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Lesson Plan

Title	Microorganisms
Aims of the lesson:	The aim of the biology lesson is to study the microorganisms and processes that they carry out. It is often difficult and confusing for students. Classes basing on too much theory without empirical evidence do not arouse student's interest and willingness to deepen their knowledge. The lesson with practical experience enables students to master the topic of microorganisms and process they carry out.
Learning Outcomes	Students learn the basic knowledge about the microorganisms. Students learn the knowledge about the processes they carry out. The lesson is enriched with experience that will help students to understand the issues related to the life and operation of micro-organisms.
Methodology	Lecture (introduction) Work in groups on experiment
Resources	- Laboratory equipment - Food products: water, yeast, sugar, milk - Bacteria - Baloon
Content of the classes	The teacher explains the role of microorganisms. Teacher explains the processes they are responsible for. Students perform experiments to master the knowledge.
Practical exercise	Experience 1 " How to grow a dough? " Children with the teacher carry out the experience by following the instructions. Ingredients: - 1 tablespoon of dry yeast - 1 tablespoon of sugar - ¼ glass of water - balloon - flask Yeast and sugar mixed with water . The mixture was poured into a flask (bottle). Put a balloon on the flask top. Put the flask in warm water for 20 - 30 min. The balloon filled with gas shows how important significance during baking bread and cakes have a yeast infection. The teacher simply explains to children the process of fermentation, which is carried out by these microorganisms. Teacher points out that mushrooms, through feeding on sugar produce gas - carbon dioxide, which loosens the cake and leaves tiny holes in it.

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	Experiment 2 " What causes yoghurt? " The teacher explains to students the role in the creation of yogurt and many other dairy lactic acid bacteria play. The teachers points out several strains responsible for the production of lactic acid and other compounds giving products characteristic taste, aroma and texture. Kids with the teacher's support produce their own yogurt according to the following recipe. Ingredients: - 1 liter of milk - Sachet of yoghurt bacteria (eg, L. bulgaricus , S. thermophilus , B.lactis) or a few tablespoons of natural yogurt containing such strains - A large jar with lid - thermometer Milk is heated to a temperature of 43-45 ˚ C. Bacteria is added or yogurt . Everything is poured into a jar and tightly covered. Place the jar in a warm place, preferably next to a radiator overnight. The next day, the yogurt is ready. Children love to carry the experience through which they can obtain empirical evidence to support the newly acquired knowledge. They are happy to describe and photograph effects. Reports of the most interesting experiences are published in the school magazine.

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