



Wind Power

Introduction

Create a power-generating wind-farm out of pop bottles in the classroom. In this activity, students each will engineer a windmill out of everyday materials and configure them together as a class to make electricity. They can measure the amount of electricity generated and use it to light LEDs and even charge an iPod.

Students will learn about factors that influence the amount of power a windmill generates. They will try to optimize the efficiency of their own pop bottle windmill. Students can also explore series and parallel circuits by assembling the windfarm in different configurations and measuring the different resulting voltages. This is a hands-on practical demonstration of the relationship between mechanical and electrical energy.

This activity also includes instructions to construct a ten-foot windmill. Students can compare the advantages and disadvantages of the two sizes of windmills.