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Solar Oven Guide

Summary:

Student groups or individual students (student preference) are given a set of materials: cardboard, aluminum foil and plastic wrap, tape, and challenged to build solar ovens. The ovens must collect and store as much of the sun's energy as possible. Students experiment with different ideas.

Connecting with Engineering:

Designing, constructing and testing solar ovens is an excellent way to get students excited about the engineering design process. The engineering design process does not happen in a day but takes time. Students will build one oven today and then throughout the next few weeks of camp they will get to build another or modify this one so please don't send it home.

To Conclude:

Students discuss and analyze the benefits of how this design can be used. Solar ovens are in use worldwide, providing fuel-free and smoke-free cooking, baking and water decontamination helpful in remote & poor regions.

Tips:

- Compliment students on their design ideas and feature good ideas for the rest of the class. This helps students start to think of other ideas.
- Remind students that it is a good thing when one of your peer's copies your design idea.
- Encourage students to think out of the box. Let them know it is okay if they want to make a solar oven that is different than the one in the movie. Remind them they will also get a chance to try this activity again next week with ideas.
- Discuss different designs in the class and how effective each of them were.