

CREATING PRIMARY KNOWLEDGE OF ENERGY IN PRIMARY CLASS STUDENTS

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Abstract: The article describes the methodical description of the formation of the initial concepts of energy in natural sciences in elementary school students, the development of various types of assignments.

Keywords: Energy, energy sources, natural sciences, environmental education.



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Anotation

Today, the global climate change and the increasing decrease of available energy resources make it necessary to develop the energy literacy of all citizens. Not everyone understands what energy sources are used to produce electricity. Information on energy literacy creates knowledge and skills of citizens on efficient use of energy.

Students learn most of the information about energy sources at school. Knowledge of energy types and energy transmission is tested in the content areas of the TIMSS research assessment in the natural sciences (life science, physics, earth science). Elementary school students' initial knowledge of energy is formed in the following sequence (Fig. 1):

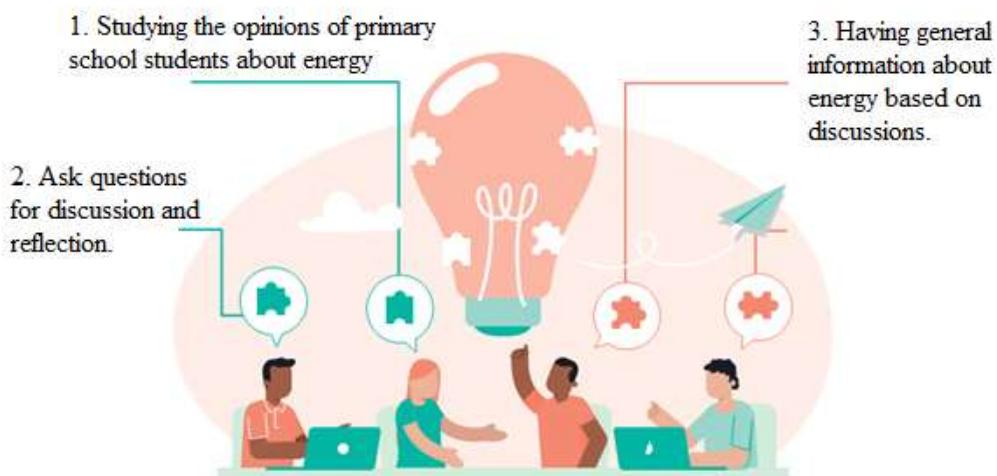


Figure 1. Forming ideas about energy in primary school students

1. Studying the opinions of primary school students about energy. In this, elementary school students will be interviewed about what they know about energy, which devices at home work with energy. Students' initial knowledge of energy is connected with the environment.

2. Ask questions for discussion and reflection. Directing students' questions about energy in a logical sequence, from simplicity to complexity. For example:

What is energy?

What do we use energy for?

Can you identify different appliances around the classroom that use energy?

How can you tell if they use energy?

Where do they get their energy from?

Where does the computer get energy from?

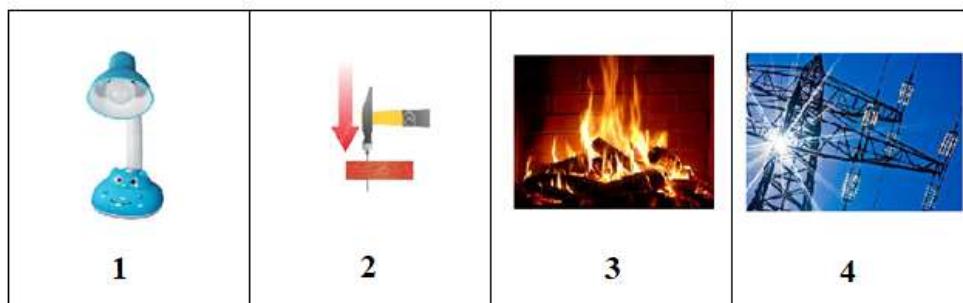
Where does light energy come from?

Where does a person get energy?

What different sources of energy can you name?

3. Having general information about energy based on discussions. In this case, students can easily complete pictorial tasks related to types of energy. Here are some examples of these assignments:

Task 1. Identify the sources of light energy from the pictures below.



Task 2.

The river water flowing over the waterfall has a lot of energy. Which of the following is derived from waterfall energy?

A) Hot water
B) Solar energy
C) Electricity
D) Drinking water



Environmental education can play an important role in students' behavior and daily life, as they encourage students' critical thinking and actions, while increasing their awareness as members

of society. The purpose of school education is to create educational activities based on interaction and exchange of information, experience and ideas through its content and pedagogy, as well as to form a new culture and a new lifestyle based on improving the quality of life. The development of society depends on energy education for all citizens. Environmental education is developed at school, but also in the immediate environment of students and their families

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