

## Data Collection Handout

### Functional Requirements

What is the function of the cell membrane for human cells?

What is the function of a plastic grocery store bag?

What is the function of plastic wrap?

What is the function of a zipper bag?

**Instructions:** In the table, mark **Y** for “YES the molecules did move through the polymers (from one side to the other)” and **N** for “NO the molecules DID NOT MOVE through the polymers (from one side to the other).”

Polymer	Iodine	Starch	Food Coloring	Blue Marker Dye	Yellow Marker Dye
Dialysis tubing (cell membrane)					
Plastic grocery store bag					
Plastic wrap					
Zipper bag					

**Concluding Questions: Based on the above data, tell me about the selectivity of the following polymers:**

Is the dialysis tubing/cell membrane selectively permeable? Did the dialysis tubing/cell membrane allow all molecules through?

Are the zipper bags, plastic grocery store bags, and plastic wrap completely solid? How do you know?

What are zipper bags, plastic grocery store bags and plastic wrap good for in everyday life and why?

What is the largest testing molecule? How do you know?

What is the smallest testing molecule? How do you know?