



Co-funded by the
Erasmus+ Programme
of the European Union

InSTEAM ILSs –SDG6

Water Management

International inSTEAM Teachers' Conference "Inclusion in STEAM Class",
25th September 2021, online

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Co-funded by the
Erasmus+ Programme
of the European Union

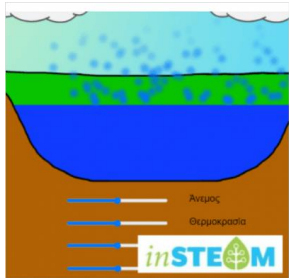
Ensure availability and
sustainable management
of water and sanitation
for all





Water consumption – Primary education

Main topic: Water consumption and swimming pools



Can Water In Swimming Pools Get Lost?
Scientific approach



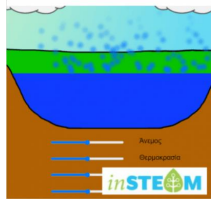
Swimming Pools And The Tourism Industry
Socio-economic approach



Fill A Pool Without Water
Cultural approach



Water consumption – Primary education



Can Water In Swimming Pools Get Lost?

Scientific approach

- Understand the evaporation
- Plan and conduct online experiment to investigate the factors that affect the rate of evaporation
- Argue how the phenomenon of evaporation relates to water consumption and swimming pools



Water consumption – Primary education



Swimming Pools And The Tourism Industry

Socio-economic approach

- Water consumption calculations
- Calculation of water cost based on given fees
- Understand the relation between consumption, demand and pricing
- Understand and perform a SWOT analysis about swimming pools in relation to municipalities, tourism industry and local residents.
- Engage in a water campaign to communicate their knowledge



Water consumption – Primary education



Fill A Pool Without Water

Cultural approach

- Describe the historical evolution of swimming pools
- Calculate the volume of a swimming pool
- Investigate how the shape and the dimensions affects its volume
- Create innovative ideas for the transformation of an empty swimming pool



Global Water Crisis – Secondary education

Main topic: Water scarcity, desalination and drought



Looking At The Science Behind Desalination
Scientific approach



Desalination In Your Country/Region
Socio-economic approach



Drought Management Plan
Open-schooling approach



Global Water Crisis – Secondary education



Looking At The Science Behind Desalination

Scientific approach

- Understand the process of distillation
- Understand the process of osmosis
- Explain the thermal desalination process
- Explore the relationship between atmospheric pressure and the boiling point of water
- Explain the potential operation of thermal desalination in their country



Global Water Crisis – Secondary education



Desalination In Your Country/Region

Socio-economic approach

- Understand the differences between thermal desalination methods and membrane-based methods
- Explore data about the capacity, the operational cost and energy consumption of the three main desalination technologies
- Understand and perform a SWOT analysis
- Inform their community about the pros and con of the operation of desalination plants in their country/region



Global Water Crisis – Secondary education



Drought Management Plan

Open-schooling approach

- Understand how drought affect our lives and our planet
- Raise awareness about strategies to understand and face drought at a local level
- Design and implement an action plan to inform their community about drought and strategies to adopt a more sustainable behaviour in terms of water consumption and water management



The Inclusive Lessons On Water Management



Global Water Crisis: Looking at the Science behind Desalination

Global Water Crisis: Desalination In Your Country-Region



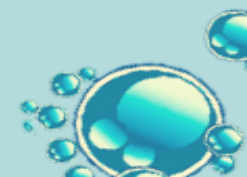
Global Water Crisis: Drought Management Plan

Water Consumption: Can water in swimming pools get lost?



Water Consumption: Swimming pools and the tourism industry

Water Consumption: Fill a pool without water





Co-funded by the
Erasmus+ Programme
of the European Union

*in*STEM M
Inclusive Environmental STEAM
Education with Online Labs

Thank you!