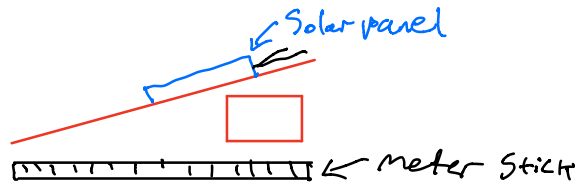


Hypothesis: I predict that the less blocks used will produce the most energy form the light.

Question: How does the angle of a solar panel affect its performance?

Procedure:

1) set up a test divider with a block under it to raise it toward the nearest light source:



2) Measure the voltage output of the solar panel by touching voltmeter probes to the wires.

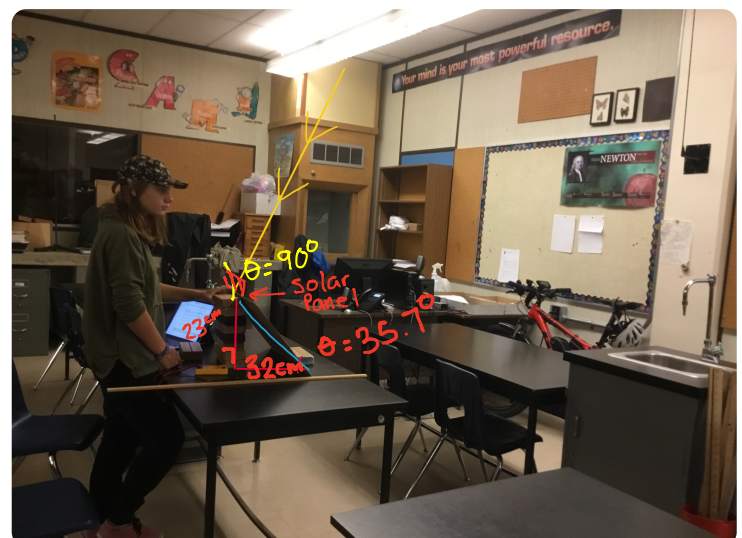
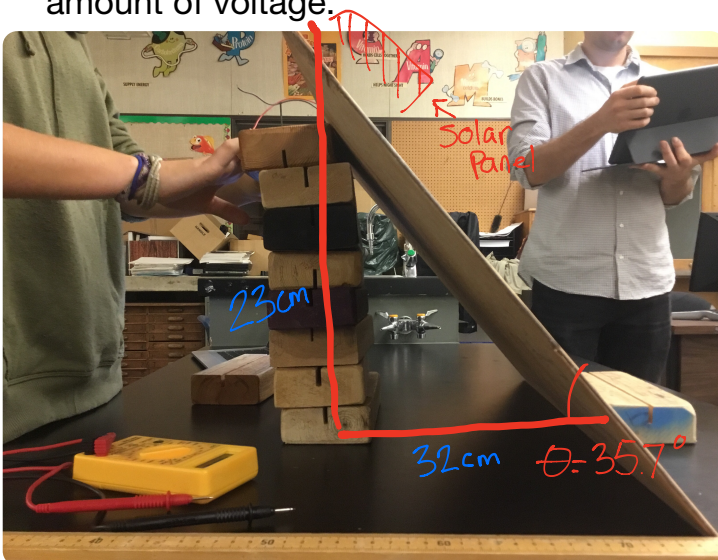
3) Measure the base and height of the divider board and use a trig ratio to calculate the angle, record your data for this angle.

4) Repeat the measurements for 4 different angles created by putting more blocks under the board

BLOCKS	Length	Height	Trig ratio	Angle	Voltmeter Reading (Volts)
0	40cm	0cm	tan	0°	.78
1	40cm	5cm	tan	7.12°	.83
2	39cm	10	tan	14.38°	.86
3	36	14	tan	21.25°	.89
8	23	32	tan	35.7°	.97

Write a conclusion about which angle caused the solar panel to produce the most voltage and why. Take a picture of the setup from side view, label the measurements and angle on the picture, and indicate the approximate angle of the solar panel relative to the rays of light from the nearest light source.

In conclusion we found that when we used the most blocks and had an angle closest to 90 degrees, we got the most voltage from the lights rays. The least amount of voltage was from zero blocks and an angle of 0 degrees and we got a voltage of .78volts. The comparison between the greatest and least angle is .19 volts. We also found out, if the angle from the solar panel to the light source is 90 degrees, you will get the most affective amount of voltage.



(Our angle that was the most effective)