

Animal Appetites

The following narrative was written by Alex, a 5th grader who raises livestock for 4-H.

This morning I woke up early because it was my turn to feed the animals my sister and I are raising for our 4-H projects. It's a lot of hard work, but I really like caring for Daisy, my heifer, and Lucky, my sister's pig.

When I walked up to Daisy's corral, I noticed right away that her trough was empty. She has an impressive appetite. First I cleaned out Daisy's pen and made sure she had fresh, clean water. I gave her a big scoop of food and a handful of hay. I sat back to watch. At first, Daisy ate her food rapidly—it was gone in minutes! But once her food was gone, she continued to chew... and chew... and chew. I watched for 30 minutes, and the whole time Daisy never stopped chewing! I know my jaw would get sore if I chewed as much as Daisy did. I didn't have time to watch Daisy chew all day, so I decided it was time to feed my sister's pig, Lucky.

Lucky was hungry too. I gave him a big scoop of food in his bowl. Lucky, even though he ate last night, wolfed down his food like he was starving. In fact, he hardly chewed at all. It only took him a few minutes to finish his meal. I looked over at Daisy. Guess what she was doing? STILL chewing!

This really got me thinking...

Why do Lucky and Daisy eat different kinds of food?

Why do they eat their food differently?

Who decides what they should eat?

Do you know the answers to any of these questions?

Do you have questions about what animals eat?

Got Guts? Pig Labels

Teeth

Esophagus

Stomach

Small Intestine

Large Intestine

Got Guts? Pig Descriptions

Tear and chop food.

Muscle contractions force food through this tube and into the stomach.

Muscles mix the food with acids and enzymes, breaking it into smaller, more digestible pieces.

A tube-like structure that absorbs nutrients into the bloodstream.

Removes water and minerals from the undigested matter and forms solid waste that can be excreted.

Got Guts? Cow Labels

Teeth

Esophagus

Rumen

Reticulum

Omasum

Abomasum

Small Intestine

Large Intestine

Got Guts? Cow Descriptions

Tear and chop food.

Muscle contractions force food through this tube and into the stomach.

Good bacteria help the cow digest her food and provide her with protein and energy.

Brings the undigested feed back up the esophagus in the form of cud, to be re-chewed.

Folds regulate flow of partially digested food to the fourth chamber.

Prepares the nutrients that are present for absorption in the small intestine.

A tube-like structure that absorbs nutrients into the bloodstream.

Removes water and minerals from the undigested matter and forms solid waste that can be excreted.

Got Guts? Teacher Review

Teeth (Pig and Cow)

This part is the most distinctive and long-lasting features of mammal species. To an animal, these are the tools that help them *tear and chew food*.

Cattle have flat teeth and enjoy eating grasses and grains. Pigs have a variety of teeth. They are omnivores and enjoy eating plants and animals.

Students place the description, “tear and chew food,” near the teeth of both pig and cow models.

Esophagus (Pig and Cow)

This is the route food takes to get to the stomach, or rumen. *Muscle contractions force food through this tube and into the stomach.*

Students place the description, “muscle contractions force food through this tube and into the stomach,” near the esophagus of both pig and cow models.

Stomach (Pig)

Species with a monogastric digestive system have this organ. This is where *muscles mix the food with acids and enzymes, breaking it into smaller, digestible pieces.*

Students place the description, “muscles mix the food with acids and enzymes, breaking it into smaller, digestible pieces,” near the stomach of the pig model.

Rumen (Cow)

Cattle have one stomach with four chambers. This is the first chamber where *good bacteria help the cow digest her food and provide her with protein and energy.*

Students place the description, “good bacteria help the cow digest her food and provide her with protein and energy,” near the rumen of the cow model.

Reticulum (Cow)

This chamber of the stomach sorts particles entering or leaving the rumen. This organ *brings the undigested feed back up the esophagus in the form of cud, to be rechewed.*

Students place the description, “brings the undigested feed back up the esophagus in the form of cud, to be rechewed,” near the reticulum of the cow model.

Omasum (Cow)

This is a small chamber. Its *folds regulate flow of partially digested food to the fourth chamber.*

Students place the description, “folds regulate flow of partially digested food to the fourth chamber,” near the omasum of the cow model.

Abomasum (Cow)

This chamber is most like the stomach of a monogastric animal. It *prepares the nutrients that are present for absorption in the small intestine,* it contains strong acids and digestive enzymes.

Students place the description, “prepares the nutrients that are present for absorption in the small intestine,” near the abomasum of the cow model.

Small Intestine (Pig and Cow)

In both species, food travels through *a tube-like structure that absorbs nutrients into the bloodstream.*

The small intestine of a steer is 20 times the animal’s length. The small intestine of pig is approximately 15-20 meters.

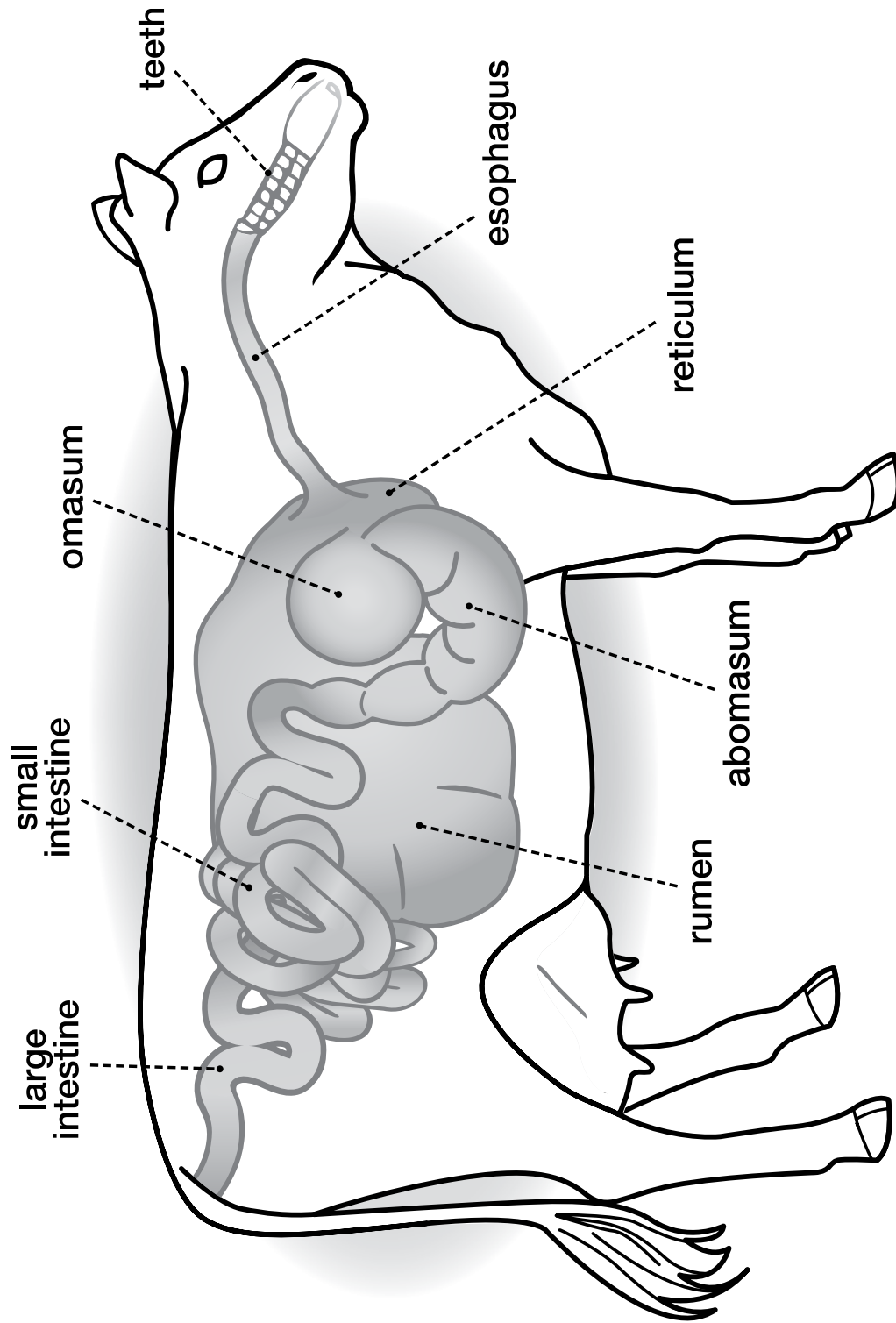
Students place the description, “a tube-like structure that absorbs nutrients into the bloodstream,” near the small intestine of both pig and cow models.

Large Intestine (Pig and Cow)

Despite its name, this structure is actually shorter than the small intestine. It *removes water and minerals from the undigested matter and forms solid waste that can be excreted.* This is the final structure food moves through before the animal defecates.

Students place the description, “removes water and minerals from the undigested matter and forms solid waste that can be excreted,” near the large intestine of both pig and cow models.

Cow Digestive Tract



Pig Digestive Tract

