

# CRRC STEAM Education Sponsors and Volunteers Info Packet

CRRC Cool Surfaces Lesson Plan



# Introduction

- The CRRC is launching a free, publicly accessible lesson plan for middle/junior high school (6th-9th grade) students in Summer 2024
- The lesson plan includes:
  - Three animated educational videos
  - Instructions for completing a hands-on experiment about the impact of different surface materials on indoor air temperature
  - Supplemental written resources and activities
  - Optional competition in which students submit projects related to the lesson plan to the CRRC to be featured on [coolroofs.org](https://coolroofs.org)

# Hands-on experiment requires certain equipment and materials

Minimum required equipment:

- 2 cardboard boxes
- 2 alcohol thermometers (or equivalent)
- White and black paint or construction paper
- Clear packing tape
- Paint brush (if using paint)
- 2 heat lamps and bulbs (250 watts)
- Box cutter

*Additional materials such as infrared thermometers, roofing and exterior wall materials, insulation, etc. could be used to increase the scope and scale of the experiment.*



# Experiment Overview (full instructions [here](#))

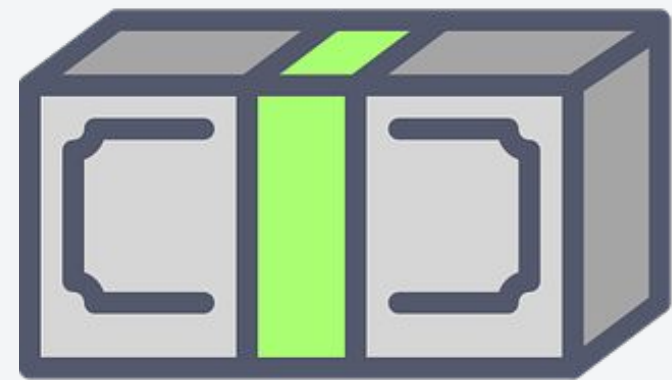
- Prepare boxes with black and white exteriors and affix thermometers inside them (cover opening with packing tape)
- Place boxes under heat lamps for at least 30 minutes
- Record any interior temperature differences
- If infrared thermometer available, measure “roof” surface temperatures and record differences



# Opportunities for assistance

- Some teachers/classrooms may benefit from financial assistance to purchase the necessary materials
- Teachers may also wish to expand the experiment to include real roofing and exterior wall materials, add insulation, measure surface temperatures, etc.
- Interested CRRC Members, Licensees, and other stakeholders can provide financial support or in-kind donations to classrooms seeking support

# Financial Donations





# Financial Donation Procedure

- As a 501(c)(3) nonprofit organization, the CRRC is accepting tax-deductible financial donations to support schools that request financial assistance to complete the lesson plan
- To make a financial donation, complete the STEAM Education Donation form here: <https://forms.gle/K7fMzUyyg7DXJ5uSA>
- Donations can also be made using charitable trusts (*Cool Roof Rating Council Inc; Portland, OR; EIN 68-0414810*)
- Your donation will go into a dedicated fund to support schools using the Cool Surfaces Lesson Plan
- All donors will be recognized on the Cool Surfaces Lesson Plan webpage on [coolroofs.org](http://coolroofs.org).



# In-Kind Donations





# In-kind Donation Procedure

- The CRRC maintains a list of parties interested in making in-kind donations of materials or equipment to participating schools.
- When a school requests in-kind assistance, the CRRC will match them with an in-kind sponsor.
- To be added to the list of in-kind sponsors, complete the STEAM Education In-kind Sponsorship form here: <https://forms.gle/6PgHrrzuKHASsKxW6>
  - Indicate what types of material/equipment you are able to donate
- You will be added to the CRRC's internal list of in-kind sponsors and recognized on the Cool Surfaces Lesson Plan webpage on [coolroofs.org](http://coolroofs.org)



# In-kind Donation Procedure Continued

- When a school requests in-kind donations, all in-kind sponsors that are able to provide the type of materials/equipment requested will be notified of the opportunity with a deadline to respond.
- Any sponsors who would like to make the requested donation must respond with their interest before the deadline
- After the deadline, the CRRC will select one interested sponsor and facilitate the donation

# In-kind Sponsor Expectations

- Each sponsor is ***not*** expected to respond to every request
- However, minimum levels of participation (or intent to participate) are required in order to remain on the public-facing sponsor list
  - Donate to at least one school a year (unless there is not sufficient demand from schools)
- When selecting a sponsor for a given school, CRRC staff will take into account the frequency with which each sponsor has donated, in an attempt to distribute all donation opportunities fairly
- If the end of a year is approaching and a sponsor has not donated to any schools, CRRC staff will work with them to provide an opportunity or determine next steps

# Volunteer Opportunities





# CRRC stakeholders also have the opportunity to volunteer with participating schools

- Teachers may be interested in hosting in-person or virtual guests to speak in more detail about the urban heat island effect, the science behind cool surfaces, how they are made, etc.
- CRRC stakeholders can volunteer to present at local schools or present virtually across the country
- CRRC stakeholders can also volunteer to conduct technical review of projects submitted to CRRC as part of the Student Competition

# Volunteer Procedure

- Complete the STEAM Education Volunteer registration form here: <https://forms.gle/jrNfPYEKMWpwnuQa6>
  - Select whether you are interested in volunteering in-person, virtually, and/or providing technical review of student projects
- You will be added to the CRRC's internal list of volunteers and your name will be added to the list of volunteers on the Cool Surfaces Lesson Plan webpage on coolroofs.org

# Volunteer Procedure

- When a school requests volunteer assistance from the CRRC:
  - Requests for virtual volunteers will be sent to all virtual volunteers
  - Requests for in-person volunteers will be sent to volunteers local to the school
  - Requests for technical review will be sent to technical review volunteers with relevant expertise
- Any volunteer who would like to participate must respond with their interest before the deadline
- After the deadline, the CRRC will select one or multiple (if applicable) interested volunteers and help facilitate the details

# Volunteer Expectations

- There are no minimum participation requirements for volunteers, but the CRRC reserves the right to develop them in the future, if warranted
- Volunteers who wish to visit schools in-person or virtually will be required to comply with any clearance, conduct, and other requirements required by the school. Schools will be required to disclose any such requirements when requesting volunteer assistance. It is the responsibility of the school and the volunteer to make the needed arrangements once they have been matched by the CRRC.



# Contact and Resources

- The full lesson plan can be accessed at <https://coolroofs.org/resources/cool-surfaces-lesson-plan/>
- Please contact [education@coolroofs.org](mailto:education@coolroofs.org) with any questions