Name: Date: Class:

Alternative Energy Pros and Cons Worksheet – Nuclear Answer Key

Type of alternative energy:

Nuclear

Individual work:

Define alternative energy source:

Nuclear energy is made by splitting uranium or plutonium atoms . The energy released heats water into steam. The steam turns a turbine to create electricity.

What are the pros and cons of the energy source you focused on?

Pros	Cons
Low-cost	Environmental impact - Uranium has to be mined and during this process arsenic and radon are released. (In addition, communities that live near uranium mines might experience a negative impact on their health.) Thermal pollution can be caused if the water the plant uses is released (which is 100 degrees Fahrenheit) back into the body of water it came from.
Reliable - the sun does not have to be shining and the wind does not have to be lowing. Power can be generated all day and all night.	Water intensive - nuclear power plants use a lot of water, more than what is used for processing coal.
Zero carbon emissions	Risk of nuclear accident.
High energy density - the amount of energy released from splitting atoms is ten-millions times greater than the amount of energy released when burning fossil fuels.	Radioactive waste. Greenhouse gasses are not emitted, but the waste created by nuclear power plants is radioactive for thousands of years. Where will this waste be stored?
	Non-renewable because there is a finite amount of uranium.

Highlight 2 pros and 2 cons that you think are most important to share with the rest of your group. When everyone has learned about the alternative energy source they are focusing on, share what you have identified as most important with your group. Take notes in the table below so that you can share this information with your poster group.

Answers will vary depending on student presentations

Name: **Date:** **Class:**

Group sharing:

Type of energy	Pros	Cons
Solar		
Wind		
Geothermal		
Hydropower		
Nuclear		
Biomass		

Based on what you heard from these presentations, which type of energy do you recommend be used in getting electricity to your building?

Answers will vary.

What is the evidence and reasoning behind this recommendation?

Answers will vary.