

Chapter 4 Objectives: "Matter and Energy Resources: Types and Concepts"

1. Explain why we don't really consume anything and why we can never really throw matter away.
2. A tree grows and increases its mass, explain why this is not a violation of the law of conservation of matter.
3. If there is no "away", why isn't the world filled with waste matter?
4. Respond to the following statement: The limitations on what we can and cannot do, imposed by the law of conservation of matter and the laws of thermodynamics, can be overcome because the scientific laws may be overturned in the future.
5. Someone wants you to invest money in an engine that can produce more energy than what is in the fuel, what is your response and why?
6. Use the second law of energy to explain why a barrel of oil can only be used for energy once.
7. Explain how a community that wastes fewer energy resources help sustain its local economy and jobs.
8. Use a law of thermodynamics to explain why a matter recycling society will be mandatory soon or later.
9. Use the first and second laws of energy to explain why a low waste/ Earth wisdom society will be necessary not just a matter recycling society in the future.