

Cell Biology subunits:

- Cell Parts (Organelles)
- Diffusion
- NEXT: Photosynthesis & Respiration



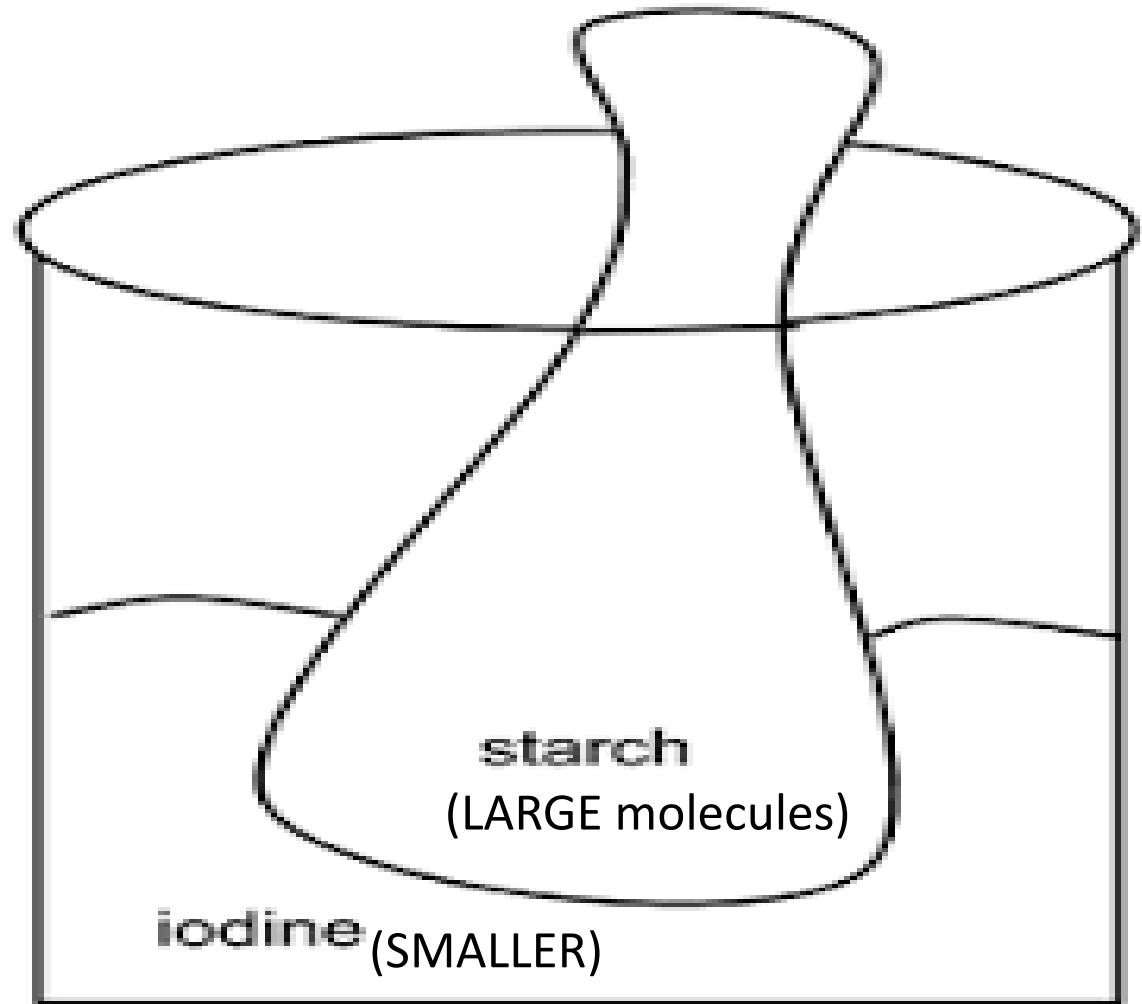
LO: Model movement through a cell membrane

SLE: Work collaboratively

Today's lab: model movement through a cell membrane

The bag of corn starch is a model of a cell. (Of the 3 types of models, which one is this?)

When iodine reacts with starch => purple/black color!



LO: Model movement through a cell membrane

SLE: Work collaboratively

Problem: According to this model, is a cell membrane permeable, impermeable, or semipermeable?

Hypothesis:

Procedure:

1. Into the plastic composting bag add about 3 level teaspoons cornstarch. Add 75ml of water, hold the bag shut and shake gently to mix. Use the twist tie to seal the bag tightly.
2. Into the clear plastic cup, add 100ml of water and 15 drops of iodine liquid.
3. Submerge the plastic bag containing the cornstarch solution into the iodine solution.
4. Wait about 15 minutes.
5. Observe what happens and record observations.

Data: Record your qualitative observations here (diagram OK)

Conclusion:

Predict the color changes

Permeability	Predicted color changes (if any) inside and outside of the bag
If the composting bag is PERMEABLE to iodine and starch...	INSIDE BAG: OUTSIDE BAG:
If the composting bag is IMPERMEABLE to iodine and starch...	INSIDE BAG: OUTSIDE BAG:
If the composting bag is SEMI-PERMEABLE...	

Homework (due Oct. 3)

- (1) Look up (on the Internet) and briefly describe whether/how each of the following can get through cell membranes
 - (a) Sodium ions (Na^+)
 - (b) Glucose (a sugar)
 - (c) Carbon dioxide (CO_2 , a gas)
 - (d) Hemoglobin (a large protein)
- (2) Based on all of your answers to #1, write a sentence that describes the permeability of cell membranes.