Grade: **K-2**

What is Energy? Lesson #P2: **Piles of Pictures**

Time: **1 class period**

Overview:
Students categorize pictures of things that move according to their source of motion, and make bar graphs.

Essential Questions:
What makes things run?
What makes things go?

Contents:

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Source: New
(Graphics are from NEED or from Microsoft Word Clip Art)

Piles of Pictures

Grades K-2
1 class period

Overview: Students categorize pictures of things that move according to their source of motion, and make bar graphs.

Essential Questions:

- What makes things run?
- What makes things go?

Assessment:
Can students
- Match things that move with their source of motion?

Vocabulary

- Wind
- Water
- Fuel
- Gas
- Food
- Energy
- Pull
- Push
- Battery
- Electricity

Science Standards

Addressed:
AAAS "Benchmarks for Science Literacy"
By the end of 2nd grade, students should
Be familiar with different ways of making things go, and should consider "What makes it go?" to be an interesting question to ask.
* Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.
*Know that simple graphs can help to tell about observations.

Teacher Information and Procedure

Prior knowledge for students: None

Materials needed:

- Magazines, catalogs, and/or other sources of pictures of things that run or move.
- Wall or board space, "Titles" in large print: Battery, Electricity, Gas, Wind, Water, Food Energy

What to do in advance:

- Make a "pile of pictures" of things that move and things that run on batteries and electricity. If you wish, students can help to find and cut out pictures from magazines and glue them on to construction paper, and the "search for things that run and move" can be part of the lesson. Parent volunteers could help with this.
- Pictures should include things that run on batteries (flashlights, radios, etc.) electricity (clocks, computers, TVs, fans), and gas (boats, snow machines, motorcycles, cars), as well as things that run on "food energy" (dog sleds, bicycles, kayaks), wind (kites, flags, sailboats, wind socks), water (rafts, fish wheels).

What to do during the lesson:
Gear up:
Be active. Run or do a dance. The "Energy and Me" videotape, (see *Energy and Society Kit* **at** http://www.plt.org/cms/pages/21_44_19.html or the NEED songbook for some energy-themed songs and dances. Ask students what they need in order to "go". Discuss the idea that people and animals get energy from food. Things that aren't alive get energy in other ways.

Explore:
Mix up the pictures and have students come up, one at a time, to choose a picture and tell the category, then tape or tack it to the wall under the appropriate category.

Hand out the "Bar Graph Sheet" and have students count the number of items in each category and make a bar graph.

Generalize:
How many things did we find that run on _____?
Can you think of other things that run on _____?
Can you think of other things that make something run or go?

Assess:
Ask students to complete the “matching” exercise to show what they know about “what makes things run?”

Related Resources in the AMEREF Kit:
NEED CD Primary Flipbook has motion illustrations.
NEED CD, Science of Energy has background on Motion.
NEED Songbook

Extensions, adaptations, and more resources:
Play charades to act out things that move.
Fasten the pictures together to make a book of “Things that Move”

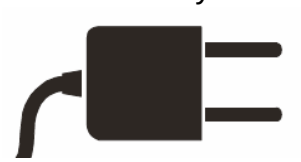
Project Learning Tree’s *Energy and Society Kit* has a music CD and a dance video
http://www.plt.org/cms/pages/21_44_19.html

Name _____

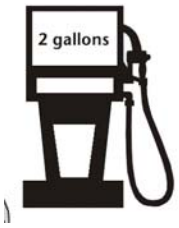
MATCHING

Battery

Electricity



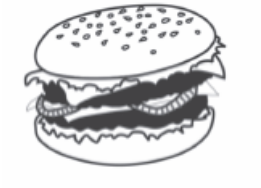
Gas

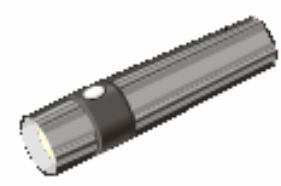


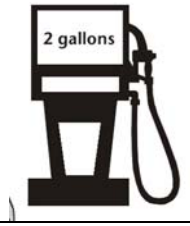
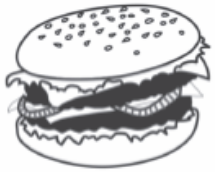
Wind

Water

Food Energy





Name _____

Motion Bar Graph