



Quiz

# Do you know what I know?



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## Activity summary

Students can put their knowledge of energy efficiency to the test by answering the true-or-false **DO YOU KNOW WHAT I KNOW?** quiz, which can be found on website.

### Duration

50 minutes

### Cycle-specific competencies

#### Cycle 1 - Geography

Energy-Producing Regions

##### 4. Issue affecting an energy-producing region or regions

- b. Indicates measures taken to help reduce energy consumption and increase self-reliance (e.g., dual energy, hybrid vehicles, improved public transit, development of energy-efficient appliances)
- e. Explains the impact of growing energy consumption on the environment (e.g., growing energy consumption worldwide contributes to global warming and environmental degradation)

#### Cycle 2 - Financial Education

Financial issue - Consuming goods and services

##### 1. Consumption

- a. Indicates factors that influence consumer choices (e.g., age, gender, income)
- b. Indicates some of the reasons why consumer habits may change (e.g., socioeconomic context, new technologies, peer pressure, personal values)

**Broad area of learning - Environmental awareness/consumer rights and responsibilities**

## Objectives

- Make students more aware of energy efficiency
- Get students to commit to changing the way they use energy

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## Preparation

Encourage students to start thinking about the topic by introducing it as follows:

We use electricity every day, sometimes with barely a thought. Hydropower is unquestionably a renewable form of energy, but that doesn't mean we should squander it. There are many ways to save electricity. We hear a lot of energy-saving tips, but are they all accurate? Let's dig a little deeper into the issue by putting what you know about energy efficiency to the test.

### Material

- Computer or other device per team of two or three students
- Website: <https://wattson.kwizz.app/>
- Answers (appended to this document)

## Introduction

Hydropower is a green and renewable form of energy, but it's undeniable that we use much too much of it. If we want to be responsible energy users, it's important to understand just how much our devices and appliances use. Form small teams and do the **DO YOU KNOW WHAT I KNOW?** exercise that you can find at <https://wattson.kwizz.app/>

## Instructions

- Form teams of two or three  
(having teams of at least two students encourages sharing, discussion and debate).
- Give students 20 minutes to answer the questions.
- Ask each team which answer surprised them most.

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## Follow-up

Once they have finished the quiz, the students return to their seats. To encourage learning assimilation, ask the following questions:

1. Did you get all the answers right? Did any answers surprise you?
2. What answer surprised you most, and why?
3. What changes do you intend to make with your family in your day-to-day lives?

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# Answer sheet

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Sometimes you think you know something but you don't! Unfortunately, not everything we hear is true. In this activity, we will examine 12 beliefs about saving energy and finally get the true story!

**QUESTION 1: An electronic device that is turned off does not use any electricity.**

A) True B) False

**ANSWER: False**

Surprisingly, many electronic devices continue to draw power for a range of functions. Unplug any devices you aren't using to make sure you're not wasting energy!

**QUESTION 2: All electronic devices in the same product category use the same amount of energy.**

A) True B) False

**ANSWER: False**

Surprise! ENERGY STAR<sup>®</sup> certified electronics use up to 50% less energy than other electronics. That's a pretty big difference, so it pays to look for them when you shop.

**QUESTION 3: Taking a shower is more economical than taking a bath in a half-filled tub.**

A) True B) False

**ANSWER: True**

If you have a low-flow shower head (5.7 litres/minute), you would have to stay under the water for 21 minutes to use the same quantity of water as if you filled the tub half-full. And 21 minutes is a long shower, as well as a huge waste of water! You'll save even more water if your shower takes less than 10 minutes!

**QUESTION 4: The direction in which a ceiling fan's blades turn has no importance.**

A) True B) False

**ANSWER: False**

It comes down to science! In the winter, the blades should turn clockwise so that the cooler air is pulled upwards to the ceiling. The warm air, which tends to accumulate near the ceiling, is then pushed downwards and able to spread through the room. For the best results, the fan should run at low speed. Conversely, in the summer, the fan should push the air downwards to create a cool breeze. In this case, the blades should turn counter-clockwise. Check out your own fan to see what direction it's turning!

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**QUESTION 5: You can save energy by lowering the temperature by 1°C in the winter.**

A) True B) False

**ANSWER: True**

By lowering the thermostat by 1°C in the winter, your family can save roughly 5% on its annual heating bills. Get out your sweatshirts and hoodies!

**QUESTION 6: Hanging your laundry out to dry on a beautiful summer day can save you money!**

A) True B) False

**ANSWER: True**

If you do 10 loads of laundry a month, you'll save \$12 by hanging your clothes out to dry instead of putting them in the dryer. This simple act is good for the environment, and when we all do our part, everybody wins!

**QUESTION 7: Air conditioning in the summer can account for up to 20% of your annual electricity bill.**

A) True B) False

**ANSWER: False**

Air conditioning accounts for less than 5% of an average family's annual electricity costs.

Although that may not be a big amount, you can still take a few easy steps to keep a rein on your air conditioning costs. They include closing the curtains and blinds on windows that face the sun and shutting the doors to unoccupied rooms.

**QUESTION 8: To make sure you're comfortable when you get home in the summer, it's a good idea to keep a fan going at full speed while you're out.**

A) True B) False

**ANSWER: False**

A fan moves the air around but doesn't cool it. Letting it run when you're not home is a waste of energy and money. Turn your fan off when you head outside for some fresh air!

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**QUESTION 9: Maintaining a swimming pool (including heating the water) accounts for 20% of a household's annual electricity bill.**

A) True B) False

**ANSWER: True**

Wow, up to 20% of your electricity bill and you only swim in the summer! That's enormous. It also means that a swimming pool uses as much energy as all your household appliances combined. To reduce your pool's energy consumption, use a solar pool cover and a timer with your filtration pump. Enjoy your swim!

**QUESTION 10: LED light bulbs use much less energy than incandescent bulbs and can last longer.**

A) True B) False

**ANSWER: True**

LED bulbs use up to 90% less energy than incandescent bulbs and can last up to 25 times longer—as much as 23 years (at three hours of use per day)! Replacing energy-wasting bulbs is a brilliant idea!

**QUESTION 11: A hot water faucet that leaks one drop per second could fill 2,000 500-mL bottles in a year.**

A) True B) False

**ANSWER: False**

It's actually much more. Drop by drop, that leaking faucet wastes 27 litres of water a day, equivalent to almost 20,000 500-mL bottles over a year. A real waste of water and energy: talk about water torture!

**QUESTION 12: Lighting up your beautiful yard every night (using three 60-watt bulbs that stay on for about 7 hours) costs up to \$40 a year.**

A) True B) False

**ANSWER: True**

Turning off the outdoor lights when you go to bed is a good reflex to adopt. It'll save you money and energy!

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*Ce document est également diffusé en français.*

