



Fallen Timbers Backyard Activities

Exploring Solar Energy!

Let's experiment and explore the power of the sun's energy in some different activities at home.

Measuring Solar Energy

Set up an experiment where you can measure how solar energy heats up different surfaces or materials differently.. It will work best if you do this on a sunny day. Put the socks and bowl of water in the sun, maybe out on your driveway. Take a starting temperature and record it in your chart. Let everything warm up in the sun for 30 min or an hour, then take an ending temperature and record it. Using subtraction, calculate the change in temperature to see which materials heated up the most. What are your predictions? Circle which material you think will heat up most before you begin. Black vs White sock? Water vs Air? Driveway vs Grass?

Materials:

Thermometer

Black sock & white sock

Bowl of water

	Black Sock	White Sock	Water	Air	Driveway	Grass
Starting Temp						
Ending Temp						
Change in Temp						

Solar Art - Check out [Sun Art Paper](#)

We use this special sun sensitive paper to make art at Fallen Timbers. We collect (flat) nature items like flowers or maple helicopters or leaves and arrange them on the solar paper and expose the paper to the sun. A chemical reaction happens in the paper from the sun and it leaves a print where your nature items were. Follow directions on the sun art paper for best results.



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Solar Cooking

Check out this video to learn how solar cooking works ([video](#))

Learn more about how people use solar cooking and the benefits worldwide: ([video](#))

[Solar Cooking recipes:](#)

[Solar Energy S'mores](#)

Use the directions on this blog to make a simple solar oven. You can make adjustments based on the materials you have at home and use the plan as a guide. The basic solar oven needs to have a dark surface inside to heat up, clear plastic for the light to pass through into the oven that traps the heat, and a reflector (aluminum foil) to direct the sun's energy into the box. You can check on YouTube or google for more designs as well!

Materials:

Pizza box or other box

Black paper

Glue or tape

Scissors

Plastic wrap

Aluminum foil

Markers to decorate

Stick to prop reflector up)

S'mores ingredients

