|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Day 1****Lesson:** Effects of Energy TransferEssential Questions: How does the use of energy resources affect the environment? | **Day 2****Lesson:** Effects of Energy Transfer | **Day 3****Lesson:** Effects of Energy Transfer | **Day 4****Lesson:** Effects of Energy Transfer | **Day 5****Lesson:** Effects of Energy Transfer |
| **Clarifying Objective:****8.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 | **Clarifying Objective:****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 | **Clarifying Objective:****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 | **Clarifying Objective:****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 | **Clarifying Objective:****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 |
| **Bell Ringer:**Daily Demo- Everyday Resources pg 175 Module H**Instructional Tasks:** **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.** | **Bell Ringer:**What are some examples of energy use that you have already encountered today? (food provides 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.)****Summarizer:****Create an Acrostic Poem using one of your vocabulary words. Make sure the words or sentences match the definition of the vocabulary word.**  | **Bell Ringer:**Use a Venn Diagram to compare and contrast Non Renewable and Renewable Resources.**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.** | **Bell Ringer:**Activity Time Machine pg 174 Module H**Instructional Tasks:** **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:****Think-Pair- Share the answers to any of the labs chosen.**  | **Bell Ringer:**Give three reasons that you think your school should or should not rely on fossil fuels for 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-8th Environmental Education Activity Guide-Renewable or Not? Pg 69****Project Learning Tree- Energy Sleuths pg 167** **Summarizer:**Summarizer will depend on the activity chosen.  |
| **Assessment:** Observation/ Lesson Review/ summarizer | **Assessment:** Observation | **Assessment:** summarizer, observation | **Assessment:** summarizer, observation/ take it home worksheet | **Assessment:** Observation |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Day 6****Lesson:** Effects of Energy Transfer | **Day 7****Lesson:** Effects of Energy Transfer | **Day 8****Lesson:-**Managing ResourcesEssential Questions: Why should natural resources be managed? | **Day 9****Lesson:** Managing Resources | **Day 10****Lesson:** Managing Resources |
| **Clarifying Objective:****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 | **Clarifying Objective:****P.2.2:** Explain the implications of the depletion of renewable and nonrenewable energy resources and the importance of conservation.**Academic Vocabulary:**Renewable resource, Non-Renewable resource, Fossil fuel, photovoltaic energy (solar energy), hydroelectric energy, Petroleum | **Clarifying Objective:****8.P.2.2:** Explain the implications of the depletion of renewable and nonrenewable energy resources and the importance of conservation.**Academic Vocabulary:**Natural resources, conservation, stewardship | **Clarifying Objective:****P.2.2:** Explain the implications of the depletion of renewable and nonrenewable energy resources and the importance of conservation.**Academic Vocabulary:**Natural resources, conservation, stewardship | **Clarifying Objective:****P.2.2:** Explain the implications of the depletion of renewable and nonrenewable energy resources and the importance of conservation.**Academic Vocabulary:**Natural resources, conservation, stewardship |
| **Bell Ringer:**What environmental effects are shared by all fossil fuels? (greenhouse gases)**Instructional Tasks: Use Science Fusion (Module H- Matter and Energy)****Option 1 (1 Day)- Continue/ Finish activity from the previous day if a two day activity was chosen.****-Lesson Review pg 51 Module H- Student Edition****Option 2- (2 days or more)**[**Science 6 11.1 What are Earth's natural resources?**](http://pearsonkt.com/cgi-bin/writeToLearn/teacher/displayText.cgi?textID=1328&classID=9685)**Summarizer:****Review Lesson Review Together.** **Move and Shake it Line with the activities continued from the previous day.** | **Bell Ringer:**What factors will be important when deciding the future use of energy resources? (answers will vary)**Instructional Tasks:** **-Traditional Quiz/ Test****~ Alternative Test- Our Energy Use pg 179 Module H****Summarizer:****Create an Acrostic Poem using one of your vocabulary words. Make sure the words or sentences match the definition of the vocabulary word.**  | **Bell Ringer:**Probing Questions- Renewable or Not? Pg 240**Instructional Tasks:** **Use Science Fusion (Module D- Ecology and the Environment) Unit 3 Lesson 5- Managing Resources****Pg. 238- 250 teacher pages****Student pages 186- 194****Options:** **-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.** | **Bell Ringer:**Daily Demo- Non-Biodegradable Peanuts? Pg 241 or **Uncovering student ideas in science. Vol. 4 (Keeley)*** **Global warming p.143**

**Instructional Tasks:** **-Continue/finish day 1 lesson****-Vocabulary activity on Managing Resources****~Preview Vocabulary- pg 243****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.)****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.** | **Bell Ringer:**Discussion- Making Changes pg 240**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!** ~ **Quick Lab- The Impact of Resource Extraction pg 241 Module D.****~ -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.** **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 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Day 11****Lesson:** Managing Resources**Essential Question:** Why should natural resources be managed? | **Day 12****Lesson:** Managing Resources | **Day 13****Lesson:-**Managing Resources | **Day 14****Lesson:** Managing Resources | **Day 15****Lesson:** Managing Resources |
| **Clarifying Objective:****P.2.2:** Explain the implications of the depletion of renewable and nonrenewable energy resources and the importance of conservation.**Academic Vocabulary:**Natural resources, conservation, stewardship | **Clarifying Objective:****P.2.2:** Explain the implications of the depletion of renewable and nonrenewable energy resources and the importance of conservation.**Academic Vocabulary:**Natural resources, conservation, stewardship | **Clarifying Objective:****P.2.2:** Explain the implications of the depletion of renewable and nonrenewable energy resources and the importance of conservation.**Academic Vocabulary:**Natural resources, conservation, stewardship | **Clarifying Objective:****P.2.2:** Explain the implications of the depletion of renewable and nonrenewable energy resources and the importance of conservation.**Academic Vocabulary:**Natural resources, conservation, stewardship | **Clarifying Objective:****P.2.2:** Explain the implications of the depletion of renewable and nonrenewable energy resources and the importance of conservation.**Academic Vocabulary:**Natural resources, conservation, stewardship |
| **Bell Ringer:****Uncovering student ideas in science. Vol. 4 (Keeley)*** **Where does oil come from? P.151**

**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-** **Project Learning Tree Book: k-8th Environmental Education Activity Guide-Resource-Go-Around pg 355**[**Science 6 11.2 Where do we get energy?**](http://pearsonkt.com/cgi-bin/writeToLearn/teacher/displayText.cgi?textID=1329&classID=9685)[**Science 6 11.3 How are fossil fuels formed and used?**](http://pearsonkt.com/cgi-bin/writeToLearn/teacher/displayText.cgi?textID=1330&classID=9685)**Summarizer:**Summarizer will depend on the activity chosen. | **Bell Ringer:****Instructional Tasks:** **Teachers can take the next three days to re-teach a concept students did not understand, or pick an 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:** | **Bell Ringer:****Instructional Tasks:** **Teachers can take the next three days to re-teach a concept students did not understand, or pick an 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:** | **Bell Ringer:****Instructional Tasks:** **Teachers can take the next three days to re-teach a concept students did not understand, or pick an 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:** | **Bell Ringer:**Create two questions for your test that relate to what you have learned.**Instructional Tasks:** **-Traditional Quiz/ Test****~ Alternative Test- Our 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 | **Assessment:** Observation | **Assessment:** summarizer, observation | **Assessment:** summarizer, observation/ take it home worksheet | **Assessment:** Observation |