

Learning Tool Code	Title
SDG14-SDGfP	" In the realm of the goldfish "
<b>Objectives</b>	
<ul style="list-style-type: none"> <li>✓ <b>development and education of students through environmental activities.</b></li> <li>✓ <b>To summarize and systematize the students' knowledge about the representatives of aquatic animals;</b></li> <li>✓ <b>Strengthening the skills for ecological behavior while you are on the river (dam);</b></li> <li>✓ <b>To develop the ecological culture of the students, creativity and artistic taste, memory, attention, ability to work independently with literature, ability to analyze and find a way out of problematic situations; teaches joint and independent work; the ability to listen to others; develop the emotional and sensory sphere; artistic abilities.</b></li> </ul>	
<b>Activity details</b>	
<p>Materials - globe, pictures of fish from the area in which we live</p> <p>Duration – 40 minutes</p> <p>Number of groups - several groups of students ( grade, age )- (5 grade, ages 11-12)</p>	
<b>Instructions</b>	
<p>The course of the lesson</p> <p>3 min.- If you quickly rotate the globe (show it), it will appear to be the same color - blue. And the blue, as you know, depicts ... (water), without which no one can and has anything to replace it.</p> <p>- What role does water play in the life of plants, animals and humans?</p> <p>(Water is one of the most important substances for humans. His body consists of more than half water. Without food a person can live more than a month, and without water - only a few days. Plants wither and die. If animals are deprived of water, die quickly.)</p> <p>- Where is the water on the globe?</p>	

(Water - in oceans and seas, rivers and lakes, underground and in the soil).

- Water overcomes drought, revives deserts, increases the yield of gardens and fields. But it not only gives water to everyone, the waters are rich in various living organisms. Including the rivers of our region.

Show the largest on the map. (Working with a map).

But what aquatic inhabitants live in these rivers, let's see.

(A scene from the fairy tale "About the Goldfish" is recreated.) - 3 min.

Author. Once upon a time on the bank of the largest river in the region of Stara Zagora lived an elderly man with an old woman. Once the old man threw his net into the river. Downloaded the network ...

An old man (wonders and lists aloud the content of the "catch" on the net). I found mud, rusty cans, broken bottles, torn plastic bags and other debris on the net.

Author. (Threatening). He threw the net for the second time. Downloaded the network ...

Old man (sadly). I have a torn shoe and a worn tire on my net.

Author. (with hope). For the third time, he threw the net. Downloaded the network ... Old man (joyfully). There is a fish in my net. And not just any fish, goldfish ...

Author. The fish spoke in a human voice and asked the old man.

Fish. (Obviously). Don't let me into the river, old man. I was left alone there, all my friends were killed or poisoned.

(The fish addresses the children in the class).

You know, it became difficult to live in the river (lake, dam). Ah, my fate is cruel - I have nowhere to hide from the sewers! Everyone throws their waste in the water.

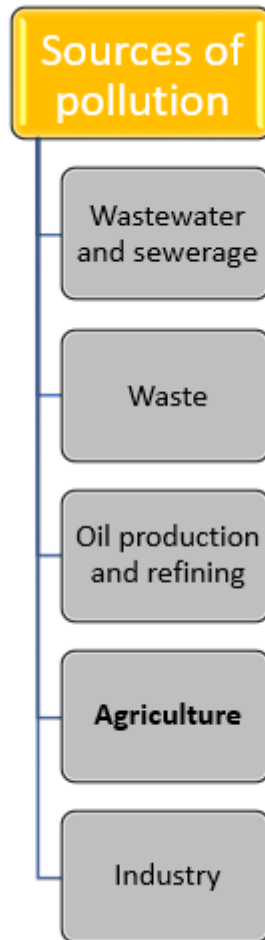
I lived in a clean river and was known as a beauty.

And now my beauty has faded because of the diesel oil in the water.

I have changed. It's as if I haven't cared for 200 years, I'm all stained with paint and dirt in the water ...

Oh, and I'm unlikely to survive! Help me, please!

Teacher: Students, why do you think there are dirty rivers and lakes? - 4 min. What sources of water pollution do you know?



Scientists have estimated that every year around the world so many harmful substances fall into the water that they can fill 10,000 trucks.

- And to keep rivers and lakes always clean, let's remember the rules for protection of the reservoir.

- do not dispose of household waste in water bodies;
- do not wash vehicles and agricultural machinery in them;
- construction of new treatment facilities;
- use living organisms to purify water;
- do not cut down forests around water bodies;
- use water sparingly.

"How do you understand that?"

"Snails and lake snails are real living filters. Passing the water through them, they purify it. They filter up to 30 liters of water a day.

"Now let's see if you know how to behave by the pools."

I will read you sentences that I want you to answer if you agree: "This is me, these are all my friends." If you do not agree, be silent. - 2 min.

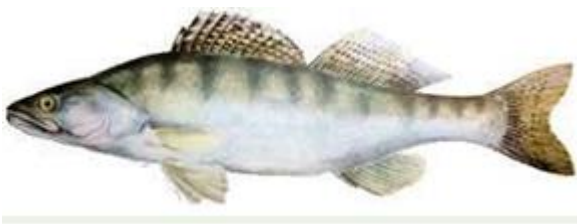
Who, when he came to the lake, uprooted the water lilies? Who throws bottles and pollutes the lake?

Who disturbs the peace of the ducks? Who guards the snails?

Who catches small fish and throws them to the cat? Who guards the snails?

- Well done, now I'm sure you will behave properly when you go to the river (lake, dam).

- Disciples, in the kingdom of the Goldfish there are many subjects, fish are the most numerous class of them. List what fish you know living in the waters of our area.- 3 min.



Whitefish



Carp



Catfish



Maple



Redfin



Barbell



Bleed



Karakuda



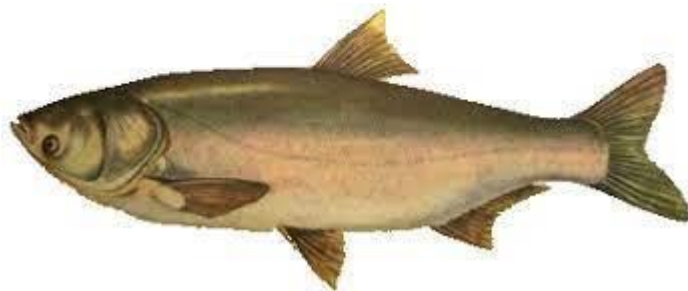
Cupid



Perch



Pike



Bream und Tolstolob.

Gold fish.

Students, what do you know about fish?

(Student report accompanied by a presentation). - 5 min.

2 min. -Teacher: You've probably heard that sea turtles can be hurt if they swallow plastic bags floating in the ocean, or that fish and birds can be hurt by the plastic and contaminants that are in the water. All this is very true, but there is much more damage than that. Fish and other aquatic organisms can fall prey to garbage cans floating in the water - suffocate or become entangled in them. Waste ingested by aquatic creatures can kill them very quickly or cause them serious harm. Some creatures that inhabit the water are even known to have debris in their bodies or shells over time. This is the sad truth about the water-polluted world we live in.

There are so many things we need to consider to solve the problem of water pollution and how it affects aquatic life. This is a question we all need to address, because it will affect us - and it has already begun, whether we realize it or not. If we do nothing to solve the problem of water pollution now, aquatic organisms could be in serious danger for the next 10 years. Whole species will disappear from the Earth forever, and this will affect the food chain in such a way that it will turn against humans.

4 minutes - To summarize:

Water pollutants kill smaller aquatic organisms.

1. Water pollutants kill smaller aquatic organisms.
2. Water pollutants kill bugs and other smaller creatures that live in water.
3. When smaller fish die, larger fish have nothing to eat and will eventually starve as well.
4. Over time, birds and terrestrial animals that eat fish will also die of starvation because fish are declining.
5. Entire habitats and ecosystems are destroyed by this type of pollution.
6. Fish can be poisoned with heavy metals.



7. Aquatic organisms may be affected by these pollutants.

- Disciples, our goldfish is sad, she is bored all alone in her kingdom. Let's bring her friends back. We will make them with our own hands.

(Music sounds. The children work. Individual help from the teacher.)

20 min.- Let's make a crab: For the cute little red crab, you need egg shells (for the tongs and the body of the crab). They are wrapped in red crepe paper (maybe a red napkin), and for the feet for used red pipe brushes. The clips are attached to the front legs and here is a cheerful. Rache - eight- legged. All you have to do is add eyes and a smile.



Pipe brushes



Eggshells



20 min.- To make fish from colored

aper:<https://www.youtube.com/watch?v=EVUoykOp5pl>

- If you think your job is done correctly, without mistakes, then take a white fish, and if you think there are some flaws, take a blue fish.

- Goldfish, you are happy now, will you stay with us?

Gold fish .

The people of my kingdom have no idea how to live when the water is very dirty. You live on land and you think that the Earth is the best home.

- If you look at the river and it seems that only blue water flows in it, but this is not the case. If you dive into it with a mask and snorkel you will see that there is a cancer. A huge pike swims like a rocket ... The river doesn't just flow and flow. She lives an interesting life! Thank you for your help. I loved it!

## Tips for the facilitator

**Water pollutants kill smaller aquatic organisms.**

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- 2. Water pollutants kill bugs and other smaller creatures that live in water.**
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- 4. Over time, birds and terrestrial animals that eat fish will also die of starvation because fish are declining.**
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- 6. Fish can be poisoned with heavy metals.**
- 7. Aquatic organisms may be affected by these pollutants.**

## Debriefing

Students to make other aquatic animals and make an exhibition.

## Follow-up/Inspiration for the future

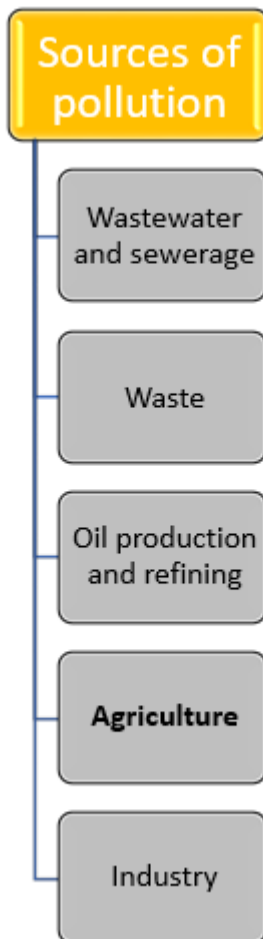
Information on social media, school website.

## References/Further reading

<https://www.youtube.com/watch?v=EVU0ykOp5pl>  
<https://www.noaa.gov/education/resource-collections/ocean-coasts/ocean-pollution>

## Annex

What sources of water pollution do you know?



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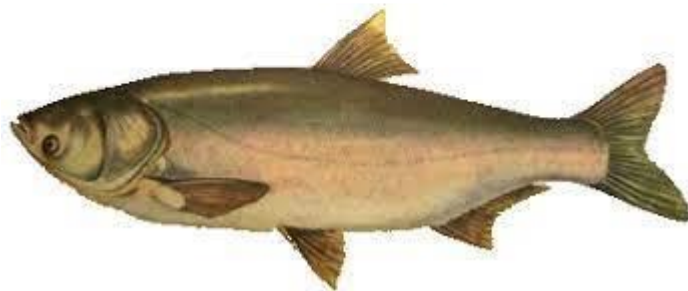
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