Day 1	Day 2	Day 3	Day 4	<u>Day 5</u>
Lesson: Effects of Energy Transfer				
Essential Questions: How does the use of energy resources affect the environment?				
Clarifying Objective:				
<b>8.P.2.1:</b> Explain the environmental consequences of the various methods of obtaining, transforming and distributing energy.	P.2.1: Explain the environmental consequences of the various methods of obtaining, transforming and distributing energy.	P.2.1: Explain the environmental consequences of the various methods of obtaining, transforming and distributing energy.	P.2.1: Explain the environmental consequences of the various methods of obtaining, transforming and distributing energy.	P.2.1: Explain the environmental consequences of the various methods of obtaining, transforming and distributing energy.
Academic Vocabulary:				
Renewable resource, Non- Renewable resource, Fossil fuel, photovoltaic energy (solar energy), hydroelectric energy, Petroleum	Renewable resource, Non- Renewable resource, Fossil fuel, photovoltaic energy (solar energy), hydroelectric energy, Petroleum	Renewable resource, Non- Renewable resource, Fossil fuel, photovoltaic energy (solar energy), hydroelectric energy, Petroleum	Renewable resource, Non- Renewable resource, Fossil fuel, photovoltaic energy (solar energy), hydroelectric energy, Petroleum	Renewable resource, Non- Renewable resource, Fossil fuel, photovoltaic energy (solar energy), hydroelectric energy, Petroleum
Bell Ringer:				
Daily Demo- Everyday Resources pg 175 Module H Instructional Tasks:	What are some examples of energy use that you have already encountered today? (food provides	Use a Venn Diagram to compare and contrast Non Renewable and Renewable Resources.	Activity Time Machine pg 174 Module H Instructional Tasks:	Give three reasons that you think your school should or should not rely on fossil fuels for

Use Science Fusion (Module H- Matter and Energy)

Pg. 172- 185 teacher pages

Student pages 134-142

## **Options:**

- -Read Unit 2 Lesson 4 pg. 177-285
- -Text Walk with skeletal notes/ matching powerpoint
- -Digital Lesson with skeletal notes

# Summarizer:

- 3-2-1 on powerpoint notes or digital lesson
- -3 things you liked, 2 new ideas you learned, 1 question you have.

energy for the body, the bus or car uses fule, classroom uses light) Which of these sources are renewable? Which are non- renewable? (Food is renewable because it can grow back, bus and car fuel is nonrenewable, Electricity can be both)

#### **Instructional Tasks:**

- -Continue/finish day 1 lesson
- -Vocabulary activity on Effects of Energy Transfer

Card Sort- Found in teacher resources-vocabulary strategies.

Word Splash- Found in teacher resources-vocabulary strategies.

(use any strategy you like: ex- Frayer model, word triangle, Four Square, etc.)

### **Instructional Tasks:**

#### **Options:**

(Individual or as a group)

Digital Lesson- Teachers may make a worksheet that displays each question from the digital lesson. Then review answers together as a group!

- ~ Activity- Resource Circles pg 178 Module H.
- ~ Exploration Lab-Sustainable Resource Mangament pg 175. (activity sheets can be found at the Lesson Inquiry Resource)

# Summarizer:

- 3-2-1 on Virtual Lab
- -3 things you liked, 2 new ideas you learned, 1 question you have.

### **Options:**

- -Students can take a "book walk" through the lesson. Each page of the student book has questions they will answer after reading each section. If using laptops, the program will read to the student. If laptops are not available, you can make a class set of the lesson for students to use.
- -Digital Lesson with skeletal notes
- ~Quick Lab- Modeling Renewable Energy pg 175. (activity sheets can be found at the Lesson Inquiry Resource)
- ~Quick Lab- Designing a Vehicle Using Alternative Energy. Pg 175 (activity sheets can be found at the Lesson Inquiry Resource

# Summarizer:

heating and cooling?
(fossil fuels burn easy,
give off a lot of heat, and
are cost efficient.
However, fossil fuels
cause pollution, impair
human health, and
causes environmental
damage)

#### **Instructional Tasks:**

# Options- 1 day

Project Learning Tree Book-Renewable or Not

Or choose an option from the previous three days that has not been completed.

Option 2- Can take two or more days-

STEM Activity: Module F: Unit 1 Lesson 2: Earth's Water pg 40-41

Project Learning Tree Book: k-8<sup>th</sup> Environmental Education Activity

	Summarizer:  Create an Acrostic Poem using one of your vocabulary words. Make sure the words or sentences match the definition of the vocabulary word.		Think-Pair- Share the answers to any of the labs chosen.	Guide-Renewable or Not? Pg 69  Project Learning Tree- Energy Sleuths pg 167  Summarizer:  Summarizer will depend on the activity chosen.
Assessment:	Assessment:	Assessment:	Assessment:	Assessment:
Observation/ Lesson Review/ summarizer	Observation	summarizer, observation	summarizer, observation/ take it home worksheet	Observation

Day 6	Day 7	Day 8	Day 9	<u>Day 10</u>
Lesson: Effects of Energy	Lesson: Effects of Energy	Lesson:-Managing	Lesson: Managing	Lesson: Managing
Transfer	Transfer	Resources	Resources	Resources
		Essential Questions: Why		
		should natural resources		
		be managed?		
Clarifying Objective:	Clarifying Objective:	Clarifying Objective:	Clarifying Objective:	Clarifying Objective:
P.2.1: Explain the	P.2.2: Explain the	<b>8.P.2.2:</b> Explain the	P.2.2: Explain the	P.2.2: Explain the
environmental	implications of the	implications of the	implications of the	implications of the
consequences of the	depletion of	depletion of	depletion of	depletion of
various methods of	renewable and	renewable and	renewable and	renewable and
obtaining,	nonrenewable energy	nonrenewable energy	nonrenewable energy	nonrenewable energy

transforming and	resources and the	resources and the	resources and the	resources and the
distributing energy.	importance of	importance of	importance of	importance of
	conservation.	conservation.	conservation.	conservation.
Academic Vocabulary:	Academic Vocabulary:	Academic Vocabulary:	Academic Vocabulary:	Academic Vocabulary:
Renewable resource, Non- Renewable resource, Fossil fuel, photovoltaic energy (solar energy), hydroelectric energy, Petroleum	Renewable resource, Non- Renewable resource, Fossil fuel, photovoltaic energy (solar energy), hydroelectric energy, Petroleum	Natural resources, conservation, stewardship	Natural resources, conservation, stewardship	Natural resources, conservation, stewardship
Bell Ringer:	Bell Ringer:	Bell Ringer:	Bell Ringer:	Bell Ringer:
What environmental effects are shared by all fossil fuels? (greenhouse gases)  Instructional Tasks: Use Science Fusion	What factors will be important when deciding the future use of energy resources? (answers will vary)  Instructional Tasks:	Probing Questions- Renewable or Not? Pg 240  Instructional Tasks:  Use Science Fusion	Daily Demo- Non-Biodegradable Peanuts? Pg 241 or Uncovering student ideas in science. Vol. 4 (Keeley)  • Global warming p.143	Discussion- Making Changes pg 240 Instructional Tasks: Options:
(Module H- Matter and Energy)	-Traditional Quiz/ Test	(Module D- Ecology and the Environment)	Instructional Tasks:	(Individual or as a group)
Option 1 (1 Day)- Continue/ Finish activity from the previous day if a two day activity was chosenLesson Review pg 51 Module H- Student	~ Alternative Test- Our Energy Use pg 179 Module H  Summarizer:	Unit 3 Lesson 5- Managing Resources Pg. 238- 250 teacher pages Student pages 186- 194 Options:	-Continue/finish day 1 lesson -Vocabulary activity on Managing Resources ~Preview Vocabulary- pg 243 Card Sort- Found in	Digital Lesson- Teachers may make a worksheet that displays each question from the digital lesson. Then review answers together as a group!  ~ Quick Lab- The Impact of Resource Extraction pg 241 Module D.

Option 2- (2 days or more)  Science 6 11.1 What are Earth's natural resources?  Summarizer:  Review Lesson Review Together.  Move and Shake it Line with the activities continued from the previous day.	Create an Acrostic Poem using one of your vocabulary words. Make sure the words or sentences match the definition of the vocabulary word.	-Read Unit 3 Lesson5 pg. 177-285  -Text Walk with skeletal notes/ matching powerpoint  -Digital Lesson with skeletal notes  Summarizer:  3-2-1 on powerpoint notes or digital lesson  -3 things you liked, 2 new ideas you learned, 1 question you have.	teacher resources- vocabulary strategies.  Word Splash- Found in teacher resources- vocabulary strategies.  (use any strategy you like: ex- Frayer model, word triangle, Four Square, etc.)  Summarizer:  Matching game on the projector. Teacher will choose a word and students will find the matching word. Or  Draw pictures of their vocabulary words. This can be extended to homework.	"book walk" through the lesson. Each page of the student book has questions they will answer after reading each section. If using laptops, the program will read to the student. If laptops are not available, you can make a class set of the lesson for students to use.  Summarizer:  Summarizer will depend on the activity chosen.  Take it Home Worksheet can be found online in Lesson Students Resources.
Assessment: Observation/ Lesson Review/ summarizer	Assessment: Observation	Assessment: summarizer, observation	Assessment: summarizer, observation/ take it home worksheet	Assessment: Observation

<u>Day 11</u>	<u>Day 12</u>	<u>Day 13</u>	<u>Day 14</u>	<u>Day 15</u>

Lesson: Managing	Lesson: Managing	Lesson:-Managing	Lesson: Managing	Lesson: Managing
Resources	Resources	Resources	Resources	Resources
Essential Question: Why				
should natural resources				
be managed?				
Clarifying Objective:	Clarifying Objective:	Clarifying Objective:	Clarifying Objective:	Clarifying Objective:
P.2.2: Explain the	P.2.2: Explain the	P.2.2: Explain the	P.2.2: Explain the	P.2.2: Explain the
implications of the	implications of the	implications of the	implications of the	implications of the
depletion of renewable	depletion of renewable	depletion of renewable	depletion of renewable	depletion of renewable
and nonrenewable energy	and nonrenewable energy	and nonrenewable energy	and nonrenewable energy	and nonrenewable energy
resources and the	resources and the	resources and the	resources and the	resources and the
importance of	importance of	importance of	importance of	importance of
conservation.	conservation.	conservation.	conservation.	conservation.
Academic Vocabulary:	Academic Vocabulary:	Academic Vocabulary:	Academic Vocabulary:	Academic Vocabulary:
Natural resources, conservation, stewardship	Natural resources, conservation, stewardship	Natural resources, conservation, stewardship	Natural resources, conservation, stewardship	Natural resources, conservation, stewardship
Bell Ringer:	Bell Ringer:	Bell Ringer:	Bell Ringer:	Bell Ringer:
Uncovering student ideas	Instructional Tasks:			Create two questions for
in science. Vol. 4 (Keeley)		Instructional Tasks:	Instructional Tasks:	your test that relate to
Where does oil come	Teachers can take the	ilistructional rasks.	ilistructional rasks.	what you have learned.
from? P.151	next three days to re-		Teachers can take the	Instructional Tasks:
Instructional Tasks:	teach a concept	Teachers can take the	next three days to re-	
Options- 1 day	students did not	next three days to re-	teach a concept	-Traditional Quiz/ Test
Project Learning Tree	understand, or pick an	teach a concept students did not	students did not	- Haditional Quizi 165t
Book-Renewable or Not	instructional task they were unable to get to	understand, or pick an	understand, or pick an	~ Alternative Test- Our
	were unable to get to	understand, or plot an		

Or choose an option from the previous three days that has not been completed.  Option 2- Can take two or more days-  Project Learning Tree Book: k-8th Environmental Education Activity Guide-Resource-Go-Around pg 355  Science 6 11.2 Where do we get energy?  Science 6 11.3 How are fossil fuels formed and used?  Summarizer:  Summarizer will depend on the activity chosen.  Assessment:	at the time. This will help solidify student's knowledge and prepare for benchmarks and/or end of unit test.  Summarizer:	instructional task they were unable to get to at the time. This will help solidify student's knowledge and prepare for benchmarks and/or end of unit test.  Summarizer:  Assessment:	instructional task they were unable to get to at the time. This will help solidify student's knowledge and prepare for benchmarks and/or end of unit test.  Summarizer:  Assessment:	Energy Use pg 179 Module H  Summarizer:  Discuss how the students felt they did on the test. What could they do to improve their scores?  Assessment:
Observation/ Lesson Review/ summarizer	Observation	summarizer, observation	summarizer, observation/ take it home worksheet	Observation Observation