

CHANOGLOU ELENI 3rd Junior High School of Echedoros – Kalochori GREECE

Lesson Plan: Every Drop of Water Matters

- **Target Audience:** Students (approx. 13 years old)
- **Objective:** To understand the value of water and the concept of "Virtual Water."
- **Duration:** 45 minutes (1 teaching hour).
- **Materials:** A3 paper, markers, one 500ml water bottle, blue post-it notes.

1. The 5-Second Challenge (Introduction - 5')

Start with a "shock" question: *"If all the water on Earth were contained in this 500ml bottle, how much of it do you think is fresh, drinkable water available to us?"*

- Let the students guess.
- **The Truth:** Just **one single drop** (approximately 0.5% of the world's water is available freshwater).

(**Learning Objectives:** a)To visualize the scarcity of freshwater on a global scale. b)To challenge misconceptions regarding water abundance.

Learning Methods: a) **Inquiry-Based Learning:** Starting with a provocative question to stimulate curiosity. b) **Visual Discovery:** Using a physical object (the 500ml bottle) to represent abstract data.)

2. Hunting for "Hidden" Water (Experiential Part - 20')

Divide the class into 4 groups.

Each group is assigned a "ghost object" and must estimate/visualize how many liters of water were used to produce it. eg: **1 Burger** (~2,400 liters), **1 Pair of Jeans** (~8,000 liters), **1 Cup of Coffee** (~140 liters), **1 Sheet of A4 Paper** (~10 liters)

Students draw the "Water Journey" of their product on the A3 paper (e.g., for jeans: watering cotton, dyeing, washing).

(**Learning Objectives:** a) To define and understand the concept of "**Virtual Water**" (the water footprint of products), b) To analyze the supply chain of everyday items and its environmental impact, c) To develop teamwork and collaborative data analysis skills.

Learning Methods: a) **Collaborative Learning:** Students work in small groups to solve a problem, **Mapping/Flowcharting:** Translating complex processes into a visual "water journey" (A3 drawing), c)**Discovery Learning:** Uncovering the "hidden" environmental cost of consumerism.

3. "Water Hacks": The Ad Campaign (Creative Part - 15')

Each group must come up with a creative, "cool" way to save water at school or home and present it as a **TikTok Challenge** or an **Instagram Story** (sketched on paper) eg: "The 4-minute Shower Playlist" (Songs that end exactly at 4 minutes to signal when to turn off the shower).

(Learning Objectives: a) To synthesize knowledge into actionable solutions, **b)** To practice persuasive communication and digital literacy (simulating social media formats), **c)** To foster creativity and "out-of-the-box" thinking for sustainability.

Learning Methods: a) Project-Based Learning (PBL): Creating a "mini-product" (the ad campaign) to solve a real-world problem, **b) Gamification/Role-Play:** Assuming the role of a "Content Creator" to make sustainability "cool", **c) Peer Teaching:** Groups share their ideas, teaching each other new ways to save water.)

4. The Drop Commitment (Closing - 5')

Each student writes a specific commitment they will make starting today on a blue, drop-shaped post-it.

- *"I will turn off the tap while brushing my teeth."*
- *"I will have one meat-free meal per week."*

They stick the drops on the classroom door, forming a large "Lake of Commitments."

(Learning Objectives: a) To internalize the lesson and transition from theory to personal accountability, **b)** To reflect on individual consumption habits.

Learning Methods: a) Reflective Practice: Students think critically about their own behavior and commit to change, **b) Affective Learning:** Building an emotional connection to the topic through a symbolic collective action (the "Lake of Commitments").)