RE-ENERGY CHALLENGE
2022 - 2023

The Re-Energy Challenge is a fun and engaging STEAM task where learners have the opportunity to build a working model of a solar oven, solar car, wind turbine, hydroelectric generator, biogas generator, electric vehicle, penny battery, flywheel model or another renewable energy model of their choice. By building their own models, learners can see firsthand how applied science is helping create a more sustainable future.

This package contains everything you need to complete and submit an entry for the 2023 Re-Energy Challenge:

Complete the following entry form and upload it to the submission page here by **Friday, May 5, 2023 at 11:59pm PST**. Best of luck to you and your learners! If you have any questions or concerns at any time, please contact us at programs@greenlearning.ca or check out our Frequently Asked Questions page.

Challenge Instructions

The following outlines the instructions for completing and submitting an entry for the 2023 Re-Energy Challenge:

1. Introduce yourself to the concepts outlined in the Educator Resource, which features quick videos and summaries of renewable energy technologies.

2. Choose the renewable energy technology that you want to build a working model of. Click on the model that you want to build below to access the construction plan:
    i. Electric Vehicle
    ii. Penny Battery
    iii. Flywheel Model
    iv. Solar Oven
    v. Solar Car
    vi. Wind Turbine
    vii. Hydroelectric Generator
    viii. Biogas Generator
    ix. Other: Design your own! The above construction plans are just the beginning of the possibilities for your Re-Energy model, and we encourage you to come up with your own designs for the challenge.

3. Share your renewable energy model on social media, with your family and in your school community. Don't forget to tag @GreenLearning on Twitter, Instagram and Facebook.

4. Complete **one** Challenge Entry Form for your class and one Media Release Form per individual in any photos or videos you send in showing an individual's face. Each class can submit up to 5 renewable energy plans and corresponding models for judging. For more information please see the FAQ page.

5. Submission checklist:
    - ☐ Re-Energy Challenge Package(can be submitted as a document, or entered as a form)

- ☐ Photos/Videos of Your Model
- ☐ Media Release Form(s)

Please submit all materials and forms here by **May 5, 2023 at 11:59pm PST**. Entries that meet the requirements outlined in the Re-Energy Challenge Rules and Regulations will be judged between May 8, 2023 and June 6, 2023. The first, second and third place submissions will be awarded cash prizes of $1,000, $500 and $250 respectively. Winners will be announced online on or around June 5th, 2023.

Selection Criteria

GreenLearning has recruited a panel of industry experts with experience and expertise on renewable energy technologies to judge and provide feedback on challenge submissions. This panel of judges will be evaluating submissions based on the following selection criteria:

Criteria	Level 4	Level 3	Level 2	Level 1
Model: Design and Creativity *Creativity and application.* **(10 points)**	A strong design that is highly logical and creative in harnessing renewable energy.	A design that is both logical and creative in harnessing renewable energy.	A design that is logical or creative in harnessing renewable energy.	A design that is somewhat logical or creative in harnessing renewable energy.
Model: Build and Function *Operation and Efficiencies* **(10 points)**	The model is well built and highly efficient at harnessing renewable energy	The model is efficient at harnessing renewable energy	The model is somewhat efficient at harnessing renewable energy	The model is limited in its ability to harnessing renewable energy
Media *Evidence of Learning* **(10 points)**	5+ photos, videos or student worksheets were submitted.	3-4 photos, videos or student worksheets were submitted.	1-2 photos, videos or student worksheets were submitted.	No photos, videos or student worksheets were submitted.
Entry Form: Reflection Question *Creativity,critical thinking and knowledge mobilization.* **(10 points)**	Recommendation applies strong knowledge of renewable energy technologies and is highly creative.	Recommendation applies knowledge of renewable energy technologies and is creative.	Recommendation applies some knowledge of renewable energy technologies and is somewhat creative.	Recommendation applies limited knowledge of renewable energy technologies.

Entry Form

Please tell us about yourself and your class. If more than one educator or group leader was involved please complete this form based on who will be the main contact. ***This section is not scored.***

Educator's name:

Educator's email address:

How would you, the educator, like to be referenced in the online showcase? (E.g. Ms. Frizzle)

School name:

School city:

School province:

Educator and school social media handles:

The number of learners participating:

Grade level(s):

Subject(s) or club name:

Reflection Questions

The following questions can be answered by an educator or learner, with the exception of question 3, which **must** be completed by a learner. ***This section is scored.*** *Please see the Selection Criteria for details.*

1. What is the most creative or innovative component of your model's design or build? E.g. a design feature to allow for more heat, make it faster, etc.

2. How did you share your learning with your community and how many people did you reach as a result? Please provide a breakdown of your reach. E.g. Social media, school newsletters or community consultations.

3. Challenge Reflection Exit Question (**to be completed by the class or a specific learner**):

   If you were to design and construct your model again, what changes or improvements would you make? Explain how or why those changes would improve the efficiency of your model.

Educator Feedback

GreenLearning is consistently looking for ways to improve our challenges and collect participant feedback. Please take a few moments to tell us about your experience by answering the questions below. **This section is not scored.**

1. Why did you decide to participate in the Re-Energy Challenge?

2. How did participating in the Re-Energy Challenge benefit your learners' understanding of renewable energy and sustainable practices?

3. How effective was this challenge in building youth understanding of renewable energy technologies? *Please highlight your selection.*

   Not effective 1 2 3 4 5 Very effective

4. How effective was this challenge in building youth skills as 21st Century learners? *Please highlight your selection.*

   Not effective 1 2 3 4 5 Very effective

5. How effective was this challenge and GreenLearning's resources and lessons in improving your capacity to deliver learning about renewable energy, the energy transition and climate action? *Please highlight your selection.*

   Not effective 1 2 3 4 5 Very effective

6. How effective was this challenge and GreenLearning's resources and lessons in meeting your curriculum goals? *Please highlight your selection.*

   Not effective 1 2 3 4 5 Very effective

GreenLearning Media Release Form

I am aware that my name or my picture or my voice may appear in a print advertisement or other promotional material or be shown on the internet on which my picture can be seen or my voice heard on a recording and I hereby grant permission to GreenLearning Canada Foundation to use my picture, voice, or name for these purposes.

I hereby authorize GreenLearning Canada Foundation to use and publish my name, statements and likeness without charge, for promotional purposes in publications, advertising, video, web, new media, and other formats.

I hereby release GreenLearning Canada Foundation, and its officers, employees, shareholders, and directors from any and all liability whatsoever, for now, and forever.

Full Name: _____

Signature: _____

Email: _____

Phone: _____

If under 18, parent name and signature is also required:

Name: _____

Signature: _____

Date: _____