

PowerWheel Lesson Plan



Topic/Title: Parts of the Power Wheel/How does it work?

Suggested Grade Level: Grades 5-12

Time Needed: 30 minutes

Equipment Needed: PowerWheel

STEM:

Pre-Lesson Set-up: Review the parts of the PowerWheel (check the online manual)...Review the set of questions provided below.

Teacher Instructions:

1. Hold up a PowerWheel...Ask the students to list everything they see on a piece of paper...ask them to be specific. (Teaches Observation Skills)
2. Using the list of questions below, have the students go through an inquiry lesson to determine the purpose of the PowerWheel as well as its abilities and limitations.

Student Questions:

1. What are the different parts/things that you see when you look at the PowerWheel?
2. Have you seen these parts before?
3. Where have you seen any of these parts before?
4. How have you seen these parts used before?
5. What do you think each of these parts does?
6. Based upon your observations what do you think the PowerWheel does?

Note for teachers: After you field answers to question #6, it would be a great time for the students to see the PowerWheel in action...utilizing the PowerWheel to power up the LED light string, and any other attachment.

7. In general terms, explain how the PowerWheel works.

Note to teachers: Have the students go step by step...the first step is turning on the water...then what happens...then what happens etc.? You may have to demonstrate the PowerWheel a few times.

8. What can the PowerWheel do?
9. Do you think the PowerWheel could provide enough electricity to:
 - a. Charge your cell phone?
 - b. Power up a lap top?
 - c. Start your car?
 - d. Turn on the lights in your house?
10. What are some things that you think the PowerWheel can't do?
11. Why can't the PowerWheel do those things?