Air also holds water

1 Overall aims:

- Recognize air as an element;
- Interiorize the importance of air;
- Make observations and predictions;
- Make and taste hypotheses
- Verbalize concepts and ideas;
- Understanding how vapor works;
- Understanding how humidity is formed

2 Vocabulary - keywords

Air, Vapor, Humidity Play-based learning

3 Sustainable abilities developed

Systematic thinking
Anticipatory competency
Critical thinking competency

4 Pillars of sustainability included

Environmental sustainability

5 STEAM domains

Science

6 Teaching methodologies/activity outline

To know before the activity:
When it's a hot, muggy summer day, you've probably heard the word "humid." But what does that mean, exactly? Relative humidity is the amount of water that the air can hold before it rains. Humidity is usually measured in percentages, so the highest level of relative humidity—right before it rains—is 100 percent.

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	The activity: Remove an empty and very cold glass bottle from the fridge, and place it in the open air, for example on the worktable. After a few minutes observe that small drops of water have formed on the outside of the glass. Surely those droplets cannot come from inside the bottle because it is empty. It is concluded that in the air there is water vapor, which upon meeting the cold surface of the bottle, condenses and forms water droplets in a liquid state.
7	**Expected learning outcomes** The child will be able to • Follow instructions; • Develop the senses; • Acting like a little scientist; • Explaining how humidity and vapor are formed.
8	**Assessment** • **Initial evaluation:** ask children what they already know about air; • **Formative evaluation**: develop and use an observational template to assess the engagement of children during the activities; • **Final evaluation**: ask children to explain what they have understood about air (with the aid of paintings and collages).
9	**Equipment and materials to be used in learning unit (tools, ingredients etc)** A very cold glass bottle
10	**Kind of setting - lab, kitchen, outdoor etc.** Indoor
11	**References - source:** https://www.skuola.net/scienze-medie/acqua-atmosfera.html

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