

Energy and the Power Grid

Virtual Workshop Agenda

This workshop explores the foundations of energy, including basic electric concepts, electricity generation, storage, as well as an introduction to the power grid. All times are in CT.

9:00 AM Welcome

Let's get to know each other and see what we know, or think we know, about energy and the power grid. We will also go over the agenda and expectations for the day.

9:30 AM Measuring Electricity & Exploring DC Circuits

Starting with your home as a foundation, we will explore a variety of sources and forms of energy as well as energy transformations. By the end of this session you will be able to read and understand your power bill, how electricity powers your life and the impact that power generation has on our planet.

Materials: Kilowatt Meter

11:00 AM Understanding the Power Grid

This Informative presentation introduces the history of the power grid and the role of different forms of power in producing energy, as well as the consequences for the future of energy generation in the U.S.

Materials: Mini Generator Kit.

12:00 PM Virtual Tour Lunch/Snack Break

Grab lunch or a snack and go on a virtual tour of the power grid!

12:30 PM Virtual Tools for Your Classroom to Explore Energy

Learn about some of our favorite virtual tools for exploring energy circuits, generation, and storage.

1:00 PM Solar Structure & Device Design

Using basic components, you will construct a simple tabletop mini power grid. This model will demonstrate the major parts of the power grid and explore how it works as a system. Construct simple AC/DC generators, distribute this energy through simple power lines, using switches and transformers, and construct, connect and power simple houses within your system.

Materials: Power Grid Starter Kit

2:30 PM Power Grid Kit

Explore KidWind's latest product, the Power Grid Kit and learn how you can borrow and utilize this kit with your students.



In addition to the materials provided in the KidWind box you received, you will also need:

- Wire strippers
- Duct tape & glue
- Scissors & box cutter
- Basic crafting supplies (markers, construction paper, etc.) to design your houses

