

GROW YOUR PALS PROGRAM GUIDE



THE NATIONAL FFA MENTORING PROGRAM

Sponsored by



LESSON 41

The Reaction and Importance of Food

Unit:
FOOD SCIENCE

PRECEPTS

- G. Physical Growth
 - G1. Practice healthy eating habits

NATIONAL STANDARDS

NPH-H.K-4.2 Health Information, Products and Services



Lesson Type:
Small Group

STUDENT LEARNING OBJECTIVES

As a result of this lesson, the student will ...

1. Identify the food pyramid and its importance.
2. Observe the chemical reactions in foods.





TIME

Instruction time for this lesson: **20-25 minutes.**



RESOURCES

<http://www.mypyramid.gov/KIDS/> -coloring pages and worksheets

<http://www.fns.usda.gov/TN/kids-pyramid.html>

http://kidshealth.org/kid/stay_healthy/food/pyramid.html

<http://www.andybrain.com/sciencelab/2007/11/22/a-classic-easy-chemical-reaction-with-baking-soda-and-vinegar/>

http://teamnutrition.usda.gov/Resources/mpk_poster.pdf -Poster of food pyramid

<http://www.nutritionexplorations.org/kids/nutrition-pyramid.asp>



TOOLS, EQUIPMENT AND SUPPLIES

- ✓ PALS.41. AS.A
- ✓ baking soda
- ✓ vinegar
- ✓ plate (to catch spills)
- ✓ glass container
- ✓ spoon
- ✓ writing surface

KEY TERMS



Key Terms

The following term is presented in this lesson and appears in ***bold italics***:
None

INTEREST APPROACH

Use the PALS.41.AS.A worksheet to create interest among the students.



What are our basic needs in life? (*Answers should be food, clothing and shelter.*) You all are on the ball! Way to go! Today we are exploring foods, their reactions and their importance. For starters, we're going to take a few minutes to complete our worksheet.

Hand out worksheet. Move around the room and provide help, if needed. When students have finished writing, ask for volunteers to raise their hands and share their answers with the class. Meanwhile you can have another volunteer writing the correct worksheet answers on the board.



Good job on the worksheet! Now we are going to take a look at the six food groups that make up nutrition's most notable structure—the famed Food Pyramid!

SUMMARY OF CONTENT AND TEACHING STRATEGIES

OBJECTIVE 1. | Identify the parts of the food pyramid.



What are some healthy foods? *Brainstorm some food groups and list them on the board. Draw a pyramid on the board. Take the time to label your food pyramid with the following nutrition groups: grains, fruits, vegetables, milk and the meat and beans segment. The tiniest (and perhaps most caloric) group—oil—merits only a sliver of space on the pyramid.*

What shape is this? *Show a pyramid.* On your paper, draw a large pyramid. Label each section a different group: Grains, vegetables, fruits, milk, meat and beans and then last (and actually the least) of all—oil. Next, draw your favorite foods in the corresponding sections. For example, if chocolate milk is your favorite, draw a carton of chocolate milk in the milk section.



Wow! We just created food pyramids. Why is it necessary to eat healthy? *Discuss with the group the importance of good nutrition.* The foods that we choose to eat affect our bodies in different ways. Next we are going to see what happens when some foods are mixed.

OBJECTIVE 2. | Observe chemical reaction with food.



Set up the baking soda and vinegar in advance. Be sure to position them upright so that if they spill, cleanup will be easier. You will need to place this in a pan or small container. Remember: Safety first. Students should be in their seats.



What will happen if we put this vinegar into the baking soda? *Brainstorm answers from the group.*

Let's see. *Witness the reaction and discuss with the group how foods work together to provide the things our bodies need in order to function.*

Explain that this experiment demonstrates how two chemicals work together just as food works in our bodies. Our bodies use different parts of the food for different purposes.





REVIEW / SUMMARY

Use the Show-What-You-Know Moment to review. If you are incorporating online games/activities, these can be used as reviews/evaluations as well.

APPLICATION

Continued Discussion/Activity: *If time allows, students could witness the reaction of yeast in water or in bread (during a period of 60 minutes).*



One-on-One Suggestion: *Discuss ways to eat healthy with your PALS and write down what foods he or she has eaten that day. Then evaluate if they were wise food choices.*



ANSWERS TO PALS.41.AS.A:

1. pineapple
2. cherries
3. kiwi
4. pear
5. mango

Name _____

Fruit Pictograms

Use the pictures and clues to figure out the fruits.

1.  +  = P _____

2.  + "EEE" = _____ r _____

3.  +  = _____ W _____

4. "P" +  = _____

5.  +  = _____ O