

Human Body Systems Projects

Making Connections

Both people and cow can eat grass, but it's bad for us and good for cows. Research the digestive systems of ruminants, animals that chew their cud. How do they digest cellulose? What is the difference between their digestive system and a human's? Create a poster. Most systems of the human body are connected in some ways but are still separate. Create a Compare & Contrast Diagram between two major organs in two different body systems we study in 7th grade (circulatory, respiratory, digestive, excretory). Research the differences between the two systems of your choice; a minimum of six 7th grade facts for each region of the Venn diagram is required.

Stress and Digestion

Write a poem from the point of view of a piece of food as it travels the entire way through your digestive system. Make sure to include all major organs. You must use at least three literary components (simile, metaphor, personification, alliteration, onomatopoeia, hyperbole, etc.). Your poem must have a particular format, but you can choose any kind of poem you wish.

Too much stress can be bad for your health. Some digestive problems (ulcers, acid reflux, Crohn's disease) are linked to stress. Interview someone who has a stress-related digestive disease. Research the connections between stress and illness. How do some of these people change their lives to help reduce the incidence of the problem? Create a magazine/newspaper article or informational website to share your findings.

Kidneys and Dialysis

Research the function and development of a kidney dialysis machine. How does it work? Who uses them? How often is it performed? What recent scientific developments make it easier for patients to live normal lives? Make a working model of a kidney and write a one-page summary of your findings.

Protein bars are widely sold in stores as healthy snacks and meal replacements. Explain how the digestive system breaks down these bars by fats, proteins, and carbohydrates. Who should be using these bars? Create a one page ad that would be used in print to advertise your answer to the appropriate audience.

Smoking Impacts

Most people may think smoking or drug use only has a direct affect on the respiratory and nervous system but it also directly affects the digestive system. Make a connection on how

decisions you make to use alcohol; caffeine or tobacco products can have an impact on the all systems, including digestion. The following is useful research and information collected from the website listed below.

“Cigarette smoking harms the body by raising cholesterol levels and blood pressure, as well as increasing the risk of cancer. Smoking destroys certain vitamins and creates the need for other specific nutrients. Other research shows that smokers have an increased risk of heart disease (including stroke, chest pain and palpitations), cancer, emphysema, fatigue, loss of vitamins and nutrients, premature aging, gastrointestinal disorders, osteoporosis, sinus congestion and throat irritation. According to medical reports, colds, flu and laryngitis last much longer for those who smoke. Normally, saliva - which contains antioxidants - provides a protective buffer in the lining of the mouth for the enzymes that fight and neutralize harmful substances. New research shows that the chemicals in tobacco smoke destroy these enzymes, leaving a corrosive mix that damages the cells of the mouth, and can eventually turn these cells cancerous.”

smoking and digestion- <http://www.jrussellshealth.com/smokdig.html>

smoking and the teeth and gums- <http://www.jrussellshealth.com/smokteeth.html>

Public Service Announcement

Work in groups of 2-4 to create a public service announcement explaining how a disease or disorder impacts the human body systems. You do not necessarily have to discuss every system but you should include at least 3 of the 5 systems. Students can use iPads or other devices to create the PSA (Garageband or other similar app/software).

Discovery Education Board

Work in pairs to create a Board in Discovery Education (using Board Builder). You must select 4 of the body systems and summarize each system and explain how each of the systems works **with** the other systems to sustain life.

Human Body Systems Rubric

Student Name: _____

	10 points	7 points	4 points	1 point
Overall Appearance	Your project shows attention to detail.	Your project is mostly neat with a few quality issues.	Your project's many quality concerns detract from the content.	Your project's appearance is sloppy.
Creativity	Outstanding display of originality.	Good display of originality.	Adequate display of originality.	Poor display of originality.
Spelling, Punctuation, Grammar	No errors noted.	1-3 errors noted.	4-5 errors noted.	More than 5 errors.

	up to 70 points	up to 60 points	up to 50 points	up to 40 points
Accuracy of Content	It is clear that you understand the material and you explained it well.	I can see that you understand most of the content, but you have a few errors.	You have many errors in understanding and explaining the content.	I cannot tell that you understand the content.