

Knowing Energy: The Electricity Grid



Energy Revealed

Activity

Level 1-2: Grades 3-8

Level 3-4: Grades 9-12

Main Objectives

This activity and the associated video will allow learners to understand the flow of electricity in the grid while learning about energy efficiency.

Learning Outcomes

By the end of this activity, learners will:

- Learn about an electricity grid and the parts associated with it
- Understand why efficiency matters in reducing the power and losses in the grid

Length of Activity

1 – 2 hours

Materials List

General Overview Guide

The Electricity Grid Learner Worksheet

The Electricity Grid Worksheet Answer Key

Step 1

Review the General Overview Guide to understand how the Knowing Energy Video Series works with its associated activities.

Step 2

Before learners get started on this activity, be sure to introduce them to the Knowing Energy video in the series called:

- a. Energy Production and Efficiency (8:14 minutes)

Learners are encouraged to take notes during the video to help complete the worksheet later.

Step 3

- a. Allow learners to view or re-watch the Energy Intensity and Electricity Grid (11:47 minutes), with a focus on the Electricity Grid section and hand out the Electricity Grid Learner Worksheet. Depending on the learner's grade level, direct them to complete either or all of levels 1-4.
- b. The video itself will direct learners on what to do, so allowing them to re-watch, or to go over their task as a class is vital for their understanding. The activity itself can be done individually.
- c. Be sure to remind learners of the concepts that were introduced to them in the videos. These concepts can be further discussed as a class before learners tackle this worksheet.

Step 4

Be sure to go over as a class the answers to the worksheet and refer to the Electricity Grid Learner Worksheet Answer Key for any confusion.