

SOLAR SCIENCE STATION LAB

High School Student Page

1. RESEARCH QUESTION.

Which variable (angle, direction, hour or season) most impacts the voltage produced by the science station?

2. BACKGROUND KNOWLEDGE.

How does a solar panel work?

Draw a sketch of a solar panel's main parts.

3. HYPOTHESIS.

If (Independent Variable), then (Dependent Variable), because (Rationale).

e.g. If data is collected at different times of day, then the voltage will increase during the afternoon, because the sun's rays will strike at a more direct angle.

4. MATERIALS.

- Science stations
- Sunny location
- A protractor
- pen / pencil
- Timer/Stopwatch

6b. Graph your data below or on a separate piece of graph paper, including:

- Key
- Color
- Label your axes
- Include a title

7. CONCLUSION/DISCUSSION.

Write a paragraph to summarize your results. Include at least a sentence answer for each of the following:

- a. What is the question for this lab?
- b. What was the hypothesis?
- c. Was the hypothesis supported? Why or why not?
- d. What is your interpretation of the data? What did you see happening?
- e. What are some possible errors made and improvements that could be made to this lab?
- f. Further directions: What is something slightly different that could be tested next time?