

Digestive System

Media Type: DVD

Duration: 22 min.

Goal: To understand the basic anatomy of digestive systems.

Description:

Take a visual, introductory journey through the digestive system. Using a variety of special effects, endoscopic video of organs inside a living organism, three-dimensional graphics and specimens of dissected organs, experts of human anatomy, animal science, muscle biology and comparative anatomy use more than a century of combined experience to give an understanding of what makes higher level organisms function. This program offers a comparative view of the organ system elements of different animal species and classes, including fish, poultry, cattle, sheep, goats, pigs and humans, offering a wider perspective and a more thorough understanding of the structures and functions within these systems.

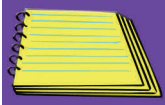
Objectives:

1. To understand basic functions of organs in the digestive systems.
2. To understand the different types of digestive systems.
3. To identify basic structures associated with the digestive tract.

Horizontal Alignment

Core-Subject Area	Foundation Concept	Basic Understanding
Language Arts	<i>Application of Writing Skills</i>	• Descriptive and informative writing • Utilizing reference materials • Vocabulary enhancement
	<i>Analysis of Text, Literature and Information</i>	• Developing listening and comprehension skills • Creating visual representations
	<i>Technology Applications in Literature</i>	• Utilizing presentation processing software • Internet-based research
Science	<i>Scientific Thinking and Investigating</i>	• Analytical skills • Collecting data • Compare/contrast findings • Classification/organization skills
	<i>Scientific Laws and Principles</i>	• Cycles, structures and processes • Principles of biology, anatomy and physiology • Physical and chemical reactions

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Lesson Plan

Class 1: Begin the *What Do I Know Activity*. Distribute the *Digestive System Vocabulary Handout* and *Worksheet* to be filled out during the presentation. Show the *Digestive System - Part 1*. Have students complete the *Digestive System Assessment I*. Assign the *Comparing Systems Project* for homework.



Video
7 min.

Class 2: Show the *Digestive System - Part 2*. Students should complete the *Digestive Systems Assessment II*. Allow students to begin working on the *Systems Outline Activity*. Assign the *Model Systems Project* for homework.



Video
8 min.

Class 3: Show the *Digestive System - Part 3*. Students should complete the *Digestive System Assessments III*. Allow students to finish the *What Do I Know Activity* and the *Systems Outline Activity*. With any remaining class time students should work on their *Projects*.



Video
7 min.

Class 4: Administer the *Digestive System Final Assessment*. Allow students to present and turn in their *Projects*.



Lesson Links

InnerBody

- <http://www.innerbody.com>



Career & Technical Student Organizations

FFA

- Dairy Cattle Evaluation
- Horse Evaluation
- Livestock Evaluation
- Poultry Evaluation



Career Connections

- iCEV50841, Katherine Chauncey, Ph.D., R.D., Associate Professor, Health Sciences Center, Texas Tech University
- iCEV51095, Susan Bozeman, D.V.M., Owner & Veterinarian, Bozeman Animal Clinic
- iCEV50027, Frank Garry, D.V.M., Veterinary Professor, Colorado State University

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Lab Activities

What Do I Know

Directions:

Before watching the presentation for the digestive system, have each student write down what they already know about the system. Have them discuss what they wrote, which can include organs and body parts involved in the system, the roles played, how the body uses the system on a daily basis, or any other knowledge they may have. After the presentation, have them make another list describing anything they learned which they did not previously know. Discuss these as well, noting any changes in their lists and whether the students were surprised by the facts of the system.

Systems Outline

Directions:

Divide the class into five groups. Assign each group either humans, cattle, horses, poultry or pigs. Using poster board or another large piece of paper, have the students draw an outline of the animal body, then draw the different parts of the digestive system within the outline. When finished, have students present their drawing to the class, identifying the different parts they noted and why they are important.



Projects

Comparing Systems

Directions:

Divide the class into four even groups. Students will research the differences between the human digestive system and systems found within various agricultural animals, such as sheep, swine, cattle and horses. They will compile their information into Microsoft® PowerPoint® presentations to be presented to the class.

Model Systems

Directions:

Assign each student an organ or other body part which plays an important role in the digestive system. As homework, instruct them to create a model of this body part using materials found in their home. Have the students bring their model in as well as a short report stating its importance to the human body.