



Energy Bingo: 45 Minutes

Objective: Participate in an active learning activity to understand different forms and sources of energy, and the importance of conserving energy.

Materials

- [PowerPoint Presentation](#) (for teacher)
- BINGO cards (for students) (printable version [here](#))
- BINGO chips

Explanation

- Before introducing this activity to the classroom, you should understand which concepts regarding energy that the class is familiar with. If necessary, prepare and facilitate a short discussion or video regarding energy and energy conservation. We assume students are familiar with non-renewable and renewable energy resources, based on the TEKS.
- Hand out the BINGO cards to the students and explain the rules:

RULES:

- The teacher will move through the PowerPoint presentation. Each slide facilitates a discussion point, answers are reflected on the slides and on the BINGO cards.
- The teacher will then open discussion with the class for possible answers. For example, if the teachers reads “FORM OF NON-RENEWABLE ENERGY” from the list, answers populated randomly on the BINGO cards will include “OIL”, “NATURAL GAS”, OR “COAL”. Note that there are multiple answers to some of the questions.
 - A short discussion with each question is expected to keep the students engaged. For example, the question “WHAT MIGHT HAPPEN IF WE DON'T CONSERVE ENERGY AS POPULATE CONTINUES TO GROW?” should be followed up with an open discussion, and the teacher can lead to students to the answer on the BINGO card.
- TO WIN: The winner of BINGO will have populated cells from the diagonal, down, or across direction. Winning students will receive a prize or a snack.

Discuss

What are some ways that the students work to conserve energy at home? Are there habits that can be changed at school or at home to help conserve energy?

Post-Class activity:

Elementary School students should work together to create a storyboard illustrating ways they can save energy at home.

Middle School students should work together to create a podcast, storyboard, or something creative illustrating ways they can save energy at home. This will be shared with the class the following week.



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Texas Assessments of Academic Readiness Resources - TEKS

§112.16. Science, Grade 5, Adopted 2017.

(b) Knowledge and skills.

(6) Force, motion, and energy. The student knows that energy occurs in many forms and can be observed in cycles, patterns, and systems. The student is expected to:

(A) explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy;

§112.18. Science, Grade 6, Adopted 2017.

(b) Knowledge and skills.

(7) Matter and energy. The student knows that some of Earth's energy resources are available on a nearly perpetual basis, while others can be renewed over a relatively short period of time. Some energy resources, once depleted, are essentially nonrenewable. The student is expected to

research and discuss the advantages and disadvantages of using coal, oil, natural gas, nuclear power, biomass, wind, hydropower, geothermal, and solar resources.

(8) Force, motion, and energy. The student knows force and motion are related to potential and kinetic energy. The student is expected to:

(A) compare and contrast potential and kinetic energy;

(9) Force, motion, and energy. The student knows that the Law of Conservation of Energy states that energy can neither be created nor destroyed, it just changes form. The student is expected to:

(C) demonstrate energy transformations such as energy in a flashlight battery changes from chemical energy to electrical energy to light energy.

§112.19. Science, Grade 7, Adopted 2017.

(b) Knowledge and skills.

(5) Matter and energy. The student knows that interactions occur between matter and energy. The student is expected to:

(A) recognize that radiant energy from the Sun is transformed into chemical energy through the process of photosynthesis;

(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to distinguish between physical and chemical changes in matter.