



## What Makes a Goat Go?

### Video #232

#### Developed for Grades: 2nd - 5th

The WOW videos have been developed to inspire students to learn more about **NGSS Life Science and/or Earth Science Disciplinary Core Ideas**. These could include:

- Plants and animals (including humans) can change their environment.
- Living things need water, air, and resources from the land.
- Humans use natural resources for everything they do.
- All organisms have internal and external structures that serve various functions in growth, survival, behavior and reproduction.
- Importance of ecosystems and habitats
- Cross cutting concepts like patterns, cause and effect, etc.

The WOW videos and their support documents can also be used with **English Language Arts**. Here are some ideas:

1. Select a few questions from the Know-It-All section and have students write their answers.
2. Have students write a story related to the topic. They could even add illustrations. For some grades students could read their stories and/or video tape their readings to share.
3. Students could write a poem, a play, or a song based on something in the video that created an emotional response for them.
4. Key words in the video can be used in creative writing assignments.
5. Older students could explore the difference in learning from video as opposed to a book. What are the advantages and disadvantages?



## Answer Key for Know-It-All

1. **What makes a goat a goat? What are some adaptations that goats have?**
  - Most goats have big ears and eyes on the side to anticipate danger, cloven (or split) hooves for balance, and a 4 chambered stomach to help them digest their food. Other adaptations include: udders for holding milk, fur for keeping warm, flat teeth for grinding, and their diurnal behavior (that is, they are mainly awake during the day).
2. **What is different about a human eye and goat eye?**
  - Human eyes point forward and interpret visual information together as a unit, giving us improved depth perception. Goat eyes operate separately and have a wider field of vision than human eyes, which allow them to “watch their backs”.
3. **How many toes do goats have on each foot? How many toes are on each goat? How many total goat toes were there in the pen today, including all of the goats?**
  - 4, 16, 64
4. **What does it mean to be a “ruminant” animal?**
  - Ruminants have four-chambered stomachs. The first chamber stores swallowed food to be properly chewed later! The goat can later spit up that food and continue chewing it (this is called regurgitation). The next two chambers have acids and bacteria that help to break up the food into smaller parts for digestion. The fourth chamber actually pulls the nutrients and liquid out of the food to transport it to the rest of the body. The leftover waste, or manure, then exits the body in small pellet form.
5. **Ungulates are animals with hooves. What other animals have hooves on a farm?**
  - Farm animals with hooves include: goats, pigs, sheep, horses, llamas, and alpaca. There are also wild animals that have hooves, such as antelope and giraffes.
6. **Look at your own fingernails (or toenails). Are they made of the same stuff as goat hooves?**
  - Yes! Goat hooves are often dark, but the material (keratin) is the same as in our own finger- and toe-nails.