ENERGY BOX

JCC Workshop #4

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A Bad House

This house is poorly insulated! All the hot summer air is entering the house and all of the cool air in the house is leaving.

Now the owners of the house have to spend way too much money on air conditioning!

And that's TERRIBLE!



What is insulation?

Insulation helps keep temperatures the same in a house.

This means that the air in the house will stay cool in the summer and warm in the winter!

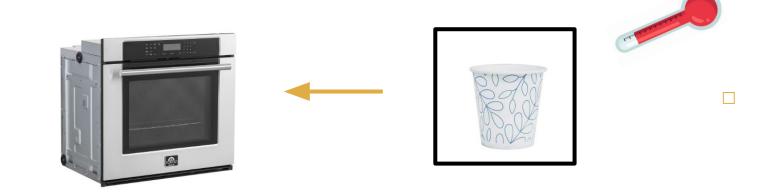
It also means that the homeowners don't have to spend as much on air conditioning!

And that's TERRIFIC!



Your Task:

Using the provided materials, you will build a 4" x 4" x 4" box designed to insulate a cup of water.



The box will be placed in a small oven. Your goal is to minimize the increase in the water's temperature.

Construction Parameters

• Maximum size: **4" x 4" x 4"**

- Your box must be able to hold a small 3 oz cup (2 ¼" tall and 2 ¼" wide)
- The cup needs to be <u>easily accessible</u> after testing is over
 - You can close it with tape, but make sure it can be opened easily
 - If we need to go through a million layers of tape, your build will be disqualified



Materials

- Cardboard
- Cardstock
- Foam
- Tape
- Scissors

Brainstorm!

What can you do with the materials to create more insulation?

The type of material matters, but so does how you use them!

BUILDING TIME!!



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