

COLD FOOD ONLY DAY

- Grade Level: 4-6
- Subjects: Social Studies, Math
- Suggested Time: 1-2 class periods, plus the Cold Food Only Day



Plan a “Cold Food Only” day. Bring to focus the amount of energy consumed in preparing food.

Materials

Chalk/whiteboard, Cold Food Only Day Worksheet, calculators (optional), pencils, posterboard and crayons or markers.

National Standards

Math:

- Understand numbers, ways of representing numbers, relationships among numbers, and number systems.
- Compute fluently and make reasonable estimates.
- Understand patterns, relations, and functions.
- Understand measurable attributes of objects and the units, systems, and processes of measurement.
- Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.
- Problem solving.
- Connections.

Social Studies:

- Environment and society.
- Scarcity.
- Roles of the citizen.

Ohio 2010 Standards

Math:

- Multiply or divide to solve word problems involving multiplicative comparison. (4)
- Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left. (5)

- Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. (5)
- Use ratio and rate reasoning to solve real-world and mathematical problems. (6)

Social Studies:

- People have modified the environment since prehistoric times. There are both positive and negative consequences for modifying the environment in Ohio and the United States. (4)
- Variations among physical environments within the Western hemisphere influence human activities. Human activities also influence the physical environment. (5)
- The choices people make have both present and future consequences. (5, 6)
- Variations among physical environments within the Eastern hemisphere influence human activities. Human activities also influence the physical environment. (6)

Objectives

The student will be able to:

- Identify how energy is used in the kitchen.
- Explain the need to conserve energy in the kitchen.
- Calculate the cost of preparing food different ways using units of time, energy & money.
- Create a cold food only menu.
- Plan and advertise a school-wide Cold Food Only Day.

Teacher Preparation

Gain support from the building principal and kitchen staff to hold a Cold Food Only Day.

Introduction

- Ask students to guess which room of the house uses the most energy (kitchen).
- Why do they think it uses the most energy? (stove, oven, microwave, washing dishes, refrigeration, electric mixers, can openers, etc.).
- Ask students to name their favorite school lunches.
- Ask students how they could conserve energy during food preparation.
- Inform students that they will be creating a menu for a Cold Food Only Day for the whole school.

Activities

- Ask students why it is important to save energy in the kitchen. Review where energy comes from and how this impacts the environment.
- Distribute the Cold Food Only Day Worksheet. Explain the table and ask students to answer 1-3.
- Discuss how to calculate the cost of using appliances using place value (when the cost of electricity = \$.10 kWh). Show how the same applies to converting kW to watts.

- Discuss why one might prepare foods in a particular way, even if it costs more.
- Discuss why large commercial ovens at school use more energy than the types listed in the table.
- Individually or in small groups, ask students to brainstorm cold foods from every food group. (Explain or review the food groups if necessary.)
- As a class, list on the board some cold food ideas from each food group. Then take a vote to choose 2 from each category to create the cold food menu.
- Explain that you will submit the menu to the kitchen staff and they will choose between the different menus each class created.
- Break students into groups to create Cold Food Only Day posters to inform others about the day. Include the date and how cold food saves energy.

Extensions

- Students may research other ways to save in the kitchen such as water use, hot water use, and use of other kitchen appliances.
- The teacher may contact a local newspaper or news station and invite them to cover the Cold Food Only Day.
- Students may create a plan for saving energy in the kitchen at home and present it to their families. They may hold a Cold Food Only Day or Meal at home.

Closing

- Review the lesson and ask students to think of ways to save energy when storing cold foods in the refrigerator (such as closing the door quickly, getting all items out at once, returning all items at once, and keeping the refrigerator full versus empty).
- Congratulate students on the success of Cold Food Only Day.

Worksheet

See: Cold Food Only Day Worksheet
