



EDIBLE
SCHOOLYARD
NYC

Edible Schoolyard NYC Garden Jobs

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Clearing

Suggested Talking Points

- All plants have a season during which they grow.
- Many plants grow in the spring and summer, and they die or go dormant in the winter.
- Dead plants can be recycled in the compost to turn into new soil.
- Plants that are no longer growing must be cleared to make room for plants that are just starting to grow.

Materials

- Buckets or wagons
- Trowels or pitchforks (optional)

Procedure

- *Today we are clearing a bed of all the plants that are in it. Why might we want to take all the plants out of the bed? Yes, so that we can get new plants in for the next season. How might we clear this bed? We will pull out the entire plant and put it in a bucket. After it is in the bucket, where should I put it? Where do our plants go to die and become food for the garden? The compost!* Divide students and make your way to the beds to be cleared.
- *I need everyone to stay standing and watch how I clear one plant.* Pull up one plant and shake the soil off of the plant and place in a bucket. *Now everyone show me how you do one and then freeze so we can make sure everyone is doing it the way we need to.* Everyone pulls up one plant.
- *Ok, is this working? Did everyone do it the way that it will work for our whole group?* Make sure that the soil is not flinging in faces, etc.
- Call on one person to bring the filled buckets over to the compost.
- *Why did we clear the beds today? Who knows how this work is going to make our garden continue to grow? What was the best part of clearing this bed today?*

Additional Tips

- Use tools only if necessary when doing this job. Be cautious that students are not using their hands to clear in the same place or at the same time as when tools are being used. Students can first use trowels or pitchforks to loosen the soil, then put tools aside in order to use their hands.

Suggestions for Pre-K to 1st Grade

- Loosen soil ahead of time for younger students so that they can easily pull out plants with their hands.

Suggestions for 2nd and 3rd Grade

- Have students harvest the last of something from a bed at the end of the season. Then, have the students clear the bed. This allows students to do different tasks and to see a big result at the end of the class!

Suggestions for 4th and 5th Grade

- Pair clearing with amending and cultivating. If time allows, they can even put new plants into the cleared bed.





Planting Seeds

Suggested Talking Points

- Plants need sun, water, soil, space, and air to grow.
- Plants have roots, stems, leaves, flowers, fruits, and seeds.
- We eat many plant parts from different plants.
- Different plants need a different amount of space to grow.
- Different plants start growing at different times of the year.

Materials

- Cups or watering cans
- Seeds
- Popsicle sticks, placed in bed where seeds should go
- Bucket of water

Procedure

- Gather students in a circle to discuss their task. *How many people have planted a seed into the soil? Can someone explain how we do this? Wonderful. We will make space for the seed, cover it in soil, and give it a drink of water. Today we are doing something very important. Let's see who can do the best job of planting pea seeds.*
- Alternate modeling one step with having them execute that one step. *I am going to touch this popsicle stick, but I am not going to pull it out of the ground. Can you touch a popsicle stick without pulling it up? Nice job. That is exactly where my pea seed will go.* Check and be sure that each student has found a popsicle stick where they can plant their seed.
- *Who can show me that you are ready to plant your seed by putting one arm up like the Statue of Liberty? I will put your seed in your hand once it is in the air.* Give out seeds, but wait until all students have seeds before giving them permission to plant.
- *Excellent. Now, I want everyone to bend down and put the seed right in front of their popsicle stick. Can you all do that?*
- *Excellent. Now I want you to lift out your popsicle stick hold it in the air for me to collect it.* Walk around collecting the popsicle sticks.
- *Now, I am going to very gently move some soil to cover up my seed. Can you do that? Great. Now we need to wish our seed luck. What can we say to our seed?*

- *Great job! Give yourselves a round of applause. Now, everyone stand up and follow me. We have another job to do! We need to water our seeds in.*
- Have students line up to fill a cup or watering can with water and then go back to their spots around the bed. Have students wait until everyone has water, then water the seeds all together.
- *What did we do today? What did it feel like to plant? What do our seeds need to grow? Who can tell me why we made a furrow, and why we spaced our seeds out?*

Additional Tips

- Square foot beds are helpful when teaching because students can each easily claim a space in which to work.
- After planting, move on to a different garden job that requires less attention and focus, and allows students to be more active.

Suggestions for Pre-K to 1st Grade

- Give younger students large seeds that are easy to hold.

Suggestions for 2nd and 3rd Grade

- Students may have the attention to plant more than one seed.

Suggestions for 4th and 5th Grade

- Older students can plant more independently. You may allow students to work on their own to plant, rather than having them each do the same step at the same time. You can give students a cup with seeds inside so they can work at their own pace.





Seed Starting

Suggested Talking Points

- Plants need sun, water, soil, space, and air to grow.
- Plants have roots, stems, leaves, flowers, fruits, and seeds.
- We eat many plant parts from different plants.
- Different plants need a different amount of space to grow.
- Different plants start growing at different times of the year.

Materials

- Soil or seed starting medium in trays or buckets
- Seeds
- Pots or trays to start seeds in
- Popsicle sticks
- White board & markers
- Pencils

Procedure

- Explain why you are starting seeds today. *What's the weather like outside? What season is it? What do you think would happen if we planted seeds in the ground right now? Sometimes, we start seeds ahead of time inside so they can be grow up into plants and be ready to go outside when the weather is warm.* Tell students what kind of seed you will be planting today, and write the name up on the board.
- Show students the materials that you will be using. *What do you think I need to do first?* Demonstrate all the steps: filling the pot or tray with soil, making a shallow hole or holes for the seeds, putting in seeds, covering up the hole, and making a popsicle stick label with the plant name and date. Use the white board to draw where you want the hole or holes to go in the pot or tray. Students can mime the actions with you as you demonstrate.
- Move to the work area. Have students work, one step at a time, reviewing the steps as you go along. Don't move along to the next step until all students have finished the previous step. If necessary, draw an example label up on the board so students can know how to complete their labels.
- *Great job starting corn seeds today, everyone! What do you think these plants will look like next time you see them? What were the steps that we did today to plant our seeds? Why did we plant our seeds inside today?*

Additional Tips

- It is easiest if students use their hands, rather than tools, to fill the pots. Use a seed starting medium, like coconut coir.
- Keep all the pots and trays together from each class. If possible, have students transplant them later.

Suggestions for Pre-K to 1st Grade

- Give younger students large seeds that are easy to hold. Give younger students their own pot.

Suggestions for 2nd and 3rd Grade

- Students can share a cell pack with four or six sections.

Suggestions for 4th and 5th Grade

- Older students can work in groups on larger cell packs. Be sure to remind students to work together to be sure that all the cells get holes and seeds.





Planting Transplants

Suggested Talking Points

- Plants need sun, water, soil, space, and air to grow.
- Plants have roots, stems, leaves, flowers, fruits, and seeds.
- We eat many plant parts from different plants.
- Different plants need a different amount of space to grow.
- Different plants start growing at different times of the year.

Materials

- Plant starts
- Popsicle sticks, placed in bed where seeds should go
- Trowels (optional)

Procedure

- Gather students in a circle to discuss their task. *Today we are doing something very important. Let's see who can do the best job of planting baby lettuce.*
- Make connections to the previous lesson, highlighting what we are planting, why we are planting it at this time, and what use it has in the garden.
- Alternate modeling one step with having them execute that one step. For example, say, *I am going to touch this popsicle stick, but I am not going to pull it out of the ground. Can you touch a popsicle stick without pulling it up? Nice job.*
- *Now, I am going to make bunny ears with my other hand. Can you all show me your bunny ears? Excellent. Now, I am going to pull my popsicle stick up and stick my bunny ears in the hole. Can you all do that?*
- *Beautiful. Now, keep your bunny ears in the hole and take your other hand and put it out for me to give you a plant--and freeze! I want to see how well you can freeze while I give out the plants.*
- *Very good. Now, watch how I put my baby plant in the hole, but I keep the leaves out. Can you all do that? Excellent. Now, I am going to very gently move some soil near my baby plant, but not on the leaves. Can you all do that?*
- *Great job! Look around you and see all the baby lettuces we planted. Give yourselves a round of applause. Now, everyone stand up and follow me. We have another job to do!*

- Ask, *What did we do today? What did it feel like to plant? What do our baby plants need to grow? Who can tell me why we made a hole and why we spaced our baby plants out?*

Additional Tips

- Square foot beds are helpful when teaching because students can each easily claim a space in which to work.
- After planting, move on to a different garden job that requires less attention and focus, and allows students to be more active.

Suggestions for Pre-K to 1st Grade

- Younger students may have a harder time using a trowel, since their motor skills are still developing. Have them use their fingers may be easier.

Suggestions for 2nd and 3rd Grade

- Students may have the attention to plant more than one transplant.

Suggestions for 4th and 5th Grade

- Older students can plant more independently. You may allow students to work on their own to plant, rather than having them each do the same step at the same time. You can give students a few plants at a time so they can work at their own pace.





Watering

Suggested Talking Points

- Plants need sun, water, soil, space, and air to grow.
- Plants absorb water and nutrients through their roots.

Materials

- Watering cans or cups
- Large buckets of water

Procedure

- *What do our plants need to grow? Take student answers. You know so much about how to take care of plants! Today, we are going to be giving our plants some water.*
- *How do plants get water in nature? They get water from rain. But since this is our garden, we get to help by giving our plants water also.*
- Ask students to tell you what part of the plant drinks water. Ask them where this part of the plant is. *If we know that plants drink with their roots, and that their roots are under the soil, where do you think we should put the water?*
- Tell students the three steps when they do this job. First, show students how to test the soil to see if it is dry or wet. Then show the students how to slowly water the soil, a little at a time, if the soil is dry. Finally, show the students how to check the soil again to see if it is dry.
- Have a student come up to demonstrate. Point out how to hold the spout of the watering can low to the ground to avoid splashing. Encourage the students to water slowly. *What happens to the soil if the water comes down too fast and too hard? Our soil can wash away.*
- Show students where and how to refill their watering cans or cups. Let students know the boundaries of where they are going to work in the garden. Remind students of how to walk and move in the garden so they avoid spilling water on themselves.
- When finished, ask students, *How did it feel to water the plants today in our garden? How do you think the plants felt after they were watered? How did we do our watering job? Why did we do it that way?*

Additional Tips

- Use an open-topped watering can that students can easily dip into a large bucket to refill. Use a hose to refill the buckets while students are working.

- Spigots or hoses are another way for students to refill watering cans or cups, but it takes more time and an adult must be the one to operate the spigot or hose.

Suggestions for Pre-K to 1st Grade

- Depending on the kind of watering can you have, younger students may not be able to easily carry and manipulate the watering can. A small cup may be more suitable.
- Younger students may not be able to walk far with their watering can or cup. It may be better to keep a group of younger students working closely together on one bed before moving all together to the next one.
- Students can use a small cup or watering can to water after planting.

Suggestions for 2nd and 3rd Grade

- If space or materials are limited, students can work in partners to identify plants that need water and to do watering.

Suggestions for 4th and 5th Grade

- Older students can do this job very independently without much supervision.



Mulching

Suggested Talking Points

- Mulch helps keep moisture in the soil.
- Mulch keeps nutrients from washing away from the soil.
- Mulch helps to beautify.
- Mulch keeps plants warm.
- Mulch helps us to mark our paths.
- Mulch prevents weeds from growing.

Materials

- Large buckets
- Cocoa husks, wood chips, hay broken into manageable chunks, or other mulching material
- Trowels, small buckets, or cups (if not using hay)
- Gloves (optional, if working with hay)

Procedure

- Gather students to discuss the work: *What is the purpose of mulch?* Highlight particularly important reasons why we mulch, connecting it back to concepts from the previous lesson.
- Show students the material they will be using to mulch. Show gardeners where you will be spreading the mulch, carefully around plants. *Why shouldn't I put the mulch on top of the plants? We are trying to keep weeds out and moisture in. We don't want to cover our plants.*
- Model for the gardeners how to carefully and slowly fill the cups or trowels and sprinkle the mulch or soil.
- If necessary, assign students which buckets or areas to work out of. *You three use this bucket, and you three use this one.* Challenge them to move as slowly as they can and/or to spill as little mulch as they can. Compliment kids who are doing this well, and try to slow and redirect kids who start to run or throw mulch/soil.
- Gather students and ask, *What was the best part about mulching? Who can tell me the things that mulch does for our garden?*

Additional Tips

- Mulching is a great time to be able to use work songs in the garden. Teach a song using the reasons for mulching to reinforce the concepts.

Have students create new verses, based on their knowledge of the purpose of mulch:

I'm going to mulch to keep the moisture in

Moisture in...

Moisture in...

I'm going to mulch to keep the moisture in

Now it's time to mulch!

- Students can mulch paths instead of beds, using the most appropriate mulching material for your garden. Designate an area for students to work in, and reinforce how mulch keeps the paths dry and free of weeds.

Suggestions for Pre-K to 1st Grade

- Have younger students mulch in a bed that has lots of open space between plants. Avoid mulching in areas with low-lying plants with younger students, as they may dump mulch onto low-lying leaves or fruits.
- Pre-K or kindergarten students can use cups instead of trowels to scoop.

Suggestions for 2nd and 3rd Grade

- Have students mulch in beds with a variety of plants. Older students can be trusted with lifting up leaves or fruits to mulch directly on the soil.

Suggestions for 4th and 5th Grade

- Pair mulching with a planting job. Have students plant a full bed of starts, then carefully mulch around the new plants. Give students the chance to work as independently as possible.
- Have students weed a bed and then mulch it to protect against new weed growth.



Weeding

Suggested Talking Points

- Plants need space in order to grow. Plants that don't have enough space will compete for water, light, and other resources.
- Weeds are plants that are growing where they are not supposed to.
- In order to take a plant out of the ground, we need to take out the entire plant, including the roots that are under the ground.

Materials

- Samples of plants to be weeded
- Buckets or wagons
- Trowels (optional)

Procedure

- Gather students in a circle to discuss their task. *Today, we are going play a game called the Green Monster Game. There is a monster in our garden, and it is green, and some people call it a weed, but I call it a monster! You need to get it out of the garden, today, today, today!!! You think I'm kidding? I'm not. We have a monster and we need to get it out!*
- Pass around some examples of the Green Monster. *Should we become familiar with the Green Monster? I have some examples here. I will pass it around so that you can become familiar with it.*
- Ask students why they think we need to pull out weeds. *This plant is growing too close to our food plants, so it is your job to release it from the soil to give our plants more space. You will remove it, including its roots and place it into a bucket to go into the compost.*
- Bring students to the place they will weed. *Who can identify the weeds in this bed? Who can identify the plants we have planted? Show me that you can pull up one Green Monster, and then you may begin to fill up the bucket.*
- Circulate to be sure that students are pulling the correct plants up. Make sure that you are able to see all the students' work.

- *Who thinks we can weed this whole bed today? When baskets begin to fill, have a runner bring the weeds to the compost pile.*
- *Who can remind me why we weeded the bed? Who can explain what it was like to have your hands in the dirt pulling out the Green Monster? Give yourselves a round of applause for creating space for our food plants!*

Additional Tips

- Use trowels only when necessary to avoid digging up extra plants.

Suggestions for Pre-K to 1st Grade

- Choose a very easily identifiable plant for students to weed. You may want to have students put their hands on the plant and ask permission to pull so that you can be sure they have the correct plant.

Suggestions for 2nd and 3rd Grade

- Pair weeding with building a new compost pile.
- Have students weed close by to you so that you can monitor their work.

Suggestions for 4th and 5th Grade

- If older students are able to easily identify a chosen weed, you may give them permission to pull it wherever they see it in the garden, and to work more independently.





Harvesting

Suggested Talking Points

- Harvesting is picking plants that are ready to be eaten.
- Harvesting a little bit at a time lets our plants keep growing.
- A fruit that is ripe is ready to be eaten. The plant gives us signs that a fruit is ripe, like the color, size, or hardness.
- Weighing our harvest tells us how much food our garden grows.
- We can eat roots, stems, leaves, flowers, fruits, and seeds from many different plants.

Materials

- Harvest baskets
- Plant to demonstrate harvest
- White board & markers
- Scale
- Scissors or shears (optional)

Procedure

- Gather students and discuss the job of the day. *Today we will be picking plants that are ready to be eaten. Who knows another word for pick? That's right: "harvest." We will harvest a delicious summer herb called basil today for our kitchen classroom. Who has ever tasted basil before?*
- *In front of me, I have a whole basil plant. If I pick just any leaf from anywhere on the plant, I can make the plant weaker. What would happen if I took all the leaves off the basil plant? It can't grow anymore! In order to harvest basil, I want to pick from the top, just above a set of leaves.*
- Draw a picture of the basil plant and indicate the exact place students should harvest.
- *We will go into the garden in two teams. We will harvest from two different beds. We will fill up our buckets with the basil to deliver to the kitchen classroom. Each student should pick 4 leaves.*
- Lead the students to the beds they will harvest from. *Without pinching, please point to the place that you will harvest. When you are ready, twist your other hand up in the air to let me know while keeping your hand on the plant.* This is a clever way to add a little stretching into gardening!

- *Wonderful, you may pinch off that part of the plant and deliver it to our basket. Pick three more and if you have any questions make sure you ask before you pick. Circulate to make sure that the harvest is going well.*
- *Once everyone has finished, gather together to weigh and record your harvest. Why do you think it's important to weigh our harvest? It gives us a number that can tell us how much food our garden grew!*
- *Using the whiteboard, write the two weights and ask students to help come up with the sum. That's a lot of basil! Who can tell me what the basil smelled like when you picked it? What did it feel like? Who remembers why we picked the basil?*

Additional Tips

- *When you are harvesting something that requires the use of pruning shears or scissors, be sure to express the seriousness of proper tool usage. How do we carry shears in the garden? We never carry tools above our waist. What part of the scissor do we hold?*
- *When harvesting a fruit from a plant that has under-ripe fruit, be sure to show the correct color. Who knows what it means for a fruit to be ripe? A fruit is ready when it changes color and its seeds are mature. How can we tell if a strawberry is not ready to be picked? It is green or pale pink. How can we tell if it is ready? It is bright red.*
- *Never harvest more than $\frac{1}{3}$ of a leaf crop (such as kale or basil) if you want it to continue to produce stems and leaves.*

Suggestions for Pre-K to 1st Grade

- *Younger students may not be able to use scissors, since their motor skills are still developing.*
- *Have younger students harvest something easily identifiable, such as a bright orange cherry tomato or a red strawberry.*

Suggestions for 2nd and 3rd Grade

- *Have students harvest the last of something from a bed at the end of the season. Then, have the students clear the bed. This allows students to do different tasks and to see a big result at the end of the class!*

Suggestions for 4th and 5th Grade

- *Only older students should be trusted with shears, with a few students using them as a time and highly supervised.*
- *Have older students harvest, process, and weigh produce.*



Saving Seeds

Suggested Talking Points

- New plants grow from seeds.
- Plants make flowers, which then make fruits or seeds. The new seeds that grow continue the plant life cycle.
- Seeds are also a food for people.
- Saving seeds allows us to grow special varieties of plants.

Materials

- Seeds, seedpods, or fruits to save
- Small cups
- Buckets
- Envelopes
- White board and markers
- Crayons or colored pencils
- Scissors (optional)

Procedure

- Introduce students to the day's job. *Why do you think gardeners save seeds? What can we do with the seeds that we save in our garden? What else do people use seeds for?*
- Show students the seeds they will be saving today, and demonstrate how to remove the seeds from the flower, seedpod, or fruit. If possible, show them the mature plant, or the part of the plant that we eat. Have students put their saved seeds in a cup and put extra plant matters into a bucket for compost. Wait to move on to the next step until all students are finished.
- Give students envelopes and crayons or colored pencils. Write the name of the seed on the board so that students can label their envelopes. Students can decorate their envelopes as well. Have students put their seeds into the envelopes, or help them to do this.
- *We saved so many seeds today! What can we do with these seeds later in the garden? Why do we save seeds?*

Additional Tips

- If time allows, students can also gather seeds, seedpods, or fruit in the garden before saving seeds. Use scissors only if necessary.

Suggestions for Pre-K to 1st Grade

- Younger students who can't write yet can skip the process of making the envelope. Alternately, younger students can decorate the envelope and a teacher can write the plant name on it for them.

Suggestions for 2nd and 3rd Grade

- Students can save more complicated seeds that require more processing, such as grains that require threshing and winnowing.
- Pair seed saving with compost work, using leftover materials to build a new compost pile.

Suggestions for 4th and 5th Grade

- Have small groups save multiple kinds of seeds.





Building Compost

Suggested Talking Points

- When we make compost, we turn food scraps back into healthy soil for our garden.
- Decomposers like worms, beetles, and millipedes eat our food scraps in the compost in order to make soil.
- Compost makes our plants grow strong.
- Compost makes our plants produce even healthier food for our bodies.
- Compost needs a mix of green things (fruit and vegetable scraps, grass, pulled weeds) and brown things (dead leaves, paper, cardboard).

Materials

- Buckets
- Green materials (i.e. grass, pulled weeds)
- Brown materials (i.e. leaves, cardboard, newspaper)
- Scissors (optional)

Procedure

- Gather students in a circle before beginning. *What are some of the things that we put in the compost?* If students already know about the difference between greens and browns, you can ask what each contributes to our compost.
- Show students stations with brown and green materials. A job in itself can be using scissors to cut up green plant material, or tearing up paper. Put broken down material into buckets.
- If you have a lot of material to be moved into bins, have students work in assembly line to take turns adding layers of brown and layers of green to the compost pile. First they line up at browns and move it, then at greens, etc.

Additional Tips

- Breaking down green and brown materials can easily be done inside. Students can even make a miniature pile, layering green and brown materials.
- Soak heavy brown materials, such as cardboard, in water prior to the lesson. This will make it easier for students to shred it by hand.

Suggestions for Pre-K to 1st Grade

- Younger students can collect leaves and grass clippings in paper bags to put into the compost. Work together to collect leaves and grass, then have a Compost Parade back to the bins, where students can dump in what they've collected.

Suggestions for 2nd and 3rd Grade

- Pair compost work with clearing. Have students first work to clear a bed or area, then break down green and brown materials and layer them into a new pile.

Suggestions for 4th and 5th Grade

- Set up several stations where students can build compost piles, turn compost, and sift compost. Allow students to work independently.





Sifting Compost

Suggested Talking Points

- When we make compost, we turn food scraps back into healthy soil for our garden.
- Decomposers like worms, beetles, and millipedes eat our food scraps in the compost in order to make soil.
- Compost makes our plants grow strong.
- Compost makes our plants produce even healthier food for our bodies.

Materials

- Sifters
- Wagons or wheelbarrows
- Trowels
- Buckets
- Finished compost

Procedure

- Gather students in a circle to explain the day's job. *Who can tell me what compost is? What do we put into the compost? What does it turn into? What makes the food scraps turn into soil?* Make sure students are aware that compost is a mixture of garden materials like leaves and food scraps which get broken down by fungus, bacteria, and insects, and that it turns into food for our soil.
- Show students the sifting stations. *Who has sifted compost before? Great, so you know it's a lot of fun! Can you tell me what we do here? Can you show us how to do it? Why do we sift?* Make sure they understand it is so we can get the large materials out of the finished compost.
- For each sifter station, have two students doing the sifting. After they sift, they dump the larger pieces into the bucket next to their wheelbarrow.
- Show students the bin or area with finished compost. Here, show students how to fill buckets with compost, using a trowel, and to pour it onto the sifters so that other students can sift. Remind students about proper tool usage and respect for living things in the compost.
- Assign students to various stations. If you like, you can rotate students between these responsibilities.

Additional Tips

- You can pair this job with building compost or turning compost.

Suggestions for Pre-K to 1st Grade

- Pre-K and kindergarten students may not have the motor skills for using large sifters. Use small individual sifters, or have students press compost through a larger mesh screen to sift it.

Suggestions for 2nd and 3rd Grade

- Pair compost work with amending.

Suggestions for 4th and 5th Grade

- Set up several stations where students can build compost piles, turn compost, and sift compost. Allow students to work independently.





Turning Compost

Suggested Talking Points

- When we make compost, we turn food scraps back into healthy soil for our garden.
- Decomposers like worms, beetles, and millipedes eat our food scraps in the compost in order to make soil.
- Compost makes our plants grow strong.
- Compost makes our plants produce even healthier food for our bodies.
- Compost needs water and air so that the decomposers inside can do their work.

Materials

- Unfinished compost
- Wagons or wheelbarrows
- Trowels
- Buckets
- Shovels or pitchforks (optional)

Procedure

- Gather students in a circle before beginning. Ask, *What do living things need to survive?* Solicit student responses until you get to air. Explain to students that we move the compost from one bin to another so that the living creatures in it can get air!
- Students take turns moving compost from the first pile and moving it into the second pile. They observe differences and decomposers.
- The job is finished when pile has been moved from one spot to the next.

Additional Tips

- If you have only a few students, you can have them use pitchforks and shovels and move directly from one pile to the next. If you have a larger group, you can have them fill buckets from one bin and dump them into the pile. Using pitchforks and shovels in a crowded place is not a good idea!
- Students can also do this job like an assembly line. Some students can fill buckets or wagons with compost from the first pile, some can move buckets or wagons from the first pile to the second pile, and some can dump or scoop out the compost into the second pile.

Suggestions for Pre-K to 1st Grade

- Younger students will enjoy the chance to use trowels to fill a bucket or wagon. Adults may need to help with moving buckets or wagons from one pile to the next.

Suggestions for 2nd and 3rd Grade

- Pair compost work with amending.

Suggestions for 4th and 5th Grade

- Set up several stations where students can build compost piles, turn compost, and sift compost. Allow students to work independently.
- Older students can use shovels or pitchforks to turn compost, rather than trowels and buckets.





Amending

Suggested Talking Points

- When we make compost, we turn food scraps back into healthy soil for our garden.
- Decomposers like worms, beetles, and millipedes eat our food scraps in the compost in order to make soil.
- Compost makes our plants grow strong.
- Compost makes our plants produce even healthier food for our bodies.
- Plants absorb water and nutrients through their roots.

Materials

- Compost or other amending material in buckets or wagons
- Trowels, small buckets, or cups

Procedure

- Introduce students to the job for today. Highlight particularly important reasons why we amend our soil, connecting it back to concepts from the previous lesson.
- Show students the area where they will be working. Model for the gardeners how to carefully and slowly fill the cups or trowels and sprinkle the amendment into the bed. *Why do we put the compost on the soil, instead of on the leaves? The plant drinks up water and nutrients through its roots, which are under the soil!*
- If necessary, assign students which buckets or areas to work out of. *You three use this bucket, and you three use this one.* Challenge them to move as slowly as they can and/or to spill as little mulch as they can. Compliment kids who are doing this well, and try to slow and redirect kids who start to run or throw mulch/soil.
- If students are working with compost, they will most likely find decomposers in the compost. Remind students to not disturb or handle these creatures, and have them simply move them along with the compost. Have students observe these creatures: *What do you think that worm is doing? Why do you think it likes to dig back under the compost?*
- Gather students and ask, *What did you see today when you were adding compost to the beds? How do you think the compost is going to help our plants? How do you think the plants will look next time you see them, now that they have so much healthy soil?*

Additional Tips

- Some students may be sensitive to commercial fertilizers. It might be advisable to have students mix the fertilizers into compost or vermiculite and then amend with that. This can be an interesting opportunity to learn more with students about soil nutrition, and to emphasize the ways in which nutrients are recycled.

Suggestions for Pre-K to 1st Grade

- Have younger students amend in a bed that has lots of open space between plants. Avoid mulching in areas with low-lying plants with younger students, as they may dump amendment onto low-lying leaves or fruits.
- Pre-K or kindergarten students can use cups instead of trowels to scoop.

Suggestions for 2nd and 3rd Grade

- Have students mulch in beds with a variety of plants. Older students can be trusted with lifting up leaves or fruits to mulch directly on the soil.
- While working, ask students to identify decomposers that they see, and features of these decomposers.
- Pair amending with compost work.

Suggestions for 4th and 5th Grade

- Pair amending with a planting job. Have students amend, cultivate, and then plant a bed with either seeds or starts. You can even have a group work together to lay out the bed for planting.

