

# Lesson plan

<p><b>Teacher</b> Katerina Mitrevska</p> <p><b>Year II</b> – high school</p> <p><b>Topic/content</b> Water</p> 	<p><b>Tasks: Student</b></p> <ul style="list-style-type: none"> <li>- to recognize and discuss the building blocks of water, its composition, the way of chemical connection, its aggregate state, as well as the points of frost and boiling, solubility</li> <li>- to know the possibilities of using water for different purposes (for drinking, as a source of energy, for entertainment, etc.)</li> <li>- to determine some of the properties of water by performing experiments on density, solubility, pH and the like.</li> <li>- to facilitate the practical application of water saving considerations</li> <li>- to develop a positive attitude towards the use of water and water as a source of life</li> </ul> <ul style="list-style-type: none"> <li>* to be able to apply an active method of learning and research method;</li> <li>* to use literature and electronic media for obtaining information;</li> <li>* to enable the students to better apply the research process</li> <li>* to enable the students to perform self-evaluation and evaluation (assessment) of a project</li> <li>* to develop a positive attitude and ability for teamwork</li> <li>* to remember where and how much the science can help in preserving the healthy environment;</li> <li>* to develop ecological awareness for environmental protection</li> </ul>
<p><b>Volume and order of the content</b></p> <ul style="list-style-type: none"> <li>- Defining the problem / questions for the research / objectives formulation / project development guide</li> <li>- Developing a research plan</li> <li>- Data collection</li> <li>- Sorting and data analysis</li> <li>- Synthesize the data</li> <li>- Valuation of data</li> <li>- Presentation of the findings / poster, computer presentation, essay</li> <li>- Evaluation of the project</li> </ul>	
<p><b>Teacher's introductory information (5 min)</b></p> <p>The aim of the research is emphasized (explanation: the need to discover and use alternative sources of energy for the preservation of the environment)</p> <p>The teacher introduces the students with the goals of the lesson: researching for alternative renewable sources of electricity and explicitly explaining the research method that is going to be used.</p> <p>The students are made aware of the relevance and the elements and stages of the research process</p> <p>In co-operation with the teacher, students compile criteria for evaluating the project task</p>	<p><b>Teaching methods</b></p> <ul style="list-style-type: none"> <li>✓ Research</li> <li>✓ Self-examination</li> <li>✓ Presentation of the results - the product of the research</li> <li>✓ Evaluation of project work</li> </ul>
<p><b>Student activities (individual work)</b></p> <p>The student:</p> <ul style="list-style-type: none"> <li>- Precisely defines the problem and develops research questions (in cooperation with the teacher)</li> <li>- Writes a research plan</li> <li>- Collects data (textbook, other literature, Internet)</li> <li>- Sorts and analyzes the data (in cooperation with the teacher)</li> <li>- Synthesizes and evaluates data / makes selection and creates a short product (poster / PPT presentation / essay)</li> <li>- Presents the findings/research results (presentation)</li> </ul>	
<p><b>Resources/teaching materials</b></p> <ul style="list-style-type: none"> <li>- Analytical Assessment List (for project evaluation) with pre-defined descriptors</li> <li>- Self-assessment list for project task</li> <li>- Textbook, additional literature</li> <li>- Computer, Internet</li> </ul>	
<p><b>Teaching methods for determining what students already know</b></p> <ul style="list-style-type: none"> <li>✓ Self-examination</li> </ul>	<p><b>Teaching Methods for Assessing Student Learning (Assessment for Learning and Assessment of the Acquired knowledge)</b></p> <ul style="list-style-type: none"> <li>✓ Self-evaluation</li> <li>✓ Peer evaluation</li> <li>✓ Teacher evaluation</li> </ul>
<p><b>Notes for:</b></p> <p>Successes:</p> <p>Challenges:</p> <p>Implications for future teaching and learning</p>	

## Form for self-expressing and evaluating the project task

Student's name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Work self-evaluation:**

**What have I tried to do:**

**What have I done:**

**What have I learned:**

**What am I proud of (related to this work):**

**What should I work on or what should I do differently next time:**

**Teacher comments:**

Teacher's name: \_\_\_\_\_ Date: \_\_\_\_\_