**Energy Unit Book List**

Energy

1. Energy Island by Allan Drummond
2. Forces and Motion by Simon de Pinna
3. Energy and Matter by Gerard Cheshire
4. 21st-Century Science Energy by Chris Oxlade

Scientists/inventors

1. What Color Is My World?: The Lost History of African-American Inventors by Kareem Abdul-Jabbar
2. Newton and Me by Lynne Mayer
3. The Sky's the Limit: Stories of Dsicovery by Women and Girls by Catherine Thimmesh
4. I Want to be an Engineer by Stephanie Maze and Catherine O’Neill Grace
5. How the Future Began: Communications by Anthony Wilson
6. Eureka! Great Inventions and How They Happened by Richard Platt
7. Great Inventions: Microscopes and Telescopes by Rebecca Stefoff

**Energy Unit App List**

Lesson 2: MetaCalculator, Clock

Lesson 3: MetaCalculator, Clock, Calculator

Lesson 5: Clock

Lesson 6: iBook, Google Drive

Lesson 7 and 8: Camera, Explain Everything

Presentation apps

Explain Everything: Used to make presentations that can include other media and has a record and drawing function.

VideoPix: Used to record and then analyze a video for the path of motion of an object in the recorded video.

iMotion HD: Used to record and edit, frame by frame, a video or series of photos like in stop motion.

Animator: Used to make flip books to present information.

Snapguide: Used to make how-to presentations, includes pictures and materials.

Notability: Used to take notes for presentations.

**Energy Unit Vocabulary**

**Chemical Energy** - stored energy released by a chemical reaction, such as burning gas or coal. *(Lesson 5)*

**Electrical Energy** - energy produced through the movement of electrically charged particles and transferred into motion, light, or heat. *(Lesson 5)*

**Energy** - the ability to cause motion and change. *(Lesson 2)*

**Energy Cycle** - exchange, transfer, and storage of radiant energy from the sun. *(Lesson 6)*

**Inertia** - An object's resistance to movement or to a change in motion. *(Lesson 4)*

**Kinetic Energy** - energy that an object has because of its motion. *(Lesson 3)*

**Law of Conservation of Energy** - energy can never be created or destroyed; it can be changed into a different form, or transferred from one object to another. *(Lesson 2)*

**Mechanical Energy (Motion)** - energy of motion that causes change. *(Lesson 5)*

**Newton’s First Law of Motion** - An object that is moving will keep moving, and an object at rest will remain at rest, unless energy is used to change its motion. *(Lesson 4)*

**Newton’s Third Law of Motion** - For every action there is an equal and opposite reaction. *(Lesson 4)*

**Nonrenewable Resource** - a limited natural resource that can be used to produce energy, but cannot be easily replaced or produced by humans. *(Lesson 6)*

**Potential Energy** - stored energy; energy that an object has because of its position. *(Lesson 3)*

**Radiant Energy** - energy produced by light. *(Lesson 5)*

**Renewable Resource** - a natural resource that can be used to produce energy, but does not get used up in the energy production process. *(Lesson 6)*

**Sound Energy** - energy produced by vibrations and transferred through sound waves. *(Lesson 5)*

**Thermal Energy** - energy produced through the movement of particles and measured as heat. *(Lesson 5)*