Energy Amazing Race

Purpose:
- Students perform an energy audit in different parts of the school
- Calculating the energy approximate consumption in kWh in the rooms they are visiting
- Students highlight the opportunities for their school to be more energy efficient.
- Learn about [Efficiency NS programs](.).

Time: 1 hour

What you'll need:
- ❏ Paper
- ❏ Pens/Pencils
- ❏ Calculator
- ❏ Energy Meters

Activity:
1. Students create a list of spaces in the school they want to investigate (i.e. gymnasium, cafeteria, staff room, office, classroom)
2. Break into groups and explain that they are entering into an Amazing Race
3. In your groups, you will tour the list of spaces in the school
4. Calculate the approximate energy consumption in kWh in the rooms you are visiting
   a. Focus on lights, electronics plugged in, any old devices
   b. If possible, you can use the energy meters provided to you to plug some of the electronics, for a more accurate estimate.
   c. If an energy meter is not available, the student can learn how to read the watts that each electronic uses, and use this number instead.
5. Return to the classroom and begin to calculate how much it costs based on your calculations to run those rooms each day
6. Consider what energy-efficient upgrades would improve your school's energy bill
7. Do any of these apply to your home? Learn about ENS programs

Curriculum Links:

Social Studies 9
- Demonstrate an understanding of the interdependent relationship among individuals, societies, and the environment—locally, nationally, and globally—and the implications for a sustainable future

Science 9
- Characteristics of Electricity
- Relate electrical energy to domestic power consumption costs
- Determine quantitatively the efficiency of an electrical appliance that converts electrical energy to heat energy

Mathematics 11
- Students will demonstrate an understanding of and apply concepts and skills associated with measurement.
- Students will solve problems involving the collection, display, and analysis of data

Mathematics 12
- Develop an appreciation of the role of mathematics in society

Other Resources:
Light Bulb Comparison
Price Comparison Activity