



Grade 2 Maths: The Importance of Using Water Consciously

(Submitted by Edenia Hoyos Benitez, 2017, while serving as Grade 2 Homeroom Teacher at International School of Havana, Cuba)

Tool(s) used:	<ul style="list-style-type: none"> • Sustainability Compass • Clock Partner Teaching Technique
Purpose of using tool:	<ul style="list-style-type: none"> • Generating Questions • Guiding Discussion <p>Overview:</p> <p>Sustainability Compass: To give students another opportunity to think in a systemic way by making connections among the elements that integrate the Sustainability Compass.</p> <p>Clock Partners: To generate discussion. To develop social skills, such as listening to others, taking turns and respect others' opinions and learn from each other.</p>
Context of lesson/case study:	Grade 2 class multicultural and international environment. Students from 10 different nationalities.
Participants (# and description):	18 students and 2 teachers
Topic, Theme, or Key Understanding of unit/project:	The learning objective of the lesson is to know the relationship between litres and millilitres. Grade 2 students learn new vocabulary related to capacity. Students also get familiar with the proper equipment to measure capacity. As part of the mission and vision of our community, students reflect on the importance of using water consciously, the impact to our planet if we do not have enough of this vital liquid to live. The consequences of not saving water appropriately.
Length of unit/project:	2 periods (40 minutes each)
Resources/materials & setting required:	Maths exercise books/board/beakers, cylinders and scaled containers, cards.

Lesson Plan/Description of the Project:

Students are sitting on the carpet. Teachers present different containers, for example, water bottle, cup, bucket, paint tray. Ask students what the containers are used for. Which unit of measurement do we use to measure water, juice, tea, coffee or paint in these containers? (Emphasize that we are referring to the products as liquid). Prompt students if needed. Teachers ask: Is it suitable to measure 10 km of juice? 25 kg of water? Which unit of measurement do you know to measure liquids? Listen to students answers. Introduce the appropriate Mathematical term Capacity. Present beakers and cylinders of different sizes and scales. Teachers will assign a volunteer to come to the front to pour water from a bucket in the 1000ml container. Then, assign a second volunteer to pour the water in the 1000ml container in the 1L container. What is the relation between these two containers? Discuss. Teachers introduce the new learning objective.

Task 1. Students complete the task written on the board. For set A, How many ml in 3L, 5L, 7L and 9L. (Challenge 10 L). For set B, How many L in 5000ml, 2000ml, 7000ml. After the time given, teachers propose sharing time. Students are allowed to check their answers with the closest neighbour.





Teachers connect the lesson with the current IPC unit “Do you live around here”. Review on what they have been learning in IPC (Diorama projects about habitats and what they all have in common. Questions to connect this activity with the following. What do all these animals and people need to survive? Write answers on the board. When the word Water is mentioned, teachers will introduce the next activity.

Task 2. Ask students to sit next to clock partner appointment 4. With the clock partner, students will draw the Sustainability Compass in their Maths exercise books (landscape). (Students were exposed to the Sustainability Compass before) Students in Grade 2 B will fill in the Sustainability Compass with words or statements related to the heading “World without Enough Water “.

After 5 minutes, ask students to share ideas with other clock partners around the classroom. (5 more min) Finally, teachers encourage a whole class discussion about the theme and complete Sustainability Compass presented on the board with students’ ideas.

Conclusions:

Teachers encourage students to think of a plan of action to follow at school related to the previous task where they identified problems. What can we do in our ISH community to save water? Teachers explain this is going to be an ongoing task during the week to collect ideas and put them into practice.

Reflection

Plusses:

- Students were engaged throughout all the lesson, especially because there were two teachers involved interacting with them and transitions to connect activities worked successfully.
- Students enjoyed working with clock partners. Students were motivated when teachers presented the equipment to teach capacity.
- Reflections and ideas from the conclusions were considered as ideas to present on the following grade 2B assembly.
- We used the students' exercise books to write their ideas for the Sustainability Compass instead of using lots of papers.

Challenges:

If I were to teach this lesson again I would present the new vocabulary related to capacity creating a poster. The word capacity would be written in the middle of the poster. I would also give cards to different students to read the new words and then invite them to glue them in the poster.

Suggestions for other practitioners and educators:

It would be better to save the Sustainability Compass for this lesson in a poster instead of doing it on the board and then save it in a picture, as I planned for this lesson. Students can have easy access to their thoughts and ideas if it is displayed in a visible wall of the class.

Evidence and Resources:



