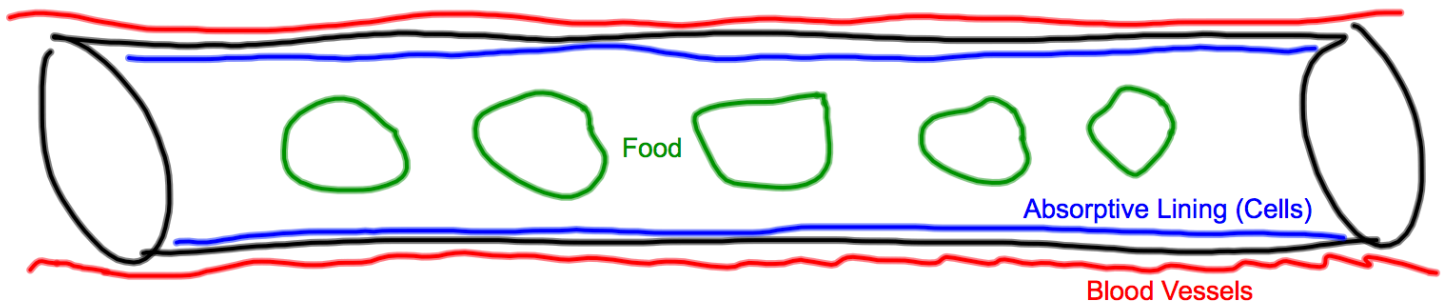Name _____ Date _____ Period _____

MODELING THE SMALL INTESTINE

BACKGROUND INFORMATION:

The small intestine is a long, hollow tube in the digestive tract that digests food and absorbs nutrients. Enzymes are secreted into the hollow part of intestine (called the "lumen"). The enzymes break down the slurry of food particles. Next, the digested nutrients (sugars, amino acids, lipids, etc.) are absorbed across the cells that line the intestine. Finally, those nutrients are received into the blood vessels on the outside of the small intestine.
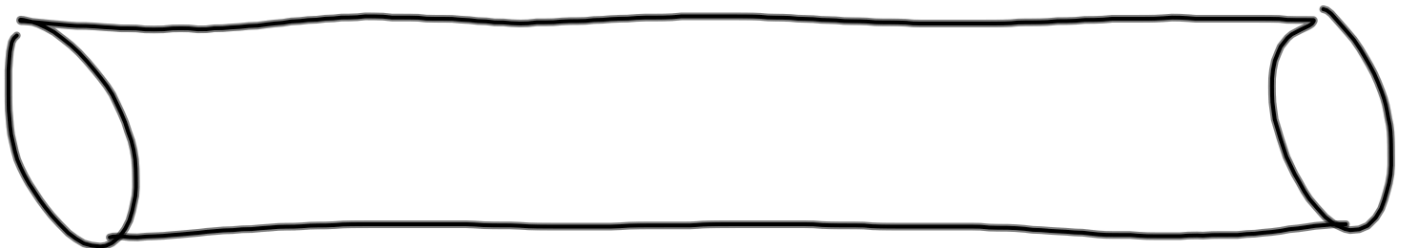
GENERAL DIAGRAM OF THE SMALL INTESTINE:

Food

Absorptive Lining (Cells)

Blood Vessels

TASK:

Draw a model of the small intestine that allows more food to be absorbed. As a constraint, the small intestine must be the same overall shape and size.

MY CLAIM – HYPOTHESIZED SMALL INTESTINE MODEL:

MY REASONING:

ACTUAL SMALL INTESTINE MODEL:

REASONING: