Curriculum Unit Title	Human Energy Choices and Their Impact on the Planet	Author	Kelly Vaughan

KEY LEARNING, ENDURING UNDERSTANDING, ETC.

This unit will explain how negative human impacts and burning fossil fuels create more carbon dioxide in our atmosphere and cause our planet to warm overtime. Students will discuss the causes and consequences of climate change, look at specific ecosystem impacts of climate change on the Antarctica Peninsula, review the differences between non-renewable and renewable energy, and research and discuss what humans should do to reevaluate our energy resources in order to support the world's future energy needs.

ESSENTIAL QUESTION(S) for the UNIT

What is the difference between climate, climate change, and global warming?
What is mountaintop removal and its impacts?
What are the consequences of climate change?
What evidence exists to explain the inter-ecosystem effects of climate change on the Antarctica Peninsula?
What is the difference between non-renewable and renewable energy?
What renewable energy sources are available to support the world's future energy needs?

CONCEPT A	CONCEPT B	CONCEPT C
Climate Change	Consequences of Climate Change	Non-renewable vs. Renewable Energy
ESSENTIAL QUESTIONS A	**ESSENTIAL QUESTIONS B**	**ESSENTIAL QUESTIONS C**
What is the difference between climate, climate change, and global warming? What is mountaintop removal and its impacts?	What are the consequences of climate change? What evidence exists to explain the inter-ecosystem effects of climate change on the Antarctica Peninsula?	What is the difference between non-renewable and renewable energy? What renewable energy sources are available to support the world's future energy needs?
VOCABULARY A	**VOCABULARY B**	**VOCABULARY C**
Climate, Climate Change, Global warming, Greenhouse gas, Carbon footprint, Mountaintop removal, Overburden, Animal by-products, Industrial farming	Climate change, sea level rise, sea ice extent, Global warming, Evaporation, Precipitation, Biotic factors, Abiotic factors, Krill	Non-renewable energy, renewable energy, solar energy, wind energy, biomass energy, tidal energy, hydroelectric energy, Geothermal energy

ADDITIONAL INFORMATION/MATERIAL/TEXT/FILM/RESOURCES

Throughout this unit, students will need to access computers to complete research and build presentations for the renewable energy project. I also supplied each group with large post-it sized paper for the consequences of climate change activity. Students will view "The Last Mountain" documentary at the beginning of the unit which is available for free using YouTube.