

# Green Tech: Clean and Safe Water

This resource was created to accompany the Green-Schools Ireland Global Goals Book Club.

www.greenschoolsireland.org



































# Global Goal 6: Clean Water and Sanitation



This resource is designed to inspire your classroom with engaging activities that support critical thinking and meaningful discussions centred around the Global Goal of 'Clean Water and Sanitation'.

Age Group: 3rd - 6th class

### Included in this resource:

- Green Tech: Clean and Safe Water Discussion Questions
- My Water Diary
- Clean Water for All Design Challenge

### Global Goals Book Club and Global Goal 6: Clean Water and Sanitation

"Green Tech: Clean and Safe Water" introduces children to innovative technologies being used around the world to improve access to safe drinking water and protect natural water sources. From solar-powered water purifiers to rainwater harvesting systems, this book highlights how sustainable solutions can help tackle one of the world's most urgent challenges, ensuring clean water for everyone, everywhere.

By connecting with SDG 6, children learn that water is a human right, and that access to safe water and sanitation is essential for health, dignity, and equality. Through discussion and creative activities, pupils will explore the global water crisis, the importance of water conservation, and how technology and innovation can help solve real-world problems.



# **Water Diary**



# **Objective:**

To help children become more aware of how often they use water each day, and to encourage reflection on how they can reduce water waste at home and in school.

# 1. Introduction: Where Does Water Go?

Start with a whole-class brainstorm:

- Where do we use water in our daily lives?
  - Examples: brushing teeth, drinking, flushing the toilet, cooking, washing hands, watering plants
- Discuss: "Do you think we ever waste water? How could we use less?"

# 2. Complete the Water Diary (Worksheet)

1. Give each pupil a simple "Water Diary" chart to fill in for a full day (at school or home).

## 3. Reflection

- 1. Which activity used the most water?
- 2. Was any of this water wasted?
- 3. What surprised you?
- 4. What would you like to change?
- 5. What is one thing you could do tomorrow to save water?
- 6. What do you think it would be like to live somewhere where you couldn't turn on a tap?
- 7. If you had only one bucket of water per day, what would you use it for?
- 8. Why is it fair (or unfair) that some people have more water than others?



# My Water Diary





| Water Use  | Times per day   | Estimate (litres) | Could I use less? |  |  |
|--|-----------------|-------------------|-------------------|--|--|
| Brushing my teeth                                      |                 |                   |                   |  |  |
| Washing my hands                                       |                 |                   |                   |  |  |
| Drinking Water   |                 |                   |                   |  |  |
| Flushing the toilet                                    |                 |                   |                   |  |  |
| Having a bath /<br>shower                              |                 |                   |                   |  |  |
| Helping with the dishes / laundry                      |                 |                   |                   |  |  |
| Watering plants  |                 |                   |                   |  |  |
| Reflection   |                 |                   |                   |  |  |
| Which activity used t                                  | the most water? |                   |                   |  |  |
|  |                 |                   |                   |  |  |
| What surprised you?                                    |                 |                   |                   |  |  |
|  |                 |                   |                   |  |  |
| Was any of this water wasted?                          |                 |                   |                   |  |  |
|  |                 |                   |                   |  |  |
| What would you like to change?                         |                 |                   |                   |  |  |
|  |                 |                   |                   |  |  |
| What is one thing you could do tomorrow to save water? |                 |                   |                   |  |  |



# Clean Water for All – Design Challenge



# **Objective**

To inspire creativity and critical thinking by encouraging students to design a tool, invention, or system that could help people access clean water. This activity nurtures empathy and gives a deeper understanding of global inequalities in access to water.

### 1. Set the Scene:

- 1. Begin with a class discussion:
- 2. What problems do people around the world face when it comes to clean water?
- 3. What do people do when they can't turn on a tap?
- 4. What are some of the green technologies mentioned in the book? (e.g., solar water purifiers, rainwater tanks, sand filters, pedal pumps)
- 5. **Optional:** Show images or short videos of innovative water tech solutions (e.g., <u>Lifestraw</u>, <u>water ATM kiosks in India</u>, <u>solar stills</u>, or <u>fog catchers in Peru</u>). You could also explore traditional methods and nature based solutions.

# 2. The Challenge (can be done individually or in groups)

Tell students:

"You are an inventor! Your challenge is to design a tool or system that will help people get clean, safe water without harming the environment. Your invention should be helpful for people living in places where clean water is hard to access."

Hand out worksheet (available on next page) They will:

- 1. Draw their invention
- 2. Label its parts
- 3. Explain how it works
- 4. Describe who it will help and how

# 3. Class Discussion and Presentation

- Each group / individual presents their invention
- Where in the world might your invention be most helpful?
- How would it feel to go a whole day without clean water?
- What should world leaders do to help everyone access water?



# My Clean Water for All Invention



| Draw and label your invention |  |
|-------------------------------|--|
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# My Clean Water for All Invention



| What problem does it solve? |   |
|-----------------------------|---|
|                             |   |
| How does it work?           |   |
| V./hat matorial c           |   |
| What materials would I use? |   |
| Who would use it?           |   |
| Wile woods ose in:          |   |
| Why is it eco-              |   |
| friendly?                   |   |
|                             | / |