

## Dear Educator,

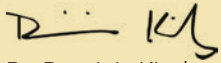
October is Popcorn Poppin' Month. Your class can pop into the party with this free educational program from The Popcorn Board and the curriculum specialists at Young Minds Inspired. You might also be inspired to enter the Popcorn Pep Club Contest!

Students will learn about this agricultural marvel with fun, easy-to-implement activities that support consumer science, language arts, science, and health classes.

Please share this program with other teachers and let us know what you think about it. Comment online at [ymiclassroom.com/feedback-popcornmagic](https://www.ymiclassroom.com/feedback-popcornmagic).

Your feedback helps make our programs better!

Sincerely,



Dr. Dominic Kinsley  
Editor in Chief  
Young Minds Inspired

Questions? Contact YMI toll-free at 1-800-859-8005, or by email at [feedback@ymiclassroom.com](mailto:feedback@ymiclassroom.com).



# It's Time for a POP of magic!

## Target Audience

- Grades 4-8

## Program Components

Available at [ymiclassroom.com/popcornmagic](https://www.ymiclassroom.com/popcornmagic):

- This teacher's guide
- 2 reproducible student activity sheets
- An educational standards chart

## Concepts and Skills

Popcorn legend	Reading informational text
Agriculture, growing popcorn	Brainstorming skills
Science of why popcorn pops	Creative expression
Recipes	Labeling diagrams
Nutrition	Recipe development, writing directions

## How to Use the Program

Make photocopies of the activity sheets to use in class. Students may need internet access to complete the activities.

### Activity 1

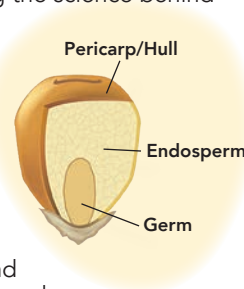
### Popcorn: Legend and Science

Popcorn is a magical treat with deep roots in American culture. It's also a healthy, whole grain snack that tastes great. Students will first explore a legend that explains why popcorn pops, before reading the science behind the popping.

Distribute the activity sheet and review Part 1, which introduces the legend. Have students work independently or in small groups to brainstorm other legends or myths that might explain why popcorn pops.

Next, have students read Part 2 and label the diagram of the popcorn seed using information from the reading passage.

How did students' legends match up to real science? Invite students to share their stories.



**Extensions:** Have students develop their own legends about scientific phenomena like the sun rising each day, why it rains, etc. Additionally, have students work in groups to research additional facts about the science and history of this ancient food, which is still loved today, on The Popcorn Board's website: [popcorn.org](https://www.popcorn.org).

### Activity 2

### A Magical Snack!

The smell of popcorn can make you suddenly so hungry that you gobble up a bowl. But unlike other snacks that may be full of empty calories, this magical food is also good for you.

Distribute the activity sheet and have students read the health benefits of whole grain popcorn. In Part 1, as a group, brainstorm ingredients and spices that could be added to popcorn to add a punch of flavor, but also keep it a healthy snack. Have students list these items on their activity sheet.

In Part 2, students plan personal popcorn recipes to keep the nutrition bursting from this fantastic snack. For inspiration, students can explore [popcorn.org/recipes](https://www.popcorn.org/recipes).

**Extension:** Have students create an imaginary magazine or social media "page" with images, a persuasive description to encourage others to try their extra nutritious popcorn treat, and their recipe.

## Get Poppin' with the Popcorn Pep Club Contest

Here's a poppin' good project! Inspire your students to enter the annual Popcorn Pep Club Contest to showcase their team spirit and love of popcorn for the chance to win cash prizes for your school — \$10,000 in cash prizes will be awarded to schools, with top schools winning \$2,500 or \$1,500. **The deadline is December 31, 2023.** For more information, go to [popcorn.org/PepClub](https://www.popcorn.org/PepClub).

## Resources

The Popcorn Board – [popcorn.org](https://www.popcorn.org)  
YMI program site – [ymiclassroom.com/popcornmagic](https://www.ymiclassroom.com/popcornmagic)



# Popcorn: Legend and Science

Popcorn is a magical treat with deep roots in American culture. Popcorn is a type of grass that has been around for thousands of years and is unique in its ability to pop. What makes popcorn transform from hard kernels or seeds into a fluffy, edible treat?

## Part 1 A Folklore Explanation

Native American legend explained that the transformation was because of spirits. They believed that a spirit lived inside each kernel, and as the kernel was heated, the spirit became more and more angry, and finally burst out of its home as an agitated puff of steam. The edible treat remained.

What else might explain why the kernel pops and jumps in the pan, creating this magical transformation? On the back of this sheet, create your own legend or myth that describes the process. Use your imagination!

## Part 2 Crack the Science of Popcorn!

Popping popcorn feels like magic but the process is all science. Here's how it works:

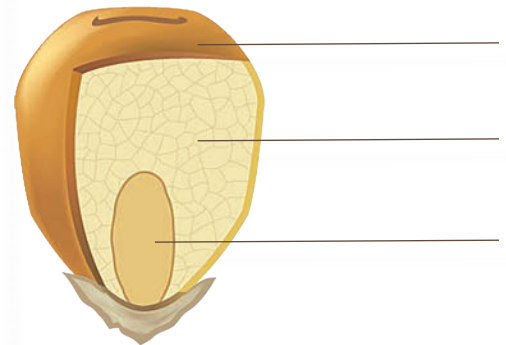
- Popcorn seeds have three parts: the *germ*, *endosperm*, and *pericarp*. The pericarp is also called the *hull*, the hard kernel you might find in the bottom of your popcorn bucket.
- Each tiny golden hull has a small amount of water inside to help it pop. The water is stored inside soft starch of the endosperm.
- As the kernel heats up, the water inside heats up. Water expands as it heats. At about 212 degrees the water turns into steam. Steam makes the starch gelatinous and increases the pressure in the hull.
- At about 347 degrees, the hull bursts open, letting out the steam. Inflated soft starch also bursts out. It rapidly cools making the shape of a puff of popcorn, ready to eat. It's like magic!

## Tiny and Powerful!

Use the information you just read and the word bank to label the diagram of a popcorn seed.

### Word Bank

endosperm germ  
pericarp/hull











### Families:

Pop on over to The Popcorn Board at [popcorn.org](http://popcorn.org) for delicious and nutritious recipes and information on popcorn!

# A Magical Snack!

Popcorn is a popular snack that can add fun to any occasion. But did you know that in addition to being a tasty snack, popcorn is also good for you? That's a magical snack! Read more about popcorn's nutrition.

-  Popcorn is a whole grain.
-  Popcorn is vegan, gluten-free, sugar-free, and non-GMO, and has no additives.
-  Popcorn is naturally low in calories and low in fat. Without oil it has 30 calories per cup. When popped in oil, it has 35 calories a cup. (Lightly buttered popcorn bumps it up to 80 calories.)
-  Three cups of popcorn equal a serving of grains.
-  Whole grains provide the body with nutrients like zinc and magnesium, and vitamins B, A, E, and K.
-  Popcorn is a natural way to get fiber. Fiber from grains may help lower the risk of heart disease, obesity, and Type 2 diabetes.
-  A serving of popcorn even has iron.
-  Popcorn is a great snack between meals.

## Part 1

Popcorn can be mixed with other ingredients and spices to create sweet and savory snacks. What are some ingredients and spices that could make popcorn pop with even more flavor and nutrition?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

How can popcorn become an unhealthy snack?

\_\_\_\_\_

\_\_\_\_\_

## Part 2

### My Personal Popcorn Plan

Now, create a recipe with step-by-step directions to make popcorn burst with even more health power. Check out these examples of mix-ins or brainstorm your own: nuts, dried fruits, berries, spices, yogurt, or grated cheese. Use your imagination!

I'm going to make my popcorn even more delicious and nutritious by adding:

\_\_\_\_\_

Follow these steps!

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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Pop on over to The Popcorn Board at [popcorn.org](http://popcorn.org) for delicious and nutritious recipes and information on popcorn!

