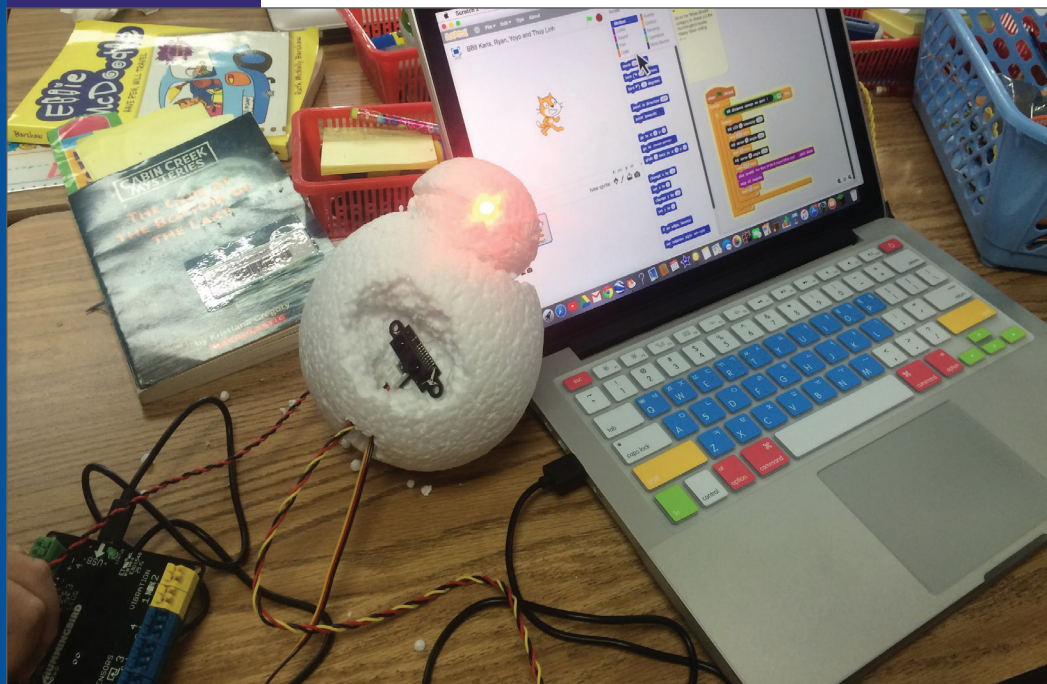




Understanding
Our World

Grade Four

Thinking Outside The Box



Managing the Complexity of Systems

This Super Unit is a structured inquiry into helping the learner understand the world around them. Learners will manage the complex systems of our world. Learners will be empowered to improve the effectiveness and efficiency of the systems in our world. Learners will develop their ability to do systems thinking.

Solving energy problems requires an understanding of energy systems



Highlights of Learning Experiences

SuperUnit Launch: Energy loss scenario (April 3)

Field Trip(s): Caravelle Hotel to look at efficient energy use of a large organization (April 19)

Guest Speaker(s): TBA

Project(s): Students will try to help our world by using innovative thinking to solve energy problems that improve energy systems. They will use their knowledge of energy systems and computer programming to develop a working model (diagrams/ schematic of design), and then prototype.

Core Values (describe the key concepts): Academic Excellence - Collaboration
Sense of Self: Tenacity - Resilience
Dedicated service - Organizational social responsibility

SuperUnit Celebration: G4 Energy Faire (May 29)



Focus on Learning by Subject

Science: Where does the energy come from? Different types of energy. Transformation of energy.

SS: Mini-research on energy, renewable and non-renewable energy, impact of global issues.

English: Fantasy genre (reading and writing), learning how to program/code using Scratch.

Math: Unit 6: Geometry and Unit 7: Measurement

Art: Students will design and create a wearable art piece that will conclude in a fashion show at their end of unit celebration. Learning objectives are the art elements and principles of pattern, repetition, unity and color.

Drama: Students will work on their presentation skills and create a promo for their energy prototype.

Music: Composing music to go with a video game/fantasy story on ipad app GarageBand.

PE: Learning about kinetic energy. Food and exercise tracking.

Vietnamese: Students will learn how to save electricity and water, and basic vocabulary to communicate.

Understanding of systems and innovative thinking.



Questions to Ask your Child

1. How do humans harness energy?
2. What is energy?
3. Where does energy come from?
4. What is an efficient energy system?
5. What is innovation?



Home Learning

- Explore the coding website SCRATCH. What can you create? Teach your parents.
- Do an energy audit at home. How could you save energy? Make a family plan.
- Watch documentaries about energy and discuss these. What did you learn as a family?
- Continue to work on your Grade 4 Khan Academy math mission.



Suggested Home Extensions

- Talk to your child about the energy systems that exist in your home. Discuss with your child how these work.
- Share your household electricity and water bills with your child. Does the energy saving plan you made affect your bills? Have your child do the math.
- Please consult with your child about what they are doing for their energy prototype project. See if they need your support to research or collect materials for their project.



Key Vocabulary

System, Energy, Innovation, Prototype, Transfer, Transform, Efficiency, Kinetic Energy, Potential Energy, Renewable, Non-Renewable, Solar, Electricity, Coding, Iteration



SuperUnit Launch: Energy Loss Scenario!
April 3

Field trips: Caravelle Hotel, April 19

Guest speakers:

- TBA

SuperUnit Celebration:
G4 Energy Faire, May 29, 12-3pm



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