





# GUIDELINES FOR WATER-ENERGY NEXUS



# A SIMPLE WAY TO TEACH A CHILD HOW TO SAVE ENERGY WATER

**Most kids love learning** new things and love the opportunity to help around the house and at school. When you explain the importance of saving energy, they'll be more than happy to do their bit. Here are a few tips on how to **encourage kids to save energy.** 

# **EDUCATING CHILDREN**

**Most children will learn about the importance of saving energy at school**, but you can **reinforce** the message by teaching them how to **contribute at home.** Provide images of appliances around your house and explain the energy sources. Prepare worksheets to ensure they understand concepts as for example – what is the meaning of finite resources? Where does the gas for the cooktop come from? How does it get to your home? You could research the answers together as a family project and to take note on the worksheet. **This will enable teachers to evaluate the work being** 

done by each child and the extent to which they are understanding.

# PROMOTE RENEWABLE ENERGY

- Explain the concept of renewable energy sources, like solar and wind power.
- Use hands-on projects, such as making a simple solar oven, to illustrate how these technologies work.





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## MAKE IT FUN TO LEARN

Go through each room of a house together and discuss ways energy can be saved. Ask the children to write down a set of rules for the family to follow – tasks can be allocated to specific family members. This will teach children to be responsible and they're more likely to complete the tasks. For younger children, set up a reward chart and give them a small prize at the end of the week if they follow the rules. Ask children to point out when energy and water are being wasted.



# **EASY HABITS TO TEACH KIDS**

Simple tasks and positive reinforcement when they follow the rules is important.



# THE SHOWER EXAMPLE

 Explanation: "When you take a shower, you use hot water. To make that water hot, we need to use energy. So, using less hot water means we use less energy!"



 Activity: Use a thermometer to show how hot water starts at a high temperature and explain how energy is used to reach that temperature. You can also set a timer for shorter showers and see how much water and energy can be saved.

# THE DISHWASHER EXAMPLE

• Explanation: "Dishwashers use water and energy to clean our dishes. If we run the dishwasher when it's full, we save both water and energy because it takes less energy to clean a lot of dishes at once."

• Activity: Collect dirty dishes and show how filling the dishwasher fully is more efficient. Discuss how

using less water for the same job

saves energy.



# **LIGHT BULB & WATER HEATING EXAMPLE**

• Explanation: "When we leave lights on, it uses energy. This energy can also help heat water in our water heater. By turning off lights, we can save energy that might otherwise be used for heating water."

**Activity: Compare the** brightness of different light bulbs and talk about

how energy-efficient bulbs use less electricity. Then, discuss how less energy use helps save water indirectly.



# THE GARDEN EXAMPLE

• **Explanation:** "Plants need water to grow, and farmers use energy to get water to their fields. If we use less water in our garden, we also help save the energy that's used to move that water."

• Activity: Water a garden or plants together and talk about how much water they need. Teach children about using mulch and native plants since they require less water explain how less watering means less energy used by pumps and irrigation systems.



# THE RAIN BARREL EXAMPLE

• **Explanation:** "Collecting rainwater in a barrel helps us use less water from our taps. It also means we need less energy to pump and treat water from the ground or rivers."

 Activity: Set up a rain barrel or a large container to collect rainwater. Show how the collected water can be used for plants and explain the energy savings from using less tap water.

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# THE FAUCET EXAMPLE

- Explanation: "When we leave the tap running while brushing our teeth, we waste water and use more energy to treat and pump that water. Turning off the tap saves both water and energy." "Also explain how a leaking tap wastes water and how fixing them is essential."
- Activity: Conduct a simple experiment where you measure how much water flows out of the tap in a minute. Show how turning off the tap while brushing can save water and energy. Use simple demonstrations to show how leaks can be fixed or prevented.



# THE LAUNDRY EXAMPLE

- Explanation: "Washing clothes in cold water uses less energy than warm water."
- Activity: Sort laundry into different loads and discuss which ones can be washed in cold water. Explain how using cold water saves energy and water.



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# THE COOKING EXAMPLE

- Explanation: "When using an electric kettle, filling it to the maximum level when only one cup of tea or coffee is needed consumes more energy because all the water must be heated. Any leftover water may not be used again and could end up being wasted."
- Activity: Compare the time it takes a kettle to boil when it is filled to the max and when it contains 1 cup of water. Discuss how using just the right amount of water saves energy and water.



These practical examples help kids understand the direct and indirect connections between water and energy, making the concepts more relatable and easier to grasp.

# Interactive Learning •

# **Interactive Challenges and Pledges:**

- Organize competitions or challenges within the classroom to see which group can come up with the most energy or water-saving ideas.
- Create quizzes or puzzles related to energy and water conservation.

- Encourage students and teachers to participate in schoolwide challenges or pledge programs to save water and energy, fostering a sense of community and shared responsibility.
- Use the Qatra Qatra game.
  Qatra Qatra Free download and play on Windows | Microsoft
- Use the Be efficient app.
  https://www.rbmplife.org.mt/content/start-saving-today-be-efficient-app

# **Hands-On Projects:**

• Encourage **DIY projects** like building a **bird feeder** from recycled materials or creating a simple **rain gauge.** 



• Use these projects to teach about conservation and the impact of individual actions.

# **Field Trips and Guest Speakers:**

- Arrange visits to local water treatment facilities, power plants, or renewable energy sites.
- **Invite guest speakers**, such as environmental experts, to talk about energy and water conservation.

•Share real-life examples of schools or individuals who have successfully implemented conservation practices, providing inspiration and practical insights.

# Integration •

### **Create Conservation**

- Establish clubs or committees focused on sustainability projects within the school.
- Engage students in organizing events, like Earth Day activities or recycling drives.



By incorporating these guidelines, schools can help children develop a strong understanding of energy and water conservation, fostering habits that contribute to a more sustainable future.

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