

# STEM

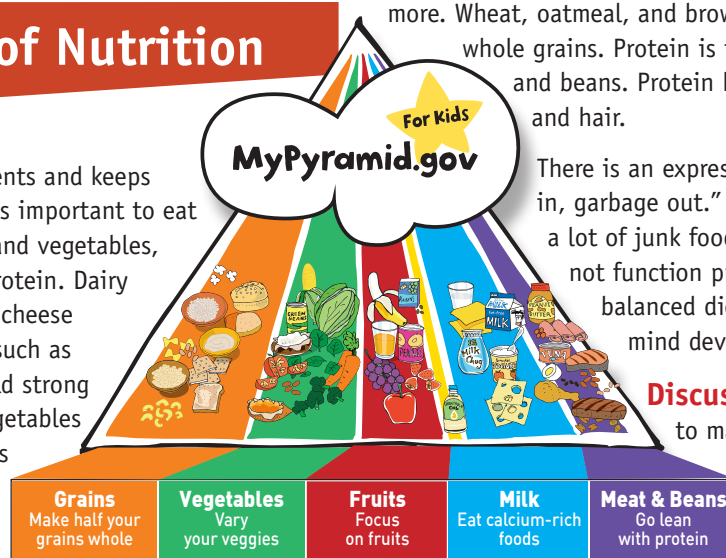
SCIENCE | TECHNOLOGY | ENGINEERING | MATH

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*Growing future scientists, technologists, engineers, and mathematicians with the newspaper!*

## The Biology of Nutrition

The food we eat provides nutrients and keeps our bodies working properly. It's important to eat a balanced diet of fresh fruits and vegetables, whole grains, dairy, and lean protein. Dairy products like milk, yogurt, and cheese provide vitamins and minerals such as calcium and phosphorus to build strong teeth and bones. Fruits and vegetables provide the majority of vitamins and minerals to keep our bodies healthy and to help fight infection. It is important to eat five servings a day and to eat a variety of fruits and vegetables. Whole grains provide fiber and help control heart disease, cholesterol, and much



more. Wheat, oatmeal, and brown rice are examples of whole grains. Protein is found in fish, meat, eggs, and beans. Protein helps build muscle, skin, and hair.

There is an expression that says, "Garbage in, garbage out." This means that if you eat a lot of junk food, your mind and body will not function properly. However, eating a balanced diet will help your body and mind develop and work correctly.

**Discuss:** Why is it important to make healthy food choices? How can you make healthy food choices at home, school, and on the go?

**Learning Standards:** Use nonfiction text to find details to support your inferences. CCS.ELA-LiteracyCCRA.R.2, CCS.ELA-Literacy.CCRA.L.6

## Become A Mad Scientist!

**Background Information:** Have you ever noticed that when you eat a lot of sugar you feel a jolt of energy? Sugar enters the bloodstream quickly and your body goes

to work to remove it. When your body has removed the sugar, you feel tired, hungry, or achy. Carbohydrates, found in foods such as bread and potatoes, enter the bloodstream more slowly. In this experiment, you will observe how the bloodstream absorbs sugar and carbohydrates.

**Materials Needed:** 2 glasses, corn syrup, red food coloring, measuring spoon, sugar, flour



### Directions:

- STEP 1.** Fill two glasses halfway with corn syrup
- STEP 2.** Add two drops of red food coloring to each glass to represent artificial blood.
- STEP 3.** Place one teaspoon of sugar on top of the liquid in one glass and one teaspoon of flour on top of the liquid in the other.
- STEP 4.** Watch the two glasses to see which is absorbed more quickly.

**Analyze:** Record your observations. What can you conclude about eating sugar and carbohydrates?

**Learning Standards:** I can follow instructions to complete an experiment. CCS.ELA-Literacy.CCRA.R.1



## Extra! Read All About It!

**Directions:** Use the newspaper to complete the following activities to sharpen your skills.

**Activity:** Newspapers are a great source of recipes. Find a recipe in the newspaper and imagine you're going to make enough of the food to share with your classmates. Convert the serving size and ingredients in the recipe to make enough for everyone in your class.

**Learning Standards:** Use nonfiction text to locate specific information. Add, subtract, and multiply for real-life application. CCS.ELA-Literacy.CCRA.W.4, CCS.ELA-LiteracyCCRA.R.2

## Go Figure!

**Directions:** Use your math skills to analyze food labels.

### Questions:

- 1** Fat has 9 calories per gram. If your food has 4 grams of fat, it would have 36 total calories from fat. Look at your label. How many grams of fat does it contain? \_\_\_\_\_ How many calories is this? \_\_\_\_\_
- 2** Protein has 4 calories per gram. If your food has 4 grams of protein, it would have 16 total calories from protein. Look at your label. How many grams of protein does it contain? \_\_\_\_\_ How many calories is this? \_\_\_\_\_

**3** Carbohydrates also have 4 calories per gram. How many grams of carbohydrates are listed on your label? \_\_\_\_\_ How many calories is this? \_\_\_\_\_

### Extension:

If you have food with multiple servings in the package, like a large bag of chips, determine the weight and number of chips in each serving.

**Learning Standards:** I can use numbers to add, subtract, multiply, and divide to solve problems. CCS.MathContent.3.OA.A3