



Instructor: Mary Laudenberg (2002 Science Teacher Workshop participant)

School District: Trenton, NJ

Lesson Title: Irradiated Foods

Grade: 6

Subject: Science

Overview: Students will do a project on irradiated foods that includes a lab, written report and presentation.

Objectives: To use student's observation skills to determine differences in regular ground beef and irradiated beef; to research the pros and cons of irradiated foods; to synthesize their understanding of irradiated foods by designing a skit, song, TV show, letter to the editor of a newspaper, TV commercial, poster, or bumper sticker.

Materials: Lab – irradiated ground beef vs. regular ground beef (teacher made)

Project outline (teacher made)

Web sites included in project

NAME: _____
DATE: _____

HR: _____
Science Lab

Scenario: Mrs. Laudenberger had a family picnic this past weekend. I was barbecuing hamburgers and hot dogs, and I didn't have enough hamburgers. I sent Mr. Laudenberger to the store to buy some more hamburgers. He came back with ground beef that was labeled *irradiated*. I told Mr. Laudenberger that his ground beef was not the same that I bought. Mr. Laudenberger likes to think that he is always right, so he went through the garbage and found my label of ground beef. He said, "Look your label says 80/20 ground beef and my label says 80/20 ground beef—so they are the same." Who is right?

DIRECTIONS: Write your observations in the table. Do not mix up sample 1 with sample 2.

HAMBURGER TASTE TEST

	SAMPLE 1 (_____ BEEF)	SAMPLE 2 (_____ BEEF)
APPEARANCE		
TEXTURE		
SMELL		
TASTE		

HOMEWORK:

Find the unit price (price per pound)

Regular ground beef: \$3.30 for 1.66 pounds .

ANSWER: _____

Irradiated ground beef: \$2.29 for 1 pound.

ANSWER: _____

What is food irradiation?

Mrs. Laudenberger

Project Due: _____

PROJECT: Irradiated Foods-- Pros and Cons

Project will include:

1. Lab: Comparing irradiated and non-irradiated hamburgers
2. Research paper
3. Presentation to the class

Tools:

Information seeking strategies

What are the possible sources to find this information?

Research internet sources

Encyclopedia sources

Journal sources

Magazine articles

Interview people

Location and Access

Where will I find these sources?

Library, computer room , classroom

Who can help me find what I need?

Teacher, librarian, parent, friend, relative

How will I record the information?

Keep a notebook that contains all the information that you found.

How will I give credit to my sources?

As you research information, keep track of your sources and write a bibliography. You must use a minimum of four references.

Synthesis

What product or performance will I make to finish my assignment?

Written research paper, including a bibliography

Lab

Presentation: TV commercial, skit, song, poster, bumper sticker, letter to the editor of a local newspaper for or against irradiation of foods, or a TV news show about food irradiation.

How will I know that I have done my best?

The quality of the project will be graded not only on what is presented but also on the presenters ability to discuss the work intelligently. Each project will be graded based on the following criteria.

GRADING RUBRIC

LAB—10 points total

Must be complete and neat

PAPER—60 points total

Format—20 points

10 points—Paper has a neat cover and is typed or written neatly.

10 points—Contains a bibliography , which lists at least four sources.

Content—40 points

15 points –paper contains information that is scientific, interesting , and accurate.

15 points—ideas flow logically from one to another, and are strengthened by supporting statements.

10 points—paper is free of grammar and spelling errors.

PRESENTATION—30 points total

Visual Aid—20 points

10 points—presented in a neat , easy to read/easy to understand fashion.

10 points—presents the important facts from the paper.

Speaker—10 points

10 points—presents him/herself in a professional manner, speaking clearly, making eye contact with audience, and displaying knowledge of the topic.