



# Wonder Series

## The Science of Awe



## Outstanding October

**"I'm so glad I live in a world where there are Octobers."-Anne from Anne of Green Gables by Lucy Maud Montgomery**

Welcome to installment number three of the 4-H Wonder Series. The series centers on the emotion **"awe"** and how it can benefit youth (and people of all ages) by helping to make us happier, healthier and more connected. Awe is the feeling we get when something leaves us breathless, inspired, or mystified. It gives us a sense of being in the presence of something greater than ourselves, something immeasurable. There are many ways to help facilitate the feeling of awe. ***This month covers awe through nature, scientific exploration, social experiences, engaging in meaningful traditions, and awe induced by the "spooky!"***

September's edition of the 4-H Wonder Series offered an exploration of how **immersion into nature** is a great way to experience awe. For October, we continue that exploration as we focus on the changing of seasons and nature's colorful show during this time of year in the Midwest. Take this opportunity to see when the fall leaves will be changing color in your neighborhood! For the Quad Cities, the color change is predicted to be well under way by mid-October and will peak near the end of the month. Check out the Fall Foliage Prediction Map at the following website: <https://smokymountains.com/fall-foliage-map>

**The wonders of science can also inspire awe as we explore the inner workings of the world around us.** The process of foliage color change is fascinating! During spring and summer, trees are producing a lot of chlorophyll which is how plants turn sunlight into sugar to feed themselves. This makes the leaves green. But when the days in fall begin to get short, less and less chlorophyll is produced and the leaves begin to reveal other colors like yellow, orange, and red! As winter draws closer in late fall, the trees begin to go into self protection mode and start to cut off resources to the leaves, which causes them to fall.

**Another way to induce awe, that we don't always seek out on purpose is, fear.** Who wants to be scared?! However, in October we have a unique opportunity to combine the **benefit of social connection through shared rituals or cultural practices** and the sometimes spooky traditions of the season. Each year many people are eager to start celebrating fall with pumpkin spice, colorful fall decorations, and for those that enjoy Halloween that also means some spooky decorations, costumes, and tricks & treats! So gather your friends and family, grab the flashlights, and turn off the lights as you tell some not- too -spooky stories that may just inspire some surprises and awe! Check out some story ideas here or try making up your own! <https://koa.com/blog/kid-friendly-spooky-campfire-stories/>



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# Hands-on Activities for Youth (and those young at heart)

Ahhh, sweet crisp Fall! During October we enjoy harvest days, a bounty of pumpkins, beautiful fall leaves, cinnamon spiced treats, and lots of cozy crafting opportunities. Enjoy these activity ideas!



More October themed activities to inspire awe:

Toasting marshmallows

Carving pumpkins

Drying flowers

Gourd crafts: Birdhouses or beeswax candles

Plant fall bulbs (that will bloom with flowers in the spring)

Leaf rubbings



## Try this yummy spiced Pumpkin Pancake Recipe from Eat.Move.Save.

(with the help of an adult)

### Ingredients

- 1 cup flour
- 1 cup whole wheat flour
- 2 teaspoon baking powder
- 1/2 teaspoon salt
- 2 tablespoon brown sugar
- 1 teaspoon pumpkin pie spice
- 3/4 cup canned pumpkin puree
- 1 3/4 cup nonfat milk
- 3 tablespoon vegetable oil
- 3 eggs, lightly beaten

### Preparation

Wash hands with soap and water.  
In a large bowl combine flours, baking powder, salt, brown sugar, and pumpkin pie spice using a wire whisk.

In another bowl combine pumpkin, milk, oil and eggs. Mix until smooth.  
Stir pumpkin mixture into the dry ingredients, mixing until moistened.

Spoon the batter onto a slightly greased, preheated skillet.

Cook slowly until bubbles appear on top and bottom becomes golden brown.

Turn pancakes and cook until other side is golden brown.

Serve warm. Top with powdered sugar or pancake syrup.

<https://eat-move-save.extension.illinois.edu/eat/recipes/pumpkin-pancakes>



## Preserving Fall Leaves

### SUPPLIES

- Vegetable Glycerin
- Water
- Bucket or Large Bowl
- Fall Leaves

Complete all steps with the help of an adult.

Pick a variety of leaves. Maple leaves work really well for this! Pick a branch or individual leaves when they have just turned their pretty color.

Make a glycerin and water solution of 1 part glycerin and 2 parts water

Boil the mixture and put the mixture about 2" deep in a container. A large bucket or plastic basin works great. Submerge leaves and soak for at least 3-5 days. You may need to weigh them down with a plate or tray. Keep your leaf mixture out of reach while soaking. After about a week you can use your preserved leaves for decorating! Just remove them from the liquid mix and let them dry before using.

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- 17 Not So Scary Spooky Stories for Kids. (2023, September 26). Retrieved from: <https://koa.com/blog/kid-friendly-spooky-campfire-stories/>
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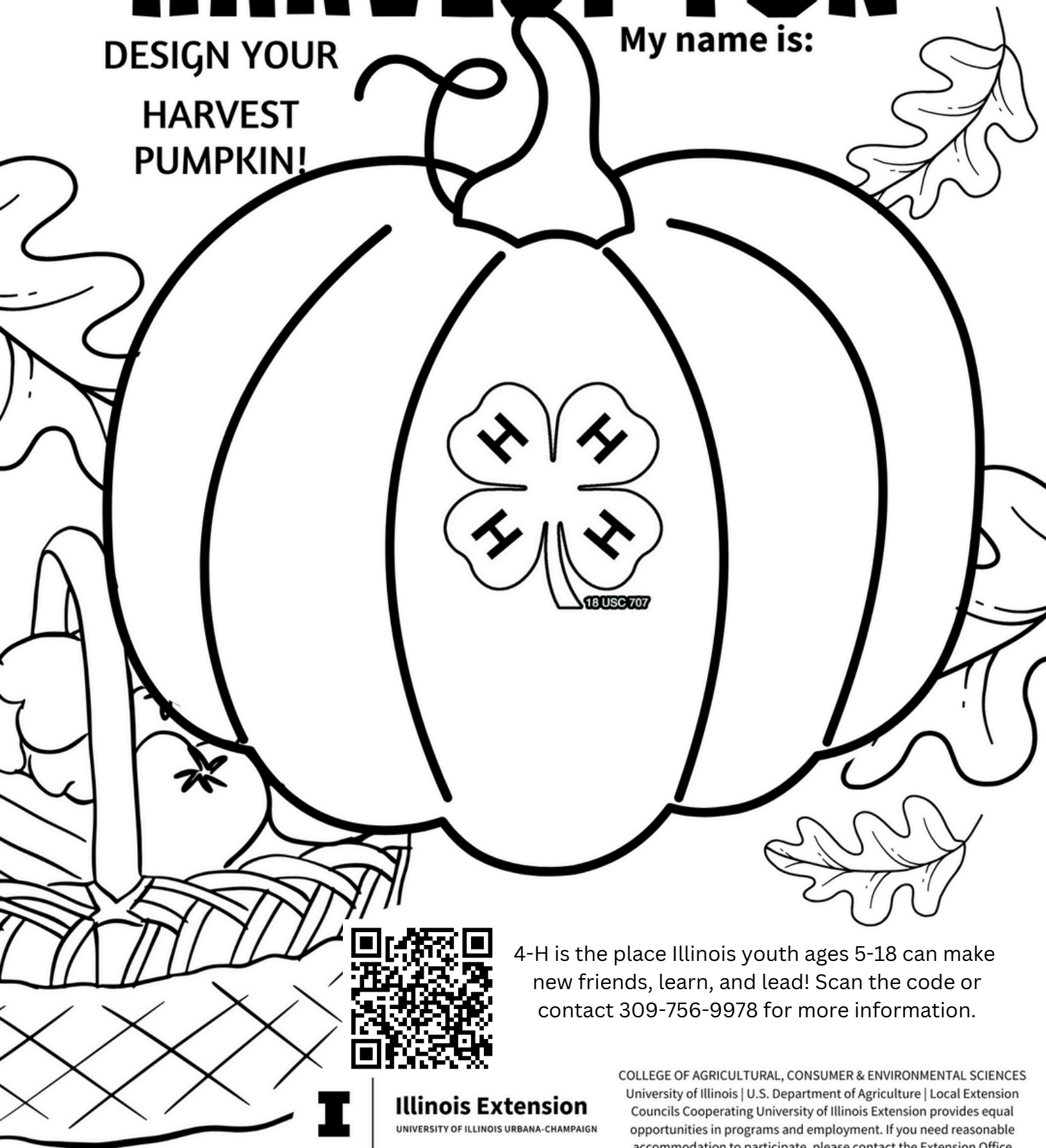
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