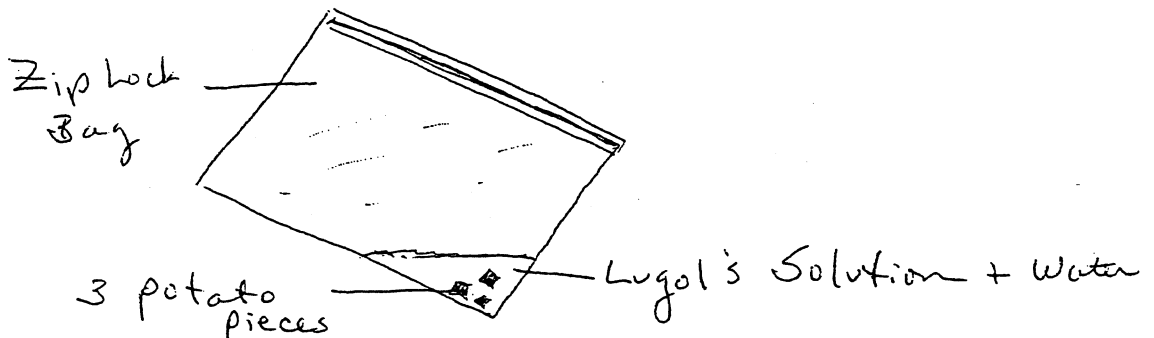


1. Why do you think cells need to be small?

2. What is diffusion?

3. Cut 3 pieces of potato. The first piece should be a cube 2mm on each side, the second a cube 5mm on each side and the third 10 mm on a side.

4. Put each piece of potato in a zip lock, add 30 drops of Lugol's solution and just enough water to cover the pieces of potato at the bottom of the bag. Adjust the bag so that all of the pieces are in the corner of the bag and covered by water as shown below.



5. After 10 minutes, cut open each piece of potato. Which piece had the most black color on the inside?

Why? _____

6. Sketch the potato pieces below and show how far the solution soaked into the pieces of potato:

7. If the Lugol's solution contains nutrients that are vital to the cell (simulated in this lab by the pieces of potato!), which cell has the best chance of having the solution get to all of the parts of the cell?

8. How does this lab show that it is good for cells to be small?
