

FOOD AS FUEL

FIRST GRADE



DURATION: 7 SESSIONS × 50 MINUTES

FOCUS: NUTRITION, ART, MATH, SCIENCE, & PLAY

THEME: UNDERSTANDING FOOD AS THE BODY'S SOURCE OF ENERGY

SUMMARY

This curriculum integrates medical and nutritional science with art and mathematics to create a dynamic, hands-on, and project-based STEAM learning experience designed for first-grade students. Through a seven-part instructional sequence, learners explore how food fuels and sustains the human body. Beyond providing foundational health education—particularly relevant to low-income and underserved populations—this curriculum exemplifies the transformative power of arts integration within STEAM. By positioning art as both an expressive and analytic framework, the unit demonstrates how creative processes deepen conceptual understanding, foster equity in access to scientific knowledge, and enhance student engagement through meaningful, interdisciplinary inquiry.

GOALS

- Understand the five food groups and how they contribute to health and energy.
- Recognize the connection between food colors and body functions.
- Represent nutrition and wellness concepts visually and mathematically.
- Cultivate inquiry, collaboration, and creative problem-solving through project-based learning.

LEARNING OUTCOMES

- Identify and describe the five food groups and their benefits.
- Collect, organize, and analyze simple data about food preferences.
- Create art that visually represents balanced meals and nutrient diversity.
- Practice mindful eating, empathy, and collaboration through shared projects.
- Demonstrate understanding of healthy habits during the culminating nutrition picnic.
- Increased memory, knowledge retention, and engagement by integrating art, movement, language, and social-emotional skills.

ASSESSMENTS

Formative:

Observation checklists, group collaboration, vocabulary use, participation in discussions.

Summative:

Completed placemats, rainbow charts, “to-go” clay meals, and reflection during the Nutrition Picnic.

WEEK 1: HEALTHY EATING INTRODUCTION

Focus: Food groups overview and dramatic play

Resource: What are the five food groups?

MATERIALS

- Food group cards
- Table sorting mats
- Chart paper and markers
- Monroe Medical Center dramatic play area (doctor kit, play food, clipboards)

Assessment: Student participation and correct food sorting.

Extension: Draw and label one healthy meal to share with family at home.

STEP BY STEP

- Watch the video as a class to introduce the five food groups.
- Discuss what makes foods healthy or less healthy.
- Work in small groups to sort food cards into matching groups.
- Transition to dramatic play in the “Medical Center” station.
- Students role-play medical related careers (dentist, doctor nurse, x-ray tech, paramedic, lab technician, researcher, dietitian- etc.), explaining healthy food to patients/stuffed animals and peers.

WEEK 2: FOOD GROUPS CONTINUED & RAINBOW EATING INTRODUCTION

Resource: Food Group Gallery (MyPlate.gov)

MATERIALS

- Vegetable picture cards
- Clipboards, tally sheets, pencils
- Favorite vegetable bar graph worksheet

- **Assessment:** Completed tally and accurate bar graph.
- **Extension:** Create a “Rainbow Snack Chart” at home with family input.

STEP BY STEP

- Review the five food groups.
- Explore the MyPlate Food Group Gallery as a class.
- Collect data on classmates’ favorite vegetables.
- Tally responses and create a class graph.
- Discuss results and reasons for food preferences.

WEEK 3: RAINBOW COLLAGE PLACEMATS & BODY CONNECTION

Resource: Why eat the rainbow?, Printable rainbow color sheets, Cut-and-paste body part templates

MATERIALS

- Magazines
- Food photos
- Glue
- Scissors
- Crayons
- Markers
- Stickers

Assessment: Artistic representation accuracy and group explanation.

Extension: Display placemats in the cafeteria; discuss real rainbow foods brought from home.

STEP BY STEP

- Review the five groups and watch the rainbow video.
- Assign colors to body parts (red-heart, orange-eyes, green-digestion, etc.).
- Create rainbow placemats showing food groups supporting different body parts.
- Label food names and benefits.
- Share placemats in a gallery walk.

WEEK 4: NUTRITIOUS FOOD Pictionary & COLORING

MATERIALS

- Food picture cards
- Whiteboard and markers
- Food group coloring sheets

Assessment: Participation, accurate use of terms, successful team collaboration.

Extension: Play “Food Detective” at home—students identify food groups during one family meal.

STEP BY STEP

- Review food groups and “rainbow” eating concepts.
- Divide class into two teams.
- Draw and guess food items while identifying food group
- Rotate players; reinforce vocabulary (“This is protein,” “This is grain”).
- **Early finishers:** color assigned food group pages.

WEEK 5: PRETEND FOOD CREATION

Resources: International Breakfasts Explorer

MATERIALS

- Modeling clay, take-out boxes, coloring materials
- Plastic utensils, stickers, reference photos

Assessment: Creative inclusion of five food groups and variety in color.

Extension: Write a one-sentence “menu” description for their stuffed animal’s meal.

STEP BY STEP

- Explore international breakfasts and identify food groups featured globally.
- Share each student’s “Favorite Healthy Meal” story.
- Create pretend food pieces with clay for a stuffed animal meal.
- Decorate take-out boxes with illustrations of each food’s color and group

WEEK 6: CONTINUE PRETEND FOOD & FINISH PLACEMATS

Resource: Decorative Food Art Templates

MATERIALS

- Prior projects, clay, markers, boxes, stickers

Assessment: Completion and readiness for final project presentation.

Extension: Practice introducing the “meal” to peers, rehearsing healthy food vocabulary.

STEP BY STEP

- Continue building and refining the pretend meal.
- Add artistic details: textures, shapes, custom labels.
- Complete and sign placemats.
- Prepare for the final picnic by organizing materials in labeled bags.

WEEK 7: NUTRITION PICNIC WITH STUFFED ANIMALS, FAMILY ENGAGEMENT AND STEAM CELEBRATION

MATERIALS

- Student placemats, pretend meals
- Nutritious snacks, utensils, picnic table setup
- Vegetable cutters, skewers, and images of food faces
- Area to collect stuffed animals

Assessment: Observation and student reflection of balanced meals and food group knowledge.

Extension: Send families follow-up conversation cards promoting continued nutrition discussions at home.

STEP BY STEP

- Invite families with parent communication via Parent Square (two weeks before).
- Set up classroom or playground for picnic area.
- Each student sets a placemat, “feeds” stuffed animals, and shares real snacks.
- Create food faces or edible sculptures using fruits, vegetables, and cutters.
- Reflect on lessons learned with families and classmates.

INTEGRATED STANDARDS ALIGNMENT

California Health Education (K-1):

- Identify and classify foods by group.
- Relate food choices to health and energy.
- Participate in developing and discussing nutritious snacks/meals.

NGSS Life Science:

- Explore how food supports health and growth.
- Engage in data-based inquiry using class bar graphs.

CA Common Core Math:

- Sort, count, and graph class data on foods.
- Use measurement and comparison within data sets.

Visual & Performing Arts:

Use artmaking (collage, sculpture, color theory) to communicate nutrition understanding.

Engage in group creative projects to express scientific learning.

SEL and Whole Child Education:

Practice collaboration, empathy, and mindful food choices.

Involve families to strengthen school-community relationships.