	Topic/Objective: The Conservation of Energy	Name:
		Class/Period:
		Date:

Essential Question: What is the guiding principle behind the behavior of energy?

Questions:	Notes:
	P1: Energy is never "used up" instead it is…
	into another…
	P2: The energy in oil comes from… The energy in
	Plants originally came from… while the energy in animals comes
	from… . When oil burns, the…
	energy is …
	P3: not all of the chemical potential energy from the oil was released as thermal
	energy. Some of the potential energy was released as...
	"Lost energy" is really…
	P4/5: The Law of Conservation of Energy is…
	P6: This type of energy is almost always lost during an energy transformation…
	An example of this is…
	P7: This type of energy is the most difficult to convert into useful energy…

Questions:	Notes:
	P8/9: Energy Efficiency is…
	An example of energy efficiency is…
	In the car example, only this percent of the original chemical potential energy
	Actually moves the car…
	P10: Energy Conservation means…

Summary:

Act 57 The Conservation of Energy Analysis **Name:**_____

1. Which of the following diagrams accurately applies the Law of Conservation of Energy to a toaster in use? Explain your choice.

a. Electrical energy → thermal energy, light, sound

b. Chemical potential energy → thermal energy, light

Choose which choice, a or b, and explain using complete sentences.

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2. Your friend tells you that a "generator makes electricity." Do you agree or disagree with her statement? Explain why in terms of the Law of Conservation of Energy.

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3. An engine in a car moves the car with mechanical energy. It transforms chemical energy from gasoline into mechanical and thermal energy. What is the efficiency of an engine that produces 70 % thermal energy? Explain.

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Highly Proficient	Proficient	Close to Proficient	Developing
❑ Efficiency can be explained thoroughly. ❑ Answers show an advanced knowledge of the Law of Conservation of Energy..	❑ Activity is complete. ❑ Can apply Law of Conservation of Energy to various situations ❑ Law of Conservation of Energy is understood.	❑ Lab is incomplete ❑ Answers lack enough detail and evidence to show strong understanding of Law of Conservation of Energy	❑ Little to no knowledge of energy is shown ❑ not attempted