



Quiz

The DecaWatt Challenge



The DecaWatt Challenge



Activity summary

Welcome to the DecaWatt Challenge! In this big-as-life activity, the whole class plays along! Working together in small teams, students test their knowledge of hydropower, how we use energy and ways we can use it more efficiently. It's similar to *Snakes and Ladders*, with the teams moving ahead when they have the right answer and going back when they get it wrong. In addition, teams may acquire special powers at any moment!

Duration

50 minutes

Cycle-specific competencies

Cycle 1 – Geography

Energy-Producing Regions

4. Issue affecting an energy-producing region or regions

- a. 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)
- d. 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)

Objectives

- Raise students' awareness of energy efficiency
- Teach students about hydropower generation

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Preparation

Start students thinking about the topic by asking the following questions:

- What do you know about electricity generation in Québec?
- Do you know how much electricity your devices use?
- Do you think you're already careful when it comes to using energy?
- What concrete steps have you or your family taken to cut your consumption?

Materials

Cycle 1 Questionnaire

Cycle 2 Questionnaire

To print, game accessories, including: - Team nameplates

- Game boards
- Score sheets
- Answer sheets
- Special cards
- Rule sheet

Introduction

In Québec, the vast majority of the electricity we use is produced by hydroelectric generating stations. We are fortunate to have a plentiful supply of renewable energy that is also some of the world's greenest! However, that doesn't mean we can afford to consume energy carelessly. Every day, we can all do a few simple things to use less energy, and when everyone joins in, they can really add up. Today, you can start by playing the DecaWatt Challenge to learn more about hydropower generation and energy efficiency.

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Instructions

Object of the game

The first team to accumulate 10 watts by answering the questions correctly wins the game.

Contents

- 6 ready-to-print PDFs, each including a "Wattson," a game board, score sheets marked 0 to 10 watts, and answer sheets marked A to D in 6 colors (yellow, pink, blue, green, purple and red, one for each team)
- 18 special cards
- A PDF list of the questions, to be projected on a screen

Getting ready

1. Divide the class into a maximum of six teams.
2. Each team chooses a color. The color determines the team number (1 to 6).
3. Each team chooses one member to be its star player, who will be called its "Wattson." He or she will be responsible for tracking the team's "watts" (points) and will have to answer questions without consulting his or her teammates. During the game, the "Wattsons" stand at the front of the classroom with their score sheets in hand.
4. Each team places its game board in clear sight on its own table so that special cards can be placed on it.
5. The teams also place the answer sheets (A, B, C and D) near the members.
6. The teacher, who serves as game master, hands one special card to each team before starting. The teams keep the cards and take care not to show them to their opponents.

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Instructions (cont.)

How to play

To collect watts, the teams must correctly answer the game master's questions. **Teams earn 1 watt for each right answer and lose 1 watt for each wrong answer.** The Wattsons must answer the questions they are asked without any help from their teammates.

1. At the start of each turn, the game master asks the teams, in a pre-determined order, if they want to play a special card. (See the "Special Cards" section.) Only one team per turn may play a special card. On the first turn, Team 1 gets to speak first, followed by Team 2, Team 3 and so on. On the next turn, Team 2 gets to speak first, while Team 1 is last to get a chance to play a special card.
2. When a team chooses to play a special card, it can:
 - a. **Place it on its own game board (in the case of a Bonus card, for example)**
 - b. **Place it on an opposing team's game board**No team can have more than one card on its game board at a time.
3. Once all the teams have spoken, the game master asks a question. The teams have 10 seconds to confer and then show their answers simultaneously.
 - a. **If the team doesn't have a special card on its game board:**
The team earns 1 watt for a right answer and loses 1 watt for a wrong answer.
 - b. **If the team has a Bonus card on its game board:** If the team answers correctly, it earns watts. If it answers incorrectly, it loses its Bonus card and 1 watt.
 - c. **If the team has a Consequence card on its game board:** If the team answers correctly, the Consequence card is cancelled and the team keeps its watts. If it answers incorrectly, the Consequence card is applied and the team loses its watts.
4. When a question is only for the Wattsons, the game master informs the group at the start of the turn so that the teams can take that information into account before playing a special card. The Wattsons must collect the answer sheets (A, B, C and D) **before** the question is asked (no cheating!).
5. The game continues until one team has scored 10 watts.

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Instructions (cont.)

Special cards

The game includes five types of special cards. Some are positive (Bonus cards), while others are negative (Consequence cards). Each team receives one special card at the start of the game and then another when it has collected 4 and then 7 watts. No team can have more than two special cards in its possession at any time. Following every turn, the special cards played are picked up by the game master, who can redeal them when the deck is empty.

Bonus cards



Megawatt: The team earns 2 bonus watts if it answers the question correctly, for a total of 3 watts (1 watt for the right answer and 2 watts for the Bonus card).



Turbine: The team earns 1 bonus watt if it answers the question correctly, for a total of 2 watts (1 watt for the right answer and 1 watt for the Bonus card).

Consequence cards



Short circuit: The team stays at the same spot if it answers the question correctly, but loses 1 watt if it answers incorrectly.



Power outage: The team loses its next turn but can still play a special card.



Energy guzzler: The team loses all its watts and starts again at 0.

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Follow-up

Select the questionnaire corresponding to your cycle (the questionnaire is in a PDF document).
Simply ask the questions in order; the answers are provided.

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Ce document est également diffusé en français.

