



Teacher's Guide

Engage your students in the fun of food science with this free program from the National Pork Board and the curriculum specialists at Young Minds Inspired. Help young learners build science skills and healthy habits with playful activities they can complete in class, remotely, or with family to extend the learning to the home.

Target Audience

Students in grade 2 and their families (materials can be adapted for use with grades K-5)

How to Use This Program

Download, copy, and distribute the activity book, coloring pages, and family recipe take-home, or share the PDFs through your school's digital platform if you're connecting with students remotely. You may also share the program link (ymiclassroom.com/pork-allabout) with parents to complete the activities and coloring pages with their children, along with the family recipes. Students will need pencils, crayons, or markers. Have students share the completed activity book, coloring pages, and recipe take-home sheet with their families. Please let us know your opinion of the program by visiting ymiclassroom.com/feedback-pork-allabout.

Teaching with the Activity Book

Introduce students to the program by asking if they have ever wanted to play with their food, or been told *not* to play with their food. Explain that food scientists “play” with food all the time as a way of studying and understanding it. Let students know that food scientists investigate, experiment, observe, and describe food. Their goal is to discover facts about food, including what makes it taste good, how it might be made to last longer, how to cook it, how temperature affects it, and how it fuels our bodies and minds with important nutrients. There's a lot of science related to food! Distribute the activity book and tell students they're about to experience what it's like to be a food scientist.

- **Experiment #1: Using Our Senses** – Have students begin by investigating something in the classroom or their workspace at home. Ask them to record the name of the item they're investigating, followed by what they see, hear, smell, taste, and feel.
- **Experiment #2: Are All Proteins Created Equal?** – Ask students if they know what protein is. Explain that it's an important nutrient that helps build muscle. Then read through the activity together. Ask students to form a hypothesis, or educated guess, about whether plants have the same amount of protein as meats. Finally, have them count the protein building blocks for each food and write how many grams of protein each item has per serving (**Answers:** pork: 16 grams; oatmeal: 3 grams; quinoa: 4 grams; beans: 8 grams)
- **Experiment #3: The Science of Cooking** – Kick off this activity by asking students to name different types of cooking, such as toasting, baking, microwaving, grilling, and so on. Then read through the activity together and ask students to record their hypotheses on the chart based on

what they've observed in the past. Wrap up by asking them if they've ever watched bread or cookies baking or meat grilling, and ask for volunteers to explain what they observed.

- **Puzzle Time** – Have students complete these puzzles in class or at home.

Answers:

- **Magic Mix Up:** science
- **Spot Scramble:** meal
- **Leap Frog:** fuel

Teaching with the Coloring Pages

Reinforce the activity book messages with the program coloring pages. Distribute copies to students and explain that they are going to put their observation skills and senses to work! Some of the pages are to be completed at home. Launch a discussion as students color, and invite students to share their observations after they complete each sheet.

- **Page 1** (chefs) – Ask kids to suggest what the chefs might investigate, experiment with, observe, and/or describe in their kitchen.
- **Page 2** (grilling) – Encourage kids to imagine where they might be grilling (on a deck, in a yard, at a park or picnic, etc.) and what they might grill in addition to the pork chops (ex., corn, zucchini, etc.).
- **Page 3** (home investigation) – Launch students on their investigation by asking them to play a game of “I Spy” with classmates or family members based on what they see in a particular room at home.
- **Page 4** (kitchen investigation) – Prompt kids to look around their kitchen to select something that’s new or interesting to them, and then investigate it with a grown-up family member.

Extension Activities

- Have students share the name of their favorite food with the class and describe how it looks, smells, and tastes, as well as how it sounds (ex., crunch), and how it feels (ex., cool or warm).
- Ask students to interview a family member or classmate about a food they enjoy. Have the interviewee describe the food to see if the student can guess what it is. Then they can switch roles. Encourage students to suggest another food that would make a good menu item to go with the food the interviewee describes.

Family Recipe Take-Home

Encourage families to join the fun by sending home copies of the “All About Food Science Family Recipe Take-home,” or include a link to the take-home in email correspondence with families or on your class web page.

Resources

- YMI: ymiclassroom.com/pork-allabout
- National Pork Board: pork.org/cooking/pork-nutrition

Check Back!

Visit ymiclassroom.com/pork-allabout for additional activities about nutrition and physical activity being added throughout the school year.