



Running on Empty

Primary Audience: Middle School

Description: Students will learn that food is the fuel that powers them to have fun during their recess time while also learning that exercise is fun and active fun is exercise.

Keywords: Calorie, Nutrition, Energy

Materials:

- Poster board
- Marker
- Calculators
- Student worksheets
- Scale

Instructions:

1. At the beginning of the week create a chart on poster board with the students' names across the side and the recess periods across the top.
2. At the beginning of the week distribute worksheets to students.
3. Allow students to weigh themselves (discreetly) and record their weight so as to provide accurate readings.
4. After each recess period have the students use the worksheets to figure out how many calories they burned during that period.
5. Chart how many calories the students burned and tabulate at the end of the week.

Possible Interactive Questions:

- See how many calories each of the students' favorite foods has and how long that would power each student.

What's Going On?

Our bodies need fuel to do everything; walking, running, jumping, even things as simple as breathing! The fuel our bodies use is called calories and we obtain them from eating food. By eating healthy, nutrient-rich foods, our bodies become properly fueled to do the activities that we love to do every day. The bigger a person is, the more calories their body burns. The more active we are, the better our bodies burn calories.

Relevant Ohio Science Content Standards: Life Sciences

- K-2 A: Discover that there are living things, non-living things and pretend things, and describe the basic needs of living things (organisms).
 - 1.1: Explore that organisms, including people, have basic needs which include air, water, food, living space and shelter.
 - 2.1: Explain that animals, including people, need air, water, food, living space and shelter; plants need air, water, nutrients (e.g., minerals), living space and light to survive.
 - 2.5: Explain that food is a basic need of plants and animals (e.g., plants need sunlight to make food and to grow, animals eat plants and/or other animals for food, food chain) and is important because it is a source of energy (e.g., energy used to play, ride bicycles, read, etc.).

Scientific Inquiry

- K-2 B: Design and conduct a simple investigation to explore a question.
 - 2.7: Use appropriate tools and simple equipment/instruments to safely gather scientific data (e.g., magnifiers, non-breakable thermometers, timers, rulers, balances and calculators and other appropriate tools).
- 3-5 B: Organize and evaluate observations, measurements and other data to formulate inferences and conclusions.
 - 3.3: Read and interpret simple tables and graphs produced by self/others.
 - 3.5: Record and organize observations (e.g., journals, charts and tables).
- 3-5 C: Develop, design and safely conduct scientific investigations and communicate the results.
 - 4.5: Describe how comparisons may not be fair when some conditions are not kept the same between experiments.

Scientific Ways of Knowing

- 3-5 C: Explain the importance of keeping records of observations and investigations that are accurate and understandable.
 - 4.2: Record the results and data from an investigation and make a reasonable explanation.
 - 4.4: Explain why keeping records of observations and investigations is important.