

Onofrio Fountain

General information			
Respective blueprint	Fountain		
Description	In this lesson, students learn about Dubrovnik (Croatia) and the historical sights in the Old Town of Dubrovnik. They make a fountain similar to the famous Onofrio Fountain. They attempt to regulate the water flow.		
Learning objectives	<ul style="list-style-type: none"> • Formation of ideas about the concept of cultural and historical landmarks; • Awareness of the difference between natural and cultural landmarks; • Practice knowledge of units of measurement, geometric figures, and comparing numbers. 		
Related curricular subjects	<p>History: History of the old town and sights in Dubrovnik;</p> <p>Mathematics: units of measurement, geometric figures, comparing numbers;</p> <p>Art: modelling with plasticine and waste materials;</p> <p>Engineering: making a model for water movement.</p>		
Duration	80 minutes		
Level of difficulty	Basic <input type="checkbox"/>	Medium <input checked="" type="checkbox"/>	Advanced <input type="checkbox"/>
Inclusivity guidelines			
How to integrate students with SLD	<ul style="list-style-type: none"> • Formulate simple instructions that require only one action at a time. • If you give verbal instructions, make sure you follow them in the form of pictograms or written on the board. <ul style="list-style-type: none"> • When giving instructions (verbal or written), be sure to underline the action word so students know what they are expected to do. • When possible, you can show the expected outcome of the manipulation. • When creating groups, try to place students who are having difficulty with generally more advanced students so they can help each other. 		
How to integrate students who work faster	Students who are faster colour or cover the finished fountain model with plasticine. They assist students who are struggling. Then, they can try to regulate the water flow.		

Step-by-step description of the lesson

Step 1: Dubrovnik, Croatia - sightseeing

Estimated time: 30 minutes

- Presentation

Dubrovnik is located on the southern coast of Croatia.

The city is also known as the Pearl of the Adriatic. Behind the thick walls and large gates are hidden many historical sights. They attract people from all over the world.

One of the many attractions is the Franciscan Monastery, which houses the oldest pharmacy in Europe that is still open. The large Renaissance Hall exhibits treasures from the monastery's collection, rare books and art objects. The 14th-century pharmacy sells herbal lotions and potions made from centuries-old recipes.

Lovrienac Fortress is set on towering cliffs overlooking the Adriatic Sea. The original structure dates to 1301. Its shape was built to match the shape of the rock on which it rises.

The fortress is so inaccessible that only 25 men can defend it. Today, it is a popular attraction in Dubrovnik and hosts various cultural events.

Dubrovnik's fortress walls encircle the entire Old Town. The 25-meter-high walls, up to 6 meters thick in some places, overlook the city, the harbour and the Adriatic Sea. Most were built in the 13th century but have been reinforced over the years to withstand the numerous attacks.

In the 15th century, a water pipeline was built in Dubrovnik to ensure the city's freshwater supply. Two fountains bearing the architect's name mark the system's endpoints.

The more impressive of the two is the large Onofrio fountain, located on Stradun Street, opposite the Church of the Saviour. Adorned with a large dome, the fountain still provides cold, clear water for its thirsty visitors.

- Working with a geographical map - students point out the location of Croatia on a map of Europe.

Step 2: Making a fountain

Estimated time: 40 minutes

- Following the steps in the proposed blueprint, students make a fountain model.

Step 3: Conducting an experiment

Estimated time: 10 minutes

- Attempt to regulate water flow using an air spray from a balloon
When the balloon is placed over the mouth of the bottle, the air jet impacts the water and it flows through the straws. When the air in the balloon runs out, and the water also stops flowing.

Assessment activities

Activity 1: Questions to check understanding of water flow

When you put the balloon over the bottle, what causes the water to start flowing?
What happens when the air in the balloon runs out?
Is there any other way to pump the water out than with a stream of air from a balloon?

Activity 2: Exit ticket

Each student completes an exit ticket.

Attachments

- Presentation
- Map of Europe
- Exit ticket

References

<https://profit.bg/klasatsii/mezhdunarodni/top-10-na-zabelezhitelnostite-v-dubrovnik/?page=1>

MAP OF EUROPE

- Find and mark Croatia



Source as of 23.08.2023

https://commons.wikimedia.org/wiki/File:Blank_Map_of_Europe_-_w_boundaries.svg

Find your homeland! How many countries do you have to cross to get to Croatia?

How many countries will the Croats cross to reach Belgium and Bulgaria?
Which country is closer?



Source, 23.08.2023 https://commons.wikimedia.org/wiki/File:Blank_Map_of_Europe_-_w_boundaries.svg



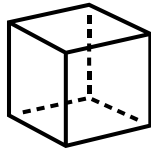
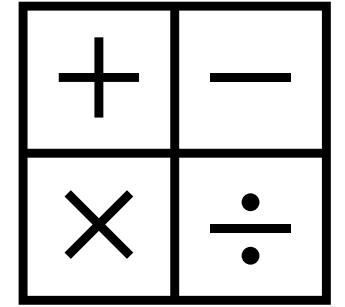
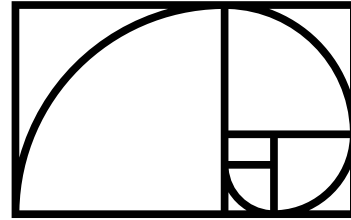
Exit ticket

Date

- ✓ Today, I learned that
- ✓ What I liked about this lesson is that
- ✓ I need to correct and learn more about.....

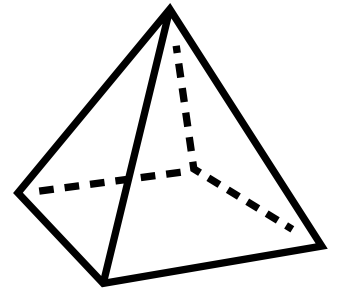
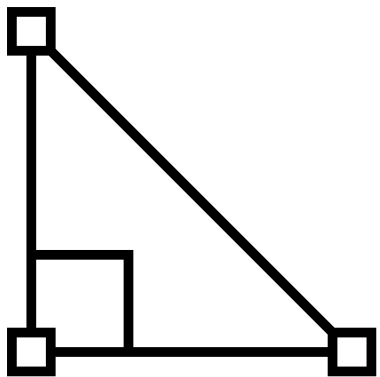
- ✓ Today I felt   





Dubrovnik

Onofrio fountain



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The Old Port



The Walls of Dubrovnik



The Franciscan Monastery



Lavrienac Fortress



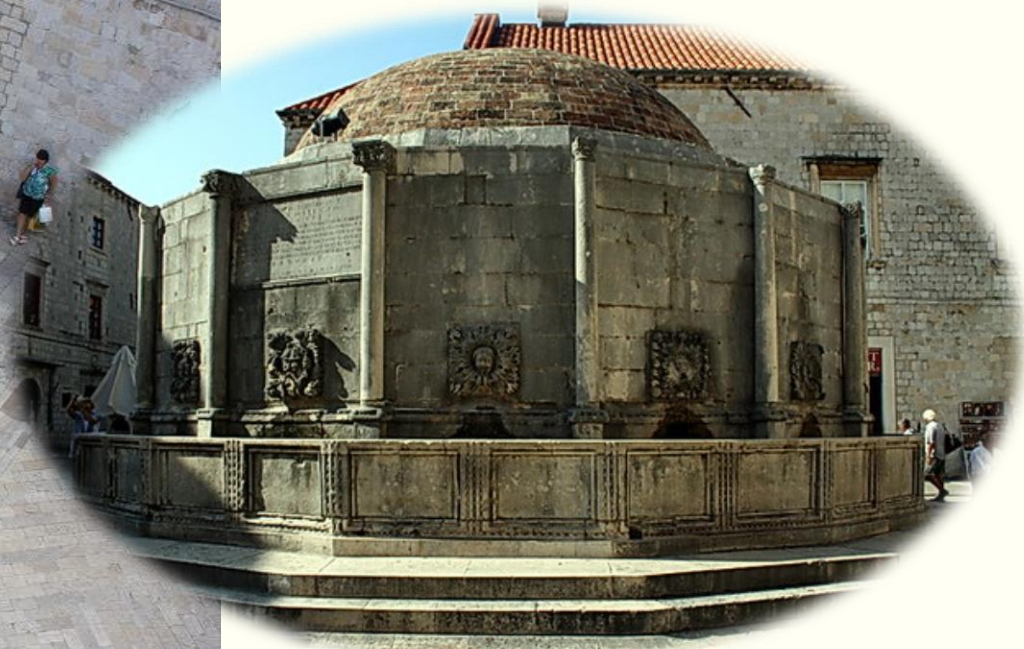
Pile Gate



Stradun Street



Onofrio Fountain



Source:

Pictures: <https://profit.bg/klasatsii/mezhdunarodni/top-10-na-zabelezhitelnostite-v-dubrovnik/?page=2>

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