The ocean rises, rises…

Experiment about temperature impacts on sea level

Type of pedagogical project, activity, action, accompanying	**Activity (scientific experiment)** 
Key words of relevant disciplines/ Pedagogical content	Temperature/ Sea level/ Global warming/ Natural risk
Problematic	**What are the consequences of global warming on the sea?**
Thematic	Water, major natural risks**.**
Disciplines (sciences, geography)	*Sciences, Physics, Geography*
Pedagogical Objectives/New targeted skills	**The students will be able to:** - Make a scientific experiment and understand the connections between causes and effects - Understand the impacts of global warming on the sea level - Anticipate global warming impacts on the rise of the average level of the oceans
Public target(s) (age, requested skills…)	8 - 14 years old
Description (step by step)	**Description of the experiment** **Step 1)** The animator/teacher, gives all the needed materials for the experiment to the students, along with the scientific procedure.

	Step 2) • Insert the pipette into the cap • Fill the bibber to the brim with water. • Push the cap on the bibber. The level of water in the pipette must be at a precise level. Do not leave air in the pipette • With an erasable pencil, draw a line on the pipette to represent the level of water. • Put the bibber on the baby bottle warmer • Fill the baby bottle warmer at mid-height with water and plug in the device. • Wait while the water is heating, and observe the water level rise in the pipette. **Step 3)** The animator/teacher, asks students to work in a team to express what is happening with the water. They can link the experiment to Climate Change, in particular with consequences on the rise of the sea level. **Step 4)** Each team shares their results with their classmates.
Place (meeting room, outside space, …)	In the classroom, science laboratory
Individual and / or collective actions	Individual or by group as the teacher wants
Material needed	1 perforated cap, 1 pipette, 1 bibber, 1 baby bottle warmer, 1 erasable marker
Duration of pedagogical project or activity	**1 hour**
Evaluation of the new acquired skills	Students produce a test report about what they did and observed.
Eco-citizen adaptation, knowledge enhancement and links to other topics	**Link to:** **Activity: Experiment about the impacts of ice melting on the sea level** **Knowledge: Impact on Marine Environment (CO6)**

Observations	This activity can be suitable for younger students and can be proposed as a first experiment in a science laboratory. The program name in France is “Young people and climate change.” It was an experiment with people between 11 and 15 years old by educational NGOs on environment. The program aims at defining the causes and consequences of climate change on earth and especially in the south of France. Students can analyse its impacts and suggest different means of action and adaptation: everyday life, action at school… This program is a five-day event at school, with experiments and workshops involving all the classes of the secondary school. French website: https://lesjeunesfaceauxcc.wixsite.com/lesjeunesfaceauxcc