Clark-Pohlod
Earth Science

Name _____
Date _____ Class Period _____

Unit 8: Climate Change Learning Targets Guide

Self Evaluation			Learning Targets	Date
I've got it! ☐	I've sort of got it. ☐	I don't get it. ☐	**E2.1A:** I can explain why the Earth is essentially a closed system in terms of matter	
Example or Explain:				
I've got it! ☐	I've sort of got it. ☐	I don't get it. ☐	**E2.1B:** I can analyze the interactions between the major systems (geosphere, atmosphere, hydrosphere, biosphere) that make up the Earth.	
Example or Explain:				
I've got it! ☐	I've sort of got it. ☐	I don't get it. ☐	**E2.1C**: I can explain, using specific examples, how a change in one system affects other Earth systems.	
Example or Explain:				
I've got it! ☐	I've sort of got it. ☐	I don't get it. ☐	**E2.2e:** I can explain how energy changes form through Earth systems.	
Example or Explain:				

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I've got it! ☐	I've sort of got it. ☐	I don't get it. ☐	**E2.2f:** I can explain how elements exist in different compounds and states as they move from one reservoir to another.	
Example or Explain:				
I've got it! ☐	I've sort of got it. ☐	I don't get it. ☐	**E2.3A:** I can explain how carbon exists in different forms such as limestone (rock), carbon dioxide (gas), carbonic acid (water), and animals (life) within Earth systems and how those forms can be beneficial and harmful to humans.	
Example or Explain:				
I've got it! ☐	I've sort of got it. ☐	I don't get it. ☐	**E2.3d:** I can explain how carbon moves through the Earth system (including the geosphere) and how it may benefit (e.g., improve soils for agriculture) or harm (e.g., act as a pollutant) society.	
Example or Explain:				
I've got it! ☐	I've sort of got it. ☐	I don't get it. ☐	**E5.4A:** I can explain the natural mechanism of the greenhouse effect including comparisons of the major greenhouse gases (water vapor, carbon dioxide, methane, nitrous oxide, and ozone).	
Example or Explain:				

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I've got it! ☐	I've sort of got it. ☐	I don't get it. ☐	**E5.4B:** I can describe natural mechanisms that could result in significant changes in climate (e.g., major volcanic eruptions, changes in sunlight received by the Earth, and meteorite impacts).	
Example or Explain:				
I've got it! ☐	I've sort of got it. ☐	I don't get it. ☐	**E5.4C:** I can analyze the empirical relationship between the emissions of carbon dioxide, atmospheric carbon dioxide levels, and the average global temperature over the past 150 years.	
Example or Explain:				
I've got it! ☐	I've sort of got it. ☐	I don't get it. ☐	**E5.4D:** I can, based on evidence of observable changes in recent history and climate change models, explain the consequences of warmer oceans (including results of increased evaporation, shoreline and estuarine impacts, oceanic algae growth, and coral bleaching) and changing climatic zones (including the adaptive capacity of the biosphere)	
Example or Explain:				
I've got it! ☐	I've sort of got it. ☐	I don't get it. ☐	**E5.4e:** I can, based on evidence from historical climate research (e.g., fossils, varies, ice core data) and climate change models, explain how the current melting of polar ice caps can impact the climate system	
Example or Explain:				

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I've got it! ☐	I've sort of got it. ☐	I don't get it. ☐	**E5.4f:** I can describe geologic evidence that implies climates were significantly colder at times in the geologic record (e.g., geomorphology, striations, and fossils)	
Example or Explain:				
I've got it! ☐	I've sort of got it. ☐	I don't get it. ☐	**E5.4g:** I can compare and contrast the heat trapping mechanisms of the major greenhouse gases resulting from emissions (carbon dioxide, methane, nitrous oxide, fluorocarbons) as well as their abundance and heat trapping capacity	
Example or Explain:				
UNIT NOTES AND COMMENTS:				