Columbus County Schools *Science Curriculum Guide*		
SUBJECT: Science	**GRADE LEVEL:** 8th	**GRADING PERIOD:**
Module(s): H Matter and Energy Module D Ecology and the Environment	Time Frame: 15 days **Dates: May 11th to May 29th**	**Unit: Energy Resources**
Essential Standard: **8. P.2:** Explaining the environmental implications associated with the various methods of obtaining, managing, and using energy resources.		

Lessons:	Technology and Literacy Standards and Tasks	Academic Vocabulary:	Assessment(s):	Additional Resources:
Lesson Name: **Energy Resources** Clarifying Objective: **8. P.2.1:** Explain the environmental consequences of the various methods of obtaining, transforming and distributing energy. Time Frame: **7 days** Essential Question: What are the various methods of obtaining, transforming and	• CCSS.ELA-Literacy.RST.6-8.1 Cite specific textual evidence to support analysis of science and technical texts. • CCSS.ELA-Literacy.RST.6-8.2 Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions. CCSS.ELA-Literacy.RST.6-8.5 Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.	✯ Renewable resources ✯ Non-renewable resources ✯ Fossil fuel ✯ photovoltaic cells (solar energy) ✯ hydroelectric energy ✯ petroleum	Formative: • Quizzes • Cooperative Activities • Labs, Science Notebook • Foldables • Word Maps (graphic organizers) • Bell Ringer/Exit Tickets **Science Formative Assessment 75 practical strategies (Keeley)** • **Card sorts. p.56** • **Concept cartoons. p.71** • **Thinking log-stems.**	**Use Science Fusion (Module H- Matter and Energy)** **Pg. 172- 185 teacher pages** • McDougal Littell Science Grade 8: • Unit A: Chapter 3 • *North Carolina End of Grade Coach (2013): Chapter 2* • Series of 4 lessons Investigating Alternative Energy for Vehicles from ttp://kenanfellows.org/kfp-cp-

distributing energy? (solar, wind, hydro, biomass, geothermal, fossil fuels, nuclear) How does the use of energy resources affect the environment? **STUDENT "I CAN" STATEMENTS** • I can identify the many forms of energy that we use in our daily lives. • I can compare and contrast the different kinds of energy sources and the effects on the environment. • I can identify ways to use energy from the sun.	CCSS.ELA-Literacy.RST.6-8.6 Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text. **Activity: Write to Learn** **Science 6 11.1 What are Earth's natural resources?**		**p.191** • **Justified true or false p.126** **Uncovering student ideas in science. Vol. 4 (Keeley)** • **Global warming p.143** • **Where does oil come from? P.151** Summative: • Projects (with rubrics: Powerpoint/Flipchart, Animoto, Prezi, brochures, WebQuests, internet based research assignments • Chapter and Unit tests(Science fusion Test bank)	sites/cp06/cp06/index.html • *Project Learning Tree:* Activity 14, 15, 19, 37, 39, 89 • *Project Wild:* • "Cartoons and Bumper Stickers" *p.* 192 • "What You Wear is What They Were" p.210 • "Arctic Survival" p. 234
Lesson Name: **Energy Conservation and renewal.** Clarifying Objective: **8. P.2.2:** Explain the implications of the	**Activity: Write to Learn** **Science 6 11.2 Where do we get energy?** **Science 6 11.3 How**	✯ implications ✯ depletion ✯ renewable ✯ nonrenewable ✯ conservation ✯ preservation	Formative: • Quizzes • Cooperative Activities • Labs, Science Notebook • Foldables	**Use Science Fusion (Module D- Ecology and the Environment) Unit 3 Lesson 5- Managing Resources** **Pg. 238- 250 teacher pages**

depletion of renewable and nonrenewable energy resources and the importance of conservation. Time Frame: **8 days** Essential Questions: Why should natural resources be managed? **STUDENT "I CAN" STATEMENTS** • I can discuss the implications of the depletion of renewable and nonrenewable resources. • I can list ways to conserve energy. • I can give examples of the environmental impacts of using fossil fuels in the future.	**are fossil fuels formed and used?**	✯ natural resources ✯ stewardship	• Word Maps (graphic organizers) • Bell Ringer/Exit Tickets Summative: • Projects (with rubrics: Powerpoint/Flipchart, Animoto, Prezi, brochures, WebQuests, internet based research assignments • ClassScape: Classroom based and County Benchmark • Chapter and Unit tests(Science fusion Test bank)	• McDougal Littell Science Grade 8: • Unit A: Chapter 3 • *North Carolina End of Grade Coach (2013): Chapter 2* • Series of 4 lessons Investigating Alternative Energy for Vehicles from ttp://kenanfellows.org/kfp-cp-sites/cp06/cp06/index.html • *Project Learning Tree:* Activity 14, 15, 19, 37, 39, 89 • *Project Wild:* "Cartoons and Bumper Stickers" *p.* 192 • "What You Wear is What They Were" p.210 • "Arctic Survival" p. 234