Cow Rumen
3rd grade - Field Trip Station

Overview
Students learn about the digestive system of a cow, the difference between the cow’s and a human’s digestion, and the microclimate in the cow’s rumen. Using a microscope, students get a look into the world of microbiology by viewing various species of protozoa found in the rumen.

Vocabulary
• Digestion - the process of breaking down food by mechanical and enzymatic action into substances that can be used by the body.
• Protozoa - a phylum or group of phyla that comprises the single-celled microscopic animals, which include amoebas, flagellates, ciliates, sporozoans, and many other forms.

NM Science Standards Addressed
1-1-1-2 Recognize the difference between data and opinion.
2-2-1-1 Know that an adaptation in physical structure or behavior can improve an organism’s chance for survival (e.g., horned toads, chameleons, cacti, mushrooms).
2-2-1-2 Observe that plants and animals have structures that serve different functions (e.g., shape of animals’ teeth).

CCSS Language Arts Standards Addressed
SL.3.1.B Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
SL.3.1.C Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.

Next Generation Science Standards Addressed
3-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.