

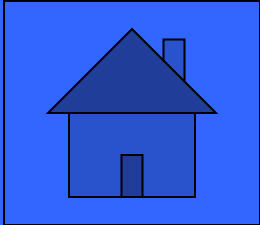
<b>Photo-synthesis</b>	<b>Prokaryotes And Eukaryotes</b>	<b>Organelles</b>	<b>Transport</b>	<b>Macro-molecules</b>
<b><u>100</u></b>	<b><u>100</u></b>	<b><u>100</u></b>	<b><u>100</u></b>	<b><u>100</u></b>
<b><u>200</u></b>	<b><u>200</u></b>	<b><u>200</u></b>	<b><u>200</u></b>	<b><u>200</u></b>
<b><u>300</u></b>	<b><u>300</u></b>	<b><u>300</u></b>	<b><u>300</u></b>	<b><u>300</u></b>
<b><u>400</u></b>	<b><u>400</u></b>	<b><u>400</u></b>	<b><u>400</u></b>	<b><u>400</u></b>
<b><u>500</u></b>	<b><u>500</u></b>	<b><u>500</u></b>	<b><u>500</u></b>	<b><u>500</u></b>

**What 3 factors are  
needed for  
photosynthesis?**

**Light**

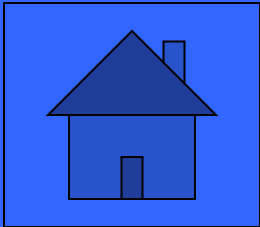
**Water**

**Carbon dioxide**



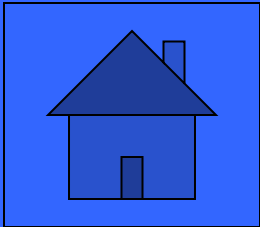
**What does  
photosynthesis  
produce?**

**Oxygen and high  
energy sugars and  
starches (ex:  
glucose)**



**Why would  
someone  
concerned with  
global warming  
plant trees?**

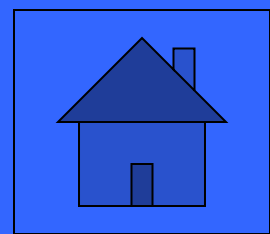
**During the Calvin  
cycle, plants take  
carbon dioxide  
from the  
atmosphere**



**Why do humans  
need the products  
of photosynthesis?**

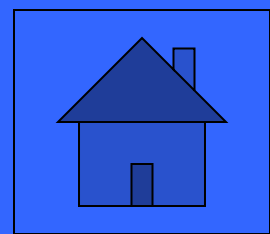
**Oxygen to breath**

**Glucose for energy**

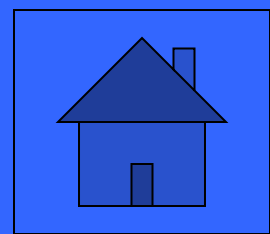


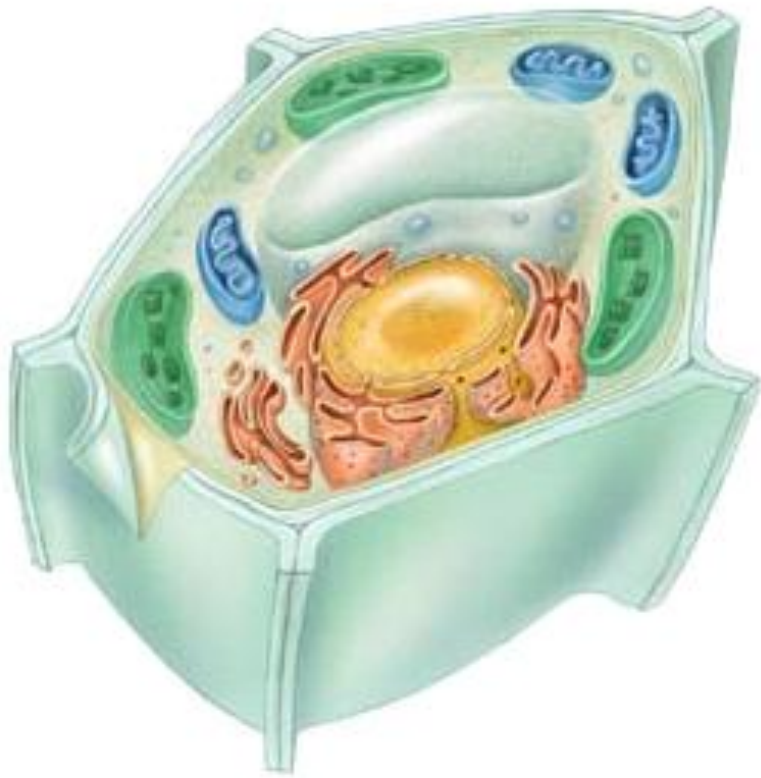
**Organisms that  
produce their own  
food are called**

# Autotrophs



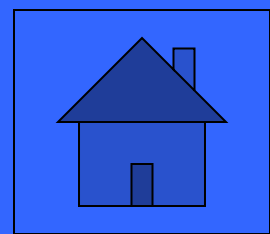
The structure that animal cells contain that bacteria do not is the  
**nucleus.**





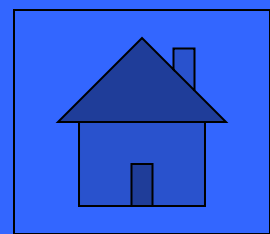
What kind of  
cell is shown  
here?

plant



What structure can both bacteria and plant cells have that animal cells do not have?

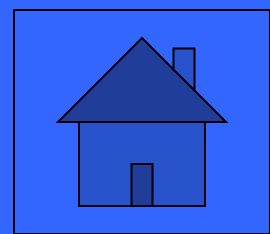
Cell wall



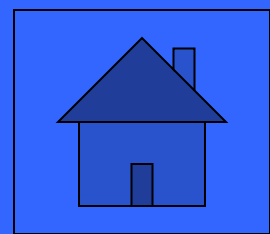
Besides a nucleus, prokaryotes don't have these, while eukaryotes do.

They are

membrane bound organelles.

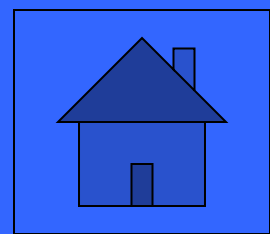


These are believed by many  
biologist to be the first type of living  
cells. They are  
prokaryotes.



The primary function of  
the Golgi apparatus is to

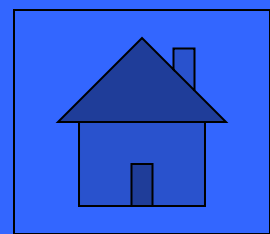
Collect, package, and modify proteins  
for transport.



The primary function of  
mitochondria is

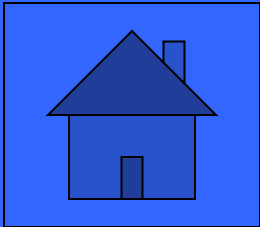
to

break down glucose to make ATP.

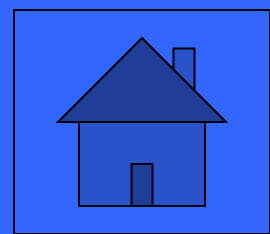


The primary function of the  
chloroplast is to

Capture energy from the sun and  
store it in glucose.

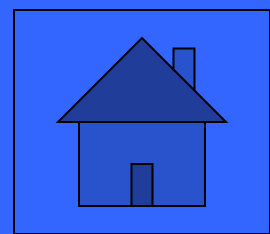


The primary function of  
ribosomes is to  
synthesize proteins.

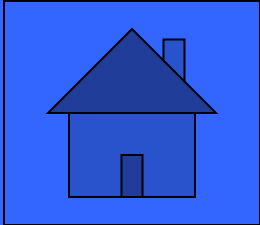


Plants capture and store energy from the sun first in the \_\_\_\_\_ reactions in the chloroplasts.

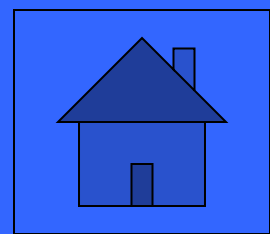
Light



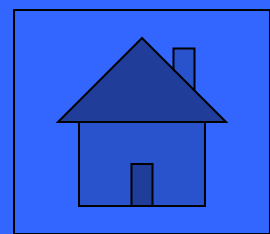
Cell membranes allow some substances to pass through and keep other out. This characteristic is described as **semipermeable.**

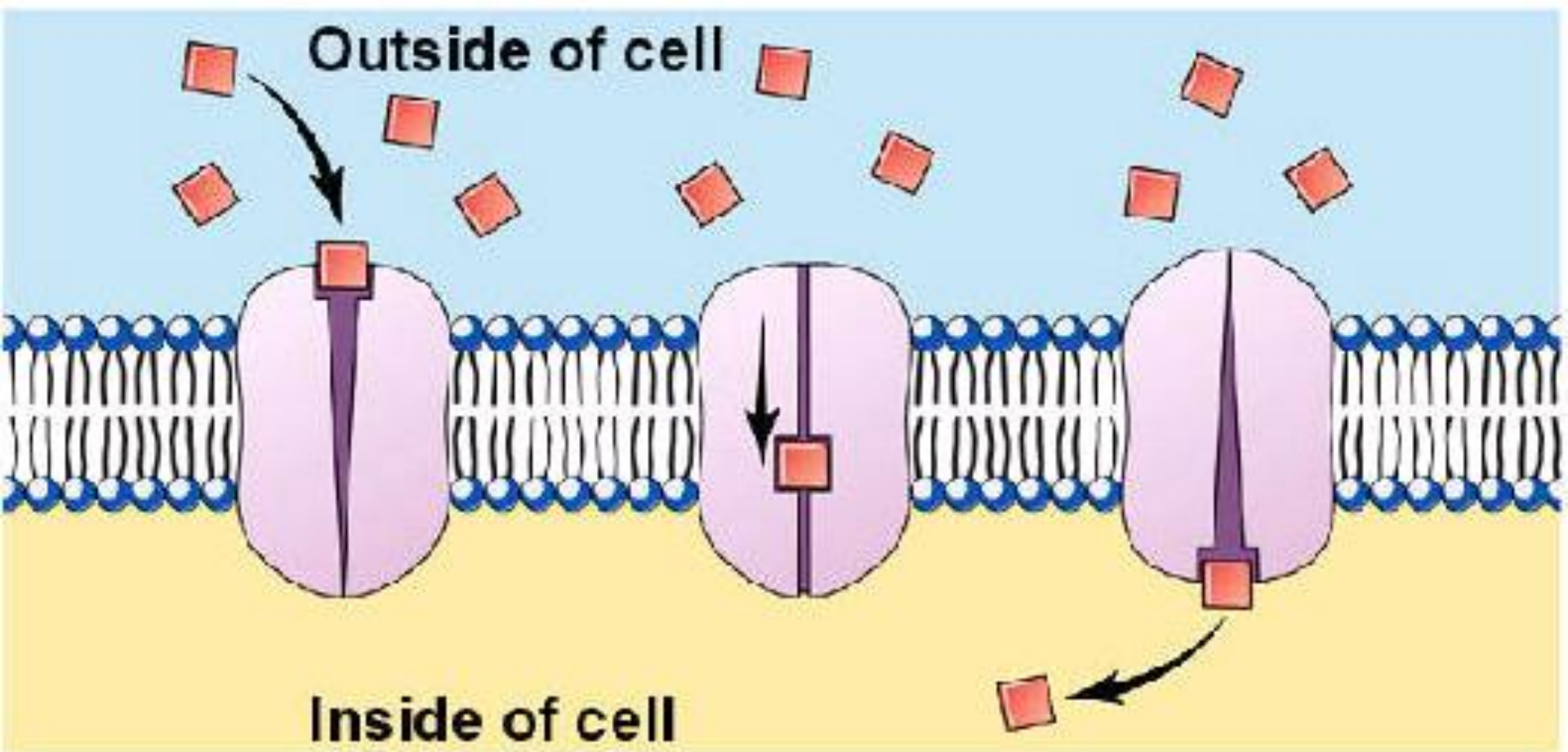


When a cell uses energy to move substances across the cell membrane, it is called active transport.

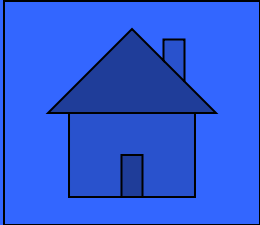


A type of active transport that moves large particles into the cell by engulfing them is called  
**endocytosis**



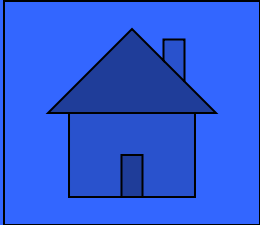


The process shown above is  
facilitated diffusion.



A cell has molecules X and Y in its cytoplasm and outside of its membrane. X is smaller than Y. The cell membrane is permeable to any molecules the size of X and smaller. What molecules can be moved out of the cell by diffusion?

X only



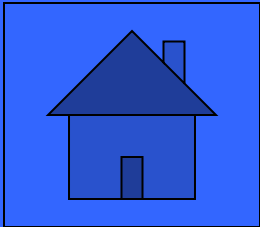
What are the four most important types of macromolecules to life?

Protein

Lipids

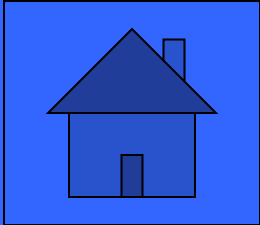
Carbohydrate

Nucleic acids

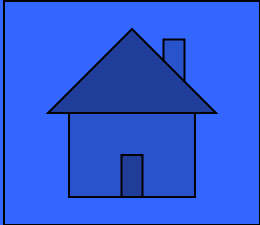


What type of macromolecules are  
enzymes composed of?

protein



Macromolecules are polymers that  
are formed by combining  
monomers.



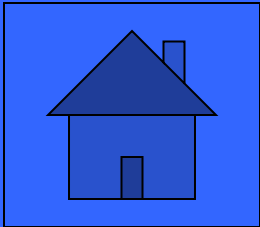
Each of the four important macromolecules are made of one kind of monomer. State the four macromolecules and their monomer.

Nucleic acids are made of nucleotides.

Proteins are made of amino acids.

Carbohydrates are made of sugars.

Lipids are made of fatty acid chains.



At low temperatures, how do most enzymes perform?

Slower than at higher temperatures.

