

# Chickering GROWS

## THIS WEEK IN THE GARDEN

November 30, 2020

### WHAT'S GROWING

We are excited to GROW with you!

### TIP OF THE WEEK

Let's learn something NEW!

### WORD OF THE WEEK

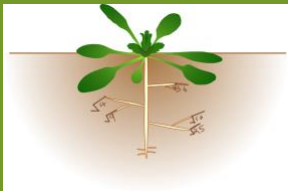
Horticulture has its own lingo!

### DIY PROJECT

Want to try a gardening experiment?

*What Happened to the  
Plant in Math Class?*

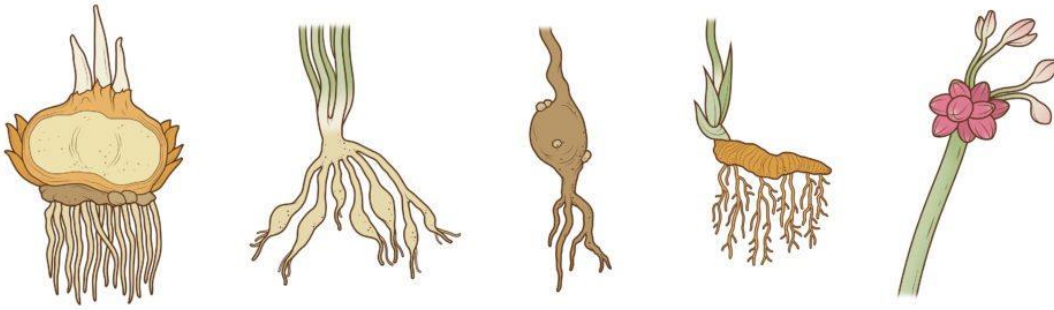
*It Grew Square Roots!*



### WHAT'S GROWING?

Do you have any buds on your **Zinnia** plant yet? Continue to maintain the water level of your garden jar at the 2 cup line with added nutrients. Has your **Amaryllis** bulb begun to sprout yet? Amaryllis love a cool, sunny location such as a windowsill. Amaryllis also love bottom heat, such as placing the pot on a radiator or propagation mat!

Post and view photos of your growing gardens on the Chickering GROWS Padlets! HAPPY GROWING!



## TIP OF THE WEEK: ALL ABOUT BULBS

Bulbs are INCREDIBLE organisms. The term “bulb” refers not only to **true bulbs**, but also to **tubers**, **corms**, **rhizomes** and **tuberous roots**. Within that diversity lies the identification of each plant. Inside, they all shelter the embryo of a plant and food for its growth. Unlike seeds, which contain only enough nutrients to get a plant started, bulbs contain enough nutrients for an entire season of growth and flowering.

A **true bulb** contains a mini version of its plant complete with leaves, stems, and buds, ready to grow when conditions are right. Surrounding this are modified leaves that overlap each other in a scalelike manner. The best example of a true bulb is the onion. The rings you see when you slice an onion are actually leaves modified to hold food for the bulb when it is dormant. Common flowering true bulbs include tulips, daffodils, and Amaryllis!

The second type of bulb is the **corm**. Corms are actually stems modified for storage. These look like true bulbs, but they do not grow outward in circular rings. Some have a furry covering, and all are solid on the inside. Young buds, which will produce the stems and flowers, form on the topside of corms; roots and cormels (baby corms) emerge from the bottom. The Water Chestnut provides a good example of what the inside of a corm looks like. Flowering corms include crocus, freesia, and the water lily.

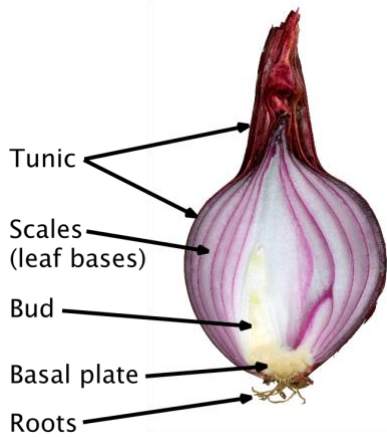
The third type of bulb is the **rhizome**. These have elongated underground stems which sometimes emerge above the soil’s surface. Some of these stems are thick, while others are like a blade of grass, but all produce leaf growth from the top, and roots from the underside. Examples of rhizomatous bulbs are bearded iris and calla lilies. Unfortunately, Bermuda grass and mint are also rhizomes, and their small underground stems allow them to spread easily and become invasive.

The fourth type of bulb is the **tuber**. Tubers are also underground stems, but not the base of the stem as in a corm. Tubers have multiple “eyes” (buds) and most of them prefer filtered sun. The potato and yam are tubers. Begonias, cyclamen and anemones are all examples of flowering tubers.

The fifth type of bulb is the **tuberous root**. These roots form around a central stem. The sweet potato is a tuberous root, which is where it differs from the yam. Some examples of flowering plants that have tuberous roots are dahlias and day lilies.

For more info on bulbs, please refer to [The Real Dirt Blog](https://ucanr.edu/blogs) at <https://ucanr.edu/blogs>

## WORD OF THE WEEK: PARTS OF THE BULB



Let's learn some **Bulb Vocabulary!**

The **tunic** refers to the covering of dry papery leaves that help protect the inner parts of the bulb from over-drying.

The **scales** are the leaf bases of the bulb. They generally do not support leaves, but contain food reserves to enable the plant to survive adverse conditions.

The **bud** grows from the apical meristem at the tip of the short stem of the the bulb. The bud may develop into a shoot, leaf or flower.

The **basal plate** is the compact, fleshy stem where the new organs form on the bulb.

The **roots** are produced from the bottom of the bulb. The roots take in oxygen and nutrients from the soil to move them up through the plant to the stems, leaves and blooms.

## DIY: KID-FRIENDLY TERRARIUM



As the temperatures outside get colder, here is a fun indoor gardening activity! So, what is a terrarium you say? A terrarium is a miniature garden grown inside a covered glass or plastic container. It is also a great way to learn about the water cycle as it demonstrates evaporation, condensation and precipitation. In the presence of light and heat, water evaporates from the plants and from the soil. Since it is an enclosed environment, when the water vapor hits the side of the container, it condenses. Once enough water accumulates or the temperature decreases, the condensation then precipitates down the sides of the container back into the soil.

## Time to get creative!

### MATERIALS

- Enclosed glass or plastic container – any size or shape
- Soil – sterilized potting soil mix is best
- Aquarium gravel or river rocks
- Small indoor plants – succulent plants, like cacti, and ferns are best
- Small plastic figures, painted rocks, etc – for decorating!

### ACTIVITY

- Find an appropriate container. Glass jars, fish bowls and food containers all make fine terrariums. Just make sure there is enough room to reach your hand into your container for planting and maintenance. Clean the container using soapy water and rinse well. Dry completely.
- Cover the bottom of the container with  $\frac{1}{2}$  inch to  $1 \frac{1}{2}$  inch of gravel for drainage, depending on the size of your container.
- The moisture level of the soil when you put it into your terrarium is very important. Pour the soil into a bowl and mix with water until the soil is moist enough to cling together in a ball when pressed into the hand. If water drips from the soil when pressed into a ball, then it is too wet and you should add more dry potting soil to your mixture. Once you find the perfect balance, place approximately  $\frac{1}{3}$  to  $\frac{1}{2}$  full of moist potting mix into your container. The amount of soil you put in will depend on the size of the container.
- Next add your plants. If you will be viewing the terrarium from one side, then place the tallest plants in the back and shortest plants in the front. If your terrarium will be viewed from all sides or you plan to rotate it, plant the tallest plants in the middle and the shorter plants along the outside. In addition to plant material, get creative and add other objects to create mini-landscape scenes. For instance, you may want to add decorative rocks, small figurines, bridges or mirrors to look like mini ponds.
- After planting, attach the container lid or cover with plastic. Place the terrarium in a windowsill with indirect lighting or under grow lights. Do not place it in strong direct sunlight or water will evaporate too quickly and plants may scorch.

Observe your terrarium closely for the first few days to make sure you have the proper moisture level. You'll know that the terrarium contains the right amount of water if the sides and top get misty with water droplets when in bright light. If there is no moisture along the sides, then you need to add some more water. If the sides are always very wet and it is hard to see the plants, then there may be too much water and you should remove the top for a few hours and allow some of the excess water to evaporate. Once you achieve the right balance, it will not need frequent attention. Check on your terrarium periodically. Prune or remove plants with excessive growth. You want to avoid plant leaves touching the sides of the container as much as possible to prevent constant water sitting on the foliage. Also check on the moisture levels as some water may be lost over time. Post photos and share with Chickering GROWS!

<https://kidsgardening.org/garden-activities-building-a-terrarium>



LET'S CONNECT

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## POST ON OUR PADLET

[HTTP://BIT.LY/CHICKERINGGROWSFALLPADLET](http://bit.ly/chickeringgrowsfallpadlet)

[HTTPS://PADLET.COM/CHICKERING/GROWSWINTERPADLET](https://padlet.com/chickering/growswinterpadlet)

## VISIT OUR WEBSITE

[HTTPS://WWW.DOVERPTO.ORG/CHICKERING-GROWS](https://www.doverpto.org/chickering-grows)

## ANY QUESTIONS? ASK US

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