**Grade 3: Energy Professional Development Content Standards**

**10 Sources of Energy: *The Shocking Truth about Energy and* Research Project**

Science

1. 3.ESS.1 Earth’s non living resources have specific properties.
2. 3.ESS.2 Earth’s resources can be used for energy.
3. 3.ESS.3 Some of the Earth’s resources are limited.

English Language Arts - Reading

1. RI.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
2. RI.3.2 Analyze informational text development.
3. RI.3.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.
4. RI.3.5 Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.
5. RI.3.7 Use information gained from illustrations (e.g., maps, photographs) and words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
6. RI.3.8 Describe the relationships between the evidence and points an author uses throughout a text.

English Language Arts – Writing

1. W.3.1 Write opinion pieces on topics or texts, supporting a point of view with reasons.
2. W.3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
3. W.3.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear sequences of events.
4. W.3.6 With guidance and support from adults, use technology to produce and publish writing as well as to interact and collaborate with others.
5. W.3.7 Conduct short research projects that build knowledge about a topic.
6. W.3.8 Recall information from experience or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

**Wind: *Energy Island* and Sail Car Design Challenge**

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The Ohio Standards emphasize the Nature of Science in which students are encouraged to become scientifically literate citizens able to use science as a way of knowing about the natural and material world. The sail activity emphasizes the use of scientific knowledge and processes to solve a problem.

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Social Studies – Geography

1. Physical and political maps have distinctive characteristics and purposes. Places can be located on a map by using the title, key, alphanumeric grid, and cardinal directions
2. Daily life is influenced by the agriculture, industry, and the natural resources in different communities.
3. Evidence for positive and negative human modification of the environment can be observed in the local community.

**Solar: *The Sun is Kind of a Big Deal* and Solar Explorations**

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**Light & Heat: LED vs. Incandescent Light Bulbs**

Science:

Earth and Space Science:

3.ESS.1: Earth’s nonliving resources have specific properties

3.ESS.2: Earth’s resources can be used for energy

3.ESS.3: Some of Earth’s resources are limited

Physical Science:

3.PS.3: Heat, electrical energy, light, sound and magnetic energy are forms of energy

**Math:**

Operations and Algebraic Thinking

•Represent and solve problems involving multiplication and division.

• Solve problems involving the four operations and identify and explain patterns in arithmetic.

Geometry

• Represent and interpret data

Mathematical Practices:

* Use appropriate tools strategically
* Attend to precision