

## LESSON PLAN

**Date : May 16, 2019**

**Teacher : Daboveanu Elena**

**Topic : Healthy vs unhealthy food , dissection of a bull 's eye - experiment**

**Time : 50 minutes**

**Objectives :** Students will be able to : ☐ differentiate between healthy and unhealthy food ; ☐ Explain what makes food nutritious and healthy ; ☐ Understand the harmful effects that pollution and unhealthy eating have on people's lives

**Materials :** ☐ Slides containing junk foods : cheseburgers, icecream, chips , pizza , fizzy drinks

☐ Documentaries , wikipedia, interactive board

**Key terms :** Nutrients, processed , preservatives

### FOOD SAFETY AND POLLUTION - Introductory facts

Access to sufficient amounts of safe and nutritious food is key to sustaining life and promoting good health. Unsafe food, containing bacteria, viruses, parasites and chemical substances can lead to many serious diseases. According to the World Health Organization, about 600 million people in the world fall ill after eating contaminated food and more than 400,000 die every year. Food safety , nutrition and food security are linked. Unsafe food creates disease and malnutrition, particularly affecting young children, elderly and the sick. Examples of unsafe food include uncooked foods of animal origin, fruits and vegetables contaminated with faeces and raw shellfish. Nutrients may counter some harmful effects from air pollution. Omega3 fatty acids, obtained by eating certain fish, may protect against brain shrinkage. Likewise, a mixture of several B vitamins may protect DNA from changes attributable to air pollution. An important component of staying healthy is knowing which foods are good for you and which are not. This topic is familiar to students. They heard about junk food and healthy food, therefore they need to know how to choose the best food for their bodies.

The protection of the environment appeared as a problem of humanity nowadays, when people conquered the whole space of the Earth, favourable to life. The natural resources have seriously been affected and the air and water give signals of poisoning. All people should be

more careful and responsible for living in a clean environment, in order to breathe fresh air, to drink clear water and to use the living conditions that nature offers us. During the last decades, the increase of the pollution process has lead to the distruction of the environment and consequently to our health worthening. Protecting our planet is a world issue and we need to solve it urgently.

### ACTIVITY 1

Students are asked to share their typical diet. Ask them what they think would happen if they did not eat for a whole day. How would they feel ? What would their energy levels be like ?

“ Our energy comes from the food we eat and some food is much better for us than others.”

1. Students are asked to give examples of nutrients. Answer : vitamins, protein, minerals.
2. Students can give examples of foods having a lot of nutrients ( e.g. fruit, vegetables, fish) and type of food that might have almost no nutrients.( popcorn, cakes, etc. )
3. Teacher tells students that there are a few easy ways to find out if food is healthy and full of nutrients or bad for the health.

□ “ Healthy foods with the most nutrients are natural, they grew from the tree or out of the ground. We don’t add much to healthy food or change it because we want it to keep its nutrients.” Teacher explains the difference between unhealthy white bread and healthy whole grain bread.

□ “ Unhealthy food has things added to it, like *sugar, salt, fat* and *preservatives*. Preservatives are chemicals put into food to make it last a long time. Unhealthy food is usually not natural or used to be natural untill stuff was added to it that made it lose its nutrients.

□ Healthy foods gives us energy and make us feel good. Unhealthy food can make us feel tired or sick because it doesn’t give our body what is necessary.

### ACTIVITY 2

1. Students are asked to decide which of the foods from the list are healthy and which are not: apples, grilled chicken, French fries, turkey sandwiches, cookies, chocolate, salad, oranges, tomatoes, pasta, and they can add more to their tables.
2. Share what you think about food with the class.
3. Talk about the activity. Students are ased what strategies they used to succeed. What are some clues that food is unhealthy? How did they decide what healthy food to replace it with?

4. Students are given some tips for eating healthy including drink plenty of water, eat fruits and vegetables every day, snack on foods that aren't too salty or sweet, and encourage friends and family to eat healthy as well.

### ACTIVITY 3

The teacher, together with several students, make the dissection of a bull's eye, so that the participating students and teachers should understand its anatomy. Students start the dissection and the parts resulting from it are the lens of the eye, the optical nerve and the cornea.

Then, the students present the reaction of the eye to different factors created by possible climate change issues and pollution, such as excess of gas and CO<sub>2</sub>, observing how negatively it reacts to those factors.

Next, students put a cow's stomach and some chicken bones into Coca-Cola and they are asked to observe what happens.

Assessment of the activities:

Group work : Have the students draw a picture of a meal that includes three healthy food. They should give the pictures to you and you can check for comprehension. Other students can make an experiment with nutritious food versus unhealthy food.

Students can write down what they eat for a whole week . They should either draw or write what they ate at every meal. At the end of the week, meet and discuss the students' answers. Teacher explains that the goal is not to stop eating unhealthy food for ever, but to cut back on foods that are not healthy for them and eat healthy food whenever they can.

Students are also asked to see what happens after the cow's stomach and the chicken bones have been exposed to the Cola drink. They notice that they can actually burn and dissolve their non-bone content and the stomach made a reaction that resulted in a foam , as a result of fermentation. After the teacher checks understanding, students are involved in questions and debates upon the impact of climate change and pollution upon our daily lives.

## WORKSHEET

1. Do you think preservatives are nutritious ?
2. Can you give examples of food that is likely to have a lot of preservatives ?
3. What foods have made you feel bad ?
4. What makes the food unhealthy ? ( greasy, salty, sugary, fatty )
5. What healthy food could it be replaced with ? ( e.g. a grilled chicken sandwich to replace the cheeseburger )
6. I can tell this food is unhealthy because.....  
A healthy food to eat instead is.....
7. What foods give you the most energy ?
8. Are there any foods that you are going to eat more or less after this lesson ?
9. How do you think air, water and land pollution affect our life and health ?