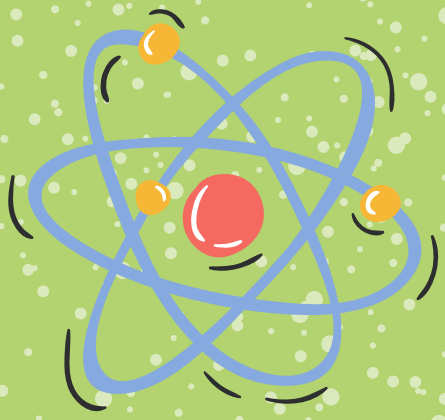


FOOD SCIENCE FILES

Activities and handouts that teach students about the science behind the food we eat

This material was funded by USDA's Supplemental Nutrition Assistance Program -- SNAP.
This institution is an equal opportunity provider.

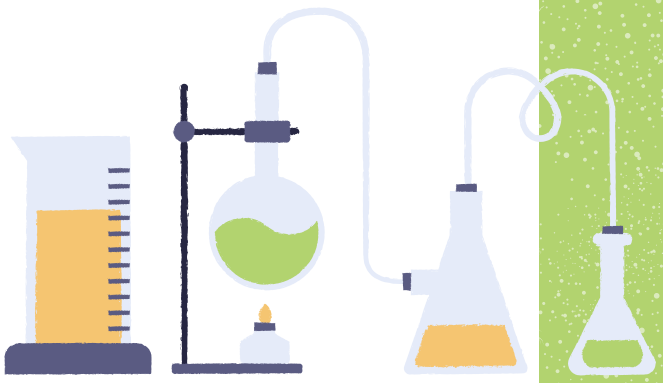
Developed by Rachael Manasseh.

TABLE OF

CONTENTS

How to use this booklet:

These resources are designed for students in middle school to learn about different science concepts using recipes and nutrition-related activities. Each of the five handouts is accompanied with an activity guide that can be used as a lesson plan for teaching students. Every activity guide includes a "MyPlate Connection", which relates the content of each handout to nutrition and healthy eating using the MyPlate model. Most of the guides also include modifications and can be adapted to any class size. Handouts can either be printed or sent as a pdf file for students to have at home.



Let's get learning!

ACTIVITY GUIDES

All About Bread Activity Guide

How Does Bread Rise? (10-15 minutes)

The purpose of this activity is to teach students about the role of each ingredient in bread and how they work together to make bread dough rise.

Materials:

- Box/container of flour
- Yeast packets
- Salt
- Cup of water

Preparation:

- Review the function of each ingredient on the first page of the All About Bread Handout.

Activity:

- Decide whether to do this activity as a larger group or in smaller groups.
  - If in a large group, go through each ingredient and ask students how they think that ingredient works in bread dough.
  - If in smaller groups, divide students into four groups and give each group one of the four ingredients. Have students spend 5-7 minutes brainstorming how they think their ingredient works in bread dough. Bring everyone together and have each group share their answers.
- Review with students what the function of each ingredient is and how they work to make bread dough rise. Refer to the first page of the All About Bread Handout.

Modifications:

- Pictures or PowerPoint slides of each ingredient can be used instead of actual ingredients.

Oatmeal Bread Recipe (1-2 hours)

The purpose of this activity is to show students how bread is made by making bread dough together.

Materials:

- Ingredients list from second page of All About Bread Handout
- Mixing bowls
- Measuring spoons and cups
- 9x5 inch baking pan

Preparation:

- Gather ingredients for the Oatmeal bread recipe.

Activity:

- Make the Oatmeal Bread recipe from the second page of the All About Bread Handout with students (Make sure everyone washes their hands beforehand).
- Have one group of students help measure out ingredients and another group help to mix/knead the dough.
- While the bread bakes, lead students through the How Does Bread Rise Activity and/or the MyPlate Connection Activity.
- Give each student a slice of bread and have them share what they think about the bread's taste, texture, shape, and color.
- Leading questions:
    - What are some differences between the bread dough before and after it rose?
    - What did you notice about the bread's taste?
    - What did you notice about the bread's texture or color?

Modifications:

- If time is limited, this activity can be a mindful eating exercise. Prepare the Oatmeal bread recipe ahead of time and have students taste the bread and share their observations based on the five senses (sight, touch, smell, taste, and hearing). Store bought bread can be used for this exercise as well.

MyPlate Connection (10-15 minutes)

The purpose of this activity is to discuss the health benefits of grains using the MyPlate model. Students can also learn about the difference between refined and whole grains.

Materials:

- MyPlate model (can be either printed or presented on a PowerPoint slide)
- Paper and pencils

Preparation:

- Review Grains Group on the MyPlate website.

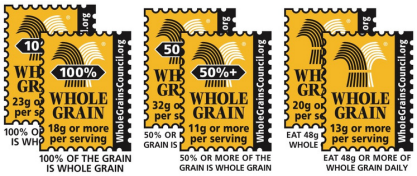
Activity:

- Show students the MyPlate model and point out the grains section.
- Ask students what foods they think belong in the grains section of MyPlate.
- Explain to students the importance of eating whole grains in their diet. Talk about nutrients such as:
  - Fiber: good for heart and digestive system
  - B vitamins: help the body use energy from the food we eat
  - Iron: carries oxygen in bloodstream to other parts of the body
- Have students write down food in the grain group that they eat every day and how they can add more whole grains to their diet.
  - Ex: eating whole wheat bread instead of white bread, or brown rice instead of white rice
- Leading questions:
  - What are some examples of food you eat every day that contains grains?
  - Why do you think we need to eat whole grains in our diet?

Modifications:

- Teach students about the difference between refined and whole grains. Refined grains go through processing which causes them to lose some of their nutrients, while whole grains go through less processing and retain more nutrients such as fiber and iron. Bring a few refined grain and whole grain products, and have students compare them by looking at their labeling and ingredient lists. See table on page 8 for example food products and ingredients to look for.

MyPlate Connection (cont'd)

Whole Grain Food Products	Refined Grain Food Products
Example ingredients to look for:	
• Whole Grain Wheat Flour • Whole [name of grain] • Brown Rice • Oats/Oatmeal • Quinoa • Food products with Whole Grain Food Stamp as seen below (image from https://wholegrainscouncil.org/whole-grain-stamp).  	• Enriched Flour • Wheat Flour • Bran • Wheat Germ • White Rice • Food products labeled "multigrain" may contain a mix of whole and refined grains.
Example food products include:	
• 100% Whole wheat bread • Whole grain pasta • Whole grain crackers • Whole grain cereal Example Whole Wheat Bread Ingredient list: Whole grain wheat flour, water, yeast, sugar, wheat gluten, soybean oil, salt, molasses, etc…	• White bread • Non-whole grain pasta • Cookies • Non-whole grain cereal Example White Bread Ingredient list: Enriched wheat flour, water, sugar, wheat gluten, salt, etc…

Color Changing Noodles Activity Guide

Color Changing Noodles Recipe + Taste Test (30-45 minutes)

The purpose of this activity is to teach students about acids and bases by making the Color Changing Noodles Recipe together.

Materials:

- Ingredients list from first page of the Color Changing Noodles Recipe
- Stovetop or hot plate
- Large pot for boiling water
- Knife and cutting board
- Small grater or zester
- Measuring cups and spoons
- Tongs
- Bowls for prep and serving
- Plastic forks and spoons

Preparation:

- Gather all ingredients for Color Changing Noodles Recipe.
- Review the second page of the Color Changing Noodles Handout.

Activity:

- Make the Color Changing Noodles recipe from the second page of the Color Changing Noodles Handout (Make sure everyone washes their hands beforehand).
    - This activity can be done in a large group, or students can be split into three groups to work on prepping veggies, cooking the rice noodles, and making the lemon sauce.
- Once all components are done, bring students back together to observe the noodles changing color.
- Have students choose the vegetables they would like with their noodles.
- Have students share their observations of the color change as well as what they think of the taste, textures, etc. of the noodles.

Modifications:

- If time is limited, make the recipe beforehand (don't mix the sauce with the noodles) and have students add the lemon sauce to their own noodles to watch the color change.
- Add a mindful eating application and have students share their observations based on the five senses (sight, touch, smell, taste, and hearing).

MyPlate Connection (10-15 minutes)

The purpose of this activity is to discuss how to have a balanced meal using the MyPlate model.

Materials:

- MyPlate model (can be either printed or presented on a PowerPoint slide)
- Pictures of different meals (can be either printed or presented on a PowerPoint slide)
    - Ex: Mac and cheese, salad, cereal and milk, salmon, and vegetables

Preparation:

- Review Food Group Gallery on the MyPlate website.

Activity:

- Show students the MyPlate model and point out each of the five sections.
    - Point out how half of the plate is fruits and vegetables, while the other half is grains and protein. Also point out the dairy portion on the side of the plate.
    - Mention how this tool can help us create well-balanced meals while also allowing us to eat a variety of different food/meals.
- Have students look at the pictures of different meals and point out the different food groups they see in that meal.
- Ask students what groups make up the Color Changing Noodles Recipe.
- Leading questions:
    - What food groups were a part of the Color Changing Noodles recipe? (Fruits, Vegetables, Grains)
    - What are some examples of meals you have at home that contain multiple food groups from MyPlate? (Ex: sandwiches, veggie pizza, spaghetti and meatballs, fried rice)
    - What fruits or vegetables would you add to the noodles if you made this at home?

Modifications:

- Either in groups or individually, have students create their own meal using the MyPlate model. Give each student/group their own paper plate and have them write/draw the food they would add for their MyPlate meal. You can also print out copies of the MyPlate coloring sheet found here: https://myplate-prod.azureedge.us/sites/default/files/2020-12/ColoringSheetBlank.pdf

Garden Lab Activity Guide

Root Dissection (15-20 minutes)

The purpose of this activity is to have students learn about the structures of root systems by observing different root vegetables.

Materials:

- Variety of root vegetables (carrots, onions, potatoes, radishes, etc.)
- Paper plates and/or cutting boards
- Magnifying glasses
- Paper, coloring pencils/markers

Preparation

- Leave some root vegetable whole and cut the others in half lengthwise.
- Review the first page of the Garden Lab Handout.

Activity

- Review the function of each part of a root vegetable using the first page of the Garden Lab Handout.
- Split students into groups and give them one type of root vegetable as a whole and as a half cut lengthwise.
- Have students take turns observing their given root vegetable using the magnifying glass.
- Give students a blank sheet of paper and have them draw a plant diagram for their root vegetable. Tell them to label the leaves, stems, taproot, and root hairs on their diagram. They can also include other observations they found on their diagrams as well.
- Bring students back together and have them share their diagrams.

Activity adapted from https://www.wholekidsfoundation.org/assets/documents/school-garden-lesson-plans.pdf

Growing Green Onions (1-2 weeks)

The purpose of this activity is to teach students about indoor gardening by growing green onions using hydroponics.

Materials:

- Green onion roots, with 1-2 inches of stems attached
- Glass jars
- Paper towels
- Markers and masking tape (optional)

Preparation:

- Prep the green onions by cutting off the stems so that 1-2 inches remain attached to the roots.
- Review the second page of the Garden Lab Handout.
- Prep an example glass jar with green onion roots if desired.

Activity:

- Give each student a glass jar with some green onion roots on the side. Optionally, have students label their jar with their name using the masking tape and markers.
- Have students place a few green onion roots in their jar along with a small amount of water. The water should cover the roots while the tops of the green onions stay above water.
- Keep the jars in a bright area where students can observe their growth.
- Check in on the jars every few days for about 1-2 weeks. Replenish the water in the jars as needed.
- Have students write down or draw their observations of the green onions every few days. Once the green onions have sprouted and grown, students can take their green onion plants home.

Activity adapted from https://www.wholekidsfoundation.org/assets/documents/school-garden-lesson-plans.pdf

MyPlate Connection (25-30 minutes)

The purpose of this activity is to teach students about the health benefits of vegetables by having them create their own advertisement for a fruit or vegetable.

Materials:

- MyPlate model (can be either printed or presented on a PowerPoint slide)
- Computer/iPad access (optional)
- Notepaper
- Presentation materials (PowerPoint access, posterboards with markers)
- Container such as a bowl or a box
- Paper pieces
- Marker or pen

Preparation:

- Review Fruits Section of the MyPlate website and Vegetables Section of the MyPlate website.
- Look up different advertisements for food products (online, in magazines/newspapers, etc.) to share with students.
- On each piece of paper, write down a fruit or a vegetable. Fold the paper pieces and place them in a container.

Activity:

- In a large group, show students the MyPlate model. Ask students how much of the plate is made up of fruits and vegetables and why they think it is important to eat fruits and vegetables every day.
- Review some of the nutrients in fruits and vegetables, such as:
  - Potassium: helps maintain healthy blood pressure
  - Fiber: good for heart and digestive system
  - Vitamin A: keeps eyes and skin healthy, protects against infections
  - Vitamin C: keeps teeth and gums healthy
- Next, show students a few advertisements for different food products.
- Discuss what makes a good commercial, such as colors, graphics, music, and catchphrases.
- Split students into groups and have each group pick a piece of paper from the container. Students will then create their own advertisement for the fruit or vegetable written on their paper.
- Give students 15-20 minutes to research nutrition facts. They can either use a PowerPoint presentation (if computer access Is available), create a poster, or act out their advertisement.
- Once time is up, have students share their advertisements with the class!
- Leading questions:
  - What do you think makes a good advertisement?
  - What kinds of food do you usually see advertisement for? (Snacks, soda, fast food, etc.)
  - What was the easiest part of making your advertisement? What was the hardest?
  - What new nutrition fact did you learn while researching your vegetable?

Activity adapted from https://www.wholekidsfoundation.org/assets/documents/school-garden-lesson-plans.pdf

Polymer Power Activity Guide

Model Polymers (15-20 minutes)

The purpose of this activity is to have students make their own model polymer to help them understand the structure of polymers.

Materials:

- Paper clips
- Tape
- Paper scraps
- Cardboard tubes
- Rubber bands
- String
- Pencils/pens

Preparation:

- Review the first page of the Polymer Power Handout.

Activity:

- Split students into teams and have them create a polymer chain using the materials in 10-15 minutes.
- Once time is up, measure each chain to see which group created the longest polymer chain!
- Leading questions:
  - What did you use as the monomer in your model?
  - What was the hardest part about making your model polymer?
  - What other materials would you want if you were to make your polymer again?

Fruit Gummy Recipe (1-2 hours)

The purpose of this activity is to use gelatin, a natural polymer, to make fruit gummies.

Materials:

- Ingredients list from second page of the Polymer Power Handout
- Paper plates for serving

Preparation:

- Gather ingredients for fruit gummy recipe.

Activity:

- Make the fruit gummy recipe with students. (Make sure everyone washes their hands beforehand).
- While the gummies are cooling, go through the MyPlate Connection Activity with students.
- Once the gummies have fully set, remove them from the molds and give them to students to taste.

Modifications:

- If time is limited, fruit gummies can be made ahead of time and shared with students. Have students share their observations using the five senses (sight, touch, smell, taste, and hearing).

MyPlate Connection (15-20 minutes)

The purpose of this activity is for students to learn about the importance of fruits in their diet using the MyPlate model.

Materials:

- MyPlate model (can be either printed or presented on a PowerPoint slide)

Preparation:

- Review Fruits Section of the MyPlate website.

Activity:

- Talk about some of the nutrients found in different fruits, such as:
  - Vitamin C: keeps teeth and gums healthy, helps the body grow and repair tissue and heal cuts/wounds
  - Potassium: helps maintain healthy blood pressure
  - Fiber: good for heart and digestive system
- Have students brainstorm different ways they can incorporate fruit into their everyday diet.
- Leading questions:
  - What are some of the nutrients that are in different fruits?
  - Why is it important for us to eat fruit every day?

Modifications:

- Students can be split into four groups to focus on a certain meal of the day (breakfast, lunch, dinner, snacks). Have each group come up with ways to incorporate fruit into their given meal.

.

Salad Dressing Study Activity Guide

Salad Dressing Study Experiment (30-45 minutes)

The purpose of this activity is to have students observe how emulsifiers work by making three different kinds of salad dressing.

Materials:

- Ingredients list from first page of the Salad Dressing Study Handout
- Timer

Preparation:

- Gather ingredients and materials.
- Review both pages of the Salad Dressing Study Handout.

Activity:

- Split students into three groups, one for the control jar, one for the mayo jar, and one for the mustard jar.
- Have each group make the salad dressing for their jar and bring the groups back together. (Make sure everyone washes their hands beforehand).
- Ask students which jar they think will be mixed for the longest.
- Set a timer for 45 minutes, and have each group check on their jar every 15 minutes.
    - While waiting, explain to students the role of emulsifiers in emulsions using the second page of the Salad Dressing Study Handout.
- At the end of 45 minutes, check all of the jars to see which one stayed mixed for the longest.

Modifications:

- If the group of students is large, split students into smaller groups and give each group 3 jars. Have each group do the experiment on their own and predict which jar they think will be mixed the longest. At the end of 45 minutes, bring the groups back together to discuss their observations and predictions.

Taste Test + MyPlate Connection (15-25 minutes)

The purpose of this activity is to have students taste the different salad dressings while learning about the nutritional benefits of vegetables using the MyPlate model.

Materials:

- MyPlate model (can be either printed or presented on a PowerPoint slide)
- Variety of vegetables (Lettuce, cucumber slices, cherry tomatoes, bell peppers, etc.)
- Paper bowls, plates, and utensils

Preparation

- Prewash and cut vegetables.
- Review Vegetables Section of the MyPlate website.
-

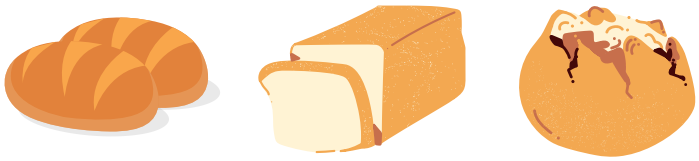
Activity:

- Serve vegetables to students and have them choose which dressing they'd like to try.
    - Students can also be given small amounts of each of the three for them to put on their own vegetables/salad.
- Have students write down or share any mindful eating observations they have using their five senses (sight, touch, smell, taste, and hearing).
- Have students share what their favorite vegetable is.
- Show students the MyPlate model with the vegetable sections, and discuss with students some of the nutrients in vegetables, such as:
    - Potassium: helps maintain healthy blood pressure
    - Fiber: good for heart and digestive system
    - Vitamin A: good for eyes, skin, and protection from infections
- Leading questions:
    - Which salad dressing did you like the best?
    - What are some of the nutrients found in vegetables?
    - How can you incorporate more vegetables into your everyday diet?

HANDOUTS

Food Science Files:

All About Bread



What do we need to make bread?

- Wheat flour contains an important protein called gluten, which helps to give bread its structure.
- Water helps the gluten stretch out more when the bread dough is kneaded.
- Yeast is a type of fungi that releases carbon dioxide in bread dough.
- Salt not only adds flavor, but it also prevents the yeast from releasing too much carbon dioxide into the bread dough.

How does bread dough rise?

Once the yeast is dissolved in water and added to the flour, it begins to release carbon dioxide. The carbon dioxide is then trapped in the gluten, which creates gas bubbles in the bread dough. When the dough is kneaded, the gluten in the flour stretches and traps more gas bubbles, making the dough rise. This is why bread dough needs to rest before baking in the oven.

Let's make this Oatmeal bread recipe:

Ingredients:

- 1 cup rolled oats
- 1 teaspoon salt
- 1 1/2 cups boiling water
- 1 packet active dry yeast
- 1/4 cup warm water
- 1/4 cup molasses
- 1 1/2 tablespoons vegetable oil
- 2 cups whole wheat flour
- 2 cups all purpose flour

Directions:

1. Combine rolled oats and salt in a large mixing bowl. Stir in boiling water; cool to lukewarm (105 - 115 degrees).
2. Dissolve yeast in 1/4 cup warm water in small bowl.
3. Add yeast water, molasses, and oil to cooled oatmeal mixture. Stir in whole wheat flour and 1 cup all purpose flour. Add additional all purpose flour to make a dough stiff enough to knead.
4. Knead dough on lightly floured surface until smooth and elastic, about 5 minutes.
5. Place dough in lightly oiled bowl. Cover with clean towel; let rise in warm place until double, about 1 hour.
6. Punch dough down; turn onto clean surface. Shape dough and place in greased 9 x 5 inch pan. Cover with clean towel; let rise in a warm place until almost double, about 1 hour.
7. Preheat oven to 375 degrees. Bake 50 minutes or until bread sounds hollow when tapped. Cover with aluminum foil during baking if bread is browning too quickly. Remove bread from pan and cool on wire rack.

Recipe from https://www.myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/oatmeal-bread.

This material was funded by the USDA's Supplemental Nutrition Assistance Program-SNAP.
This institution is an equal opportunity provider.

Food Science Files:

Color Changing Noodles

In this activity, you'll get to do a science experiment and eat it too! Here are the ingredients that you'll need:

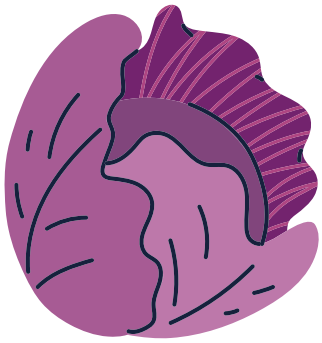
- 1 package rice noodles
- ½ head red cabbage
- 1 tsp baking soda
- Salt and pepper
- Veggie toppings (carrots, peas, cucumber, etc.)
- 2 shallots
- 6 garlic cloves
- ¼ cup olive oil
- 2 lemons
- 1 tsp dried thyme (optional)

Once you have your ingredients, follow the steps below:

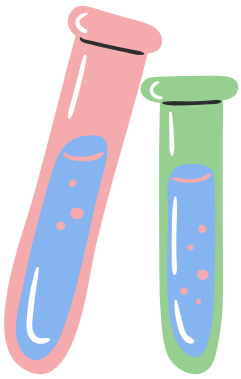
1. Separate red cabbage leaves and place in a pot. Cover with water and boil for about 10 minutes
2. Chop shallots and garlic and sauté in a pan with some oil until browned. Zest and juice the lemons, add ¼ cup olive oil and thyme, and combine with the shallots and garlic. Salt to taste and set aside.
3. Remove the red cabbage leaves and add baking soda to water. You should see the water sizzle and turn to a blue color!
4. Add the rice noodles. Cover and cook on low heat for five minutes. Once done, drain the noodles
5. Place the noodles into separate serving bowls. Add 2 Tbsp. of the lemon sauce to the noodles and mix. The noodles should turn from blue to purple to pink!
6. Toss in your veggies and enjoy!

How were the noodles able to change color?

Red cabbage contains a molecule called **anthocyanin**. When the red cabbage leaves are boiled, anthocyanin is released into the water, turning it purple!



Anthocyanin can be used as a pH indicator. **pH** is what we use to measure how acidic or basic a liquid is.



Baking soda is a **base**, so when it's added to the red cabbage water, it turns blue! Once the rice noodles are added to the water, they become blue as well.

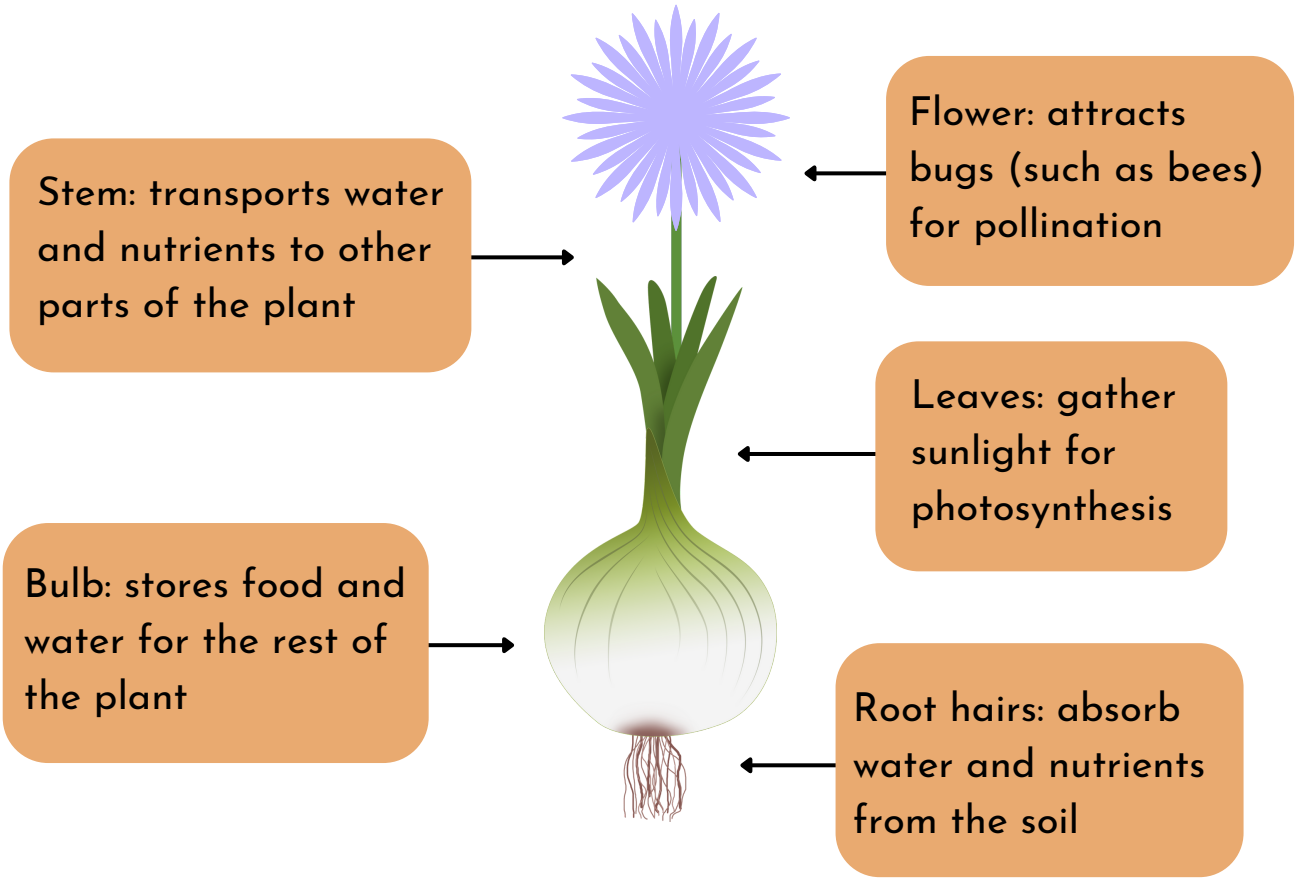
Lemon juice is an **acid**, which causes the anthocyanin in the red cabbage water to react differently. When you add the lemon sauce to the noodles, they should change from blue to pink due to the reaction!

Recipe adapted from https://leftbraincraftbrain.com/magical-color-changing-unicorn-noodles/.
This material was funded by the USDA's Supplemental Nutrition Assistance Program-SNAP.
This institution is an equal opportunity provider.

Food Science Files:

Garden Lab

In this activity we will learn what the functions of each part of a plant are, and we'll get to grow our own vegetables right at home! Below is a diagram that explains the role of the parts that make up an onion plant:



Onions are just one type of **root vegetable.** Other root vegetables include carrots, radishes, jicama, beets, and potatoes. Oftentimes, these vegetables will still have their roots attached to them when sold in grocery stores.

One way to grow root vegetables is by using a gardening method called **hydroponics.** This means growing a plant in water instead of planting it in soil. We will be using this method to regrow green onions indoors!

Directions

1. Take a bunch of green onions and cut off the roots with 1-2 inches of stems attached.
2. Fill a jar with a small amount of water and place the root trimmings inside. Make sure that the roots are submerged in the water and that the top of the stems stay above the water.
3. Keep the jar in a bright area.
4. Add water every few days to keep the roots submerged. Write down your observations to keep track of their growth.

Once your green onions have sprouted, you can keep them in the jar with water or plant them in soil outside. You can also try this experiment with lettuce, garlic, herbs, and potatoes!

Lesson adapted from Regrow Green Onions / Scallions from Kitchen Scraps: 2 ways! - A Piece Of Rainbow

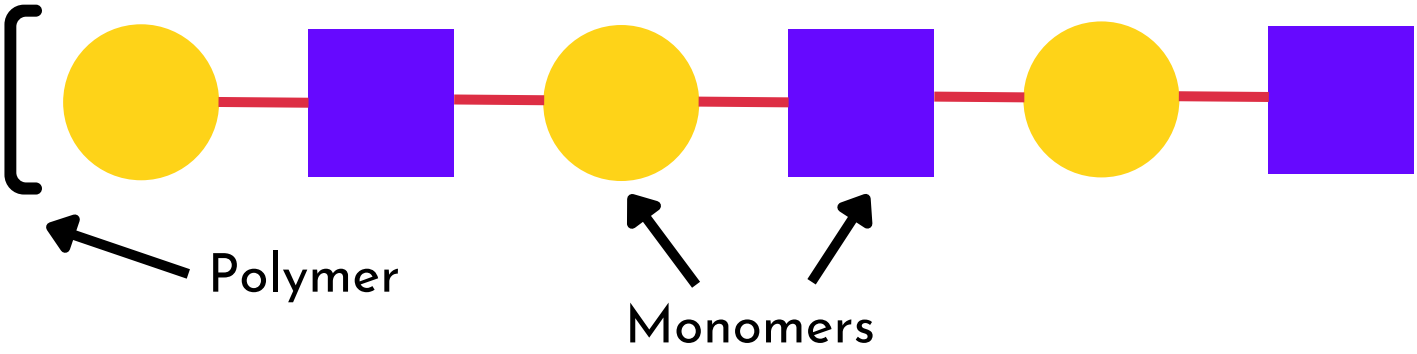
This material was funded by the USDA's Supplemental Nutrition Assistance Program-SNAP.
This institution is an equal opportunity provider.

Food Science Files:

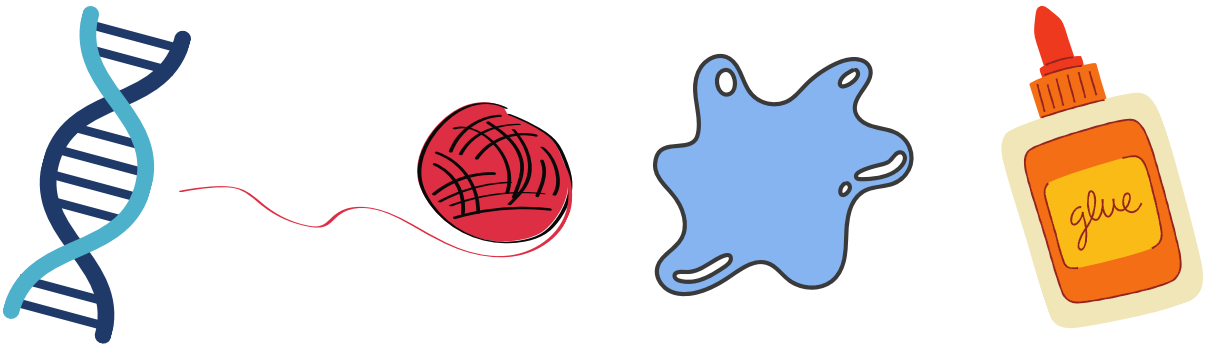
Polymer Power

What is a polymer?

A polymer is a large molecule that is made up of many smaller molecules called monomers. Think of a necklace with beads strung together. The beads represent the monomers, while the necklace represents a polymer.

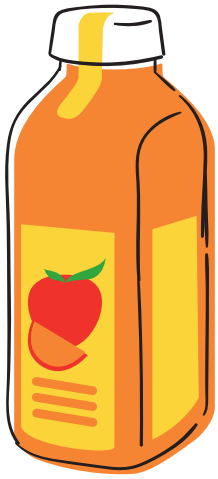


Polymers exist in all kinds of forms and can be either natural or synthetic. Some natural polymers include DNA, wool, silk, and protein. Synthetic polymers are used to make different types of plastic, glue, and even slime!



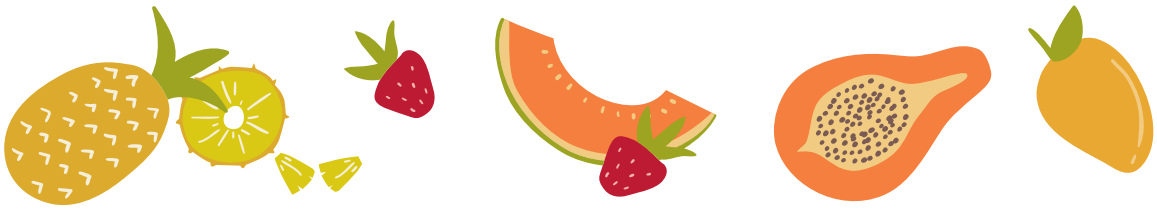
In this recipe, we will use gelatin, a natural polymer, to make fruit gummies! Here are the ingredients and tools that you will need:

- 1 cup fruit juice
- 2 ½ tablespoons gelatin powder
- 2 tablespoons honey
- Small saucepan
- Ice cube tray, silicone molds or square baking pan



Once you have everything, follow the steps below:

1. Combine the fruit juice, gelatin powder, and honey in a small saucepan.
2. Cook over medium-low heat until the gelatin is dissolved, about 1 minute.
3. Remove from heat and pour into ice cube tray, silicone molds, or square baking tray.
4. Refrigerate for 2 hours or until solidified.
5. Remove from molds and enjoy! The gummies can be stored in the fridge for 3-4 days.



Recipe adapted from https://www.modernhoney.com/homemade-gummy-fruit-snacks/.

This material was funded by the USDA's Supplemental Nutrition Assistance Program-SNAP.
This institution is an equal opportunity provider.

Food Science Files:

Salad Dressing Study

Have you ever tried to mix oil and water or oil and vinegar together? If you have, then you've probably noticed that they like to stay separated. In this activity, we will test out different ingredients to see which one keeps oil and vinegar mixed together for the longest, while also making a delicious salad dressing!

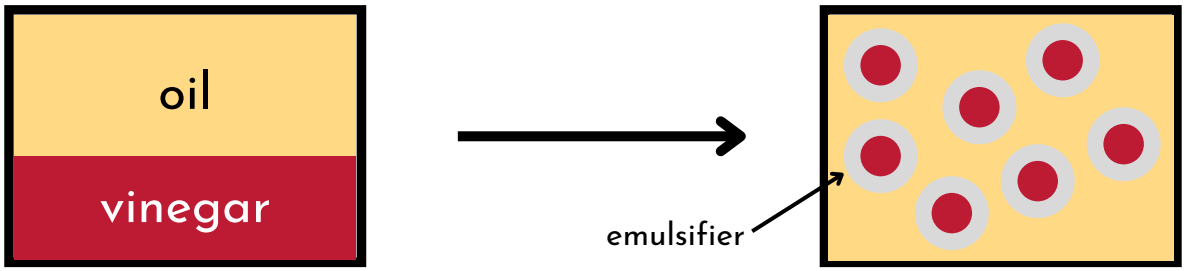
Materials and Directions:

- 1 cup + 2 Tbsp olive oil
- 6 Tbsp red vinegar
- 1 tsp Dijon mustard
- 1 tsp mayonnaise
- Masking tape
- Marker
- 3 mason jars
- Measuring spoons

1. Write labels that say "control", "mustard", and "mayo" and stick one to one of the three jars.
2. Add 6 Tbsp olive oil + 2 Tbsp vinegar to each jar.
3. In the "mustard" jar, add 1 tsp of Dijon mustard.
4. In the "mayo" jar, add 1 tsp of mayonnaise.
5. Shake all the jars for 30 seconds
6. Predict which jar you think will stay mixed the longest.
7. Set a timer for 45 minutes, and check on the jars every 15 minutes. Write down your observations to see if your prediction was correct!

What's the science behind salad dressing?

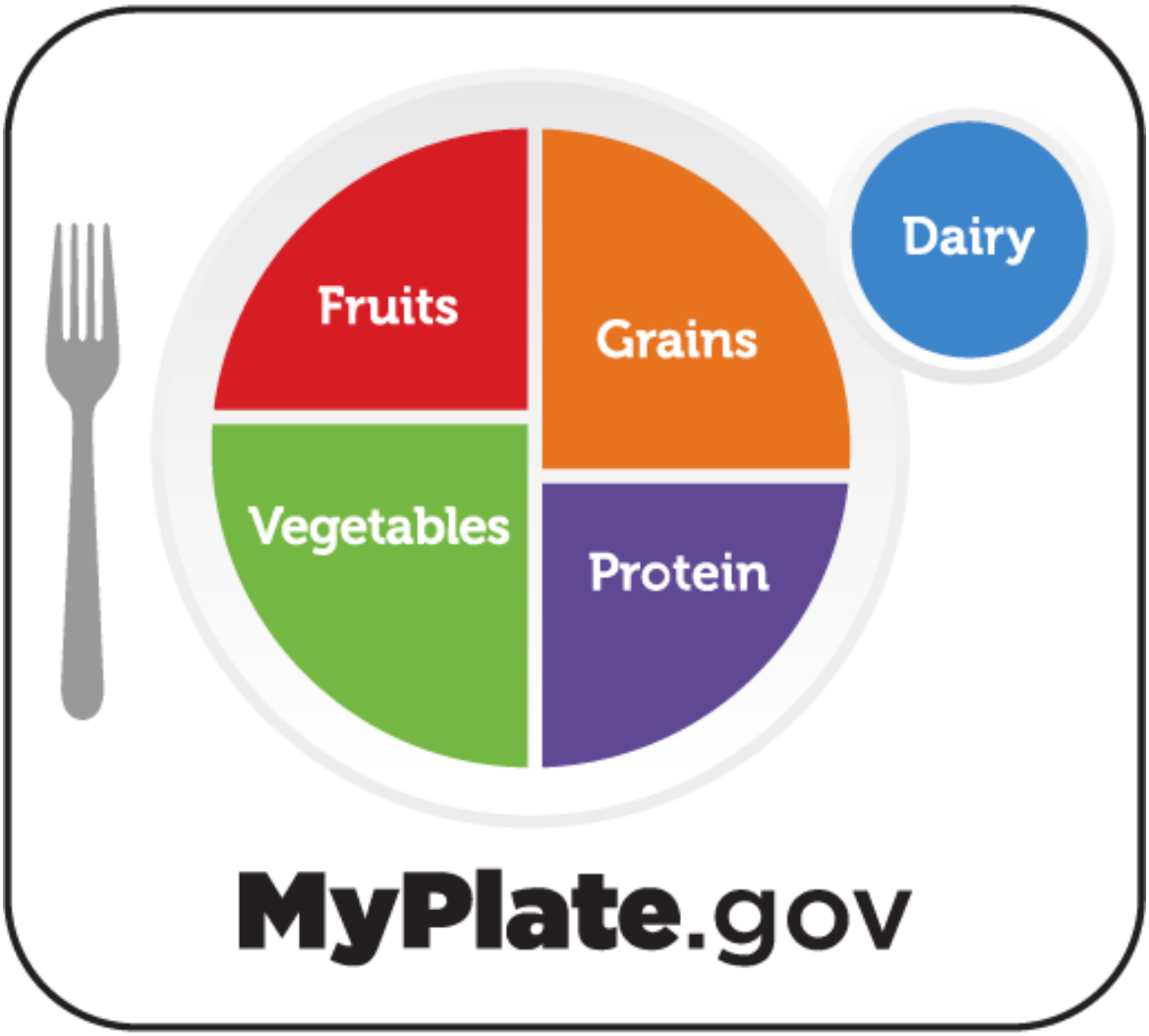
When oil and vinegar are mixed together, they create an **emulsion**, which is a combination of liquids that do not stay mixed together for long. After a few minutes, the oil and vinegar will separate into 2 layers, no matter how much you try to mix them together.



This is why **emulsifiers** are used to keep the emulsion together. An emulsifier is a molecule that is attracted to both liquids and acts as a "bridge" to keep them mixed for longer. Mayonnaise and mustard contain emulsifiers, which is why they are used in many salad dressing recipes.

Which jar had the emulsion that stayed mixed the longest? When you're done with your experiment, you can add your emulsions to a bowl of salad or precut vegetables for a healthy snack!

Lesson adapted from https://www.americastestkitchen.com/kids/activities/amazing-emulsions.
This material was funded by the USDA's Supplemental Nutrition Assistance Program-SNAP.
This institution is an equal opportunity provider.



This material was funded by the USDA's Supplemental Nutrition Assistance Program-SNAP.
This institution is an equal opportunity provider.

FOOD SCIENCE FILES