

STUDENT GUIDE

ELABORATE LESSON 6



Part 1: Our Motivation

Record what we were trying to figure out that led to this investigation.



Part 2: Observing the Structure of the Small Intestines

What do you notice (or wonder) about the shape and structure of the interior specialized structures within the small intestine? How might this help get nutrients to the rest of the body?



Part 3: Use Models to Observe What Happens to Nutrients in the Small Intestine

Identify the scales that each model of the “Body System Models” focuses on. Place an X in each box that shows the scale each model represented.

	m	cm	mm	um	nm
Model 1					
Model 2					
Model 3					
Model 4					
Model 5					

Based on the table above, describe how orders of magnitude can help you understand how the scale of one model relates to the scale of another model.

Use each of the models on the “Body System Models” handout to observe how nutrients are absorbed from the small intestines. Record the merits and limitations of each model as you observe them.

Model	Merits	Limitations
1		

2		
3		
4		
5		

Using ideas from all models, summarize **how** molecules move from the small intestine to the rest of the body. In your response, be sure to...

- Identify how the function of specialized cells helps move amino acids, fatty acids, and sugars from the small intestine to the rest of the body.
- State which model(s) most clearly helped you understand which ideas.



Part 4: Revising a Model of How Milk is Digested

Using all the evidence gathered, brainstorm revisions to our Class Consensus Model from Lesson 5 that answer our Module Question, *What happens to milk after it is consumed?* Include zoom-ins as necessary.

Record the new class consensus model we create in the space below.