

PUBLISHED PART	
SUBJECT	<input type="checkbox"/> NATURE
TARGET GROUP	<input type="checkbox"/> 4TH GRADE STUDENTS
TOPIC:	We learn about the digestive system, because health starts in the stomach.
GENERAL OBJECTIVE	Student: knows the structure and function of the human digestive system.
OPERATIONAL OBJECTIVE	Student: <ul style="list-style-type: none"> ● names the organs of the digestive system, ● indicate their location on a diagram and in their own body, ● name the digestive glands and their role in digestion, ● knows the stages of food digestion, ● knows the consequences of poor nutrition, ● knows how to take care of the digestive system.
METHODS	<ul style="list-style-type: none"> ● tasks to be carried out, brainstorming, mini-lecture
FORMS:	<ul style="list-style-type: none"> ● individual, group work, holistic
DIDACTIC AIDS	

SCENARIO FOR A LESSON

<input checked="" type="checkbox"/> Presentation	<input type="checkbox"/> Exercise individual:	<input type="checkbox"/> Exercise group:	<input type="checkbox"/> Quiz	<input type="checkbox"/> Test
<input type="checkbox"/> Multimedia task on platform	<input type="checkbox"/> Test	<input type="checkbox"/> Infographics	<input type="checkbox"/> Excerpt from film:	<input type="checkbox"/> Animation
<input type="checkbox"/> Worksheet to be downloaded	<input type="checkbox"/> Poster	<input type="checkbox"/> Board:	<input type="checkbox"/> Other	<input type="checkbox"/> Other
DESCRIPTION OF THE COURSE OF THE LESSON	<p>I. Introductory part</p> <p>1. Lecturer: If you have the possibility, prepare an apple or another fruit that you like, because in today's lesson you will learn about the path of fruit in your body. Get to know our today's hero - the apple, which will guide you through the intricate pathways of the digestive system.</p> <p>II. Basic (main) part</p> <p>1. Cognitive phase</p> <p>Lecturer: Here we go</p> <p>Animation showing sections of the digestive system with a guide in the form of an apple, which conveys information about the different organs of the digestive system (name and function).</p> <p>Text of the main character or Apple</p> <p>Apple: Hello, we begin our journey in the mouth. Here food is taken in and</p>			

broken down, which is mixed with saliva and initially digested. A great deal of work is done here by the teeth, tongue and salivary glands, which secrete saliva containing digestive enzymes, i.e. substances that facilitate the digestion of food. The initial digestion of sugars takes place in the mouth. And now a note of caution: we should limit our intake of sugars because excessive consumption of sweets, sweet drinks is not conducive to the condition of our teeth and leads to obesity.

Apple: The shredded and partially digested food travels through the pharynx to the oesophagus, the tube through which it reaches the stomach.

It remains there until it is pre-digested and prepared for further passage. Food remains in the stomach for 2 to 4 hours. Digestion in the stomach is possible thanks to gastric juices, which are constantly secreted by this organ. Protein digestion takes place in the stomach. In addition, some hydrochloric acid, which has a bactericidal effect, is noted in the gastric juice. The initial digestion of fats also takes place in the stomach. As a result food in the stomach is transformed into food pulp, which travels to further sections of the digestive system.

Apple: Oh what a long tube. A real maze. We are in the small intestine. The small intestine is the longest section of the digestive system. In an adult, it is on average 6 m long. It is responsible for the absorption into the bloodstream of nutrients from food, which are distributed throughout the body and used in processes necessary for life. This is where the final digestion of proteins, fats and carbohydrates takes place, i.e. sugars.

Apple: Oh I'm falling into another tube, but there's a lot more space in it, it's a sign that we have reached the large intestine, where the absorption of water and the formation of faeces from undigested food residues.

Apple: We are approaching the end of our journey, which is the anus. Through the anus the faeces come out.

Apple: I must also mention two extremely necessary glands that support the digestive system. These are the liver and the pancreas. The liver produces bile, which is responsible for the process of digesting fats and the absorption of fat-soluble vitamins, while the pancreas secretes insulin, which is necessary for the digestion of sugars.

2. Exercise phase

A) Working with interactive exercises:

Lecturer: The messages delivered by Apple were extremely interesting. Do the exercises now to consolidate your knowledge. In the first exercise identify the different sections of the digestive system digestive system. Drag the name to the right place.

Lecturer: And now combine the information about what happens in the different sections of the digestive system with the actual part of the digestive

system. I know you will do very well.

<https://wordwall.net/pl/resource/26828931/biologia/funkcjeuk%c5%82adupokarmowego>

B) Developing a canon of 'I take care of my belly' rules.

Lecturer: Bravo! Knowledge consolidated. We will now deal with the principles that will allow you to take care of your digestive system, because health begins in the belly. Our friend Apple will introduce you to six important rules, but first think and write down in the illustration: what you can do to take care of your health - according to the slogan, that health begins in the belly.

Illustration for the record

Lecturer: I hope the job is done. Now listen and watch what our friend Apple has to say.

Apple: Welcome back. I'm going to outline six rules to help you take care of your stomach.

Firstly, look after your fibre - you'll find it in bran, cereals, flaxseed, wholemeal pasta, as well as fruit and vegetables. Secondly, drink plenty of water - the large intestine absorbs water from food and passes it on to the body. If you drink too little of it, the intestine starts to 'pull' water out of the body, which can result in constipation. Thirdly, take care of your teeth - the bacteria that cause inflammation in the mouth can also cause disease in the lower digestive tract. Fourthly, get your stomach moving - start moving - preferably every day and your digestive system will be stimulated. Fifthly, limit sugar, as it feeds the "bad" bacteria, damages the mucous membrane and disrupts the function of the intestine. Sixthly, take it easy - stress can cause heartburn, bloating or constipation, the muscles of the intestines and stomach are disrupted - either becoming too slow and lazy or too fast and intense.

Illustration title "I take care of my belly".

During Apple's monologue, the illustration or beside it shows the individual rules.

III. Final part

1. Hand out assignments to be completed at home.

Lecturer: And now the homework assignment.

A) Analyse your menu. Identify the products you should eliminate from your diet to take care of your digestive system.

B) Plan a menu that takes care of your digestive system.

Use the principles presented by Apple.

Good luck and a healthy digestive system.