

THE LIFE OF A PUMPKIN - update #3

The days are getting longer, and spring is on the way. If you read our second update, you learned about plant hardiness zones and how to read a seed packet to figure out if it's the right variety to plant in your area. We hope you picked out a nice pumpkin variety and now have your seeds on hand. Even if you aren't planting this year, you can still follow *The Life of a Pumpkin* along with us.

If you haven't bought pumpkin seeds and still want to join us for this ongoing activity, get your seeds now! Many local plant nurseries and hardware stores sell seeds, but they may run out of certain varieties as other gardeners get ready for spring planting.

Buy seeds intended for planting, not the kind you find in the snack aisle at your favorite grocery store. Pumpkin seeds are a tasty and healthy snack called **pepitas**. Pepitas are usually roasted and salted, like sunflower seeds that are also good for snacking. That means the seeds will not sprout and grow.



Pumpkin seeds for planting

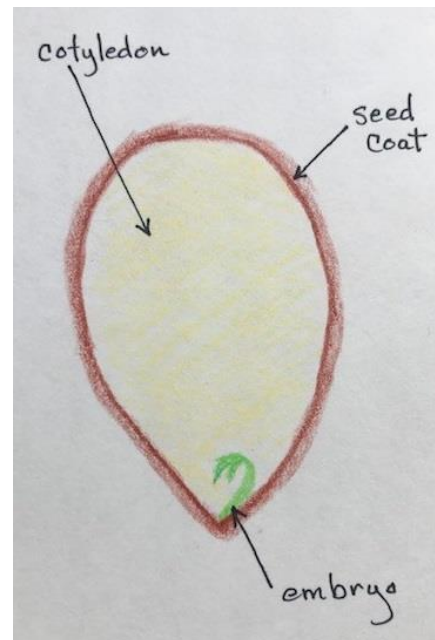


Pumpkin seeds (pepitas) for snacking

Seeds are self-contained little powerhouses of potential energy. They have everything needed for the growth and development of a new plant, all tucked safely inside.

Seeds typically have 3 main parts:

- **seed coat** – layers that protect the seed from drying out or damage while it is **dormant** (not growing)
- **cotyledon** – the two halves of the seed that provide food (starch and protein) as the seedling starts to grow
- **embryo** – the part that grows into a plant



Finding a warm spot to start your seeds

Outside temperatures are still far too cold for our seeds, so we'll need to start them indoors. Find a spot in your house or garage. If you're lucky enough to have access to a greenhouse or cold frame, then assemble your supplies there.

Most seeds **germinate** (sprout) best when the medium temperature is consistently 70 to 75 degrees Fahrenheit. Warmth also helps the seedlings grow faster. Placing containers in a warm location in the house, such as near a heating vent or sunny, well-insulated window usually works fine. Some gardeners use indoor grow lights or heated mats for starting their seeds. It's the heat that's needed to get these seeds to sprout.

The pumpkin varieties we selected

We selected two varieties of different sizes and colors: *Cinderella*, a large, flat orange pumpkin (also known as Rouge Vif d'Etampes) and *Lumina*, a small white pumpkin that's good for carving and baking. Cinderella pumpkins can weigh 20-40 pounds while Lumina pumpkins will only reach 8-10 inches in diameter and weigh 10-12 pounds.



Cinderella pumpkins



Differences between the two kinds of seeds



Lumina pumpkins

ACTIVITY #1: Peek inside a pumpkin seed

Materials

- 1-2 pumpkin seeds
- Small container of water
- Metal nail file, tweezers, or other blunt instrument with a bit of a point (for opening up the seed)
- Magnifying glass

1. Soak seeds in water for 5-10 minutes to soften the seed coat and make it easier to open.
2. Dry the seeds off to so they are easier to handle.
3. Look for a small split in the seed coat where the two halves join.

4. Work the pointed end of nail file into the split. Slowly and carefully, pry the two halves apart. The inner seed may come out of the seed coat entirely or it might stick inside. Either way, your seed should be separated into two halves.
5. Use the magnifying glass to look closely at your split seed and identify the parts of the seed we discussed and labeled above.



Seed coat split in half, seed removed



Seed coat in half, seed with cotyledons and embryo

ACTIVITY #2: Start seeds indoors for spring planting outdoors

Materials

- A few pumpkin seeds (depends on how many plants you want to grow) NOTE: check your seed packet label for specific information on planting your particular variety of pumpkin.
 - Small cup or bowl of water for soaking seeds
 - Compressed peat pellets (or other small containers like peat pots or plastic nursery pots plus potting soil to fill them)
 - Water
 - Plastic tray and cover
1. Soak your seeds overnight in a small cup of water.
 2. The next day, remove seeds from the water and set aside.
 3. If you are using compressed peat pellets, soak each one in about 1/8 cup of water. Once the pellets have expanded to about 1 1/2 inches in size, pour off the excess water. (If you are using another type of container, add potting soil and fill almost to the top. Leave some space between the top of the soil and the lip of the container, then moisten soil with a bit more water.)
 4. Once the peat pellets are fully expanded, use your finger to loosen the netting on the top. Don't pull it all the way off because this netting keeps the peat pellet in one piece.
 5. Place a seed in each peat pellet or other container and push down into the soil about 1 inch deep so that the seed isn't resting on top.
 6. Cover the seed loosely with soil.

7. Place pellets or containers in a tray and cover (some seedling trays come with plastic covers, or you can wrap the tray in plastic wrap).
8. Keep an eye on your containers and moisten the soil when it feels dry to the touch. Keep them covered. If your seeds are warm and moist, they should sprout and be visible as seedlings in 7-14 days (depending on your chosen variety).
9. After the seedlings emerge, you can uncover the containers.
10. Continue to water the seedlings and keep the soil moist.

It'll be awhile before we can plant our seedlings outdoors – after our region's average last frost date (May 15th), when the weather is warm and more settled. We might be able to set our plants outdoors before that date if we have supplies to cover them in case of a cold snap.

You can use other types of containers to start your seeds in. Experiment with a few of these options and see which works best for you:

- ★ cardboard egg cartons - <https://www.pbs.org/parents/crafts-and-experiments/grow-seedlings-in-an-egg-carton>
- ★ egg shell halves - <https://www.instructables.com/Eggshell-Seed-Starters/>
- ★ toilet paper roll tubes - <https://www.instructables.com/Biodegradable-toilet-paper-roll-pots/>
- ★ citrus fruit halves - <https://www.miraclegro.com/en-us/library/indoor-gardening/learn-how-start-seeds-lemon-rind>

Next time: We'll get our selected garden spot ready for spring planting as the weather allows. In the meantime, take good care of your seeds and soon-to-be seedlings!

About *The Life of a Pumpkin*: We will be documenting the life of a pumpkin during the 2021 growing season, from selecting and planting a seed all the way through harvesting a ripe pumpkin in the fall. It all depends on the weather and other natural conditions, of course! You can grow your very own pumpkin, too, or just follow along as we do all the work. 😊 Look for lots more information in the days ahead as we show you how to do it. Please join us on this exciting and educational STEAM adventure!

ADDITIONAL RESOURCES:

Books available from the Washoe County Library System:

[*From Seed to Apple*](#) by Anita Ganeri

[*I'm a Seed*](#) by Jean Marzollo

[*In a Garden*](#) by Tim McCanna

[*Miss Maple's Seeds*](#) by Eliza Wheeler

[*Plant the Tiny Seed*](#) by Christie Matheson

[*Plants Grow from Seeds*](#) by Rachel Mann

[*Seed School: Growing Up Amazing*](#) by Joan Holub

[*Seeds*](#) by John Farndon

[*Sprout, Seed, Sprout!*](#) by Annika Dunklee

[*Sprouting Seed Science Projects*](#) by Ann Benbow

[*The Tiny Seed*](#) by Eric Carle

[*What Kinds of Seeds are These?*](#) by Heidi Bee Roemer

Videos:

PBS KIDS for Parents, "Egg Carton Seed Starts | Crafts for Kids" [Egg Carton Seed Starts | Crafts for Kids | PBS KIDS for Parents](#)

Peekaboo Kidz, "What Is Seed Germination? | SEED GERMINATION | Plant Germination | Dr Binocs Show" [What Is Seed Germination? | SEED GERMINATION | Plant Germination | Dr Binocs Show | Peekaboo Kidz](#)

SciShow Kids, "How Does A Seed Become A Plant?" [How Does A Seed Become A Plant?](#)

Websites:

Burpee Seed Company, Indoor Seed Starting

<https://www.burpee.com/gardenadvicecenter/areas-of-interest/seed-starting/indoor-seed-starting/article10002.html>

FoodPrint, Get Ready for Spring With DIY Seed Starter Pots <https://foodprint.org/blog/diy-seed-starter-pots/>

KidsGardening, Garden Ideas for Kids, Parents, and Teachers

<https://kidsgardening.org/garden-ideas-kids-parents-teachers/#tips>

KidsGardening, Gardening Basics <https://kidsgardening.org/gardening-basics/>

University of Illinois at Urbana-Champaign, University of Illinois Extension, Urban Programs, The Great Plant Escape <https://web.extension.illinois.edu/gpe/case3/index.html>