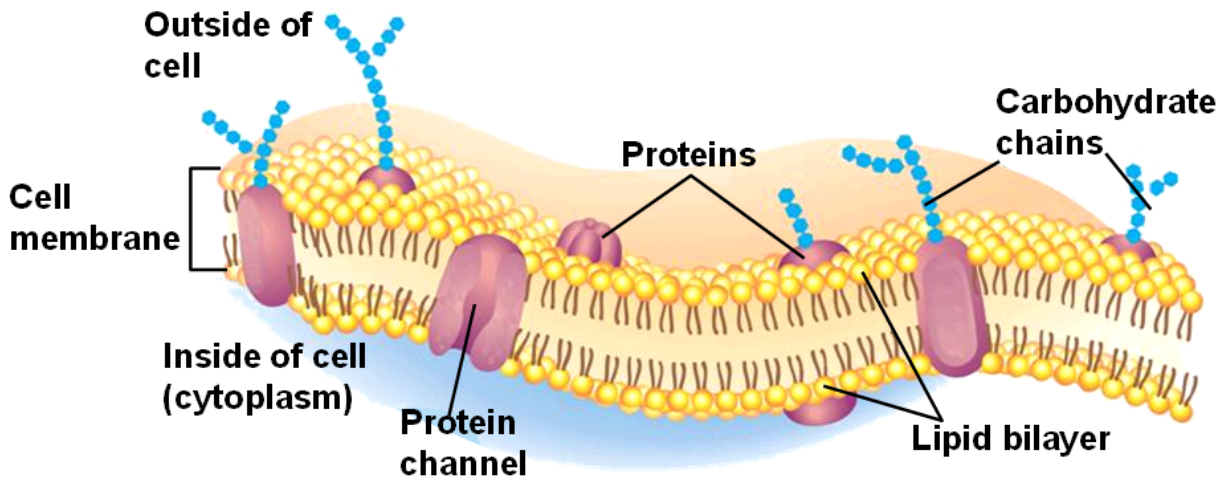


1.

Cell Membrane



2. a) Protein channels help to move material across the cell membrane.

b) Carbohydrates act like chemical identification cards allowing cells to identify one another

3. The plasma membrane is described to be fluid because of its lipids and membrane proteins that move laterally or sideways throughout the membrane. That means the membrane is not solid, but more like a 'fluid'.

The membrane is depicted as mosaic because like a mosaic that is made up of many different parts the plasma membrane is composed of different kinds of macromolecules, such as integral proteins, peripheral proteins, glycoproteins, phospholipids, glycolipids, and in some cases cholesterol, lipoproteins.

4. Water and certain ions (smaller molecules) O_2 CO_2

5. Water, carbon dioxide, oxygen

6. The mass of solute in a given volume of solution or mass/volume

7. Particles move from an area of high concentration to an area of low concentration

8. Osmosis is the diffusion of water through a selectively permeable membrane



9. Solution with the higher concentration of solutes is a hypertonic solution, the solution with the lesser concentration of solutes is a hypotonic solution, when the concentration of two solutions is the same is isotonic

10. a) hypertonic-shrink, b) hypotonic-swell c) isotonic-nothing

11. Movement of specific molecules across cell membranes through protein channels

12. Facilitated- no energy. Active transport- Energy-requiring process that moves material across a cell membrane against a concentration difference

13. glucose, larger molecules

14. Sodium, calcium and potassium ions

15. endocytosis- The process of taking material into the cell by means of infoldings or pockets of cell membrane.

exocytosis- Process by which a cell releases large amounts of material

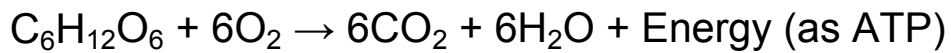
16. phagocytosis-Extensions of cytoplasm surround a particle and package it within a food vacuole.

pinocytosis- Process by which a cell takes in liquid from the surrounding environment

17.

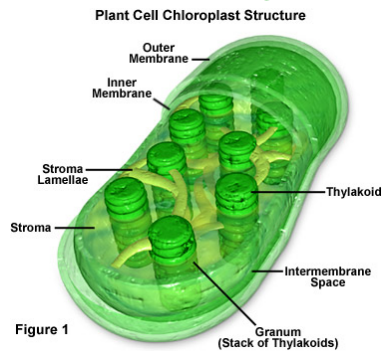


18. Cellular respiration- Process that releases energy by breaking down glucose and other food molecules in the presence of oxygen

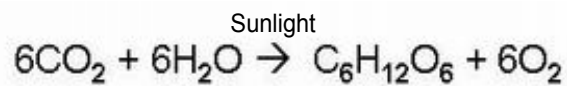


Glucose oxygen

19.



20. photosynthesis- Plants use the energy of sunlight to convert water and carbon dioxide into high energy carbohydrates



Attachments

tdc02_vid_flyin_300-ul.mov

Biology 112 Lesson 23-facilitated and active.notebook

Mitochondria.asf

Photosynthesis.asf