Name_____ Period _____ Date _____

Electric Power

STEM Sims

Lesson 1: Making Electricity

In today's modern world, electrical energy is required to make most people's lives better. Electric power companies use a number of fuels to convert liquid water to steam in order to spin a turbine to generate electricity. Your challenge is to determine which fuel is best for generating electricity. Get ready to burn through this lesson.

Doing the Science

1. Start the Electric Power Simulation by clicking on the "Sim" tab.
2. Click on one of the fuel sources at the bottom of the screen (see Table 1).
3. Click the blue "Run" button located at the right-hand bottom of the screen.
4. The simulation will count down 24 hours. When the clock reaches 0:00, note and record the average amount of power supplied (in kW) in Table 1 for that particular fuel type.
5. Click the blue "Reset" button located at the right-hand bottom of the screen.
6. Repeat steps 2-5 above, until you test all fuel types. Make sure to record your data in Table 1.

Table 1. Fuel Types and Average Power

Fuel Type	Average Power Supplied (kilowatts)
Coal	
Petroleum	
Natural Gas	
Nuclear	
Propane	
Biomass	

Do You Understand?

1. Which fuel type supplied the largest average power? Which fuel type supplied the smallest average power?

2. List and discuss two factors, other than the average power supplied that might influence the decision about which type of fuel an electrical power company should use to provide energy.