

Name: _____ Date: _____ Period: _____

Energy Resources and Use

Part 1: Constant Energy Consumption

Your Country: _____

Your Group				
Year	Number of energy beads removed (consumed)	Renewable (green) energy beads consumed (out of 10)	Non-renewable (orange) energy beads consumed (out of 10)	Total energy beads remaining in bag
1	10			
2	10			
3	10			
4	10			
5	10			

Whole Class – Constant Energy Consumption		
Country	Energy Beads Remaining after 5 Years	
Sweden		
United States		
China		
Mexico		
Brazil		
New Zealand		
Canada		

Part 1: Results

1. Which country had the most energy available after five years? _____
 - a. % Renewable energy? _____ % Non-renewable energy? _____

2. Which country had the least energy available after five years? _____
 - a. % Renewable energy? _____ % Non-renewable energy? _____

3. Which country do you think contributes the most greenhouse gases to Earth's atmosphere? Use background knowledge and evidence from this model to support your argument.

Background: Types of Energy Production

Type of Energy Production	Renewable / Non-renewable	Advantage	Disadvantage
Solar			
Wind			
Fossil Fuels (coal, oil, natural gas)			
Hydroelectric			
Geothermal			

Part 2: Increasing Energy Consumption

Your Group				
Year	Number of energy beads removed (consumed)	Renewable (green) energy beads consumed	Non-renewable (orange) energy beads consumed	Total energy beads remaining in bag
1	10			
2	20			
3	30			
4	40			
5	50			

Whole Class – Increasing Energy Consumption		
Country	Energy Beads Remaining after 5 Years	
Sweden		
United States		
China		
Mexico		
Brazil		
New Zealand		
Canada		

Part 2: Results

1. Compare the **Part 1: Whole Class Data** and **Part 2: Whole Class Data**. How did increased consumption affect the availability of energy resources after five years?

Conclusions

1. How does energy production and consumption relate to global climate change? Construct an explanation using evidence from Insulating You, Insulating Earth; Energy Audit; and Energy Resources and Use.

2. Relying more on renewable resources is an important step for the global environment and for sustainable, long-term energy production. What other actions can be taken to decrease the effect of energy production and use on climate change?