PLANTING YOUR LEARNING GARDEN

Planting is a fun, interactive, and impactful experience for you and your students. Remember, no planting experience is complete without follow up so please consider being involved in the ongoing care and harvests of the crops you planted.
Planting with students is an exciting and positive experience for teachers and students alike! Planting is a simple process, but can be challenging once you have 30 students all clamoring to get their hands in the soil. The tools, activities, and process outlined here will ensure you plant correctly and each student has a complete and impactful experience in your Learning Garden.

Give Context to Planting:

- Let your students know what they are planting and why.
- Review the timeline for the day and the planting activities.
- Find ways for students to be involved in the Learning Garden after a planting day. Teaching garden lessons, watering, and harvesting are great ways to stay involved and be continually rewarded by their work.
- Review TKC’s Learning Garden Classroom Management document for more support on how to create a meaningful experience in your Learning Garden.

Use a Planting String:

Try our Planting Strings to make sure your Planting Day goes smoothly. Planting Strings help adults keep track of where seeds have already been planted and help guide and direct students through proper spacing of seeds!

Refer to our Planting String Activity for reference and make Planting Strings with your students prior to planting seeds.
**Break your class into smaller groups:**

Planting with students requires direct attention from an adult so working in small groups allows you to give that direct attention. Involve volunteers, have them run additional activities in small groups while you plant with a small group of students. Work with your Garden Team to recruit volunteers to help out with your planting day or advertise to your student’s parents. Have volunteers lead the following activities to engage small groups and have the groups rotate between activities:

- Planting Seeds Activity, see TKC’s document
- Seeds by Feel Game, see TKC’s document
- Soil Investigation Activity, see TKC’s document

**Provide opportunities through the classroom for your students to follow up on planting:**

Planting a Learning Garden is the first step in a long term project with many rewards. If you are involved in planting your Learning Garden, be sure you coordinate with your school’s Garden Team to see if you can continue to be involved with watering, caring for, harvesting, and eating from the garden. If you are unable to water with your students in the future, be sure to schedule time to bring your students back out to the Learning Garden to observe the growth and learn through garden lessons and activities. To see your seeds sprout and grow, and to harvest and eat the garden you planted are each profoundly rewarding experiences that will captivate the minds and passions of your students.
Seeds can live for several years if stored under the right conditions. Different varieties of seeds will have different life spans so be sure to look up how long your seeds will last before you plan to store them.

**To store seeds until the next growing season:** Keep seeds in brown paper bag in a jar with a loose lid.

**To keep seeds safe to plant in a few weeks:** Keep seeds dry and avoid extreme temperatures (for example: do not leave them in your car or outside).

**Germinating Seeds:**

The first step to germination is to rehydrate the seed. Once a seed has soaked up all the water it needs, it will begin to germinate at the right temperatures. Most seeds ideally germinate between 80-85 degrees Fahrenheit but will still germinate (just slower) at temperatures above or below the ideal range of 80-85 degrees Fahrenheit. If a seed fully dries out during the germination process, it may not survive, be sure to take extra care and keep your seeds moist until it has grown roots and leaves.

**Troubleshooting Germination:**

Unless collected from your own garden, there is very little chance you could purchase bad seed. The most common reasons seeds do not germinate is under-watering, over-watering, or cold temperatures.

If you are germinating seeds indoors, remember that the smaller the container of soil which contains the seed, the more rapidly it will dry out. If you need to leave your seeds un-watered for the weekend, you should plant your seeds in clean milk cartons or something larger so the soil will not dry out. Germinating seeds in trays such as egg cartons are not recommended as they will dry out too quickly.

If your seeds are not germinating in the Learning Garden, they most likely will need to be watered more frequently or less frequently to see better germinator results. If you have over-watered, your seeds will soften and mold. Cold day or night time temperatures will slow seed germination significantly. Wind and sun may dry the top layer of soil in your garden within a day. Check the temperature and soil moisture each day. If you are still unsure as to why your seeds have not germinated, consider reaching out to your local garden educator.

**Germination Activity:**

Harvest seeds from your garden and germinate them in the classroom with your students. Germinate seeds in a plastic bag with a moist paper towel. Check the bag each day to make sure they stay moist. Add in a quick math connection by figuring out the germination rate. Example: if you attempt to germinate 10 lettuce seeds and only 8 germinate, that means your germination rate was 80%.
Germinate seeds in clean milk cartons so students can take their plants home for their own gardens. Be sure to cut the top of the milk carton off and cut a few holes along the bottom (the corners are the easiest) to make sure you can efficiently water.

Sourcing Seeds:
The Kitchen Community will provide enough seeds and seedlings for you to fill your Learning Garden. If you would like more seeds, many seed companies donate to schools! Take a look at our ‘Requesting Seed Donations’ page for directions on sourcing seeds from Baker Creek Heirloom Seed Co., and look online for other opportunities from other organizations. Consider planting seeds in milk cartons from the lunchroom with your students so they can take their plants home for their own gardens.

Gardeners grow seedlings in a controlled indoor environment to assure they have the strongest and largest plants possible to plant in their garden. Growing seedlings indoors allows you to extend your growing season past your local seasonal constraints resulting in much earlier harvests.

Growing seedlings from seed:

**Location:** If you are growing seedlings indoors, find a warm place with direct sunlight for at least 8 hours per day. If you do not have adequate light, you will need to purchase indoor grow lights. If your plants do not have enough light, they will grow ‘leggy’. Leggy plants grow tall and weak and typically are not strong enough to survive when they are planted outdoors.

**Timing:** Check the seed packet for specific directions on when to plant indoors. A common recommendation would be, “Plant indoors 4-6 weeks prior to average last frost”

**Thinning:**
To ensure you grow strong and large seedlings, plant more seeds than you intend to grow and once all the seeds have sprouted, pull out the weakest plants and leave one seedling that you think will grow into the strongest and largest plant.
Planting your garden

Caring for seedlings for a week before planting:

If you purchased or were given seedlings that will soon be planted in your Learning Garden, you will need to keep them in good condition until your classroom is ready to plant. Your seedlings will do well indoors or outdoors with proper sunlight and watering. Seedlings will do best in a shady spot with good ventilation. Consider following the directions to harden off your seedlings while you hold yours for a few days.

Hardening off seedlings:

When seedlings are grown indoors under fairly consistent lighting and temperatures with no wind, they will need to be introduced to the outdoors slowly. Ideally, seedlings should be able to adapt to outdoor conditions in 7-10 days.

Step 1 (2-4 days): Get your seedlings accustomed to daytime temperatures and wind. Find a shady location with minimal exposure to wind and keep your seedlings there for 1-3 hours during the warmest part of the day. Make sure you do not forget to bring them back indoors.

Step 2 (2-4 days): Strengthen seedlings and expand their endurance to a wider range of temperatures and light. Continue to bring your seedlings outdoors to a shady spot during the day, and if temperatures are not extreme then keep them outdoors for a full day. Make sure you do not forget to bring them back indoors.

Step 3 (2-4 days): Work towards exposing your seedlings to outdoor conditions for 24 hours before planting in the ground. Use good judgment here and do not leave seedlings outside during a storm, near freezing temperatures, or high winds.
How to Request a Seed Donation from

Baker Creek Heirloom Seeds

1. Create an order, via My Cart, on www.rareseeds.com that includes the following:
   - Seeds that you would like to have donated (no bulk sizes)
   - A valid shipping address
   - A valid telephone number
   - Complete the shipping and billing information and proceed all the way to the payment page (your address will not be saved if you don’t).

2. Save your order by going to ‘My Cart’ in the top right-hand corner of the screen. Click on it, and a page that says Shopping Cart in bold, black letters will pop up. Below that is a gray bar with several prompts in it. Click ‘Save My Order,’ enter your email address in the box that appears, and click ‘Save.’

3. Send an email from the same address to seeds@rareseeds.com explaining that you saved an online order for seeds to be used for your school garden. Attach a formal letter on letterhead requesting a seed donation for your school’s Learning Garden. Include your school’s 501c3, charitable, or non-profit status and tax-exempt ID. Baker Creek will then access your saved order and complete the donation process.