Interactive Trail *Draft 4*

The trail begins at the Ela Sanctuary Information Station

Answer all questions in your notebook.

Exercise 11

Station 7

Moving Electrons

Electricity is a very important form of energy that is essential to those of us who live with modern **technology**. At this station you will discuss the advantages and disadvantages of electricity as a source of power.

1. Record the number of power lines you see at this location.
2. At what location is the electricity in these power lines generated?
3. Name at least four different kinds of power used to generate electricity. *(4-5.01, 4-5.02, 5-5.02, 5-5.03)*
4. Name 20 things that use electricity. *(4-7.04, 5-7.05)*
5. Name four different kinds of energy that can be produced from electricity. *(4-2.21)*
6. Name three raw materials that are used to conduct electricity to your home.
7. Describe 20 things that would *not* function well if your family did not have electricity for ten days. *(4-5.01, 4-5.02, 5-5.02, 5-5.03)*
8. As a group, name 20 special kinds of jobs that other people must do to get electricity to your home and include five of these jobs in your record. *(5-5.04)*

	Advantages	Disadvantages
Coal		
Water (dams)		
Nuclear Energy		
Wind		
Solar (photovoltaic cells)		

9. List at least five ways in which the use of electricity may cause harm to the environment. *(5-1.08)*
10. What are the advantages and disadvantages of using each of the following to produce electricity? *(5-1.08)*
11. With somewhere around 6 billion people in the world we must use technology to survive. But we must use technology correctly. List 10 things you could personally do to decrease the amount of electricity you use. Don't forget the indirect ways you use electricity such as riding in you family automobile. As an example, it takes electricity to pump the gas, operate the signal lights, to recharge the battery to start the car, to build the car, to produce the materials to build the road just to name a few.
12. Name two advantages and two disadvantages of putting power lines underground.