Title: Food's Journey Through Digestion
Grade(s): 5
Subject(s): Science
Author: ICAC Team
Overview: After a class review of the human digestive system, students will have an opportunity to explore the system using some science websites. Then, students will construct a story about the journey of their favorite foods through their body.

Content Standards:

SC (5)  8. Identify major body systems and their functions, including the circulatory system, respiratory system, excretory system, and reproductive system.

ELA (5) 8. Express meaning through writing varied sentence structure, detailed paragraphs, and multi-paragraph compositions in an organized manner.

TC (3-5) 2. Use various technology applications, including word processing and multimedia software.

TC (3-5) 5. Practice safe use of technology systems and applications.

TC (3-5) 8. Collect information from a variety of digital sources.

TC (3-5) 10. Use digital environments to collaborate and communicate.

TC (3-5) 12. Create a product using digital tools.

Local/National Standards:

Primary Learning Objectives: Students will:

- Appropriately use the Internet to review the digestive process;
- Collaboratively write a story that describes their favorite food's journey through the digestive system.

Additional Learning Objectives: Approximate Duration of Lesson: 60 minutes

Materials and Equipment: Materials for review (board & markers; illustrations if necessary); paper & pencils

Technology Resources Needed: Computer, Internet Explorer, Microsoft Word document, internet access
Lesson Plan format is adapted from the Alabama Learning Exchange (ALEX). Lessons were developed by staff of the UAB NSF project "Integrating Computing Across the Curriculum: Incorporating Technology into STEM Education Using XO Laptops."

**Background/Preparation:** Students should be familiar with the digestive system.

**Procedures/Activities:**

**Step 1** Divide the class into small groups of 3-5 students so that each group has access to a Computer.

Explain to students that they will be collaborating with their group to write a story about some favorite foods’ journey through the digestive system. Before writing the story, the class will review the digestive process so they can be sure to include all the steps in their description.

Review the key points of digestion with the class:

- Chewing begins to break down food in the mouth (enzymes help with this);
- Food is passed through the esophagus to the stomach; acid in the stomach further breaks the food down.
- Food moves through a valve at the bottom of the stomach into the small intestines where it is further digested with enzymes. Once food is broken down into molecules, it is absorbed into the bloodstream. The small intestine absorbs food while the large intestine absorbs water.
- Food moves through another valve into the large intestine. The part that is not absorbed is eliminated as waste.

**Step 2** Be sure to review school and classroom rules for proper internet use and safety. For this lesson, students will be visiting specific websites.

To access the internet, follow these instructions:

Click the **Internet Explorer** icon and this screen will appear:

![Internet Explorer screenshot](image)

From here simply type in the web address in the dialogue box.
Here are some useful websites:

http://kidshealth.org/kid/htbw/digestive_system.html
*This website gives students a thorough guide to the path of food in the digestive system. It includes important vocabulary and diagrams. Have students navigate through each page until finished.

http://yucky.discovery.com/flash/body/pg000126.html
*This website gives students a fun story of the path of pizza through the body. You may choose to read it as a class or quietly in groups.

http://medtropolis.com/virtual-body/
*This website is a comprehensive and interactive map of the human body. Students can use this website to answer their own questions and navigate the body independently. It’s available in Spanish & in English.

Step 3 When groups are ready to begin their stories, allow them a few minutes to discuss what their story will be about. They may want to write ideas/outlines down on scratch paper.

When ready, each group should create a **Word** document to construct a story about their favorite foods’ traveling through the digestive system, being sure to include each step in the digestive process. If needed, review with students the process for inserting illustrations into Word documents.

You may want to require students to take turns typing the story for their group.

Step 4 When groups have completed their stories, have each group share the story with the class. What have they learned about the digestive system?

**Attachments:** Rubric

**Assessment Strategies:** Rubric

**Extension:** This lesson format may also be used for other human body processes, such as the respiratory system. Students may write or draw a description of the process air goes through when it is inhaled into our bodies.
Remediation: The following website has a good practice game for finding and placing the various organs and parts of different body systems. It is a self-correcting game, so students who are struggling with these science concepts may find the game helpful.

http://www.sciencenetlinks.com/interactives/systems.html

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<tr>
<th>Score</th>
<th>1 Not at all</th>
<th>2 Somewhat</th>
<th>3 Mostly</th>
<th>4 Completely</th>
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<tbody>
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<td>Story:</td>
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<td>Addresses scientific elements of digestion</td>
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<td>Contributed positively to the group work</td>
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<td>Interacted with assigned websites to gather information</td>
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