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Educational, Scientific and  
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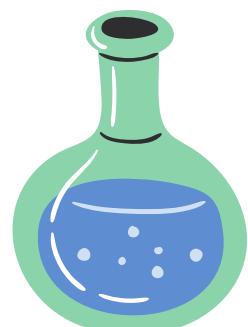


- UNESCO
- Associated
- Schools
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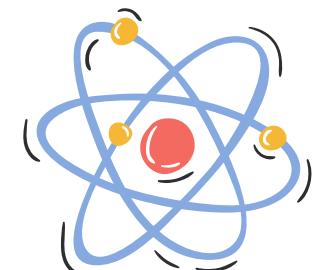


The Baltic Sea Project

# WORLD WATER DAY



## science experiments



COLLECTION OF WATER EXPERIMENTS BY THE  
BALTIC SEA PROJECT WITHIN THE UNESCO ASSOCIATED  
SCHOOLS NETWORK TO CELEBRATE WORLD WATER DAY  
AT KINDERGARTENS AND SCHOOLS DURING THE  
BALTIC SEA PROJECT WATER WEEK 22.-26.03.2021

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This collection for schools has been put together by the Baltic Sea Project coordinator in Estonia, Gedy Matisen, from Tartu Nature House, using open source internet experiment collections. This collection does not include viewpoints of the UN-Water. The idea was created with the international coordinators and it demonstrates only one extra way to celebrate water day within the international Baltic Sea Project in 2021.



# Facts about water

When you start a new topic with children let them ask as many questions about it as possible. We need to encourage their curiosity about the world and support their new knowledge with some practical experiments and explanations about the connections in the universe. Only then an enthusiastic learner will become independent and active world citizen.

All the questions like....

- **How much water is there on Earth?**
- **How much does a cloud weigh?**
- **How does water behave in outer space?**
- **Why is the ocean salty?**

... can be answered in a fun way to engage children.

Looking at water, you might think that it's the most simple thing around. Pure water is practically colorless, odorless, and tasteless. But it's not at all simple and plain and it is vital for all life on Earth. Learn facts about the water from this [USGS Water Science School](#).

Let's take care of the water on Earth!

Join the Baltic Sea Projects call to celebrate the United Nations water day with a water week in your school from 22.-26.03.2021!

# Experiments for preschool (age 3-6)

## 1. [MELTING POLAR ICE CAPS](#) (click on the link!)

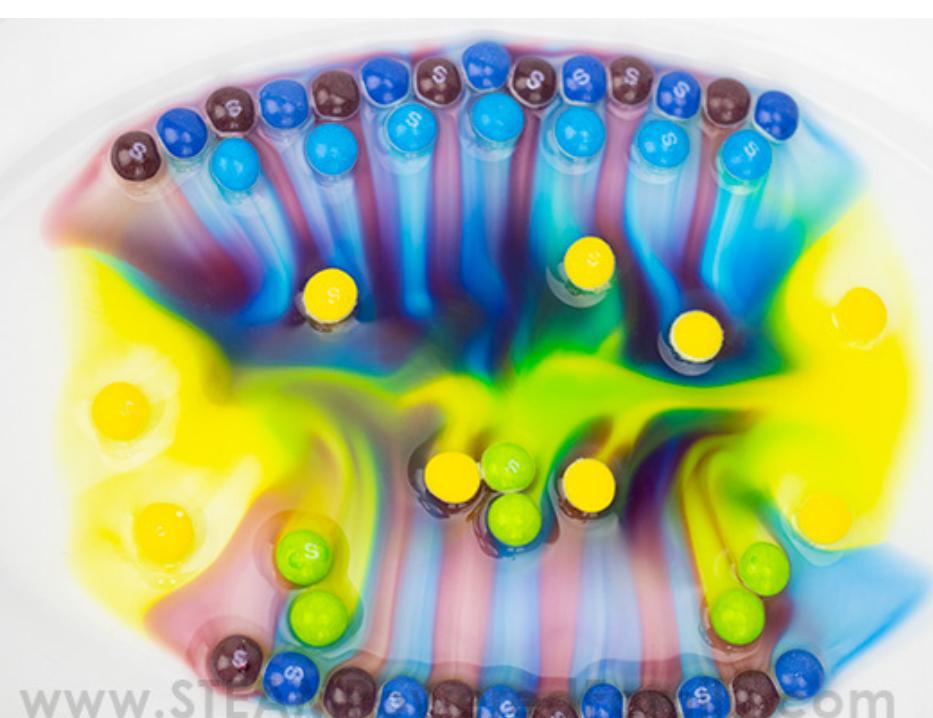
With this easy Science Sparks experiment you can talk about hard topics such as climate change; what is a Goldilocks Planet; what is a ice cap, ice sheet or ice field; why are glaciers melting and discuss how this would affect the animals living there.

## 2. [COLOURS FROM SKITTLES](#) (click on the link!)

With this STEAM Powered Family experiment you can talk about ingredients for adding colour to our food; if food colouring can cause any health problems; water pollution and explain what is water stratification in a fun way. You can explain why the water in the Baltic Sea do not mix with the water in the Atlantic Ocean.

## 3. [BOTTLE XYLOPHONE](#) (click on the link!)

With this Science Sparks experiment you can learn about sound, tune and differents pitches; talk about water animals who make sound and what do they need to have a happy life. In addition you can use this [voices in the sea website](#).



# Experiments for elementary school (age 7-10)

## 1. [DENSITY MARBLE RACE](#) (click on the link!)

About 71% of the Earth's surface is water-covered, and the oceans hold about 96.5% of all Earth's water. Water also exists in the air as water vapor, in rivers and lakes, in icecaps and glaciers, in the ground as soil moisture and in aquifers, and even in you and your dog. Water is never sitting still. But what if the density of the water would be different? Test and imagine the world with maple syrup rivers and baby oil oceans...

## 2. [WATER CLOCK](#) (click on the link!)

With this STEAM Powered Family experiment you can teach students to track the time; calculate flow rates; learn about the historical water clock system and test the time limits of liquids with different viscosity.

## 3. [WATER POLLUTION](#) (click on the link!)

This JDaniel4's Mom experiment can lead you when you want to discuss water pollution and make it practical. You can tell a story of a global challenge of plastic using these [National Geographic materials](#) while adding pollutants to the clean waterpool you have created for this experiment.



# Experiments for middle school (age 11-15)

## 1. [ENGINEER A WORKING HEART MODEL](#) (click on the link!)

Water is essential for life and to live we need our hearts to function. With this STEAM Powered Family experiment you can explain how water is essential to every living organism; explain the function of heart; and recycle old plastic bottles by making a heart model.

## 2. [TESTING OSMOSIS](#) (click on the link!)

With this Science Sparks experiment you can explain what is concentration; what is called osmosis and discuss where and when does it happen; how water pressure can affect living organisms.

## 3. [ARCHIMEDES SCREW](#) (click on the link!)

This Frugal Fun for Boys and Girls experiment allows you to discover the science laws for lifting water. You can learn who was Archimedes and how his inventions helped us to have clean water sanitation systems today. In addition you can tell students about the UN goal for clean water and sanitation using these [National Geographic](#) materials.



# Experiments for high school (age 16-19)

## 1. [ICE CREAM IN A BAG](#) (click on the link!)

With this Science Sparks experiment you can explain endo- and exothermic processes; what is freezing point depression; explain how salting the roads in winter works; and learn to make your own ice cream. You can even monitor the process with Vernier thermosensor and save the process in LabQuest data collector. Also, you can widen the topic by talking where salt comes from and how the salinity of water affects animals living there.

## 2. [BUILD A CIRCUIT FLOWER](#) (click on the link!)

With this STEAM Powered Family experiment you can explain what is chromatography; what are LED lamps; what are batteries and electricity. In addition, you can talk about hydroelectric power using these [National Geographic](#) materials and discuss the benefits of recycling

## 3. [MAKE BIOPLASTICS](#) (click on the link!)

With this STEAM Powered Family experiment you can explain plastic pollution problem; talk about different types of plastic; and how they affect our oceans and living organisms; what are the benefits of recycling. You can lead the topic with these [National Geographic](#) materials on plastic.



# Questions for world water day discussions



Learn more about UN Water Day:  
[www.worldwaterday.org](http://www.worldwaterday.org)

# More about the Baltic Sea Project water week

**The Baltic Sea Project (BSP)** is an international network among UNESCO Associated Schools Network (ASPnet). Its main aims are to promote global citizenship, a culture of peace and non-violence, support sustainable development goals, sustainable lifestyles and enhance intercultural learning with the appreciation of cultural diversity and heritage in the countries surrounding Baltic Sea. The BSP offers different activities for almost 200 schools around the Baltic Sea.

Our blog: <https://unesco-bsp.blogspot.com/>

Our Facebook page: <https://www.facebook.com/unesco.bsp>

## BSP's water week 22.-26.03.2021

The theme of UN Water Day this year is “Valuing water”. The theme challenges us to think about how water is important to our home, local environment, livelihoods, well-being and cultural practices. By thinking about all the different ways water benefits our lives we can properly value water and save it for everyone. The schools can take part in Water Week in many different ways. You can choose the activities that are suitable for you. Most of them can be done even at home in case you are doing remote learning.

Please register for the BSP water week! Find the link [here](#).

For more info about the week in 2021, please ask Elina Koskela-Tarvas ([elina.koskela-tarvas@svk-edu.fi](mailto:elina.koskela-tarvas@svk-edu.fi))