

Week 7: Solar Oven



Your Objective:

Harness the power of the sun and make a solar powered oven that can toast a marshmallow. ***WARNING*** Be sure to use an oven mitt or glove so you don't burn your hands when touching the oven.

You CAN:

- Use the heat transfer method of your choice: convection. conduction, thermal radiation or all of the above.
- Add insulation and/or reflection to improve your oven's efficiency.
- Use common household materials to build your oven. Examples include: aluminum foil, cardboard, tape & plastic wrap.

You CAN'T:

Use glass or a magnifying glass in your oven.

Once you can melt a marshmallow, see if you can make changes to your oven to speed up the cooking process. Then put it between two graham crackers with a piece of chocolate and make s'mores!

How to avoid angry parents:

DO:

- Put something under the marshmallow so it doesn't make a mess when it melts.
- Wash your hands before you touch everything in the house.
- Make your parents some s'mores to enjoy!

DON'T:

- Toast an ant or any other living creature.
- Leave your oven in the sun all day. It could get really hot!
- Shine a death ray into someone's eyes.



Take a video of your solar oven.

Create a video of your solution. Try to keep your video under 1-minute long and include the following:

- The name of your solution.
- How does it work?
- What kind of materials did you use?
- Did you have any problems figuring out the solution?
- What was the biggest lesson you learned?

Remember, your video will be visible to anyone with an internet connection, so it's important to protect your privacy and stay safe. Click here to see our video submission and safety tips.



Ask a parent to enter your video into our contest by 11:59pm EST on July 28, 2019.

To enter our contest, you must upload your video to **YouTube** or **Vimeo**. Then use our **online entry form** to send us the link. All entries must be completed by a parent or legal guardian.

*All submitted videos will be reviewed prior to publishing online to ensure that the rules of the contest were followed and that the content is appropriate for all ages.

Voting

Voting will open at 12:01am EST on July 29 and close at 11:59pm EST on July 30. See our **voting rules** for more information.

3 Winners to be announced July 31, 2019!

- 1 Popular Choice Winner: Receives an Invent the Summer t-shirt.
- **1 Editor's Pick:** Selected by the *Invent the Summer* team. Challenge solutions will be judged on originality, execution and presentation. The winner will receive an *Invent the Summer* t-shirt.
- **1 Random Choice Winner:** One person from our mailing list will be selected at random to receive an *Invent the Summer* drawstring bag.