

# Build Your Own Hydro-Electric Generator Data Sheet

Name\_\_\_\_\_

Date\_\_\_\_\_Per\_\_\_\_

## Micro-Hydro Basics:

1. Where does the mechanical energy come from to make electricity? \_\_\_\_\_

2. In your own words, explain how a “micro-hydro” system works.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Making Electricity:

3. What do we call the flow of electrons through a conductor? \_\_\_\_\_

4. How can you make electrons move in a wire (without attaching a battery)?

\_\_\_\_\_  
\_\_\_\_\_

5. Why is a generator technically called an alternator? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

6. How are alternating current (AC), and direct current (DC) different? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

7. Give examples of things use each type of current.

AC: \_\_\_\_\_

DC: \_\_\_\_\_

## Safety Precautions:

8. Identify 2 safety considerations for this lab activity. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Prepare the Disks:

9. Explain what the rotor and stator are. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

You are now ready to start making your hydro-electric generator. Work with your team to make it! Use the Task Distribution Chart.

10. Take a video of your functioning hydro-electric generator. Explain how it works. Post it to your FreshGrade portfolio.