

Energy Revealed Challenge

Educator Resource

#EnergyRevealed

Educators! We hope you enjoy this activity with your class! We are excited to receive your submissions for this challenge! Please make sure to visit greenlearning.ca to register or email programs@greenlearning.ca

Learning Outcomes

- Students will learn about earth hour and importance of raising awareness for energy conservation
- Students will think about the opportunities of energy savings in their schools by learning how to baseline energy consumption data in their school and measure their impact

Curriculum Connections

Please refer to Curriculum Connections sheet

Step 1: Introduce Concepts

Explain the basics about how fossil fuel emissions contribute to climate change by explaining the Greenhouse Effect.

For younger students (K-6), you can open with this video: www.youtube.com/watch?v=Sv7OHfpIRfU

For older students (7-12) that are likely more familiar with how the greenhouse effect works, you can open with this video: www.youtube.com/watch?v=EtW2rrLHs08

Step 2: Before Getting Started

Ask your students to check out this video to kick start their ideas on how they can save energy at school:

What is earth hour?

<https://www.youtube.com/watch?v=mDM1piwvGCQ>

How to Save Energy at School

www.youtube.com/watch?v=ycdke8MTSCI

What you can do about Climate Change

www.youtube.com/watch?v=QGWS6aljGLE

Step 3: Choose the Day for Your school's Earth Hour

- Choose the day and time you want to do the school Earth Hour. Make sure to include your students, the school Principal and school's facility operator.
- If your school has energy metering technology installed (such as CircuitMeter), ensure that you feel comfortable with the associated software and you know the areas of your school that are being monitored.
- Complete the pre-survey with your students.

Step 4: Learn about Energy Metering and Energy Conservation

If your school has installed energy metering technology, then organize an informational session with the Facility Operator to explain to students how to baseline energy usage data.

Ask students to brainstorm all the electronics used in their school that can be turned off during the school Earth Hour. Below are some resources for your use:

Educator Resource “Find the Phantom Load”:
<https://energyrevealed.ca/courses/find-the-phantom-load-teachers/>

Educator Resource “Personal Energy Use Background”:
https://energyrevealed.ca/wp-content/uploads/2019/11/Taking-Action_Personal-Energy-Use-Backgrounder.pdf

Step 5: Promote the Earth Hour Event

Work with your school to do promotional events, such as announcements, posters, social media engagement etc. leading up to the event to bring awareness. Get as many students to participate in the school Earth Hour event as possible!

Step 6: Complete the Earth Hour Event!

Do a morning announcement to get students excited about the event.

Make sure to unplug any unnecessary electrical devices beforehand. Participate in the school Earth Hour event and have lots of fun!

Step 7: Celebrate the Impact!

- Work with your Facilities Operator to calculate the savings from your school’s Earth Hour event and report back to us your energy savings!
- You can do this easily if you have the energy metering technology installed – all you have to do is take a look at the software and calculate your savings!
- Complete the post-challenge survey with your students.

- If you have watt meters in your school, you can explore plug loads by using Energy Revealed learning activities such as ‘Electronic Overload’ or ‘Start Me Up’.
- **Lastly, and most importantly, submit your results**

Step 8: Make an Energy Savings Plan and Take Action!

Keep the momentum going by implementing other energy saving action projects to extend the learning from the school Earth Hour event!

Now that you know have an understanding of your energy use and how your behaviours can save energy in your school, make an energy savings plan for you school and implement it! You can begin by setting a n annual energy savings goal for your school and work towards achieving it through various efforts you can learn about in the Energy Revealed program.

Make sure to work with your Facilities Operator and continue monitoring your energy savings!

Step 9: Share & Inspire

Ask students to share their photos, presentations, videos, etc. while completing the Earth Hour Challenge by tagging us @GreenLearning and #energyrevealed.

