1. **AUTHOR DETAILS**

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| 1. Would you like to receive monthly updates through our Newsletter? Yes/No | Yes |
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1. **THE LESSON PLAN**
2. Theme – Consequences of pollution (Properties of water, circulation of water in nature, importance of water)
3. Introduction – During the summer break, the students were given the task of researching the most common pollutants of inland waters, with clear instructions for the work. Their observations will be documented on the board. They will be able to use all the collected material in solving enigmatic stories as well as in the further course of the lesson. After working in groups, using the *Six hats technique,* students will be able to see the problem of surface water pollution and its consequences.
4. Age Group – Age 9 to 10
5. Objectives or Learning Outcomes – Students will be able to determine the most common water pollutants and the consequences of pollution. They accept responsibility for their behavior.
6. Time required to deliver the lesson plan – 50 mins
7. Remote preparation

**Activity 1**

The students were given the task of being eco-researchers-reporters during the summer break. They look for the most common sources of inland water pollution in their environment. The task had the following contents:

***Real researchers do research. They are curious and interested in everything that happens around them. The main props are a camera, pad and pencil. Simply! And the results are surprising! Become a young explorer this summer break. Make this summer vacation, which can be monotonous, different from all the previous ones. Record everything you notice in your "Research Diary". Let your "diary" contain: What are you researching? Beaches, riverbanks, lakes - cleanliness, pollution. How does pollution affect flora and fauna? Where are you exploring - a place? How did you help protect the environment - how much and what kind of waste did you collect? Did you help any animal? Have you got anyone interested in becoming a young researcher like you?***

**Activity 2**

In the art classes, the students had the task of presenting the given topics using the technique they want. Each student chose a topic that suited him. The topics were: *Everything around us is connected, Let's protect water from pollution, Overexploitation of natural resources destroys the environment, Earth is becoming overpopulated, By recycling we can make the environment cleaner, Garbage will not just be thrown away*.

Selected works on assigned topics displayed in the school hallway.

**Activity 3**

During the physical education class, the students went for a brisk walk to the nearby city beach. They picked up large amounts of trash on the beach. They separated waste that could be used for making New Year's and other decorations. Separated paper from which they made bases for artistic drawings. They did paper recycling. Other waste is also sorted into appropriate containers.

**Activity 4**

During the music lessons, the students composed the song “***Ecology****”*.

One student plays the harmonica, and other one plays the guitar.

**Activity 5**

In language and literature classes, they recalled texts (artistic and non-artistic) that were covered from class to class on the topic of water. They collected proverbs and sayings about water and interpreted them.

**Activity 6**

In English language class, the students learned the song “***Recycling****”*.

Two students recite in Albanian, two in Russian, one in German, Italian, French and English.

**Activity 7**

In mathematics classes, texts were made for tasks and they were solved on the topic of pollution. On the beach, they measured the weight of waste and used that data in tasks for which they came up with the text themselves.

1. Planning considerations – In order for the students to better understand the learning outcomes for this lesson, they went through a series of activities in the lessons of art, mathematics, language and literature, music and physical education.

The school administration and the psychological-pedagogical service were informed about all activities in a timely manner.

A special parents' meeting was held where they were informed about all the activities. Instructions are also given on how parents can provide support and protection to their child while working on assignments.

1. Resources Required to deliver the lesson plan – *“Enigmatic stories”* – Uroš Petrović, mind maps, appropriate student collected material, slide projector, computer
2. Activity

**Activity 1** (time duration 10 mins)

The teacher reads the first enigmatic story intended for the first and second groups - ***Wrong Name (Appendix 1)***. If they do not answer correctly, the other groups give the answer - it applies to all groups. The teacher reads another enigmatic story to the third and fourth groups - ***Boko's riddle (Appendix 2)***. The third enigmatic story for the fifth and sixth groups follows - ***Puft's experience (Appendix 3)***. The groups give answers to the enigmatic stories read.

**Activity 2** (time duration 5 mins)

The first and second groups have the task of writing a ***development map about the properties of water***.

The third and fourth groups write a ***development map about the water cycle in nature***.

The fifth and sixth groups write a ***development map about the importance of water for the living world and a food chain***.

**Activity 3** (time duration 5 mins)

The groups report and complement each other.

**Activity 4** (time duration 10 mins)

Students look at the photos shown on the slide projector.

They note that water pollution can be:

• Physical;

• Chemical;

• Biological.

They recite the poem “***Ecology****”* (they recite one stanza each in English, Russian, Italian, German and Albanian).

They are singing the song "***Recycling***" (the melody for this song was composed in the music culture class).

**Activity 5** (time duration 20 mins)

Students are given the task of looking at the problem of water pollution through the ***Six Hats technique*** - questions given in **Appendix 4**.

The groups report, supplementing each other as needed by presenting the collected material.

1. Evaluation and Assessment – Through group work questions using the ***Six Hats technique*** **(Appendix 4)** evaluation and assessment will be carried out.
2. Dissemination – Representatives of students from other fifth grade classes and their teachers, as well as representatives of the local community, will be invited to attend the class as observers.

The general public will be informed about our activities through the “School Bell” radio show (on local radi station “Radio Bar”), which is edited and hosted by the students of our school.

1. Follow-up activity – Further follow-up activity would refer to air pollution, soil pollution, the dependence of biodiversity on all previous types of pollution. Consumption, waste and recycling.
2. Adaptations for students with learning difficulties – Students with learning difficulties could, with the help of an assistant, cut, select and paste the collected material.
3. Extension for gifted students – Gifted students would use several different sources of knowledge and thereby help other students in their research work.
4. Background information for teachers

<http://waterpollutionmytuyet.weebly.com/water-pollution.html>

<http://virontion.blogspot.com/2017/03/water-pollution.html>

<https://www.istockphoto.com/vector/sources-of-water-pollution-as-freshwater-contamination-causes-explanation-gm1279457171-378062856>

1. References

**Appendix 1 – Enigmatic story *Wrong name***

Many of the stories in this book were told quite by chance, when the trappers met each other while performing ordinary tasks.

"What are you thinking about?" Attilia asked the pensive Anul.

"Which has more sugar in it, wild strawberries or sugar beets?" the boy answered

"Beets, of course. We wouldn't call it sugar if it wasn't!" replied Puft, who considered himself a great connoisseur of food.

"The name is sometimes not appropriate...", Anul stung as he remembered something.

"E.g?"

"There is something that we all call sweet, and there is not even a gram of sugar in it."

Anul was absolutely right. What is it about?

**Appendix 2 – Enigmatic story *Bok's riddle***

Boko and Anul returned after several days of wandering in the north. The trappers greeted them with cheers, as always.

"Were there any adventures?", he asked them.

"Well, we had, we had an awkward close encounter... and barely survived," Boko answered them.

"With whom?", shouted the jeans.

"Tell us!"

The children were very tired, and they couldn't wait to go to their huts. However, Boko managed to answer them with a riddle:

"Figure it out. His mother gave birth to him, but he will in turn give birth to her."

Everyone fell silent, and the children went to rest in good spirits.

What kind of danger did Boko and Anul go through?

**Appendix 3 – Enigmatic story *Puft's experience***

Boko and Anul sat in the shade and talked about the weather.

"How hot! I'm already craving rain! It's been so long!" said Boko with a sigh.

"I feel like pouring a can of water on myself!" Anul agreed.

Their conversation is interrupted by a panting Puft, who runs up and begins in a breath:

"You won't believe what happened to me! I was in the forest picking mushrooms. I had just picked a full basket, when a wild boar jumped out of the bush. As soon as he noticed me, he charged at me. I threw the basket at him and ran away! He rushed after me! I ran into a forest glade full of dandelions and snails. My life was easily in danger, I swerved suddenly so as not to step on one of those innocent animals, and that boar almost caught up with me. I didn't even notice when he gave up from the mad chase...", said Puft waving his hands.

"Oh, you're lying!", Anul couldn't stand it.

"I do not lie! How can you even think such a thing?" protested the fat man, offended.

However, when Boko told him why his story was impossible, he turned red and headed for his hut with his head bowed.

What did the children notice?

**Appendix 4 –** **Questions for group work using the *Six Hats technique***

1. Swimming in our river is impossible, plastic bags, plastic bottles and other plastic packaging float in it.

Where did all this come from in the river? How to solve this problem?

1. Household chemicals reach rivers and lakes through sewage and pollute them. What do chemicals cause when they are in water?

What to do to prevent this from happening?

1. A factory near a river discharges its wastewater into the river. An unpleasant smell spreads from the river.

What should be done to make the river clean?

1. They protect the large orchard by the river with chemical means against pests. The river has changed, aquatic plants flourish in it.

What to do to prevent this from happening?

1. When do you use the most water at home? How to reduce consumption and wastage of water in the house?
2. Students' careless behavior increases the consumption and waste of water in the school.

Suggest ways to save drinking water at school.

Imagine what could have happened in the industry if the careless attitude towards nature continued.

**Auxiliary questions for work applying the *Six Hats technique***

**WHITE HAT**



What do we know? (Collect and consider all available facts, figures...)

What don't we know?

What do you need to know? To collect

How and where to find information? What other information do we need to solve the problem?

**RED HAT**



Do you need to feel the emotions that appear when you come into contact with the given task (fear, anger, anxiety...)? Be honest.

What do I really want?

What do I feel?

What does my intuition say?

What is important to me?

**YELLOW HAT**



What opportunities are open to me?

How to improve?

What are the strengths?

How interesting is this idea?

**GREEN HAT**



What to choose?

What else can we change?

What is the best way to solve the problem? Be creative. Suggest something new.

**BLUE HAT**



You are the person who organizes the trial process. You can distribute hats to the participants by choosing which hat they will wear.

What are the tasks?

What is the first thing to do?

How do you give assignments?

What result are we aiming for?

What conclusions can be drawn?

**BLACK HAT**



Anticipate why something won't work.

What difficulties do you see?

What are the dangers?

What should we be afraid of?

Be a little pessimistic.