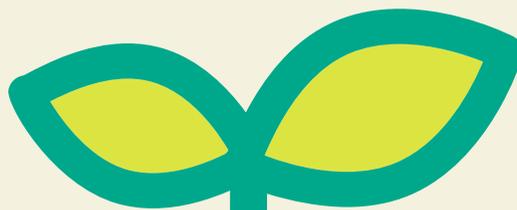


FOODCORPS



SPROUT

SCOUTS

LEADERS

HANDBOOK

Copyright © 2017 FoodCorps, Inc. All rights reserved.

Sprout Scouts Adventures were created for FoodCorps in collaboration with Life Lab.



FoodCorps, Inc.

1140 SE 7th Avenue, Suite 100
Portland, OR 97214
212-596-7045
foodcorps.org



Life Lab

1156 High Street
Santa Cruz, CA 95064
831-459-2001
lifelab.org

FoodCorps connects kids to healthy food in school. We are a team of AmeriCorps leaders who serve in high-need schools to help students learn what healthy food is, fall in love with it, and eat it every day. We focus our service on delivering hands-on lessons in gardening, cooking and tasting healthy food; improving school meals; and encouraging a schoolwide culture of health.

Life Lab cultivates children's love of learning, healthy food, and nature through garden-based education. Through hands-on workshops and award-winning publications, Life Lab provides educators with the inspiration and information necessary to engage young people in experiential learning in gardens.

Whitney Cohen of Life Lab primarily authored this text, in partnership with Kendal Chavez of Farm to Table New Mexico, and Erica Curry and Cecily Upton of FoodCorps.

Sprout Scouts is made possible by

Presenting Sponsor



FoodCorps National Champion
for Healthy Kids

Founding Partner



FoodCorps Catalyst
for Healthy Kids

CONTENTS

GETTING STARTED	4
Introduction to Sprout Scouts	5
Making Sprout Scouts Your Own	7
Suggested Materials	9
Safety, Health and Well-Being	10
Starting Your Sprout Scouts Club	13
Managing Your Sprout Scouts Club: The Four Ps	14
Leading Sprout Scouts Activities: The Five Es	17
Sprout Scouts Essential Skills	20
SPROUT SCOUTS ADVENTURES AND ACTIVITY GUIDES	21
Orientation Session: Welcome to Sprout Scouts	22
Adventure One: Getting Ready to Grow	30
How Does Our Soil Stack Up?	33
Compost Cake	37
Making the Bed	42
Go, Grow, Glow!	45
Take Home: Compost Pile	48
Adventure One Certificate	49
Adventure Two: Planting Our Garden	50
Seed Soiree	53
Paper Pots	56
Plant a Salad	59
Honey Seed Snacks	63
Take Home: Seed Scavenger Hunt	66
Adventure Two Certificate	67
Adventure Three: Caretaking	68
Keeping Our Garden Growing	70
Homes for Our Helpers	73
Deadheading and Seed Saving	77
Tea Time	80
Take Home: Build a Bee Hotel	83
Adventure Three Certificate	84
Adventure Four: Enjoying the Harvest	86
Harvest Time!	89
Party Prep	93
Sharing the Harvest	97
The Final Feast	100
Take Home: Family Food Stories	105
Adventure Four Certificate	106
APPENDIX	108
Sprout Scouts Promotional Flyer	109
Sprout Scouts Permission Slip Template	110
FoodCorps Video & Photography Release Form	111
Soil to Smoothie Reproducible Images	112

Getting Started

Introduction to Sprout Scouts

WHAT IS SPROUT SCOUTS?

Sprout Scouts is a kids club for elementary-aged students that helps them to learn what healthy food is, fall in love with it, and eat it every day. Through fun, hands-on activities, Sprout Scouts clubs teach kids how to grow, prepare, and eat healthy food.

Sprout Scouts Adventures and activities link Common Core and other academic standards to food and health in fun and engaging ways. Because of this, Sprout Scouts clubs are perfect for after-school programs, summer camps, or even as a classroom unit.

HOW DOES IT WORK?

The Sprout Scouts program is built on a series of Adventures. Each Adventure includes four group activities and one take-home activity that explore different aspects of growing, preparing, and eating healthy food.

Engaging Kids and Families

Sprout Scouts activities are best used with kids in grades 3–5, though activities can easily be adapted for older and younger students.

Engaging parents and guardians through the take-home activities is an important part of Sprout Scouts because it encourages Scouts to explore growing, preparing, and enjoying healthy food outside of the school walls, while sparking talks about healthy food at home.

Leading a Sprout Scouts Club

Sprout Scouts runs like a club, with each Adventure building new and complementary skills. If you plan to lead a Sprout Scouts club, we suggest you to start with the Welcome to Sprout Scouts Adventure, where you will introduce your Scouts to the program and set group norms. From there, you can decide on the order of the Adventures based on a combination of:

- The status of your garden and the produce available in it
- The amount of time you have for each Sprout Scouts session
- The season(s) your club will meet

fyi

If you're creating a new garden area from scratch, you can visit lifelab.org/store/curriculum/#GS to download Life Lab's free guide: "Getting Started: A Guide for Starting a School Garden," available in English and Spanish. You can also find more resources on starting school gardens, compiled by the Collective School Garden Network, at: csgn.org/designing-your-garden

make it your own

Reference the Making Sprout Scouts Your Own section for more ideas and information.

As the Scout Leader you also have the flexibility to re-order and tailor the activities within each Adventure to work best for your unique club or community.

to run a successful sprout scouts club, you will need:

- An after-school, in-classroom, or summer opportunity with a group of 5–15 third- to fifth-grade students that can devote 12–18 hours total to Sprout Scouts
- Access to a garden space where you can prepare a bed, plant, tend, and harvest (see side note)
- Access to garden tools and water to help you prepare a bed, plant, tend, and harvest
- Access to plants, seeds, compost, recipe ingredients, and other consumables involved in gardening and cooking with kids, or a budget to purchase these items
- Access to basic food preparation equipment, such as a blender, cutting boards, knives, colanders, bowls, cups, and silverware
- Access to basic supplies and materials available in most schools, such as scissors, magnifying glasses, markers, and other materials as needed

Recognizing your Scouts for the skills they learn is a fun and important part of the club. Once a Scout has finished at least three of the group activities and the take-home activity for the Adventure, they have completed the Adventure and are eligible to receive a certificate. After finishing all of the Adventures, participants will graduate from the club and will receive their Sprout Scouts patch. This patch signifies they have learned the basic skills needed to grow, prepare, and eat healthy food.

Using Sprout Scouts Activities Individually (Rather than Starting a Club)

If time or program constraints prevent you from running a full Sprout Scouts club, you can easily use this Handbook to lead individual Sprout Scouts activities with an existing class or after-school group, or to choose one Adventure to take a group of students on over a series of several meetings. Choose lessons that will work well in a classroom or garden during the school day, and be sure to connect with teachers to ensure the lesson you choose builds on classroom topics. Reference the *Making Sprout Scouts Your Own* section for ideas on how to adapt the lessons to meet your needs.

Making Sprout Scouts Your Own

CUSTOMIZING SPROUT SCOUTS

We understand that every school (and every school garden) is different. Teaching kids about Go, Grow, and Glow foods (in the *Getting Ready to Grow* Adventure) in Iowa in January will look different than teaching kids the same thing in New Mexico in June. Accordingly, we've intentionally designed the program to be adaptable, while still keeping the essential elements that make it Sprout Scouts: hands-on skill building, fun and rigorous learning, and organized team development.

This section of the Handbook will help you customize Sprout Scouts in six ways:

- Seasonality
- Time frame
- Order of Adventures
- Cultural context
- Materials and supplies
- Teaching stand-alone activities

Customizations will give you plenty of room to make Sprout Scouts work in your community and school, while still staying true to the basic skills that are learned through each activity and Adventure. We encourage you to stay true to the core skills and learning behind each activity, as these are central to a strong foundation of learning to grow, prepare, and enjoy healthy food.

Make sure to give yourself enough time to plan out the adaptations you want to make to your Sprout Scouts program. Use the information in this section, and also reference the “Customization Sidebars” throughout the Adventures. They will give you ideas for adapting activities to better meet your club’s needs. And remember, it’s also okay to try out lessons individually during classroom time instead of running a club. This could be a great way to gauge student and teacher interest before starting an after-school Sprout Scouts club.

SEASONALITY, TIME FRAME, AND ORDER OF ADVENTURES

As a Sprout Scouts Leader, you will determine the order of the Adventures based on what your garden’s doing, the schedule of your sessions, and the season(s) your program meets. If you are starting in a relatively empty garden during a planting season, for example, you’ll likely be able to complete the Adventures in order. If you’re starting with a well-established garden during a harvest season, it could make more sense to start with the Caretaking and Enjoying the Harvest Adventures, and loop around to the Getting Ready to Grow and Planting Our Garden Adventures once a few beds are cleared and ready to be planted again. Similarly, every Adventure includes an indoor option in case the weather doesn’t agree, so the program is fully adaptable to colder climates and winter months.

The Adventures were planned in a way that allows for time adjustments based on your club’s time slot and schedule. As noted in the Introduction to Sprout Scouts Section, you will need between 12–18 hours to get through the entire program. This can be broken down in different ways, like 14 one-hour sessions, 20 45-minute sessions, or six two-hour sessions. You can stretch the Sprout Scouts Adventures across an entire semester, condense them into a more intense four-week program, or just choose a few activities to run during class time. The choice is yours!

However you choose to do it, it’s important that each Sprout Scouts Leader reviews all of the Adventures and maps out a sequence that works in the context of your specific school community.

If you are planning to do most or all of the Adventures, we recommend that you stick to the structure laid out in this Handbook as much as possible, since it was developed with sequential learning in mind: start with part or all of the Welcome to Sprout Scouts session, complete as many Adventures as possible, as sequentially as possible, and finish with part or all of the Enjoying the Harvest Adventure. We also highly recommend that you complete the edible and take-home activities within each Adventure.

CULTURAL CONTEXT

Food is at the heart of culture, and it looks, tastes, and feels different depending on where you live. That's why Sprout Scouts was created to meet different community experiences. We encourage you to adapt the activities to your cultural context. You might choose to grow different plants or use different ingredients in recipes based on the region or cultural makeup of your club. Themes are provided to give structure to the activities but you are free to choose what you plant and prepare in your Adventures. Beans are a staple food to some communities and okra is a staple in others, so the activities can be adjusted to teach your Scouts skills around growing, preparing, and eating healthy food that is relevant to them.

MATERIALS AND SUPPLIES

As you begin to plan out the program and review the materials list, you'll notice room for adaptations materials and supplies. Not all schools have easy access to resources like wheelbarrows and watering cans, so you'll find lower-cost ideas throughout the materials and supplies lists within each Adventure. Sprout Scouts Leaders are encouraged to think outside of the box when pulling together supplies and materials. Please reference the *Suggested Materials* section for more ideas and guidance.

TEACHING STAND-ALONE ACTIVITIES

Not every school will have an after-school, summer, or classroom schedule that allows you to get to all of the Sprout Scouts Adventures. That's okay! Just do what you can. You can review the materials in this Handbook and choose the activities that will connect most closely with the academic goals of your students and teachers, or the ones that you can complete with the materials and supplies you have on hand. If the activity resonates with your students, consider working with your school to set up a full Sprout Scouts club in the future.

This commitment to flexibility and adaptation can be seen in the example from one of the Adventures. You'll see "make it your own" boxes scattered throughout the activity pages to help you adapt activities for your Scouts. And don't shy away from coming up with your own customizations, too!

make it your own

You might choose a different theme for this activity depending on the crops that grow in your region and the meals that are common in your Scouts' lives. For example, an activity could become Soil to Tamales, Soil to Mashed Potatoes, or Soil to Stir Fry. The key is to select a recipe for a balanced meal that has just a few key ingredients and, ideally, includes both plant- and animal-based ingredients.

suggested materials

At the beginning of each activity, you will find a list of the supplies and materials needed to complete it. The following is a list of supplies that we suggest you have on hand; this supply list will see you through multiple Adventures!

GENERAL SUPPLIES

- Chart paper or whiteboard
- Markers
- Sprout Scouts journals and pens or pencils for each Scout (Journal-making is the first Sprout Scout activity. See the *Welcome to Sprout Scouts* session.)
- Optional: magnifying glasses and/or bug boxes with magnifying lids (1 per Scout, or every 2–3 Scouts)

GARDEN SUPPLIES AND EQUIPMENT

- Wheelbarrow or 2 buckets
- Watering can or hose (ideally with fan nozzle)
- 4 spades
- 4 digging forks
- 1 pair of hand shears or scissors for each Scout
- 1 hand trowel for each Scout
- Optional: Compost thermometer
- Optional: Gloves for all Scouts
- Optional: Harvesting tools. Round-tipped steak knives work well for broccoli and other thick-stalked vegetables. Digging tools are great for root crops like carrots and beets.

COOKING SUPPLIES AND EQUIPMENT

- Sink or other running water source
- A table big enough for the whole group to gather around (a standing table is fine)
- Hand soap
- Dish soap
- Drying rack for dishes
- 1 or more large bowls
- 4 or more small bowls
- 1 or more sets of measuring cups
- 1 or more colanders
- Baking sheet
- Compost bucket
- Salad tongs or serving utensils
- 1 bucket for knife storage when not in use
- 1 cutting board for each Scout or pair of Scouts
- 1 knife for each Scout or pair of Scouts
- 1 plate for each Scout
- 1 fork and 1 spoon for each Scout

Safety, Health, and Well-Being

As the Sprout Scouts Leader, part of your job is to make sure that everyone feels welcome, safe, and comfortable in the garden, classroom, and kitchen environments. The following guidelines will keep your Scouts safe, help you to dig deeper into the teaching, and support you in running an inclusive program.

Safety is of primary importance when leading a Sprout Scouts program. As a Sprout Scout Leader, you also have the opportunity to go through a certification program for safety skills, which we highly recommend.

Generally speaking, in order to protect you and your Scouts in case of an accident, injury or other safety emergency, Sprout Scouts should always operate under the umbrella of an existing program or organization, such as a school, summer camp, or after-school program. These entities are set up to supervise children and will have their own protocols and liability insurance already established. Work early and often with your site director or administrator to make sure you are following their safety and supervision systems. This may require you to get permission slips and medical information for each Scout. Additionally, your role as the Sprout Scouts Leader may require you to be a mandatory reporter. If so, learn the mandatory reporting protocols at your site and make sure you have the information and training you need to perform them.

TIPS FOR KEEPING SCOUTS SAFE

- 1. Review all safety notes before starting an Adventure.** Prepare for your time with the Scouts by reading through the safety sidebars for each Adventure. For easy reference, check out the Safety Cheat Sheet later in this section.
- 2. Provide vigilant adult supervision.** Always keep Scouts in sight and in areas that have been designated as safe spaces for student/youth programming. Be consistent with your expectations and openly communicate the importance of the group sticking together. Bathroom breaks and pickup times are especially important times to be extra aware of where your Scouts are, and who they're with.
- 3. Follow school/after-school program protocols regarding allergies, student pickup, and other important issues.** The *Starting Your Sprout Scouts Club* section includes a sample parent consent form that you can replicate for your program. Please do so under the direction of your site director or administrator. Your school or after-school program will likely have a set system or procedure for obtaining this information. It's important to know who is allowed to pick up Scouts and, more importantly, who is not. You also must collect information on any medical issues including food, bee sting, or other insect allergies. Keep this information in a place that is easy to reference, like a chart or spreadsheet. Common food allergies include: peanuts, tree nuts, seafood, dairy, wheat, and soy. These ingredients are limited in the Sprout Scouts recipes to prevent exposure. Be sure to identify and understand potential health issues before making substitutions and before preparing or serving any food with Scouts.
- 4. Clearly communicate your expectations.** To ensure everyone's safety, clear rules and guidelines need to be set from the beginning. Scouts should understand not only the safety parameters, but also why they are important. See the *Welcome to Sprout Scouts* session for more detailed information and guidance on how to create a quality experience for your Scouts.

5. **Be prepared for anything!** Any seasoned practitioner knows that when teaching, anything can happen. Show up prepared to respond to any and all scenarios and always have a backup plan. It's important that a well-stocked first aid kit, emergency contacts, and a general awareness of Scouts' health histories are in place and accessible at all times.
6. **Foster space for emotional and mental well-being.** It is your responsibility as the Sprout Scouts Leader to create and support a culture of trust. Bullying, clique behavior, and discrimination should never be allowed. Teamwork and collaboration will be stronger if you make group agreements around expected behavior toward one another. Include your Scouts in this process! For more guidance around setting group agreements, see "Sprout Scouts Agreements" in the *Welcome to Sprout Scouts* session.

Safety Cheat Sheet

It's up to you as the Sprout Scouts Leader to decide if you want to award recognition for competence in safety. Either way, safety skills are embedded within each Adventure and throughout the program. Just like other skills learned in Sprout Scouts, safety is meant to be taught in a laddered approach but will work in any order you see fit for your group.

The following safety skills are learned by Sprout Scouts in the program:

WELCOME TO SPROUT SCOUTS

- General: garden safety
- General: bee safety
- Food safety: hand-washing techniques
- Food safety: dishwashing
- Food safety: cleanliness and manners when preparing food

Adventure One: Getting Ready to Grow!

- General: tool safety
- Tool: shears
- Tool: digging fork

Adventure Two: Planting Our Garden

- Tool: hand trowel

Adventure Three: Caretaking

- Tool: shovels
- Tool: proper storage

Adventure Four: Enjoying the Harvest

- Food safety: drinking out of the hose
- Food safety: harvesting basics
- Food safety: cleaning produce
- Tool: hammer
- Tool: knives

Starting Your Sprout Scouts Club

Whether you are starting a Sprout Scouts club, or trying out a few lessons in a classroom setting, it's important to lay the groundwork for Sprout Scouts in your school or at your program site. Consider that it may take several weeks, or even months, to connect with all of the appropriate people to share what Sprout Scouts is all about. Be sure to identify the key players that you will need on board to ensure your club is a success. These people may include the principal, grounds manager, garden manager, after-school program manager, and classroom teachers.

Additionally, you will need to contact parents or guardians to enroll their kids in the program. Also consider whether you'll need volunteers to help you run the club, or additional meetings with teachers if you are leading lessons in the classroom. Begin the process as soon as you decide which strategy you will take! The sooner you do this, the sooner you can start your club. The materials below are meant to support you along the way.

- Sprout Scouts Promotional Flyer (p. 109)
- Sprout Scouts Permission Slip Template (p. 110)
- FoodCorps Video & Photography Release Form (p. 111)

Managing Your Sprout Scouts Club: The 4 Ps

Personal Relationships, Perceptions, Participation, and Parameters

When we think of group management, we often think of enforcing rules or following through on consequences. But ideally, the vast majority of a leader's work is done before any problem even arises. This is the art of prevention: How can we create the optimal conditions to bring out the best behavior in our Scouts? It all starts with the 4 Ps of Prevention: Personal Relationships, Perceptions, Participation, and Parameters, adapted from Patricia Belvel's *Rethinking Classroom Management*.

PERSONAL RELATIONSHIPS

Take time to get to know your Scouts and help them get to know one another. Kids' behavior improves when they know, respect, and feel comfortable with their peers and their leader.

Tips:

- Names: In your *Welcome to Sprout Scouts* session, learn everyone's name. Remember and use their names throughout the program.
- Icebreakers: Pepper their sessions with icebreakers to help continue creating a sense of community in your group. You can find many icebreaker ideas by searching the term "icebreakers" online.
- Gifts Without Strings: Pepper their sessions with Gifts Without Strings, an idea adapted from Patricia Belvel's *Rethinking Classroom Management*. These are acts of kindness done with every Scout, not as a reward for good behavior, but just because every child deserves to be shown kindness. They might include:
 - Greeting each Scout at the garden gate with a high five
 - Smiling and making eye contact
 - Asking Scouts to share highlights from their weekends
 - Talking one-on-one with a Scout about something unrelated to Sprout Scouts, like their favorite book, their hobbies, or their pets at home

PERCEPTIONS

Help your Scouts to think of Sprout Scouts as a fun, rigorous, exciting, and organized program. This can be tricky because Sprout Scouts might initially feel like a time for free play. After all, it's very hands-on, you're often outdoors, and it can happen outside of school time. Shifting their perception, however, will help them be focused and engaged during structured activities.

Tips:

- Routines: Establish, practice, and continually revisit consistent routines, such as circling up quietly whenever they hear the callback; putting on aprons or garden gloves when it's time to work; and doing a Sprout Scouts cheer at the end of a session.
- Waiting for Quiet: If Scouts are having side conversations while you are addressing the group, stop and wait until they are quiet to continue. If it happens when another Scout is addressing the group, ask that Scout to stop and wait until everyone is listening.

- Build in Time for Free Play: There's nothing wrong with playtime! If you sense that your kids just came off a long day at school and need some time to run around and play before they can engage, make some time for that. Make sure you clearly distinguish it, however, from the other time, as in, *Let's go play on the field and unwind from our day, and then we'll come back here in about 15 minutes when we're ready to learn about building compost.*

PARTICIPATION

Behavior issues often arise when children don't have a meaningful way to get engaged in a group activity. You can prevent a lot of issues by creating as many opportunities as possible for all Scouts to get actively involved in whatever you're doing.

Tips:

- For hands-on activities, whenever possible, provide enough tools for everyone. See the *Suggested Materials* section of this Handbook (or at the start of each activity) for ideas on how to make your own watering cans and other tools for Scouts to use.
- For discussions, use one of the Participation Structures described on the next page to maximize active participation.

PARAMETERS

To give Scouts clarity and encourage buy-in to the “rules” of Sprout Scouts, work with them to establish clear and simple behavior expectations and consequences early in the program, before any issues arise.

Tips:

- Familiarize yourself with existing behavior protocols in your school, after-school, or summer camp program.
- Create group agreements in your first session together, as described in the *Welcome to Sprout Scouts* session.
- Describe consequences for when agreements are broken, as described in the *Welcome to Sprout Scouts* session. These should be consistent with existing behavior protocols from your school, after-school, or summer camp program.
- Prepare a simple “cool off” space for Scouts. This could be a corner of the garden with a few books, some paper and some pencils, or similar materials.
- Provide consistent follow-through on your consequences. If, for example, a Scout is calling another Scout names offer a reminder for them to stop. If it continues, remove the Scout from the activity and ask them to head to the cool-off space for a few minutes. If you are available, you can talk one-on-one with them there about what's happening. If you're busy, explain that and ask them to write down what's happening and why. If you feel they have calmed down, then they can rejoin the group. If, however, the problem persists, set up a meeting with the Scout and your program leader or parents or guardians to problem-solve together.

Of course, group management is never simple. There are always two sides (or more!) to every story. For a deeper dive into this topic, read *Conscious Classroom Management* by Rick Smith, *Positive Discipline in the Classroom* by Jane Nelsen, or *Rethinking Classroom Management* by Patricia Belvel. They're written for the classroom but offer fantastic practical advice that can be translated and modified for an extracurricular setting.

Participation Structures

One of the most effective means of equalizing participation and engagement across a diverse group is to provide a structure for response when you pose a question to your group. Every activity starts and ends with Scouts in a circle, talking about something. You can make this discussion richer and more engaging by adding any of the following participation structures to it.

THINK-PAIR-SHARE: Explain to Scouts that you are going to pose a question. Their job is to think silently to themselves about the answer, and give a thumbs-up when they have thought of something; then, when you say it's time, they'll turn to the person sitting next to them and share their answer; after that, you'll open it up to the whole group to share. In the whole group, you can ask specifically for answers that pairs had in common, or answers that Scouts heard from their partners to further encourage active listening.

TOE-TO-TOE: Have Scouts stand up. Explain to Scouts that you'll call out two body parts, like "toe-to-toe!" and their job will be to find someone silently and stand toe-to-toe with them. Once everyone is silently paired up (if there's an odd number, you can play, too), pose a question for the pairs to discuss. After a minute, call out a new set of body parts, such as "pinky-to-pinky," "elbow-to-elbow" or "knee-to-knee." Their job is to find a new partner, connect silently, and then together with their new partner answer a new question posed by you.

HOP AND FIND: Ask everyone to start hopping on one foot. Now their job is to hop around and find someone else also hopping on that same foot. If almost everyone has a partner, but you have two people left hopping on different feet, tell them they can be partners. Once they've found a partner, have them do something fun to connect, like give a high five, or have a thumb war. Then ask a question and have them share answers with their partners.

IN-OUT CIRCLE: Have Scouts stand up in a circle. Ask every other Scout going around the circle to take a step into the circle and then make a half-turn clockwise, so that they are now facing the person who used to be standing to their right. Now they have a partner (if you have an odd number of Scouts, you can play, too). Have them do something fun to connect, like give a high five or have a thumb war. Then ask a question and have them share answers with their partners. Next, tell the outside circle to move one person to the right, so each Scout has a new partner. Ask a new question for them to share, or ask them to share what they just learned about the first question from their last partner.

PASS THE BALL: Gather all your Scouts in one circle. Hold a ball and explain that this is the "talking ball." Ask a question and ask anyone who wants to answer to raise a hand. Toss the ball to someone with their hand up. They can answer while they have the ball and then toss it to anyone else who has their hand raised. Once everyone who wants to answer has had a chance, they can toss the ball back to you and you can pose a new question.

Leading Sprout Scouts

Activities: The 5 Es

Every activity plan you'll find in this Handbook is structured in the same way. The following section will guide you through reading and planning for the activities.

Each activity starts out with basic information you'll need to plan the session: estimated time, suggested location (indoors or outdoors), materials, any preparation you'll need to do in advance, a musical option (if there is one), and a basic description.

The activity plan then outlines how you should lead the session. The foundation of each activity structure is the 5 Es: Engage, Explore, Explain, Elaborate, and Evaluate. The 5 Es are a proven strategy for engaging kids in fun, hands-on skill building. You can use the 5 Es to build your own lessons outside of Sprout Scouts.

You will also notice that each activity has some portions in italics. The words in italics are ideas for what you might say to your Scouts. This is not a script to which you must adhere. Rather, it's a means of letting you know how a session could play out. Feel free to say things in your own way and make these activities your own!

BASIC INFORMATION

Estimated Time

Approximate times are given here to help you plan, but the actual time spent is flexible and you can modify based on your group's schedule.

Location (Indoors/Outdoors)

For outdoor activities, we recommend also reserving an indoor space and having an indoor activity prepped and ready in case of inclement weather.

Materials

Make sure you take a look at the Materials and Supplies section of this Handbook for things you'll need for multiple Adventures. You'll develop your kit of Sprout Scouts materials over time.

Preparation

This section is a guide for how to prepare for an activity before your Scouts arrive.

Musical Options

Music can be a great addition to your Sprout Scouts program! To incorporate any of the songs suggested in the activities, look on YouTube and learn it. Then make a poster with the lyrics so your kids can learn it with you! Or you can keep it simpler and just teach them the chorus part, so they won't need lyrics. If you do make posters of lyrics, consider using poster board or laminating them and attaching them with binder rings so that future Scout teams can continue to use them.

DESCRIPTION

This gives you a quick sense of the skill your Scouts will be learning in each activity, and how it supports the overall goal of growing and enjoying a feast together.

THE 5 Es: ENGAGE, EXPLORE, EXPLAIN, ELABORATE, EVALUATE

How can you help every Scout feel welcome, excited, safe, and important to the group? How can you help them learn new skills and work hard while still having lots of fun and gaining a sense of accomplishment? The 5 Es activity framework and group management tips below are

recommendations for creating the optimal conditions for success. Each activity has five parts: Engage, Explore, Explain, Elaborate, and Evaluate. The purpose of each part is described below, along with tips for leading them effectively.

ENGAGE

Purpose: To help (a) establish the purpose of the day's activities; (b) activate Scouts' prior knowledge around the focus skill for the day; and (c) get them excited to learn more about it.

Tips:

- Introduce the practice of gathering in a circle in the *Welcome to Sprout Scouts* session, and then use this same routine at the beginning of every session.
- Wait until everyone is quiet before you start talking. If people start talking while you are still talking, stop and wait until it's quiet again.
- When facilitating group discussions, ask broad and open-ended questions to allow for critical thinking and to equalize participation among your Scouts. Suggested questions are included in the activity plan, or you can come up with your own. A broad question has many possible right answers, such as: *What are some things you think healthy food does for our bodies? By contrast, a narrow question has only one specific right answer. For example: Who knows which vitamins help boost the immune system?*
- When facilitating group discussions, use a Participation Structure such as those described on p. 16 of the *Managing Your Sprout Scouts Club* section.

EXPLORE

Purpose: To provide Scouts with opportunities to explore physical materials or ideas before they are fully explained. This practice inspires curiosity, engages critical thinking, and activates prior knowledge.

Tip:

- You can use a callback to help grab kids' attention quickly when it's time to move on to the next part of an activity. You can make a simple animal sound (such as crowing like a rooster or howling like a coyote) or use a chime or whistle. Introduce a callback during your *Welcome to Sprout Scouts* session. Before you send Scouts out around the garden to do anything where they'll be dispersed, establish a callback, such as: *When you hear me crow like a rooster, come on back! I'll count down from 10 and we'll see if everyone can get into a quiet circle before I get to zero.* Right after you introduce the callback during the *Welcome to Sprout Scouts* session, have Scouts practice. Ask them to mill about the garden and then gather quickly into a quiet circle when called back together.

EXPLAIN

Purpose: To teach Scouts a new skill!

Tips:

- Whether they're going to be preparing a bed, planting seeds, watering, or cooking, don't just talk through the steps for a new skill, demonstrate them, with an emphasis on tool safety

fyi

The 5E Instructional Model was originally developed by the Biological Science Curriculum Study (BSCS). To learn more about the model, visit: bcs.org/sites/default/files/_media/about/downloads/BSCS_5E_Executive_Summary.pdf

whenever relevant. This will help all Scouts, and particularly English language learners, understand the instructions.

- Wait until after you've demonstrated to distribute tools and have Scouts join in the work.
- Whenever possible, provide enough tools or other equipment for everyone to have their own. This gives everyone a meaningful way to stay engaged.
- Once they're working, especially with new tools, broaden your focus to make sure that you're watching everyone and ensuring their safety.

ELABORATE AND EVALUATE

Purpose: Reflection is essential to learning. This practice provides Scouts with a chance to demonstrate their new skill and/or summarize what they've learned, which helps them synthesize and remember their learning, and gives you a chance to evaluate how well they grasped the new idea or skill.

Tips:

- It can be tempting to run an activity right up to the end of your time together and have no time to reflect, but it's often more valuable to cut your activity a few minutes short to ensure a few minutes for closure.
- Gather together in a circle for your reflection time.
- This is a great time to have Scouts record information or reflect using their Sprout Scouts journals.
- If you're closing with a discussion, remember to use a Participation Structure from p. 16.
- When the sharing is finished, close with a Sprout Scouts cheer or your own consistent closing ritual.

sprout scouts cheer

Use a group cheer or other closing ritual to close each session. This will build excitement and a sense of teamwork. Here's one example: Have each Scout act out the process of a plant sprouting up toward the sun. Start in a circle with everyone crouching down, with their hands reaching toward the middle of the circle. Now, all together, slowly wiggle your hands and heart up to the sky like a sprout. As you rise, say together (starting quietly and ending loudly) Grrrrrrrooooowww Sprout Scouts, GROW! You'll end with hands up and a big shout!

STANDARDS CONNECTIONS

Sprout Scouts is an extracurricular club, not a class at school. Nonetheless, these activities can provide exciting opportunities for Scouts to practice and apply science, math, and English language arts skills that they may be learning in school. When they're measuring the space between plants, or talking about the value of beneficial insects, your Scouts are engaging math, language, and science ideas and practices in a context that is meaningful to them. This also provides an exciting opportunity for you to explore and discuss classroom connections with teachers at your school(s).

Sprout Scout Essential Skills

The following table outlines the essential skills and concepts that Sprout Scouts will learn in each Adventure. For a Scout to graduate from the program, they should have demonstrated proficiency and understanding of each skill.

	Gardening Skills	Healthy Eating Skills	Healthy Eating Concepts
Getting Ready to Grow	<ol style="list-style-type: none"> 1. Identify different soil parts (salt, silt, clay) 2. Identify decomposers 3. Properly sort browns and greens for compost 4. Demonstrate proper technique for pulling weeds 5. Demonstrate tool safety 	<ol style="list-style-type: none"> 1. Identify grow, go and glow foods 2. Create one complete Grow, Go, Glow Stick 	<ol style="list-style-type: none"> 1. Healthy food helps us be active, grow, and feel our best
Planting Our Garden	<ol style="list-style-type: none"> 1. Find growing information on seed packets 2. Demonstrate proper planting techniques 3. Demonstrate tool safety 	<ol style="list-style-type: none"> 1. Identify different seeds in nature/ in the garden 2. Create one Honey Seed Snack 	<ol style="list-style-type: none"> 1. Seeds have a unique and healthy balance of protein, carbohydrates, and healthy fats, making them a great healthy snack option
Caretaking	<ol style="list-style-type: none"> 1. Demonstrate proper watering technique 2. Demonstrate proper weeding technique 3. Identify insects and where they can be found 4. Demonstrate proper seed-gathering technique 5. Demonstrate tool safety 	<ol style="list-style-type: none"> 1. Identify and harvest leaves for tea 	<ol style="list-style-type: none"> 1. In addition to food, water is essential to survival and health
Enjoying the Harvest	<ol style="list-style-type: none"> 1. Identify ripe crops 2. Demonstrate proper harvesting technique 3. Create an informative and decorative invitation 4. Demonstrate tool safety 	<ol style="list-style-type: none"> 1. Demonstrate food safety: washing produce and hands 2. Demonstrate proper 	<ol style="list-style-type: none"> 1. Diversity in our diets is essential to our health. There is tremendous diversity in the foods we eat and the ways we prepare them. Cultural traditions, personal preferences, social customs, and economic factors all influence what we eat.

Sprout Scouts Adventures & Activity Guides

Orientation Session: Welcome to Sprout Scouts

Congratulations! You are kicking off a Sprout Scouts program! While not truly an Adventure, in this first session (or two, depending on your timing) you'll:

- Get to know each other
- Explore the garden and discuss what it means to be a Sprout Scout
- Introduce and practice procedures that you'll be using throughout the program
- Establish group agreements
- Make Sprout Scouts journals
- Prepare and enjoy a snack together

This session is essential because it sets the purpose and tone for all the Adventures that follow.

GRADES: 3–5

Estimated Time: 2 hours (over 1–2 sessions together)

Location: Scavenger Hunt – outdoors; the rest – indoors or outdoors

MATERIALS

- 1 Scavenger Hunt card for each pair of Scouts (p. 29)
- Chart paper or whiteboard and markers to record Scouts' ideas about agreements

For Journal-Making:

- 1 piece of cardstock or colorful scrapbook paper measuring 9" x 12" for each Scout
- 1 piece of coordinating cardstock or colorful scrapbook paper measuring 9" x 1" for each Scout
- 4 pieces of plain white paper measuring 8.5" x 11" for each Scout
- 1 3-hole punch
- 1 box of brads or 1 spool of twine
- Optional: Colored pencils or magazines, scissors and glue to decorate journal covers
- A box for collecting journals

For Garden on a Cracker:

- 1 rice cake, cracker, or tortilla for each Scout
- 1 thick dip or spread, such as hummus, bean dip, or cream cheese
- 2 butter knives for the spread
- 4 or more small bowls, each with a spoon and filled with some kind of produce, washed and chopped.

Options include:

- 1 small head broccoli, with florets cut off to represent little bite-sized trees
- 1 apple, pear, Fuyu persimmon, or other fruit, chopped small

- 1 carrot, chopped small
- 1 beet, grated
- Berries, chopped small
- 1 tomato, chopped small

PREPARATION

- Familiarize yourself with behavior protocols used in your after-school or summer camp program. If they're written anywhere, get a copy and bring it to this session.
- Make a sample journal, following the instructions on p. 27.
- Wash and chop all produce for the Garden on a Cracker into bite-sized pieces and place into bowls with spoons.

Create a Garden on a Cracker assembly line, with the following:

- 1 box of rice cakes, crackers, or tortillas
- 1–2 tubs of dip, with butter knives
- 4 or more small bowls, each with a spoon and one type of chopped produce

WELCOME AND NAME GAME – 10 MINUTES

1. **Agenda:** Gather your Scouts in a circle and welcome them to Sprout Scouts. Review the agenda for your first day. *Today, we'll explore the garden, learn about Sprout Scouts, and make a snack together. But first, I want to learn everyone's name and help you learn each other's names!*
2. **Introductions:** Go around the circle and have each Scout share their name. A few fun ways to do this include:
 - **Name Sandwich** – A minimal social-risk option, for a group who doesn't know each other yet and/or seems generally quiet and shy. Explain the idea: *Each of us is going to make name sandwich, with one fruit or vegetable we like in the middle and our name on the top and bottom. I'll show you an example:*
 - Put your left hand out, palm up and say something like: *My name is Sonya. I like watermelon.*
 - Now put your right hand on top, palm down, and say your name again. *My name is Sonya.*
 - Go around the circle and have each Scout make a name sandwich, one at a time. When it's their turn, they'll say their name, a fruit or vegetable they like, and then their name again.
 - **Try My Move** – An elevated social risk option, for a group who already knows each other and/or seems ready to put themselves out there. Explain the idea: *Say your name and then do a dance move. Then we'll all repeat your name and your dance move after you.* Give folks a few seconds to think of a move. Then go around the circle, repeating each name and dance move after it is shared.
 - **Bippity Boppity Boo** – Play a Name Game that can double as an icebreaker, such as Bippity Boppity Boo. To play Bippity Boppity Boo, do the following:
 - With your Scouts in a circle, step into the middle.

- Have your Scouts sit down, with their feet straight out in front of them. Explain that they cannot move their feet.
- Ask one volunteer (let's call her Maya) to call out the name of another Scout (let's call him Jose), followed by Bippity Boppity Boo. Maya will say "Jose, Bippity Boppity Boo!"
- As the person in the middle, your job is to tap Jose on the shoe before Maya finishes saying "Bippity Boppity Boo."
- If Maya says "Jose, Bippity Boppity Boo" and you haven't tapped Jose on the shoe yet, then Jose can say a new name, followed by "Bippity Boppity Boo," so he might say "Charlie, Bippity Boppity Boo."
- Now you have to run from Jose to Charlie and tap Charlie on the shoe before Jose finishes saying "Bippity Boppity Boo" and before Charlie calls out a new name. In other words, the people in the circle are trying to keep you running, and you're trying to tap someone before they call out a new name.
- If you tap Charlie before he has said a new name, then Charlie needs to go in the middle of the circle. You then take his place within the circle, call out a new name, and Charlie tries to tap that person on the shoe before you get done saying "Bippity Boppity Boo."

CIRCLE AND CALLBACK – 5 MINUTES

1. **Explain the Circle:** *We'll start and end every Sprout Scouts session together like this, in a circle. This gives us a chance to learn and reflect as a group, and lets everyone see and hear everyone else as they share.*
2. **Teach the Callback:** *If we're out around the garden and it's time to get into a circle, I'll call you all together by _____.* Fill in the blank here. You might want to crow like a rooster, howl like a coyote, blow a whistle, ring a chime or call out, *Busy bees, buzz back to me!* Just choose something that works for you and stick with it.
3. **Practice:** *All right, everyone. Let's practice! When I say "Sprout Scouts" you can head out into the garden in any direction you choose. When you hear the callback, you'll come back here and we'll get right back into our circle formation. I'll count down from ten and let's see if everyone can make it back in before I get to zero.* Practice, counting loudly down from ten after the callback. If they make it, celebrate! If not, try again.

Remember to use a **Participation Structure** from p. 16 during your share out!

EXPLORING THE GARDEN & THE PURPOSE OF SPROUT SCOUTS – 20 MINUTES

1. **Scavenger Hunt:** Have your Scouts partner up. One way to do this is to have Scouts stand up and hop on one foot. While hopping, have them look for another Scout also hopping on that same foot. When they find one, have them introduce themselves, if they don't know each other, and then play a quick thumb wrestle.
2. Give each pair of Scouts a Scavenger Hunt card (p. 29) and send them out to do the Scavenger Hunt of the garden. They can draw a picture of each item they find.
3. After about 5–10 minutes, use your callback to gather Scouts back together into a circle.

4. Once in a circle, have Scouts share answers to each of the questions on their scavenger hunt. For example, ask pairs to share with each other one thing in the garden they already know a lot about. Once they've shared, have them share with new partners one thing in the garden they found that was beautiful, etc.

Remember to use a **Participation Structure** from p. 16 during your share out!

5. **Debrief:** *These are many of the reasons we are here: To learn to grow, harvest, prepare and enjoy fresh produce together—and to take care of this place that is so full of beautiful, edible, mysterious and fun things! We'll be working together to _____.* Fill in here with the details of your program, such as, *Every Tuesday for 16 weeks. Over the course of this time, we'll go through four Adventures: Getting Ready to Grow; Planting Our Garden; Caretaking; and Enjoying the Harvest. We'll finish with a Final Feast using lots of the food we've grown together. For each Adventure, you'll be able to earn a certificate and at the end of the entire program, we'll have a closing ceremony to honor your growth as a Sprout Scout.*

SPROUT SCOUTS AGREEMENTS – 30 MINUTES

1. **Explain the purpose of agreements:** *Let's talk about how we'll work together as Sprout Scouts. To start, how do you want to feel when you're here?* Record Scouts' ideas on chart paper or a whiteboard. Feel free to add your own ideas to this list, such as:

- Safe
- Welcome
- Happy
- Relaxed
- Proud
- Excited, etc.

2. *Thank you! Next, let's brainstorm: What can we do to make people feel that way?* Brainstorm together. This list might include:

- Helping others
- Including others
- Using kind words, etc.

3. *Now we've talked about how we'll treat each other.*

Let's also talk about how we can treat the garden. The plants and animals here are also alive and, as Sprout Scouts, we're going to be their caretakers. What can we do to keep them healthy and growing? Brainstorm together. This list will probably include some site-specific things but will often include some or all of the following:

- Walking on the paths, not the beds
- Only harvesting ripe foods, and only when you're going to eat it (or when the Leader says it's time) If you find a beneficial insect, letting it live
- If you find a harmful insect, following the group protocol. This is something else that will be site- and group-specific. Some Leaders might choose to feed snails to the chickens; others might remove them to an enclosed Snail Haven, or habitat, far from your garden;

tool safety note

Don't worry about tool safety just yet. You can introduce safe tool practices each time you introduce a new tool. Ideas for these are written into each Adventure at the time that it becomes relevant.

and still others might teach Scouts to kill them as a lesson in gardening. Choose a plan that you think will work well for you, your group, and your site and teach it to your Scouts.

- If you find a bee, stay calm. Bees sting when they feel threatened, such as when someone screams and flails around. Staying calm is the best way to keep yourself and your friends from being stung.
4. *Wonderful! Now what can you do if you break an agreement?* Brainstorm ideas, such as:
 - Talk and apologize
 - Write an apology letter
 - Get adult help, etc.
 5. **Finally, explain your role:** *As the Sprout Scouts Leader, part of my job is to make sure that everyone feels welcome, safe, and comfortable here and that we take good care of the garden.*
 6. Show Scouts the behavior expectations and consequences from your after-school program or summer camp and talk about how they apply in Sprout Scouts.
 7. **Discuss consequences:** Using existing school protocols as your guide, introduce a simple stepladder of consequences for if a Scout isn't following those behavior expectations.

food safety note

Demonstrate hand washing, emphasizing the importance of removing all food; washing every surface with hand soap for at least 15 seconds; and rinsing thoroughly. A fun way to make sure Scouts wash their hands long enough is to use a song, as in: *Scrub your hands with soap while singing, "Twinkle, Twinkle Little Star" twice through. Then you're ready to rinse!*

EXAMPLE STEPLADDER OF CONSEQUENCES

1. After the first sign of a problem, I'll give you a reminder, and a chance to talk about what's going on.
2. If the problem persists, I'll remove you from the activity or group and give you another chance to talk or write about what's going on.
3. If the problem persists after that, we'll problem-solve together with your parents or guardians, or with the After-School or Summer Camp Director, or whoever is appropriate in your setting.
4. If the problem persists, I'll have to decide if you can continue to participate in Sprout Scouts. If so, we'll make a plan together for how to make it work so that everyone can be safe, welcome and comfortable.

food safety note

Emphasize that Scouts need to use the spoons and refrain from reaching into the bowls with their hands so that they don't share germs.

Follow-Up: Ask if anyone has questions. If not, take their agreement ideas home with you and consolidate them onto one poster. Bring the poster to the next session for everyone to sign. As you consolidate, it is okay to combine and edit ideas so that this can be a simple, clear, and relatively short set of agreements.

JOURNALS – 20 MINUTES

1. Now each of you get to make your own *Sprout Scouts* journal! We'll be using these throughout the program and at the end of the program it will be yours to keep.
1. **Model:** Explain how to make a journal, describing one step at a time and then letting Scouts complete that step before moving on.

Making Journals

- a. First, take a 9" x 12" piece of scrapbook paper or cardstock for the cover and fold it in half so that it looks like a 9"x6" card. Give Scouts time to do this.
 - b. Now take 4 pieces of white paper and fold them in half the same way.
 - c. Now stack the folded pieces of white paper neatly, and tuck them inside the folded cardstock.
 - d. Now take a 1" x 12" piece of scrapbook paper or cardstock and fold it in half so that it looks like a .5" x 12" card. Wrap this around the folded edge of your cardstock to make the binding of your book.
 - e. Use a 3-hole punch or an awl to help Scouts 3-hole punch along the folded edge of their journals.
 - f. Stick a brad through each hole and fold down the prongs to hold it together. Or weave twine through the holes and tie together.
 - g. Write your name and "*Sprout Scouts Journal*" on the first page of your journal.
3. Have Scouts decorate their journal covers.
 4. Show Scouts the Journal Box and have them leave their journals there for next time. Explain that they'll get to take them home at the end of the program.

food safety note

Demonstrate dishwashing, emphasizing the importance of removing all food; washing every surface with dish soap; rinsing thoroughly; and, if relevant at your site, sanitizing equipment with a quick dip in bleach water.

GARDEN ON A CRACKER – 30 MINUTES

1. Together with your Scouts, wash your hands thoroughly with soap and running water.
2. **Introduce the activity:** *One of the best things about a garden is, of course, growing FOOD! Today we're going to make little models of our dream gardens, and then we'll eat them!*
3. Take a cracker, and spread dip across it. Explain: *This represents the garden and the soil covering the ground.*
4. **Model:** Use the spoons from each bowl to take different chopped foods and place them on your cracker, explaining what they represent. For example, you might make a pumpkin patch out of small, diced carrots; a pathway out of sunflower seeds; a rose bush out of grated beets; or an apple tree out of a broccoli floret.
5. Have Scouts make their dream gardens on crackers. Ask them not to eat them until everyone is done and ready.

6. Let Scouts know that you hope they'll try everything, but there's no need to finish it if they don't like it. They can always put it in the compost. Brainstorm together some polite things to say in that case, such as, "It turns out, raw broccoli is not my favorite."
7. Once they're ready, get into a circle with the crackers and have each Scout share one thing about their dream garden.
8. **Enjoy together!**
9. Clean up:
 - a. Compost leftover produce or pack it up to take home.
 - b. Wash bowls and spoons with soap and running water.

INFO FOR NEXT TIME – 3 MINUTES

1. Remind Scouts of when and where your next meeting will be.
2. Ask if anyone has any questions about Sprout Scouts.

SPROUT SCOUTS CHEER – 2 MINUTES

Teach Scouts a cheer—or another closing ritual of your choosing—to close out each session. Here's one example: Have each Scout act out the process of a plant sprouting up toward the sun. Start in a circle with everyone crouching down, with their hands reaching toward the middle of the circle. Now, all together, slowly wiggle your hands and heart up to the sky like a sprout. As you rise, say together (starting quietly and ending loudly), *Grrrrrrrooooooww Sprout Scouts, GROW!* You'll end with hands up and a big shout!

Garden Scavenger Hunt

<p>Find and draw something beautiful.</p>	<p>Find and draw something edible.</p>
<p>Find and draw something you have a question about.</p>	<p>Find and draw something that looks fun or you want to try to do.</p>
<p>Find and draw something you never noticed here before.</p>	<p>Find and draw something you already know a lot about.</p>



Adventure One

GETTING READY TO GROW

In this Adventure, we're going to learn about a gardener's best friend: the soil! Then we'll use what we've learned to improve our soil. Finally, we'll work together to prepare a compost pile and garden bed so we can plant a garden full of vegetables that we can eat to feel our best!

ACTIVITIES IN ADVENTURE ONE:

- How Does Our Soil Stack Up?
- Compost Cake
- Making the Bed
- Go, Grow, Glow!
- Take Home: Compost Pile

ADVENTURE ONE SUPPLIES CHECK LIST

These are all the supplies you will need for all of the activities in Adventure One. You can also find a list of supplies for each activity at the beginning of each activity plan.

General Supplies

- Soil to Smoothie kit, including laminated picture, drawn picture or other representation of each of the following items:
- Soil
- Grass
- Cow
- Milk
- Yogurt
- Strawberry plant
- Strawberry
- Apple tree
- Apple
- Apple juice
- Apple core
- Smoothie (or cup that says “Smoothie” on it)
- 4 clear glass quart jars with lids
- Masking tape
- Markers (enough for one marker for each group of 4–5 Scouts)
- Sprout Scouts journals and pens or pencils for each Scout
- 1 copy of the Sand, Silt, Clay Chart (p. 124) for each group of 4–5 Scouts
- Laminated picture, drawn picture or other representation of a worm
- A Getting Ready to Grow certificate for each Scout
- Optional: 1 magnifying glass for each Scout

do it yourself

▶ Watering Can

You can make an excellent watering can (or, even better, one for each Scout!) out of an empty, well-rinsed plastic milk jug with holes poked in the lid.

▶ Hand Shears

Try using classroom scissors instead.

▶ Wheelbarrow

2 gallon buckets is a comparable amount of compost.

Gardening Supplies

- Water
- Watering can or hose with fan nozzle*
- Compost materials:
 - Browns: 1 straw bale or the equivalent quantity of carbon-rich materials such as dried leaves, straw, or small branches
 - Greens: 6 buckets or 3 wheelbarrows full of nitrogen-rich materials, such as kitchen scraps from plants (but not those from animals), lawn clippings, green leaves, crop leftovers, non-noxious weeds*
 - 1 bucket full of soil or finished compost each (2 total) for Activity 2 and Activity 3
- Hand trowels or digging forks for all Scouts
- 4 spades
- 1 shovel
- 2 buckets for weeds
- Optional: 4 sets of hand shears*
- Optional: Compost thermometer

- Optional: Gloves for all Scouts
- Optional: Camera

Cooking Supplies

- Hand soap and running water
- 1 toothpick or other wooden skewer for each Scout
- 1 loaf of whole wheat bread (or other Go Food: Whole Grains)
- 1 tub or block of mozzarella chopped into cubes (or other Grow Food: Healthy Proteins)
- Cherry tomatoes and basil (maybe from your garden?) or other Glow Food: Fruits and Vegetables



Adventure 1 | Activity 1

Grades: 3-5

Estimated Time: Part 1 - About 1 hour;

Part 2 - About 15 minutes

Location: Outdoors

how does our soil stack up?

MATERIALS

- Soil to Smoothie kit, including 1 laminated picture or other representation of each of the following items (see pp. 112–123 for reproducible images):
 - Soil
 - Grass
 - Cow
 - Milk
 - Yogurt
 - Strawberry plant
 - Strawberry
 - Apple tree
 - Apple
 - Apple juice
 - Apple core
 - Smoothie (or cup that says “Smoothie” on it)
- 4 clear glass quart jars with lids
- Water
- Masking Tape
- 1 trowel for each group of 4–5 Scouts
- 1 marker for each group of 4–5 Scouts
- Sprout Scouts journals and pens or pencils for each Scout
- 1 copy of Life Lab’s Sand, Silt, Clay Chart (p. 124) for each group of 4–5 Scouts
- Optional: 1 magnifying glass for each Scout

PREPARATION

- Prepare Soil to Smoothie kit by laminating pictures or gathering examples of each item. It can be especially fun to include some three-dimensional representations, like a puppet that looks like a cow, a small pot of real soil, or an empty can of apple juice.
- Fill each glass jar full with water.

DESCRIPTION

Let’s talk about why we need soil; find out what kind of soil we have in our garden; and then make a plan to get our soil ready so we can plant a vegetable garden!

ACTIVITY: PART ONE

Engage – Soil to Smoothie Sort

1. Gather Scouts in a circle.
2. Hand each Scout an item from the Soil to Smoothie kit, not in the order listed in the materials. Explain, *These items tell a story.* For larger groups, have pairs of students share cards, or split the class into two groups who are racing to sort themselves first.
3. Ask Scouts to talk to one another to figure out the story, and to move themselves to get into the order of the story. Give them this hint: *It begins with soil and ends with a smoothie.* Help anyone who is stuck and let them know, *The story may not follow a straight line.*

For example, the strawberry plant grew out of the soil, but so did some other things. You can choose how to stand to represent that. Accept all ideas.

4. Once they've ordered themselves, ask Scouts to share out the story, with each Scout sharing one sentence, such as, "The grass grows in the soil" or, "The cow produces milk."
5. Once everyone has discussed the story, explain that *everything we eat can be traced back to the soil somehow*. Give an example including a typical meal from your region, such as an egg (from a chicken that ate seeds that grew in the soil), a piece of toast (from wheat, which grew in the soil) and a piece of fruit (from a plant or tree that grew in the soil).

Explore – Soil Testing

1. Gather in a circle in the garden and have each Scout pick up a handful of soil. Tell them, *Look closely at it, feel it, and smell it.*
2. If you have them, distribute magnifying glasses and have each Scout take a closer look at their soil.
3. Ask, *What do you notice about the soil? What do you wonder about it?*
4. Explain that they are going to conduct a simple soil test to determine the composition of their soil samples.
5. Divide Scouts into groups of 4–5.
6. Show them how to take a soil sample. *Dig about 1 inch below the surface, and then carefully scoop soil into a jar filled 2/3 full with water. Add soil until the jar is almost full, and then put the lid on. Use masking tape and a marker to label the jar with the date and location of the sample.*

make it your own

Depending on the crops that grow in your region and the meals that are common in your Scouts' lives, you might choose a different theme for this activity, such as Soil to Tamales; Soil to Mashed Potatoes; Soil to Stir Fry; etc. The key is to find a meal that has just a few key ingredients and, ideally, includes both plant and animal-based ingredients.

You can also adapt this activity to teach about the food system, adding images of a farm worker, truck, grocery store, etc.

7. Give each group 1 jar filled 2/3 full with water, a lid, a trowel, a piece of masking tape, and a marker. Send each group out to collect and label a soil sample from a unique location in the garden.
8. When each group has collected and labeled their soil sample, call them back.
9. Have Scouts take turns shaking their jars vigorously.
10. Set all of the labeled jars in a place where they will not be disturbed for at least 24 hours.
11. In their journals, have Scouts draw and record predictions about what they think will happen to the soil in the jars.

ACTIVITY: PART TWO

Explain – Observation

1. Within 24 hours, the soil will be completely layered. Anytime after that (even several weeks is fine), have groups go back to their samples.
2. Moving the jars as little as possible, have them look at the layers.
3. Distribute magnifying glasses so they can examine each layer closely.
4. Ask, *What do you notice about your soil now? How is it different? What do you notice about each layer?*

5. Explain that *soil is composed of particles of different sizes. The largest particle is sand, which makes up the bottom layer in their jar. The next above that is made up of silt particles, which are smaller than sand but larger than clay. And the top layer is made up of clay particles.*
6. Hand out the Sand, Silt, Clay Chart (p. 124) to each group. Ask everyone to find loam on the chart. Explain that *loam is an ideal soil for growing food.*
7. Ask them to compare their soil type to the loam and to try to identify what type of soil they have.
8. Explain a few important differences between soil types. *Plants need nutrients and water from the soil. Nutrients and water drain out of sandy soils quickly, whereas clay-like soils hold water and nutrients but can be very hard to work.*
9. Let Scouts know how to improve soils. *You can change the proportions in your soil by adding amendments, such as sand to clayey soils or compost to any soil.*

Remember to use a **Participation Structure** from p. 16 during your share out!

make it your own

These materials should be enough to build a full 3' x 3' x 3' pile! Another option is to gather fewer materials and start a much shorter 3' x 3' pile that you will continue to add to over time.

make it your own

Worm bins also provide a wonderful way to compost with kids, and you can use them indoors or outdoors! To learn about worm composting, visit the Center for Agroecology and Sustainable Food System's "For the Gardener" series.

Elaborate and Evaluate

1. Gather in a circle.
2. Have Scouts share out ideas for getting their garden soil ready to grow plants. If no one mentions it, remind them about the value of compost. *Amazingly, regardless of your soil type, compost will help soil become more loamy while also adding important nutrients to the soil.*
3. If you have sandy soil, also discuss strategies for making sure your plants don't dry out after you water them, such as mulch and frequent checking for soil moisture.
4. Celebrate with your Sprout Scout cheer!

STANDARDS CONNECTIONS

This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Next Generation Science • 2.PS.1.1

Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.

Next Generation Science • 2.PS1.2

Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.

Next Generation Science • 5.PS1.3

Make observations and measurements to identify materials based on their properties.

Common Core English Language Arts • 3-5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others' ideas and expressing their own clearly.

Common Core Math • 6.RP.A.3

Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.



Adventure 1 | Activity 2

Grades: 3-5

Estimated Time: 1 hour

Location: Outdoors

compost cake

MATERIALS

- Soil to Smoothie kit
- Laminated picture or other representation of a worm
- Compost materials:
 - Browns: 1 straw bale or the equivalent quantity of carbon-rich materials such as dried leaves, straw, or small branches
 - Greens: 6 buckets or 3 wheelbarrows full of nitrogen-rich materials, such as kitchen scraps from plants (but not those from animals), lawn clippings, green leaves, crop leftovers, non-toxic weeds
- 1 bucket full of soil or finished compost
- Tools:
 - 4 shades
 - 4 digging forks
 - Watering can or hose with fan nozzle – You can make an excellent watering can (or, even better, one for each Scout!) out of an empty, well-rinsed plastic milk jug with holes poked in the lid.
- Sprout Scouts journals and pens or pencils for each Scout
- Optional: 4 sets of hand shears
- Optional: Compost thermometer
- Optional: Gloves for all Scouts

PREPARATION

- Set out the Soil to Smoothie story items in roughly the same order the Scouts put them in when they did the activity, making sure the soil is at one end and the smoothie is at the other.
- Hide the representation of the worm right behind you.
- Musical Option: Learn “Compost Cake” by the Banana Slug String Band.
- Write the words to the song where everyone can see them.

Remember to use a **Participation Structure** from p. 16 during your share out!

DESCRIPTION

Let's build a compost pile so that we can recycle our food waste and create a free, safe and natural fertilizer for our garden! The nutrients from the compost ingredients will help our garden grow and glow with health. And when we eat the plants from our garden, those same nutrients will end up in our bodies to help us grow and glow, too!

making a mini compost pile

1. Start by breaking up some sticks to make the bottom layer. *These will help the water drain out of our pile.*
2. Sprinkle with a little water to make the layer damp, like a wrung-out sponge. *Decomposers need water to survive, just like we do! If our pile dries out, they'll leave in search of water, so we've got to keep it moist.*
3. Then add a layer of greens. These food scraps and other green materials add nitrogen to our pile.
4. Again sprinkle with a little water to make the layer damp, like a wrung-out sponge.
5. Now add a layer of browns. These brown materials add carbon to our pile.
6. Again sprinkle with a little water to make the layer damp, like a wrung-out sponge.
7. Now sprinkle a thin layer of soil or finished compost. *This soil is full of decomposers, including bacteria so small we can't see them with the naked eye. When we add this, we are adding decomposers to our pile to start the process of breaking things down.*
8. Sprinkle with water, and then repeat the green, water, brown, water, soil and water layers one more time on the miniature piles.

ACTIVITY

Engage – Discussion

1. Gather Scouts in a circle.
2. Remind Scouts of where they left off with the Soil to Smoothie story. *Remember our Soil to Smoothie story? I'm going to add one more character, and I'd like you to think about where he or she should go in the story (show the worm).*
3. Have Scouts think quietly, and then share with a partner about where in the story they think the worm could go.
4. Have Scouts share their ideas. If they don't mention it, explain: *The worm can go after the apple core and before the soil, connecting the two ends of the story together to make a circle, or a cycle. Worms and other decomposers eat our food scraps and then turn them into nutrient-rich soil that we can use in our garden.* Move the items together to make a circle.

tool safety note

Demonstrate how to use your arms to make sure you are at least one arm's length away from all other people. Hold the spade by the handle with the sharp end down, making sure that the sharp end is far from your toes, and then push the sharp end into the green plants to chop them up.

tool safety note

Demonstrate how to unlock and lock shears. Then show how to safely use hand shears by holding only the handles and keeping both hands (as well as all parts of your body!) away from the sharp parts at all times. Also show Scouts where to put tools when they're finished.

Explore – Worm Hunt

1. Define “decomposer” as *an animal or other living organism that eats dead stuff in nature and turns it into soil.*
2. Teach Scouts a call for when they find a decomposer in the garden. Come up with something fun, like throwing their hands in the air and shouting, *“Decomposers breakin’ things down”* and then stomping the ground when they say “down.”
3. Have teams of Scouts head out into the garden to look for decomposers. Mention that *good places to look include under logs or boards; and anywhere you see things rotting, decaying, or turning into soil.* If they see a decomposer, have them use their special call to bring everyone together to take a look. *See how many different kinds of decomposers you can find. You might find worms, beetles, fungus (which may look like white fuzz), slugs, sowbugs, or other insects.*

Explain – Building a Compost Pile

1. Explain that *we’re going to make a compost pile, which is essentially a home for decomposers. By providing optimal conditions e organisms, we can attract decomposers to our pile, where they will break down the food scraps, weeds, and other things we’ve added and release nutrients back into the soil.*
 2. **Model the Steps:** Demonstrate the process by building a miniature pile, step-by-step. Pause after each step to give each Scout time to add materials to their own miniature piles.
 3. *Now we’re ready to make our real pile using big garden tools!*
 4. Discuss general tool safety and mention that *tools are not toys and if anyone is being unsafe with a tool, they’ll be asked to put the tool away and contribute in a different way so that we can all be safe.*
5. If you’re building a freestanding pile, as opposed to building in a bin, draw a 3’ x 3’ square in the soil to indicate where your pile will go. Cover the base with large sticks.
 6. **Divide your Scouts into the following four teams,** and demonstrate the task of each with an emphasis on tool safety:
 - *Greens Team: Chop up greens and heap about 3–4 inches onto the pile. A fun way to chop, if you think your Scouts can handle the responsibility, is to dump the greens on the ground and then have 3–4 Scouts chop them up with the ends of their spades.*
 - *Water Team: Sprinkle water onto the pile between each layer until it is as moist as a wrung-out sponge.*
 - *Brown Team: Chop up browns with hand shears and then add them to the pile.*
 - *Corner Monitors: Use digging forks to pull the corners out and the sides of the pile in so that it looks like a cube and not like a pyramid. This will help the pile keep its shape over time.*
 7. Supervise while your Scouts build a pile that is at least 3’ x 3’ tall and wide. If

tool safety note

Demonstrate how to lift the tines of the digging fork to the top of the pile but no higher, emphasizing that these tines are hard and sharp, and belong far away from our heads, faces, etc.

Remember to use a **Participation Structure** from p. 16 during your share out!

anyone is being unsafe with a tool, give them another way to contribute, such as tearing up greens by hand or joining the Water Team.

8. Once your pile is at least 3' x 3' x 3', cover with a thin layer of browns to keep pests at bay.
9. Optional: Have one Scout stick a compost thermometer in the center of the pile to check the temperature. Have everyone record the date and temperature in their journals. Return to the thermometer regularly and record data in journals. After a few weeks, Scouts can graph the temperature of their pile over time to see if it rose, fell, or evened out.

Follow-Up: Check the moisture of your pile every few weeks. If there is heavy precipitation, you may need to cover it. If it is dry, you may need to water it. In about four months, you should have finished compost that you can use in your garden. To speed the process along, you can turn the pile. Using a shovel, simply remove the top layer and place it on the ground next to your pile. Then continue moving your pile to the new spot so that the items from the top get moved to the bottom and vice versa. If there are dry spots, water as you turn.

Elaborate and Evaluate

1. Gather in a circle.
2. In their Sprout Scouts journals, ask Scouts to draw their compost pile and label each layer. Then have them draw or write down a prediction of what it will look like in a few months.
3. If possible, have them compare their predictions with the real pile in a few months.
4. Have Scouts discuss in pairs or as a whole group:
 - *What materials do you have at home that you could use to make compost?*
 - *How will this compost be useful to us?*
 - *How is this compost pile like a home? Who do you think might move in? What more do you want to learn about compost?*
5. Music Option: Sing "Compost Cake" together.
6. Celebrate with your Spout Scouts cheer!

STANDARDS CONNECTIONS

This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Next Generation Science • 5.LS2.1

Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

Next Generation Science • 5.ESS3.1

Obtain and combine information about ways individual communities use Next Generation Science ideas to protect the Earth's resources and environment.

Common Core English Language Arts • 3-5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others' ideas and expressing their own clearly.

Common Core English Language Arts • 5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

Common Core Math • 3.MD.3

Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent five pets.



Adventure 1 | Activity 3

Grades: 3-5

Estimated Time: 1 hour

Location: Outdoors

making the bed

MATERIALS

- 1 bag or wheelbarrow full of finished, organic compost (if you don't yet have finished compost in your garden, you can purchase this at a garden store)
- 1 shovel
- 2 buckets for weeds
- Hand trowels or digging forks for all Scouts – If you are preparing a big bed with a small group, then digging forks will work well. If, however, you are preparing a small bed with a large group, hand trowels will work better. For digging forks, you will want every Scout to be an arm's length apart; for trowels, they can be just half an arm's length apart.
- Watering can or hose with fan nozzle – You can make an excellent watering can (or, even better, one for each Scout!) out of an empty, well-rinsed plastic milk jug with holes poked in the lid.
- Sprout Scouts journals and pens or pencils for each Scout
- Optional: Camera

Remember to use a **Participation Structure** from p. 16 during your share out!

PREPARATION

- Optional: Take a “before” picture of your garden bed before any work is done in it.
- If you are new to preparing garden beds, familiarize yourself with the process. You can watch some short videos and find other resources by visiting the Collective School Garden Website and clicking on Steps to a School Garden or by visiting: csgn.org/soils-and-garden-bed-preparation
- Starting 2–3 days before you bring your Scouts out to work the bed, check the soil moisture. The ideal moisture level for working a bed is similar to that of a wrung-out sponge. If your soil is wet and muddy, give it a few days to dry out. If rain is in the forecast, you may

tool safety note

- Keep the sharp end of the tool below your waist
- Keep the point aiming down when it's in the soil so as not to fling soil up into one another's eyes
- Always walk with tools
- Make sure you have enough elbow room between yourself and the next person over
- Clean and put away tools when finished

even need to cover it with a tarp. If the soil is dry, water it until it sticks together when you squeeze it into a ball but falls apart when you bounce it in your hand.

- Musical Option: Learn “Sun, Soil, Water and Air” by the Banana Slug String Band. Write the words to the song where everyone can see them.

DESCRIPTION

Let’s use what we know about soil to get this bed ready to plant our vegetable garden!

ACTIVITY

Engage

1. Gather Scouts in a circle.
2. Ask Scouts to think of something they ate recently. Have them figure out together how it traces back to soil. Have 2–3 Scouts share examples out to the whole group.
3. Remind them that everything we eat can be traced back to the soil.
4. Musical Option: Teach Scouts “Sun, Soil, Water, and Air.”
5. Explain that we are now going to use what we’ve learned about soil to prepare a garden bed for our plants. We can think of this kind of like our own beds: Nice, soft places where the plants can be safe and grow.

Explore – What Roots Need

1. Ask each Scout to wiggle their index finger and imagine that it’s the root of a plant.
2. Have them feel different spots in the garden to identify which would be the best for roots. Try a hard-packed pathway, a well-tilled bed, or anywhere!
3. Share out what they think their plants’ roots will need from the soil to thrive. If they don’t mention moisture,

nutrients, or soft, fluffy texture, add those to the list.

Remember to use a **Participation Structure** from p. 16 during your share out!

Explain – Applying Compost

1. Explain to Scouts the importance of compost. *Digging finished compost into soil adds nutrients while also improving soil texture and moisture retention.*
2. Explain the importance of soil moisture when digging a bed. *Garden soil is best worked when it’s about as wet as a wrung-out sponge. If it’s too dry, it will be really hard to work. If it’s too wet, though, we could ruin the soil texture by digging in it.*
3. Teach your Scouts the squeeze test: Have them each make a ball of soil in their hands and squeeze it. *If the ball drips water, it’s too wet. If it doesn’t stick together, it’s too dry. If it sticks together when you squeeze it but then falls apart when you bounce the soil ball in your hands, then you’ve got it just right.*
4. Demonstrate safe tool use.
5. Clear all the weeds from your bed together. Demonstrate how to pull weeds from the base to get the roots out. Place the weeds in a bucket to add to your compost pile. If you have noxious weeds such as Bermuda grass, put them in a separate bucket and dispose of them in a Green Waste or trash container that gets taken off-site, so that the seeds don’t get added back into your garden through the compost.
6. Once the bed is clear, together with your Scouts, sprinkle 2–3 inches of finished compost over the top of the bed.

7. Demonstrate how to use a digging fork or hand trowel safely to loosen the soil, break up clods, and mix the compost in to a depth of at least one foot.
8. Double-check that Scouts are far enough apart from one another (arm's length for digging forks, half arm's length for trowels) and then hand out a digging fork or hand trowel to each Scout. Have them loosen the soil, break up clods, and mix in compost.
9. Once the entire bed has been turned, clods are all broken up, and compost is mixed in to a depth of one foot, have each Scout use a hand trowel, or their hands, to smooth out the top of the bed.
10. Clean and put away tools together.

Elaborate and Evaluate

1. Gather in a circle around the bed.
Discuss:
 - *How does the bed look different from before? (If relevant, look at the before picture to compare)*
 - *Let's dig our finger roots into this soil. Do you think it will be good for the plant roots?*
 - *What would you all like to plant in this bed?*
 - *What's one new thing you've learned about preparing garden beds today?*
2. Celebrate with your Sprout Scouts cheer!

STANDARDS CONNECTIONS

This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Common Core English Language Arts • 3-5.SL.

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others' ideas and expressing their own clearly.



Adventure 1 | Activity 4

Grades: 3-5

Estimated Time: 1 hour

Location: Outdoors

go, grow, glow!

- Hand soap and running water
- 1 toothpick or other wooden skewer for each Scout
- 1 loaf of whole wheat bread
- 1 tub or block of mozzarella chopped into cubes
- Cherry tomatoes and basil (best if they are growing in your garden)
- If they're not in your garden, pictures or real examples of grains growing, such as wheat; and chickens, eggs, beans, or nuts.
- Sprout Scouts journals and pens or pencils for each Scout
- A Getting Ready to Grow Certificate for each Scout

- Place hand soap near a source of running water
- Wash your hands
- Slice bread to make 2–3 bite-size cubes for each Scout
- Slice mozzarella to make 2–3 bite-size cubes for each Scout
- If you don't have any grains or protein-rich foods growing in your garden, put out pictures or real-life examples ahead of time, such as a picture of a wheat plant or a bowl of nuts or beans.

make it your own

Depending on the season and what grows in your area, you might choose a different theme for your Go, Grow, Glow Sticks. Just remember the following rule of thumb:

- Go Foods: Whole Grains
- Grow Foods: Healthy Proteins (beans, dairy, nuts, etc.)
- Glow Foods: Fruits and Vegetables

Remember to use a **Participation Structure** from p. 16 during your share out!

Let's harvest from our garden and enjoy a snack that will support us in going, growing, and glowing with health!

Engage

1. Gather Scouts in a circle.
2. Have Scouts discuss: *What does food do for us?* Share ideas.

3. Explain that different foods help our bodies in different ways:
 - *Whole grains, like whole wheat bread, brown rice, corn tortillas, or whole grain pasta, are full of carbohydrates that help us GO. They give us energy to run, play sports, dance, and other things like that. Have each Scout share things they like to do that would fall into the Go category, like playing soccer or dancing.*
 - *Protein-rich foods, such as meat, beans, nuts, and dairy, help us GROW. They help our bodies build muscle. Have each Scout share something they are excited to do when they grow older.*
 - *Fruits and vegetables are full of vitamins and minerals that help us GLOW with health. They help us fight off illness and disease, and also help our skin and hair look healthy. Have each Scout share things they do or places they go **where they like to look and feel their best.***

Explore – Scavenger Hunt

1. Have Scouts head out into the garden and look for Go, Grow and Glow foods. (If you don't have any grains or protein-rich foods in your garden, you can place pictures or real-life examples out ahead of time).
2. Gather together to share.

Explain – Making a Snack

1. *Now we are going to make and enjoy Go, Grow, Glow Sticks!*
2. Have Scouts wash their hands thoroughly with soap and running water.
3. Hand out a toothpick to each Scout.
4. Have Scouts add a bread cube to their toothpicks. *What type of food is this*

make it your own

Creating a celebration and ritual around eating together at these times is fun, and also allows Scouts to reflect on the hard work and amazing feats of nature that went into the food they're eating. A simple toast, such as the one described here, is one way to create ceremony and give thanks, but there are also many other ways. Use the toast or create or choose another, simple ritual that you think will work well in your context.

Remember to use a **Participation Structure** from p. 16 during your share out!

(a Go Food!) How did you know? What other Go Foods do you like?

5. Add the cheese and discuss. *What type of food is this? (a Grow Food!) How did you know? What other Grow Foods do you like?*
6. Walk out into the garden where the basil and cherry tomatoes are growing. Have each Scout harvest one or two cherry tomatoes and one or two basil leaves, add them to their toothpicks. *What type of food is this? (a Glow Food) How did you know? What other Glow Foods do you like?*
7. Compost any plant-based food waste, such as the tomato stems.

Elaborate and Evaluate

1. Gather in a circle with your Go, Grow, Glow Sticks in hand.
2. Have students look at their Go, Grow, Glow Sticks and think back to the Sun, Soil, Water and Air chant. *How do these foods trace back to those key elements?*

3. Have each Scout think of some part of the process to thank for this snack. It could be the sun, the plants, the cows, the wheat, the farmers, the soil, etc. Have a few volunteers share out in the form of a toast, holding up their toothpicks and saying “To the soil!” or “To the sun!”
4. Give a toast to your Scouts, mentioning all that they accomplished together in this Adventure. *Together, we studied our soil, built compost, and prepared our garden bed(s) for planting! And then we prepared a healthy snack and enjoyed it together. And throughout the Adventure, you treated each other with respect, worked hard, and had fun (or whatever feels right for your group).*
5. Present each Scout with their **Getting Ready to Grow Certificate**. *It is now my pleasure and honor to present each of you with a Getting Ready to Grow Certificate to honor your hard work and new gardening and cooking skills.*
6. Let Scouts know that you hope they’ll try everything, but there’s no need to finish it if they don’t like it. They can always put it in the compost. Brainstorm together some polite things to say in that case, such as “It turns out, I’m not too fond of basil... yet.”
7. Enjoy your snacks together!
8. Celebrate with your Sprout Scouts cheer!

Extend

1. Have Scouts think about and then share ideas for their own Go, Grow, Glow snacks using whole grains, protein-rich foods, and fruits and vegetables they like. Ideas might include crackers with fruit and cheese; or sandwiches with meat and vegetables on them; or corn tortillas with bean dip and fresh salsa, for example.
2. Have them record two or more of their favorite Go, Grow, Glow snack ideas in their Sprout Scout journals.
3. Have them share their ideas.

STANDARDS CONNECTIONS

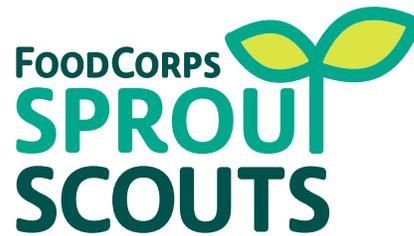
This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Common Core English Language Arts • 3-5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others’ ideas and expressing their own clearly.

Take Home Activity

Mini Compost Piles



Hey Scouts!

As we learned this week, a healthy compost pile has these layers:



Your challenge is to build a compost pile using any tan, green, brown, and blue items you can find! Be creative! You can use any colorful items you can think of. You could make a pile using green apples, peanut butter, raisins, and blueberries; or sticks, grass, soil, and blue flower petals; or Lego™, for example. Just make sure to count or measure so you have the right proportions of greens and browns, just like in the picture above.

To get one step closer to completing your Scouts Adventures, you can do any one of the following:

- Email, text, or bring in a photo of your mini compost pile
- Draw a picture of your mini compost pile, with each part labeled
- Bring your mini compost pile to our next session to share

Have fun!

Due Date: _____

Compost Background for Scouts and Their Grown-Ups

In Sprout Scouts, we have been learning about the importance of healthy soil for growing healthy vegetables that, in turn, grow healthy people! One wonderful way to build healthy soil is to make compost. Compost is a mixture of food and farm scraps that people pile up and let decompose. The greens provide nitrogen, the browns provide carbon, the soil provides a starter group of decomposers to kick the whole thing off, and the water is added to keep those decomposers working. This mix of material, once fully decomposed, can be added back into the garden to improve the soil, keep the water in and give plants the nutrients they need...all for free!



Certificate of Completion

Adventure One: Getting Ready to Grow

Congratulations, Scout!

Troop Name

Date

Scout Leader



Adventure Two

PLANTING OUR GARDEN

In this Adventure, we're going to get our garden growing! We'll investigate seeds, enjoy a seedy snack, and plant everything we'll need to grow and prepare a meal together!

ACTIVITIES IN ADVENTURE TWO

- Seed Soiree
- Paper Pots
- Plant a Salad
- Honey Seed Snacks
- Take Home: Seed Scavenger Hunt – bring back a seed to share (How many do you find in the kitchen, in the area around your yard, or in a nearby park?)

ADVENTURE TWO SUPPLIES CHECKLIST

These are all the supplies you will need for all of the activities in Adventure Two. You can also find a list of supplies for each activity at the beginning of each activity plan.

General Supplies

- 1 magnifying glass for each Scout, or enough to share between 2–3 Scouts
- Chart paper or a whiteboard and markers
- Sprout Scouts journals and pens or pencils
- Scissors
- Recycled newspaper
- 1 pot maker or a full, unopened 5.5-oz. juice can for each pair of Scouts
- 1 ruler for each Scout, or enough to share between 2–3 Scouts
- A spray bottle filled with water
- An empty milk carton cut in half lengthwise or a nursery tray
- Paper and colored pencils or crayons for drawing
- A Sprout Scouts Planting Certificate for each Scout
- Optional: Something you or someone else has repurposed into something else, such as a T-shirt made into a bag, or old magazines made into beads

Gardening Supplies

- At least 2 bean seeds for each Scout
- 1 bowl of water
- A variety of seed packets, with at least 1 packet for each Scout
 - NOTE: This activity is easiest if all the seed packets are from the same company, so that the formatting of the planting information is consistent. It's also helpful if the seed packets have a picture of the crop on the front. Many seed companies will happily donate seed packets from the previous year.
 - Seeds should include seasonal seeds that can be started in containers (if you're not sure about this, check the information on the seed packet)
- 1 bucket or bag of organic seed-starting mix
- A garden bed that's been prepared for planting (see the Making the Bed activity in Adventure One for more information)
- Enough transplants and seeds to fill your bed. These can be from the seedlings you've been growing in Paper Pots, or they can be donated or purchased from a garden center. For a salad, these might include:
 - Transplants
 - Lettuce
 - Spinach
 - Broccoli
 - Seeds
 - Sugar snap peas
 - Radishes
 - Carrots

- 1 hand trowel for each Scout, or enough to share between 2–3 Scouts
- Plant-spacing information on all of your transplants and seeds (may be on seed packets and transplant labels; if not, can also be found in the Vegetable Planting Guide on p. 456 of The Growing Classroom, or online)
- Plant labels and pencils*
- Watering can or hose with fan nozzle*
- If necessary, row cover or bird netting and wire to protect young plants
- If useful in your region, mulch*

Cooking Supplies

- Hand soap
- Sink or other source of running water
- A table you and all your Scouts can fit around (standing is fine)
- 1 large bowl
- 1 measuring cup with a mark at ½ cup (118 mL) – If you have more measuring cups, you can use up to 6, but if not, Scouts can share one
- At least ½ cup of each of the following:
 - Carob powder
 - Honey
 - Sunflower seeds
 - Sesame seeds, plus a little more to coat the Seed Snacks
 - Rolled oats
 - ½ cup seed or nut butter – Check on allergies and get a seed or nut butter that works for all your Scouts: This recipe is great with almond butter, sunbutter (from sunflower seeds), peanut butter, and probably other kinds of seed or nut butters too!
- Baking sheet
- Dish soap
- Drying rack

do it yourself

▶ Plant Labels

Make labels from popsicle sticks, old rulers, or pencils.

▶ Watering Can

You can make an excellent watering can (or, even better, one for each Scout!) out of an empty, well-rinsed plastic milk jug with holes poked in the lid.

▶ Mulch

Contact your local arborist for donations.



Adventure 2 | Activity 1

Grades: 3-5

Estimated Time: 30 minutes

Location: Indoors or outdoors

seed soiree

MATERIALS

- At least 2 bean seeds for each Scout
- 1 bowl of water
- 1 magnifying glass for each Scout, or enough to share between 2–3 Scouts
- Chart paper or a whiteboard and markers
- A variety of seed packets, with at least 1 packet for each Scout.
 - NOTE: This activity is easiest if all the seed packets are from the same company, so that the formatting of the planting information is consistent. It's also helpful if the seed packets have a picture of the crop on the front. Many seed companies will happily donate seed packets from the previous year.
- Sprout Scouts journals and pens or pencils

PREPARATION

- Soak beans in water about 12 hours prior to activity.

DESCRIPTION

Seeds are small but mighty! Each one contains all the information necessary to grow a plant. Let's explore seeds and learn what they need to grow into healthy, thriving vegetables for our garden.

Remember to use a **Participation Structure** from p. 16 during your share out!

ACTIVITY

Engage – Discussion

1. Gather in a circle.
2. Lead a discussion about seeds: *Who here eats bread? Pasta? Tortillas? Chips? Rice? Nuts? Beans? What do all these foods have in common? Have Scouts share answers. If no one mentions it, add that these foods are all made of seeds! Today we're going to look inside of seeds and learn how, as gardeners, we can figure out what a seed needs to grow and thrive in our garden.*

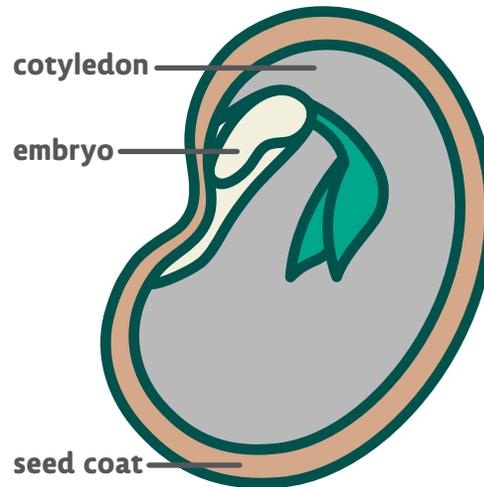
Explore – Seed Dissection

1. Give each Scout a soaked bean seed.
2. Demonstrate how to split it in half by following the outer curve with your fingernail.
3. Have Scouts open and look inside their seeds using magnifying glasses.
4. Ask them to describe what they see in their seeds. Turn so that you're facing away from the Scouts and explain that you'll be drawing a seed based on their descriptions, without looking at the seeds yourself.

- As they describe the seeds, draw one somewhere so that everyone can see it. For example, you might ask, *Who could describe the shape of the seed?* As one Scout describes it, draw whatever they describe. They can modify their descriptions based on how accurate your representation is. Then you might ask, *Who can describe something they see on the inside of the seed?* Continue until you have a full picture of a dissected seed.

Explain – Identifying Seed Parts

- Use your drawing to identify and label the main parts of the seed. Make sure to include the roots and leaves of the baby plant, or embryo, inside.
- Explain that *the rest of the “stuff” inside the seed is the endosperm, or the food to feed that baby plant while it’s underground. Sometimes we think of this as the seed’s “lunch box.” Once the plant breaks through the soil, it can start to gather sunlight and make its own food!*
- Show Scouts the seed coat, and share that this is kind of like a coat you might wear to stay warm and protected from the elements.
- Review:** *So seeds have a coat and a lunch box to stay warm, protected, and well fed while they grow underground. Now let’s learn how to make sure our seeds get everything they need to emerge and thrive above ground.*
- Give each Scout a seed packet for a different type of crop you might grow together.
- Ask them to find the earliest month for planting on their seed packets. You can help them find this information.
- Sorting:** Have Scouts stand up and get themselves in order based on the planting month listed on their seed packet. (Silent Option: You can add an additional team-building challenge by having them try to do this activity in silence.)
- Share crop names and months down the line, starting with the current month so they can get a sense of what to plant now, and what will need to wait for another season.
- Now ask them to rearrange in order of “Days to Harvest.” Define this as the approximate number of days from when you plant your seed until you get your first harvest. Again, share out in order and reflect on what you’re learning, as in, *Wow! So we could be eating radishes in just 40 days, but those carrots are going to take 90! Or, Interesting! Some tomatoes take 60 days, but others take 100!*
- Make a game of this sorting. You’ll call out something like *Spacing Between Plants!* and then have Scouts get sorted into that order as quickly as they can. Time them and see how quick they can get as you do a few more rounds with different facts from the seed packets. Then have the Scouts select and call out criteria for sorting.



Elaborate and Evaluate

1. Gather in a circle.
2. **Discuss:** *Gardeners can find out just about everything they need to be successful growing their seeds on their seed packets. If you were in charge of planting the seeds in your packet, what important information would you use from your packet? Share out. During this Adventure, we'll be planting seeds, and now you know how to find all the information you need.*
3. Celebrate with your Sprout Scout cheer!

Remember to use a **Participation Structure** from p. 16 during your share out!

STANDARDS CONNECTIONS

This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Next Generation Science • 4.LS1.1

Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

Common Core English Language Arts • 2.L.5.a

Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).

Common Core English Language Arts • 3.RI.1

Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

Common Core English Language Arts • 3-5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others' ideas and expressing their own clearly.



Adventure 2 | Activity 2

Grades: 3-5

Estimated Time: 30 minutes

Location: Indoors or outdoors

paper pots

MATERIALS

- Scissors
- Recycled newspaper
- 1 pot maker or a full, unopened 5.5-oz. juice can for each pair of Scouts
- 1 bucket or bag of organic seed-starting mix
- Seasonal seeds that can be started in containers (If you're not sure about this, check the information on the seed packet)
- 1 ruler for each Scout, or enough to share between 2–3 Scouts
- A spray bottle filled with water
- An empty milk carton cut in half lengthwise or a nursery tray
- Sprout Scouts journals and pens or pencils
- Optional: Something you or someone else has repurposed into something else, such as a T-shirt made into a bag, or old magazines made into beads

Remember to use a **Participation Structure** from p. 16 during your share out!

PREPARATION

- Cut the newspaper into strips about 3" x 10". Make at least 2 strips for each Scout.
- Practice making Paper Pots to get the hang of it.
- Musical Option: Learn "It Isn't Really Garbage" by Dan Einbender or "Evil Waste" by Beth Wheat and Tim Billo. Write the words to the song where everyone can see them.

DESCRIPTION

Let's use old newspapers to make eco-friendly pots where we can plant seeds to grow our veggies! By reusing old newspaper, we are eliminating the need for plastic pots; and making pots that are biodegradable, which means we can plant them straight into the garden bed when they're ready!

ACTIVITY

Engage – Discussion

1. Gather in a circle.
2. Share an example of something you or someone else has re-purposed into something else, such as a T-shirt you made into a bag, or torn jeans made into shorts. *Have you ever made something out of something else?*
3. Share examples.
4. *Reusing items is good for the environment because we keep those*

items out of the landfill and we reduce our consumption of new resources to make new things.

5. Musical Option: Sing “It Isn’t Really Garbage” by Dan Einbender or “Evil Waste” by Beth Wheat and Tim Billo together.

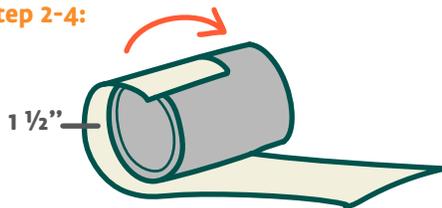
Explore – Testing Designs

1. Give Scouts newspaper and have them try to fold it up to make a Paper Pot that can hold soil inside.
2. Share designs, challenges and solutions. If any of the pots work, fill them with seed-starting mix to test their strength. If they can hold it, keep those pots to plant in later.

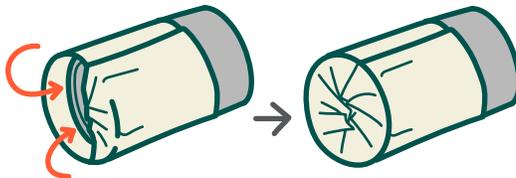
Explain – Making Paper Pots

1. Now I’ll show you a fun and simple way to make pots with newspaper. Describe and demonstrate the following steps, and have Scouts repeat each step after you demonstrate.

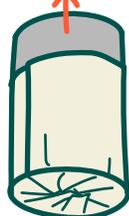
step 2-4:



step 5:



step 6-7:



complete!



2. Place your strip of newspaper on a flat surface, with one of the short ends close to you.
3. Place the pot maker or juice can on the end of the strip closest to you, leaving about 1.5 inches of newspaper hanging over the bottom.
4. Holding the end of the paper tight against the pot maker or can, roll it away from you to wrap it in newspaper.
5. Lift the pot maker or can wrapped in newspaper. Fold in the part hanging over the bottom and use your thumbs to press newspaper into the indent on the bottom of the pot maker or can.
6. Turn the pot maker or can upright and press down on the table.
7. Gently remove the newspaper from the pot maker or can. You should now have a newspaper pot!
8. **Sowing Seeds:** Fill your new pot with seed-starting mix.
9. Place two seeds on the top of your seed-starting mix, right in the center of your pot.
10. Find the Planting Depth on your seed packet.
11. Now let’s find your personal inch. Hand out rulers and show Scouts how to find their personal inch. They can simply hold the ruler up to a finger until they find one knuckle that is approximately one inch from the tip of that finger. *There’s your inch! This is what we call a Farmers’ Measurement, because you may not always have a ruler with you out in the garden or on the farm, but you’ll always have your fingers to help you estimate!*
12. Have them put that finger on top of their seeds and then use their personal inch to drill their seeds into the seed-starting mix in their pots. Of course, if the planting depth says $\frac{1}{4}$ of an inch, they’ll have to go just $\frac{1}{4}$ of the way to that knuckle.

13. Now you can “tickle in” your seeds by scratching the surface of the soil around the seeds to cover them.
14. Use a spray bottle to water the soil until it is about as moist as a wrung-out sponge.
15. Add a label to each pot with the name of the seed, date planted, a wish for your seed, and anything else you might want to add. Note: You may choose to have the Scouts write their names on the labels, or you may choose to leave them unassigned for everyone to plant. If they are writing their own names on each, it is recommended that you have each Scout plant three or more pots just to make sure they each get something that germinates.

Remember to use a **Participation Structure** from p. 16 during your share out!

Follow-up: Keep your seeds watered and protected from pests and frost until it’s time to transplant them into your garden. Plants are generally ready to be transplanted when they have at least one set of true leaves and their roots hold the soil in the container together well. At that time, you can either peel the newspaper off of the root ball, or you can transplant the pot with the plant, since the newspaper will decompose in the soil! Transplanting is described in full in the next activity.

Elaborate and Evaluate

1. Gather in a circle.
2. Discuss: *Think of items you typically throw away or recycle. How could we reuse some of those items?* Brainstorm a list of ideas.
3. Have Scouts record ideas in their Sprout Scouts journals.
4. Choose one idea to pursue as a group such as planting into old yogurt containers or making seed packets out of used paper.
5. Celebrate with your Sprout Scouts cheer!

STANDARDS CONNECTIONS

This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Common Core English Language Arts • 3-5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others’ ideas and expressing their own clearly.



Adventure 2 | Activity 3

Grades: 3-5

Estimated Time: 1 hour

Location: Outdoors

plant a salad

MATERIALS

- A garden bed that's been prepared for planting (see the Making the Bed activity in Adventure One for more information)
- Enough transplants and seeds to fill your bed. These can be from the seedlings you've been growing in Paper Pots, or they can be donated or purchased from a garden center. For a salad, these might include:
 - Transplants
 - Lettuce
 - Spinach
 - Broccoli
 - Seeds
 - Sugar snap peas
 - Radishes
 - Carrots
- 1 ruler for each Scout, or enough to share between 2–3 Scouts
- 1 hand trowel for each Scout, or enough to share between 2–3 Scouts
- Plant-spacing information on all of your transplants and seeds (may be on seed packets and transplant labels; if not, can also be found in the Vegetable Planting Guide on p. 456 of The Growing Classroom, or online)
- Plant labels and pencils

make it your own

Depending on the season and what grows in your area, you might choose a different theme for your bed. Some other great options include:

- Salsa Bed: tomatoes, onions, peppers, cilantro, tomatillos
- Stir Fry Bed: kale, chard, carrots, onions, broccoli, snow or snap peas, herbs
- Soup Bed: potatoes, sweet potatoes, kale, chard, onion, winter squash, herbs, carrots, beets
- Spaghetti Bed (to make spaghetti squash with tomato sauce): spaghetti squash, tomatoes, onions, garlic, herbs

... You get the idea!

- Watering can or hose with fan nozzle – You can make an excellent watering can (or, even better, one for each Scout!) out of an empty, well-rinsed plastic milk jug with holes poked in the lid.
- If necessary, row cover or bird netting and wire to protect young plants
- If useful in your region, mulch
- Sprout Scouts journals and pens or pencils
- Paper and colored pencils or crayons for drawing

PREPARATION

Musical Option: Learn “Roots, Stems, Leaves” by the Banana Slug String Band. Write the words to the song where everyone can see them.

DESCRIPTION

Let’s plant into our garden bed and grow a salad together!

ACTIVITY

Engage – Seed Role Play

1. Gather in a circle.
2. Ask your Scouts to curl up in a ball and huddle as close together as they can. Now, without moving your feet, slowly stretch your bodies up and your arms out to take up as much space as possible. (Remind them to be safe and careful with one another as they “grow.”)
3. Ask them, *How do you feel? Would you like to stay in this pose?*
4. Now invite the Scouts to move their feet and step out of the huddle. Spread out until you are comfortable, standing tall with your arms stretched out.
5. Explain, *When we plant our plants, they’ll be small. But as we care for them, they’re going to grow! What might happen if we plant them all right next to each other? How can we make sure they have enough space to grow? Think of the size of a fully grown plant of that type or look at the spacing directions on a seed packet, transplant label, or planting guide.*

Explore – Farmers’ Measurements

1. Give each Scout a ruler. Explain Farmers’ Measurements, *Now we are going to find our Farmers’ Measurements!* If they found their personal inch when they made paper pots, you can connect this to that activity. *First, make a fist. Now stick your thumb out one way and your pinky out the other way. Congratulations! You just made a shaka*

sign. Hawaiians use the shaka sign to convey the “aloha spirit,” a concept of friendship, understanding, compassion, and solidarity.

2. Now have a friend use a ruler to see how long your shaka is. Share and compare.
3. Find some other useful measurements on your body, such as the length from your elbow to your wrist, or from your wrist to the top of your middle finger. Again, share and compare.
4. Great! So we can use these Farmers’ Measurements to help us estimate and space the plants in our bed.

Explain – Planning and Planting

1. Demonstrate how to map out a bed using hand trowels. Stick one trowel in the bed near one edge and say, *I’m going to plant one lettuce here. Now my shaka is 7 inches, and these lettuces need to be 10 inches apart, so I’m going to measure one shaka, and another half shaka, and that’s a good place for my next lettuce. Dig a second trowel in there.*
2. Divide Scouts into pairs and assign each pair one or more transplants or seeds to plant (but don’t hand out the transplants yet).
3. Have them work together to find the spacing information and decide how to space them in the bed using their Farmers’ Measurements. Have Scouts mark their planting spots with trowels or popsicle sticks. If they’re planting small seeds, like carrots or radishes, have them draw a small line, or furrow, in the soil as deep as those seeds need to be planted.
4. Once the bed is mapped out with trowels or sticks and furrows, demonstrate how to transplant safely using a hand trowel.
5. Demonstrate how to sow seeds directly in the garden.

6. Demonstrate how to label your plants. *If we don't label these, we might forget what we planted where!* Have Scouts make plant labels and use them to mark what they planted and where. They can include the plant name, date planted, and any other information the Scouts want to add. *Let's write a little Sprout Scouts wish for our plants on each label before we stick it in the soil! I'm going to write on this one, "Grow buddy, grow!"*
7. Have Scouts water in their plants and seeds. For more information on watering, see the Watering and Weeding activity in Adventure Three.

If necessary, add pest protection to your bed. You can learn effective techniques from Tips for Creating a Healthy Garden Ecosystem on p. 470 of The Growing Classroom.

tool safety note

Be sure that you are at least an elbow length away from the next closest person, and that the point of your trowel is always pointing straight down while you work. And, of course, keep your eyes on the area where you're working. This will help you avoid accidentally hitting someone's hand with your trowel or flinging soil up into anyone's eyes.

steps for transplanting

1. First, dig a hole about the size of the container currently holding the plant.
2. If you used paper pots, you can tear the newspaper off or just place the entire pot in the hole!
3. If you're using transplants in plastic or other containers, remove the plant from its container without tearing the stem or damaging the roots. To do this, place your hand over the soil and turn the container on its side. Then gently squeeze the sides of the container to wriggle out the root ball into your hand. Now place the root ball in the hole you dug.
4. Now fill in the hole with soil and pat down gently to ensure that the roots make contact with the soil below.
5. Optional: Now you can "tuck your plants into bed" by gently tucking a handful of straw or other mulch around each transplant.

tips for sowing seeds

- For larger seeds, like beans or peas, you can simply place them on top of the soil, following recommended spacing. Then use your finger to "drill" them into the soil to the appropriate depth using your Farmers' Measurements (i.e. up to the first or second knuckle).
- For smaller seeds, like carrots, demonstrate furrow planting. Use your finger or a stick to dig a small trench as deep as the suggested planting depth. Sprinkle seeds in, and then cover them with soil.

Elaborate and Evaluate

1. Gather in a circle around your planted bed.
How does this look different from when we arrived today?
2. If you have time, have Scouts work together to create an illustrated guide on how to prepare and plant a garden bed. Each Scout could draw and write up all of the steps into their journals, or each Scout or pair of Scouts could take one part of the process and create an illustration and description, and these could be compiled into one whole-group book to be shared with the community during the Final Feast.
3. For a shorter closing, ask Scouts, *How do you think this bed will look a month from now?*
4. Have Scouts record predictions in their journals and compare in about a month.
5. Celebrate with your Sprout Scouts cheer!

Remember to use a **Participation Structure** from p. 16 during your share out!

STANDARDS CONNECTIONS

This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Common Core English Language Arts • 3-5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others' ideas and expressing their own clearly.



Adventure 2 | Activity 4

Grades: 3-5

Estimated Time: 45 minutes

Location: Indoors or outdoors

honey seed snacks

Recipe adapted from *The Healthiest Kid in the Neighborhood* by the Sears family

MATERIALS

- Hand soap
- Sink or other source of running water
- A table you and all your Scouts can fit around (standing is fine)
- 1 large bowl
- 1 measuring cup with a mark at $\frac{1}{2}$ cup (118 mL) – If you have more measuring cups, you can use up to 6, but if not, Scouts can share one.
- At least $\frac{1}{2}$ cup of each of the following:
 - Carob powder
 - Honey
 - Sunflower seeds
 - Sesame seeds, plus a little more to coat the Seed Snacks
 - Rolled oats
 - $\frac{1}{2}$ cup seed or nut butter – Check on allergies and get a seed or nut butter that works for all your Scouts: This recipe is great with almond butter, sunbutter (from sunflower seeds), peanut butter, and probably other kinds of seed or nut butters too!
- Baking sheet
- Dish soap
- Drying rack
- A Sprout Scouts Planting Our Garden Certificate for each Scout

PREPARATION

- Place the hand and dish soap near the source of running water.
- Place the bowl, measuring cup, and all ingredients on the table. Do not have the ingredients pre-measured.
- Pour a thin layer of sesame seeds on the baking sheet. Make sure you still have at least $\frac{1}{2}$ a cup remaining for the batter.

make it your own

Other fun seedy snacks include bean dips, hummus, edamame or raw chia pudding. Search the FoodCorps Toolshed, MyPlate.gov, or lifelab.org or other kid- and cooking-focused websites for loads of recipe options.

DESCRIPTION

We've worked hard to get our garden planted! Let's celebrate with a delicious snack. These Honey Seed Snacks are a healthier alternative to traditional desserts, and they're made entirely from seeds and honey!

ACTIVITY

Engage – Discussion

1. Gather in a circle.
2. *Who eats seeds? What seeds do you eat? Share. Does anyone here like burritos?*

Did you know that beans are seeds? And tortillas are made from wheat or corn, which are also seeds! What other seeds do you eat? Share again, and this time add in more common examples, like nuts, rice, pasta and bread, if they don't mention those.

3. *Not all seeds are edible, but some are. Edible seeds are especially healthy snacks because they are packed with nutrients for the baby plants they hold inside. They have protein (Grow Food), carbohydrates (Go Food), vitamins and minerals (Glow Food), and healthy fats.*

Explore – Seed Scavenger Hunt

1. *Let's look around the garden and see how many kinds of seeds we can find. Send Scouts out in pairs to find seeds to bring back to the group, or go on a tour together and point out a few interesting seeds.*
2. Look together at the seeds and discuss how they're similar and how they're different.

Explain – Making a Snack

1. Wash your hands well with soap and water and have all Scouts do the same.
2. Have each Scout or pair of Scouts measure $\frac{1}{2}$ cup (118 mL) of one of the ingredients, and add it into the big bowl.
3. Have 2 Scouts at a time mix the ingredients together with their hands. Take turns until everyone who wants to has had a chance. While they're mixing, have Scouts share other healthy snacks they enjoy.
4. Once everything is mixed together, have each Scout take out one pinch of batter at a time and roll it to form a bite-sized ball, about 1 inch in diameter.
5. Have Scouts roll balls of batter in sesame seeds to coat, and then place them on baking sheet.

6. Continue until all batter is used up.
7. Have Scouts wash hands again, and wash the mixing bowl.

Elaborate and Evaluate

1. Gather in a circle around your tray of Honey Seed Snacks. *It's time to enjoy your snacks, and these are eaten raw, so they're ready to go!*
2. Let Scouts know that you hope they'll try everything, but there's no need to finish it if they don't like it. They can always put it in the compost. Brainstorm together some polite things to say in that case, such as "It turns out, I'm not too fond of honey seed snacks ... yet."
3. Ask each Scout to pick up a Honey Seed Snack and, before they eat it, to make a toast to seeds, such as "To seeds, which give us plants and trees!" or "To seeds, which give us a healthy source of protein!" or "To seeds, which taste delicious!"
4. Give a toast to your Scouts, mentioning all that they accomplished together in this Adventure. *Together, we investigated seeds and learned to read seed packets. Then we transformed this empty garden bed into a future salad! And then we prepared a healthy dessert together. And throughout the Adventure, you treated each other with respect, worked hard, and had fun (or whatever feels right for your group).*
5. Present each Scout with their **Planting Our Garden Certificate**. *It is now my pleasure and honor to present each of you with a Planting Our Garden Certificate to honor your hard work and new gardening and cooking skills!*
6. Once everyone has shared, enjoy your Honey Seed Snacks together.
7. Celebrate with your Sprout Scouts cheer!

make it your own

Creating a celebration and ritual around eating together at these times is fun, and also allow Scouts to reflect on the hard work and amazing feats of nature that went into the food they're eating. A simple toast, such as the one described here, is one way to create ceremony and give thanks, but there are also many other ways. Use the toast or create or choose another, simple ritual that you think will work well in your context.

STANDARDS CONNECTIONS

This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Common Core English Language Arts • 3-5.SL.1

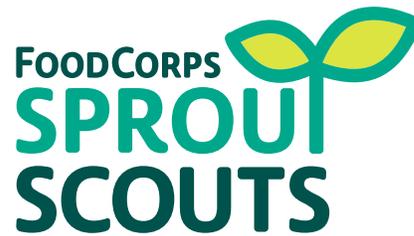
Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others' ideas and expressing their own clearly.

Common Core Math • 3.MD.2

Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

Take Home Activity

Seed Scavenger Hunt



Hey Scouts!

As we learned this week, seeds are all around us! When we go outside, seeds are often falling from the plants and trees, especially in summer and fall. Inside our houses, there are lots of seeds in our foods: in rice cakes, in bread, in tortillas, and even in peanut butter!

Your challenge is to work with your family to find 10 different seeds in or around your house! You can look in the kitchen, and up and down your street. You can even look in the closet, because all of your cotton clothes were made from a part of the cottonseeds!

To get one step closer to completing your Scouts Adventures:

- Write the name of 10 different kinds of seeds you find.
- Photograph or draw a picture
- If you find one but you're not sure what it's called, you can draw or photograph it, and then come up with a name based on its physical characteristics, like "Fuzzy golf ball," or "Pointy Penny."

Have fun!

Due Date: _____

Seed Background for Scouts and Their Grown-Ups

In Sprout Scouts, we have been learning about seeds by planting them, dissecting them, and even eating them! Edible seeds pack quite a nutritional punch because they are high in all the three macronutrients needed for survival: protein, healthy fats, and carbohydrates. And seeds have evolved to dry and store well, which has made them ideal staple crops for people all around the world for thousands of years. Some examples include wheat, corn, rice, barley, rye, quinoa and amaranth. As you and your Scout look through the kitchen, you may be surprised by how many foods you have that contain seeds.

Many other seeds, such as those you might find on the plants in your neighborhood, are inedible. For this scavenger hunt, edible and inedible entries are both welcome!



Certificate of Completion

Adventure Two: Planting Our Garden

Congratulations, Scout!

Troop Name Date Scout Leader



Adventure Three

CARETAKING

In this Adventure, we will learn to become the caretakers of this garden so that our baby plants grow into big, healthy crops for the harvest! We'll water and weed, and also build habitat for wild critters who can help us by pollinating our flowers and protecting our plants from pests.

ACTIVITIES IN ADVENTURE THREE

- Keeping Our Garden Growing
- Homes for Our Helpers
- Deadheading and Seed Saving
- Tea Time
- Take Home: Build a Bee Hotel

ADVENTURE THREE SUPPLIES CHECKLIST

These are all the supplies you will need for all of the activities in Adventure Three. You can also find a list of supplies for each activity at the beginning of each activity plan.

General Supplies

- 1 water droplet cut out of blue cardstock (or other object that can represent water) for each Scout
- Materials to make seed envelopes. You can use small manila coin envelopes or reused paper and make an origami pocket following directions online.
- Materials to decorate seed envelopes, such as old seed catalogs for cutting out pictures; and/or colored pencils or crayons
- At least one seed catalog or planting guide where Scouts can find information about planting their seeds
- Crayons
- Sprout Scouts journals and pens or pencils
- Caretaking Certificate for each Scout
- Optional: Colorful popsicle sticks
- Optional: A board or log
- Optional: Bug boxes with magnifying lids

Gardening Supplies

- A relatively dry garden bed to demonstrate watering
- Watering can or hose with fan nozzle*
- A place to put noxious weeds, such as a Green Waste container that is disposed of off-site
- A compost pile or other place to collect non-noxious weeds (see Compost Cake activity in Adventure One to learn to build a compost pile)
- Gloves, if you have any thorny or prickly weeds
- 1 hand trowel for each Scout
- At least 1 beneficial insectary plant for each pair of Scouts. Common examples include: calendula, cosmos, rudbeckia, sunflowers, zinnias, buckwheat, dill, fennel, sweet alyssum, and yarrow
- 1 wheelbarrow or bucket full of finished compost*
- Plants in the garden that have dead flowers on them
- 1 pair of hand shears or scissors for each Scout*
- In the garden: at least 2 herbs for tea, such as mint, chamomile, lemon balm, lemon verbena, or any other local or traditional herbs used for tea

Cooking Supplies

- Two (or more) pots of hot water – Water can be heated on a stove or with an electric kettle
- Cups
- Optional: two teapots or thermoses

do it yourself

▶ Watering Can

You can make an excellent watering can (or, even better, one for each Scout!) out of an empty, well-rinsed plastic milk jug with holes poked in the lid.

▶ Hand Shears

Try using classroom scissors instead.

▶ Wheelbarrow

2 gallon buckets is a comparable amount of compost.



Adventure 3 | Activity 1

Grades: 3-5

Estimated Time: 45 minutes

Location: Outdoors

keeping our garden growing

MATERIALS

- 1 water droplet cut out of blue cardstock (or other object that can represent water) for each Scout
- A relatively dry garden bed to demonstrate watering
- Watering can or hose with fan nozzle – You can make an excellent watering can (or, even better, one for each Scout!) out of an empty, well-rinsed plastic milk jug with holes poked in the lid.
- A place to put noxious weeds, such as a Green Waste container that is disposed of off-site
- A compost pile or other place to collect non-noxious weeds (see Compost Cake activity in Adventure One to learn to build a compost pile)
- Gloves, if you have any thorny or prickly weeds
- 1 hand trowel for each Scout
- Sprout Scouts journals and pens or pencils
- Optional: colorful popsicle sticks

Remember to use a **Participation Structure** from p. 16 during your share out!

PREPARATION

- Set 3 water droplets off to the side.
- Hide all of the remaining water droplets out in various places around the garden.
- Optional: If you think your Scouts might mistake crops for weeds, use colorful popsicle sticks to mark all crops in areas where Scouts will be weeding so that they know not to pull those plants.
- Musical Option: Learn “The Garden Song (Inch by Inch)” by Pete Seeger. Photocopy or write the words to the song where everyone can see them.

DESCRIPTION

Let's take care of these young plants so they can grow into big, healthy crops that we can harvest and eat!

ACTIVITY

Engage – Discussion

1. Gather in a circle.
2. Ask some questions related to caretaking, such as, *Has anyone here had a pet? What did you do to take care of your pet? Have Scouts share out. Now we're going to learn to take care of our plants so they can grow big and strong!*

Explore – Watering Game

1. *Imagine that each of you is a young plant. What will you need in order to grow? Have Scouts share what they remember from previous Adventures. Add anything they may have forgotten to the list: sun, soil, space, air, and water!*
2. *Now we're going to play a game. In this game, you're the plants, but you are a little different from plants because you can move around. I want you to look around the garden and see how many water droplets you can find and gather. Show them an example of the water droplets they'll be looking for. When I crow like a rooster, you'll come back here with all your water and we'll see how each plant did.*
3. *Send them out to search for the water. Once most of the water has been found, call everyone back and have them show what they found.*
4. *Announce, Only plants that found a water droplet survived! Have remaining plants die a dramatic plant death.*

Explain – How to Water and Weed

1. *Think back to the game we just played. How many plants survived? How many died? How might you change the game to make sure all of your plants get all the water they need? Share ideas. If no one mentions these, add the following: We could add more water or we could play with fewer plants. This is how we support our crops too! As gardeners, we can increase soil moisture by watering our crops when the rain isn't sufficient; and we can reduce the number of other plants in the garden by weeding, so that our crops don't have to compete so much for water, sunlight, or nutrients from the soil.*
2. *Ask, How do we know when our plants need water? Share ideas. If they don't mention it, add droopy, wilting leaves and dry soil.*

3. *All together, have Scouts dig their fingers into the soil to the depth of the roots of our plants. Is it wet down there or dry? That's where the plant roots drink up the water so, if it's dry, we need to water!*
4. **Watering:** *Teach Scouts how to water effectively. We call this the Sweep and Sparkle. Using a watering can or hose with a fan nozzle, water across one area just until you see the water sparkling on the soil surface (just a few seconds), and then move forward to the next dry patch of soil. We call this Sweeping. When you have swept across the entire bed, much of it will still be shiny, or sparkling, with water. Explain, You need to wait until the sparkle fades before doing another sweep.*
5. *After just one pass over the bed, stop watering and have Scouts dig their fingers down into the soil as deep as the roots of the plants in that bed again. Is the soil down there wet, or dry? Remind Scouts that the water needs to reach that depth so, if it's still dry, you should continue to Sweep and Sparkle several more times until the water reaches the depth of the roots. This can often take five or more passes over the same bed.*
6. **Weeding:** *Teach Scouts how to weed effectively. First, look at your bed and identify any crops you know we planted. Make sure you know what they look like so you know not to pull those out. If you're not sure, ask a friend or ask me! Practice together on one bed.*
7. *Once you know which plants to protect, you can pull out all the rest! To do this, simply pinch the weed at the base and pull it straight out. It's best if we get the entire weed out, including the root! Demonstrate. If it doesn't budge, use a hand trowel to loosen the soil around the root. Demonstrate. And if the weed has thorns or anything like that, wear gloves to protect your hands.*
8. **Competition Option:** *Host a Weeding Olympics with different competitions,*

such as Tallest Pile of Weeds; Longest Weed Root; Largest Weed; etc.

9. If mulch is used in your region and season, apply mulch to freshly watered and weeded beds to retain soil moisture and slow weed growth.

Elaborate and Evaluate

1. Gather in a circle. *We just learned a lot about taking care of our garden. Let's make a plan for caring for it over the next few months, as our crops grow.*
2. Work together to make a plan for regular watering and weeding. Have Scouts record the plan in their journals.
3. *All of this work helps our garden stay healthy. How does it help us stay healthy too? Share ideas. If no one mentions it, include physical activity, fresh air and, of course, fresh vegetables!*
4. Celebrate with your Sprout Scouts cheer!

fyi

Why do we stop watering in an area when it's sparkling?

If we add too much water to the same place at the same time, it can cause the soil at the surface to cake together, which prevents water from passing through the surface and percolating deeper down.

If you have different crops growing in different beds, you might want to look at them together to make sure they can identify all the crops. If you aren't sure they'll be able to remember, you can also mark all of the crops with colorful popsicle sticks and let Scouts know not to pull any marked plants.

STANDARDS CONNECTIONS

This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Next Generation Science • 2.LS4.1

Make observations of plants and animals to compare the diversity of life in different habitats.

Next Generation Science • 5.LS1.1

Support and argument that plants get the materials they need for growth chiefly from air and water.

Common Core English Language Arts • 3-5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3-5 topics and texts, building on others' ideas and expressing their own clearly.

Common Core Math • 2.MD.1

Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

Common Core Math • 2.MD.4

Measure to determine how much longer one object is than another expressing the length difference in terms of a standard length unit.



Adventure 3 | Activity 2

Grades: 3-5

Estimated Time: 45 minutes

Location: Indoors or outdoors

homes for our helpers

MATERIALS

- At least 1 beneficial insectary plant for each pair of Scouts. Common examples include: calendula, cosmos, rudbeckia, sunflowers, zinnias, buckwheat, dill, fennel, sweet alyssum, and yarrow.
- 1 hand trowel or shovel for each Scout
- 1 wheelbarrow or bucket full of finished compost
- Watering can or hose with fan nozzle – You can make an excellent watering can (or, even better, one for each Scout!) out of an empty, well-rinsed plastic milk jug with holes poked in the lid.
- Sprout Scouts journals and pens or pencils
- Optional: A board or log
- Optional: Bug boxes with magnifying lids, such as those found at nature-watch.com

PREPARATION

- Optional: A week or more before this session, place a board or log on the ground in your garden. This will create a habitat where insects might gather.
- Choose a space for planting insectary plants. They are commonly planted around the border of the garden, or at the ends of each bed.
- Pre-irrigate planting areas so that the soil is moist enough that you can stick a tool in easily, but not so wet that your tool comes out caked in mud.

DESCRIPTION

We've planted lots of plants for us. Now let's plant some for the animals! By planting beneficial insectary plants in our garden, we can beautify the space and attract insects to help pollinate and protect our plants.

ACTIVITY

Engage – Discussion

1. Gather in a circle. Have Scouts discuss: *How do you help other people? Share ideas. How do other people help you? Share again. As Sprout Scouts, how have we helped each other? Share examples.*
2. *In the garden, plants and animals can help each other too. Of course we know that some insects harm our crops by eating them. But did you know that many other insects can help our garden*

make it your own

Visit the Pollinator Partnership at pollinator.org for a pollinator planting guide for your region.

grow? Some pollinate the flowers so that the plants can make fruits and seeds. Without pollinators, we wouldn't have any apples, cucumbers, watermelon, pumpkins, avocados, or many other fruits! Still other beneficial insects eat pests, keeping them off our crops. Ladybugs, for example, eat aphids. These insects are like the guardians of the garden. Insects that help the garden grow are called beneficial insects. Beneficial insectary plants are plants that attract beneficial insects. By planting beneficial insectary plants in and around our garden, we can add color and beauty, and also invite in these natural helpers to protect and pollinate our plants.

Explore – Insect Hunt

1. Let's go on an insect hunt. Some good places to look are under logs or other objects on the ground; in and around flowers; and on the undersides of leaves.
2. For each insect you find, draw a picture in your journal of the insect and the place you found it.
3. Gather back in a circle. What patterns did you notice? Where did you find insects? Which types did you find on the flowers? On the ground? On the leaves? etc.

Explain – Planting for Beneficial Insects

1. Introduce the individual beneficial insectary plants you have and how each helps the garden. *Disc and ray flowers, such as calendula, cosmos, rudbeckia, sunflower and zinnias attract pollinators with their abundance of pollen. Other flowers are shaped like an umbrella, with many short flowers spreading out from one point. These flower structures are called umbels. Flowers with umbels, like buckwheat, dill, fennel, sweet alyssum and yarrow attract parasitic wasps and*

Remember to use a **Participation Structure** from p. 16 during your share out!

fyi

Why are we calling avocados and cucumbers fruits? Aren't those vegetables?! Interestingly, foods are categorized one way by chefs, and another way by plant scientists. In the culinary world, "vegetable" and "fruit" are terms describing different types of food from plants. Essentially, fruits are the sweeter of the two. "Fruit," however, is also a botanical term for the part of the plant that carries the seeds. And "vegetable" is not a botanical term at all, it's only a culinary term. In fact, a vegetable can be any part of a plant. There are, for example, root vegetables (carrots) and leaf vegetables (spinach). And so there can even be fruit vegetables! These are culinary vegetables that are made of the fruiting body of the plant. Examples include tomatoes, cucumbers, eggplants, and squash.

fyi

The vast majority of wasps are small and non-aggressive but very efficient predators of caterpillars and other pests.

other beneficial insects by providing them with a broad, flat landing pad.

2. Demonstrate for your Scouts how to plant the plants.
 - For small transplants, follow the same procedure that you used to transplant in the Plant a Salad activity in Adventure Two.
 - For larger plants in larger containers, the process is similar but requires full-size shovels instead of hand trowels. In this case, demonstrate safe tool use, including the following:
 - *Make sure you have at least an arm's distance between yourself and the next person over*
 - *Low and Slow, meaning:*
 - *Keep the sharp end of the tool below your waist*
 - *Keep the point aiming down so as not to fling soil up into one another's eyes*
 - *Always walk with tools*
 - *Clean and put away tools when finished*
 - If you are planting into an area that has not been prepared for planting, then demonstrate how to do the following:
 - *Clear the area of weeds.*
 - *Dig a hole the size of the container.*
 - *Loosen the soil at the bottom of the hole.*
 - *Gently remove the plant from the container and put it in the hole.*
 - *Fill the hole back in with soil and gently "tuck in" your plant.*
 - *Water thoroughly.*

tool safety note

Be sure that you are at least an elbow length away from the next closest person, and that the point of your trowel is always pointing straight down while you work. And, of course, keep your eyes on the area where you're working. This will help you avoid accidentally hitting someone's hand with your trowel or flinging soil up into anyone's eyes.

Elaborate and Evaluate

1. Gather in a circle. *Look at our garden! Does it look different from before? These plants have made this spot much more beautiful, and they also are going to help us grow our vegetables.*
2. *In your journals, draw a picture of your favorite new plant in the garden and write down at least two ways this plant will help our garden grow.*
3. Celebrate with your Sprout Scouts cheer!

Extend

The Great Sunflower Project is a Citizen Next Generation Science Project in which people all over the country are collecting data on pollinators in their yards, gardens, schools and parks. They count and record the number and types of pollinators visiting plants (especially sunflowers), and that data has been logged digitally and compiled to create the largest single body of information about bee pollinator service in North America to determine where pollinator service is strong or weak compared to averages. Sign your Sprout Scouts team up to become part of this national citizen Next Generation Science Project!

STANDARDS CONNECTIONS

This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Next Generation Science • 2.LS.2.2

Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.

Next Generation Science • 3.LS.4.4

Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

Common Core English Language Arts • 3-5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others' ideas and expressing their own clearly.



Adventure 3 | Activity 3

Grades: 3-5

Estimated Time: Part 1 - 45 minutes;

Part 2 - 15 minutes at least 1 week later

Location: Outdoors with indoor options

deadheading and seed saving

MATERIALS

- Plants in the garden that have dead flowers on them
- 1 pair of hand shears or scissors for each Scout
- Materials to make seed envelopes. You can use small manila coin envelopes or reused paper and make an origami pocket following directions online.
- Materials to decorate seed envelopes, such as old seed catalogs for cutting out pictures; and/or colored pencils or crayons
- At least one seed catalog or planting guide where Scouts can find information about planting their seeds

PREPARATION

- Explore the garden to look for good plants to deadhead and from which to save seeds.
- If Scouts will be making their own envelopes, print the template.

Remember to use a **Participation Structure** from p. 16 during your share out!

DESCRIPTION

Let's encourage flower growth in our garden and also gather some free seeds by deadheading and seed saving!

ACTIVITY

Engage – Discussion

1. Gather in a circle.
2. Discuss with Scouts, *Where did you get the seeds we planted in our garden? Where do you think I got them? Share ideas, such as from a garden store, from a seed company, from a local farmer, etc. Where do you think those places got the seeds? (From the plants!) As gardeners, we can collect the seeds growing on our plants and then we'll have seeds for next year!*

Explore – Seed Hunt

On a sunny day, send Scouts to look around the garden for plants with fully grown seeds. Teach Scouts a fun way to let everyone know when they've found one, such as calling out "Super Seed!" while throwing their arms in the air like Superman. Whenever they find a seed, gather together to take a look at what the seed looks like, where it is on the plant, how many there are, etc.

Explain

Part 1 – Seed Saving

1. Now we're going to clear dead flowers off our plants, which will promote the growth of new flowers. While we're at it, we can also gather seeds from some of our plants and save them for the next growing season!
2. Demonstrate how to deadhead any plants in your garden that need a little haircut. Scouts can use their hand shears or scissors to cut off dead flowers before they've gone to seed. If the flower stem has leaves, have them cut just above the leaf node. If there are no leaves, have them cut at the base of the flower stem.
3. Now some of our flowers will have already gone to seed. Point out examples from the seed search you did earlier. *This means they've made seeds and sometimes also fruits to go around the seeds. For these flowers, we can actually save these seeds!*
4. Demonstrate how to gather seeds from different plants.
5. Place everything on newspaper in a dry, sunny place (this can be inside a greenhouse or in a windowsill of a classroom) and allow the seeds to dry out for about a week.
6. Make and decorate envelopes for each type of seed you collected. Include name of plant, date collected, and a picture of the full-grown plant.
7. Use planting guides and seed catalogs to find and add important information to packets, including: best season for planting, spacing and depth information, and anything else your Scouts think is important.

tool safety note

If you're using hand shears, demonstrate how to unlock and lock them. Then show how to safely use hand shears or scissors by holding only the handles and keeping both hands (as well as all parts of your body!) away from the sharp parts at all times. Also show them where to put tools when they're finished.

seed saving

A few simple plants to start with include calendula, hollyhocks, sunflowers, beans and peas, corn, and lettuce.

- For calendula and hollyhocks, collect dry, brown pods of seeds growing where the flowers were.
- For sunflowers, collect entire flower heads.
- For beans and peas, collect the pods.
- For corn, collect entire ears.
- For lettuce, place a paper bag under the flowering stalk and shake it to let the seeds fall in.
- For cilantro, fennel, dill, angelica, and amaranth, remove whole, dried-out flowers.

fyi

For seed-saving tips for other plants, you can consult Bill McDorman's Basic Seed Saving, which is a free download available at seedsave.org.

Part 2 – Seed Packets

1. After a week or more, remove dried seeds from their pods, flowers, or ears and put them into envelopes.
2. Store envelopes in a cool, dry space.
3. Plant seeds the following year, or give them to family and friends as gifts.

Remember to use a **Participation Structure** from p. 16 during your share out!

Elaborate and Evaluate

1. Gather in a circle.
2. *Why are seeds so important to us and to our families and communities? What are some advantages to saving your own seeds? What role do you think seed saving played for our ancestors? Have Scouts share ideas.*
3. Celebrate with your Sprout Scouts cheer!

STANDARDS CONNECTIONS

This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Next Generation Science • 4.LS1.1

Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

Common Core English Language Arts • 3.RI.1

Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

Common Core English Language Arts • 3-5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others' ideas and expressing their own clearly.



Adventure 3 | Activity 4

Grades: 3-5

Estimated Time: 30 minutes

Location: Harvesting outdoors,
tea time in or out

tea time

MATERIALS

- In the garden: At least 2 herbs for tea, such as mint, chamomile, lemon balm, lemon verbena, or any other local or traditional herbs used for tea
- Two (or more) pots of hot water – Water can be heated on a stove or with an electric kettle
- Optional: Two teapots or thermoses
- Cups
- Crayons
- Sprout Scouts journals and pens or pencils
- A Sprout Scouts Caretaking Certificate for each Scout

PREPARATION

- Harvest one leaf of one type of herb for half the Scouts, and one leaf of another type of herb for the other half of the Scouts.
- Just before activity, heat water for tea.

- Optional: Pour hot water into teapots or thermoses.

DESCRIPTION

We've worked hard to care for our garden. Now let's warm up with some herbal tea.

ACTIVITY

Engage – Discussion

1. Gather in a circle.
2. Discuss the following with Scouts: *Why did we water our plants? What do you think would happen if we didn't water them? Share ideas. We humans also need water to survive. Did you know that 2/3 of our body weight is made up of water? What do you think would happen if we didn't drink water? Share ideas. Did you know an average person can go about three weeks without food, but only three days without water?!*
3. *Today we're going to drink some water, but we're going to put in some garden herbs to make it flavorful and also give it medicinal properties. This garden is like a grocery store filled with food, and it's also like a pharmacy filled with*

make it your own

If you don't have these growing, you can also bring in containers of these to plant in the garden. Note that anything in the mint family will spread aggressively, so enclosed containers are recommended for small spaces.

Remember to use a **Participation Structure** from p. 16 during your share out!

medicine. Many of these plants have medicinal properties and can help people feel better. Has anyone ever made you a cup of tea when you weren't feeling well? Well, you're about to learn why!

Explore – Herb Sensory Exploration

1. Hand each Scout a leaf of an herb. Have them walk around looking, feeling and smelling each other's leaves and getting into groups with other Scouts they think have the same type of herb. Then share what the two types were.
2. In the garden, show Scouts the herbs they'll be harvesting. Have them explore the herb plants with every sense and try to guess which is which. *What does it look like? What does it feel like? Smell like? Taste like? If you have a variety of herbs in the garden, go through and compare. Which of these herbs would you like to try in a tea?*

Explain – Making Herbal Tea

1. Today we're going to use these herbs to make tea. Introduce the two (or more) herbs you'll be using. Tell about their medicinal properties. For example, *chamomile is good for stomachaches; lemon balm strengthens the immune system and relieves headaches; and peppermint calms upset stomachs, relieves flatulence (have fun with that one!), and clears nasal and sinus congestion.*
2. Have each Scout gently pick 5–10 leaves off one plant and add it to one pot of hot water. Then have them pick a leaf from the second plant and add it to the other pot of hot water.
3. Wait at least 15 minutes for tea to steep. While you're waiting, Scouts can make decorations for the tea party, such as: clearing off a table or spreading out a blanket, making a bouquet of flowers, or finding natural objects around the garden to create a "centerpiece."

make it your own

Creating a celebration and ritual around eating together at these times is fun, and also allow Scouts to reflect on the hard work and amazing feats of nature that went into the food they're eating. A simple toast, such as the one described here, is one way to create ceremony and give thanks, but there are also many other ways. Use the toast or create or choose another, simple ritual that you think will work well in your context.

4. Once tea has steeped, pour a bit of tea in each Scout's cup. Test to make sure it's not too hot, and then serve.
5. Let Scouts know that you hope they'll try everything, but there's no need to finish it if they don't like it. They can always let it cool off a bit and then use it to water a plant. Brainstorm together some polite things to say in that case, such as, "It turns out, I'm not too fond of mint tea ... yet."
6. Have Scouts raise their cups and toast to all of the things that went into this tea, such as nutrients from the soil, energy from the sun, hard work from the caretakers (them!), etc.
7. Give a toast to your Scouts, mentioning all that they accomplished together in this Adventure. *Together, we tended our garden, weeding and watering around our growing plants; planting habitat for beneficial insects; and saving seeds for next year. And throughout the Adventure, you treated each other with respect, worked hard, and had fun (or whatever feels right for your group).*
8. Present each Scout with their Caretaking Certificate. *It is now my pleasure and honor to present each of you with a Caretaking Certificate to honor your hard work and new gardening and cooking skills!*

9. Have Scouts enjoy their teas together and compare the different taste of each one.
10. Celebrate with your Sprout Scouts cheer!

Elaborate and Evaluate

1. Gather in a circle.
2. Have each Scout record in their journal what types of tea they tasted the medicinal properties of each and their notes on the flavor. When they finish, have them illustrate the plants from which each herb came.
3. Do leaf rubbings from the leaves of each tea. Simply have them place a leaf under their journal page and then rub over the top lightly with the side of a crayon.

STANDARDS CONNECTIONS

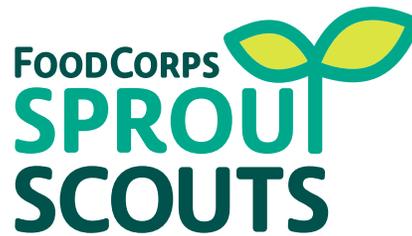
This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Common Core English Language Arts • 3-5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others' ideas and expressing their own clearly.

Take Home Activity

Build a Bee Hotel



Hey Scouts!

As we learned this week, beneficial insects can be tremendous helpers in keeping our garden growing. Bees are particularly beneficial because they pollinate so many crops. According to the National Resource Defense Council, one in every three bites of food we take relies on bees for pollination! Sadly, honeybee populations are declining worldwide. No one is quite sure what is causing this Colony Collapse, but as gardeners, we've got to do what we can to support bee populations!



Your challenge is to work together with your family to build a hotel for bees. You might be thinking: *Bees?! We don't want to attract bees to our garden! They'll sting us!* These hotels, however, are made to attract solitary bees and sometimes also wasps, some of which may even be native to your area. These solitary bees and wasps are different from honeybees. They do not have a hive to protect, and therefore they are not dangerous. They rarely, if ever, sting. But still, they are wonderful pollinators for our plants!

A bee hotel is simply a series of hollow tubes set inside one larger container or tube. So you can start with an old ceramic pot, or a wide-mouthed glass or plastic bottle, jar or tub. Turn it on its side and fill it with smaller, hollow tubes, such as cut bamboo sticks, empty toilet paper or paper towel tubes, small PVC pipes, or a block of wood with holes drilled into it (with the help of an adult). You can see some wonderful examples of Bee Hotels at inspirationgreen.com/insect-habitats or by doing an Internet search for "bee hotels."

To get one step closer to completing your Scouts Adventures:

- **Bring your Bee Hotel to a Sprout Scouts gathering to show your fellow Scouts**

We'll mount it in our garden or you can mount it outside of your home! Have fun!

Due Date: _____

Beneficial Insect Background for Scouts and Their Grown-Ups

In Sprout Scouts, we've been learning about beneficial insects. These are insects that help the garden in some way. Some pollinate the flowers so that the plants can make fruits and seeds. Without pollinators, we wouldn't have any apples, cucumbers, watermelon, pumpkins, avocados, or many other fruits! Others insects eat pests, keeping them off our crops. Ladybugs, for example, eat aphids. These insects are like the guardians of the garden. Gardeners rely on beneficial insects to help their garden grow.



Certificate of Completion

Adventure Three: Caretaking

Congratulations, Scout!

Troop Name

Date

Scout Leader

**And now, the final
adventure!**



Adventure Four

ENJOYING THE HARVEST

In this Adventure, we are going to harvest the crops we've grown to enjoy and share with others! We'll learn to identify and pick ripe produce; make decorations out of the garden's bounty; share our produce with others; and prepare and enjoy a celebratory feast together!

ACTIVITIES IN ADVENTURE FOUR:

- Harvest Time!
- Party Prep
- Sharing the Harvest
- The Final Feast
- Take Home: Family Food Stories

ADVENTURE FOUR SUPPLIES CHECKLIST

These are all the supplies you will need for all of the activities in Adventure Four. You can also find a list of supplies for each activity at the beginning of each activity plan.

General Supplies

- A sink or other source of running water
 - A hose over a bucket can work well, especially if the hose is Food Grade
- Chart paper or whiteboard and markers
- 1 old phone book or thick stack of newspaper for each pair of Scouts
- Hammers – Scouts can all share 1 hammer, but an ideal scenario would be about 1 for every 4 Scouts
- 1 roll of wide painter's tape (the blue stuff)
- Watercolor paper
- Scissors – Scouts can all share 1 or 2 pairs, but an ideal scenario would be 1 for each pair of Scouts
- How Groundhog's Garden Grew children's book by Lynne Cherry
- Boxes or bags for produce
- If you're hosting a Free Farmers' Market:
 - Poster or other paper and markers to make signs
 - 1 large table
- A Sprout Scouts Seed to Table Certificate and a Sprout Scouts Patch (if they are completing the program) for each Scout
- Sprout Scouts journals and pens or pencils
- Optional: Recipes to go with the produce you'll be giving away
- Optional: Cameras for Scouts

Gardening Supplies

- In the garden: Food to harvest and eat raw, such as lettuce, spinach, carrots, peas, fruits, broccoli, cucumbers, tomatoes, corn, etc.
 - If there is not enough produce growing for everyone to taste, supplemental produce from a farmers' market or store
- In the garden: Colorful flowers that you can pick
- In the garden: Produce to harvest and give away
- Basket, bowl or colander for harvesting
- Optional: Tools for harvesting, such as round-tipped steak knives for broccoli and other crops with a thick stalk, or digging tools for root crops, such as carrots

Cooking Supplies

- Hand soap near the sink or hose
- 1 or more colanders for washing produce
- 1 cutting board
- 1 knife
- Compost bucket
- 1 old dish towel for each pair of Scouts
- 1 cutting board for each Scout or pair of Scouts
- 1 knife for each Scout or pair of Scouts
- 1 bucket where Scouts can put their knives when they're not using them
- 1 big salad bowl
- 1 jar or cup and a fork for dressing
- Salad tongs
- 1 plate or bowl and 1 fork for each Scout
- Ingredients for your salad: Salad is very flexible, meaning you don't need to have a certain amount of each item to make it

work. Simply fill a bowl with lettuce and/or spinach, and top with any other fruits or veggies that are good raw. Your ingredients might include:

- Lettuce and/or spinach
- Carrots
- Broccoli
- Sugar snap peas
- Radishes
- Carrots
- Apples, pears, citrus, berries, or other fruit
- Cucumber
- Sunflower seeds
- Ingredients for a simple dressing, such as:
 - 1 clove garlic
 - ¼ cup balsamic vinegar
 - ½ cup olive oil
 - 1 teaspoon honey
 - ¼ teaspoon salt
- Spring Roll Option: 1 rice paper wrap for each Scout
- Optional: Veggie dip such as hummus or ranch dressing



Adventure 4 | Activity 1

Grades: 3-5

Estimated Time: 45 minutes

Location: Outdoors

harvest time!

MATERIALS

- In the garden: Food to harvest and eat raw, such as lettuce, spinach, carrots, peas, fruits, broccoli, cucumbers, tomatoes, corn, etc.
 - If there is not enough produce growing for everyone to taste, supplemental produce from a farmers' market or store
- A sink or other source of running water – A hose over a bucket can work well, especially if the hose is Food Grade
- Hand soap near the sink or hose
- 1 or more colanders
- 1 cutting board
- 1 knife
- Optional: Tools to harvest, such as round-tipped steak knives for broccoli and other crops with a thick stalk, or digging tools for root crops, such as carrots
- Compost bucket
- Sprout Scouts journals and pens or pencils
- Optional: Veggie dip such as hummus or ranch dressing

Remember to use a **Participation Structure** from p. 16 during your share out!

PREPARATION

- Walk through the garden and identify good foods to harvest and enjoy raw with your Scouts.

DESCRIPTION

We've worked hard to plant this garden, and now it's time to enjoy the fruits of our labor! Let's learn how to harvest food safely and enjoy a garden-fresh snack.

ACTIVITY

Engage – Discussion

1. Gather in a circle.
2. Discuss: *Have you ever picked and eaten something right from a plant? Share examples. What do you think might be different between fresh-picked foods, and foods bought in a store? Share again.*

Explore – Memory Game

1. Stand in the garden with your Scouts, somewhere you have a good view of some of the crops you'll be harvesting.
2. Play a little game to test their memories. *Let's test how well you've gotten to know your garden. Everyone, close your eyes. Now, with your eyes closed, point to the broccoli (or whatever food you have growing around this spot). Okay, now keep pointing as you open your eyes to*

see if you were right. Do this again with various foods growing in the garden.

3. Give Scouts a turn. You close your eyes and have Scouts name something for everyone to point to. Then open your eyes and see if you were right.
4. All together, open your eyes and look around. Have Scouts point out foods they see that could be harvested today. Add any that they might have missed.

Explain – Harvesting

1. Demonstrate how to wash hands well with soap and running water. Have all Scouts wash hands thoroughly.
2. Walk over to the first plant from which you'll harvest. Talk about and demonstrate how to tell if it's ripe. This works differently with different crops, but show them how to look for the right color. Also, *for fruits, they should pop off pretty easily when you tug on them. If you give it a gentle tug, and it doesn't come right off, that's the plant's way of telling you it's not ready to be picked yet.*
3. Demonstrate how to harvest it safely. Different crops are, of course, harvested differently. Teach Scouts whichever methods are relevant.

Harvesting Tips

- Many crops can simply be picked by hand, such as tomatoes, peas and green beans. For these, teach Scouts how to hold the end of the stem with one hand and pick with the other so that they don't pull off part of the plant along with their food.
 - Some thick-stemmed crops, such as broccoli, are easier to harvest with a knife. To harvest with a knife:
 - Make sure there is at least an arm's length between you and other people.
 - Hold the knife by the handle. Place the serrated edge against the stem. Make sure that this serrated edge is not pointed toward your body.
- Hold the top of your crop in the other hand, and then use the serrated edge of the knife to saw back and forth through the stem.
- Root crops will often require a digging tool, such as a hand trowel or a digging fork. To dig out carrots or other root crops, do the following:
 - Make sure there is at least an arm's length between you and other people.
 - Dig your tool into the soil, about 3-inches away from your crop. Make sure it goes in at least six inches deep.
 - Leave the tip of your tool deep in the soil and pull the handle toward you so that the sharp end of the tool pushes your crops up.
 - Once they're up a bit out of the soil, check to make sure no one else is digging in that area with a sharp tool (they shouldn't be, but it's good to be extra sure!) and then reach in with your hands to grab the root crops.
4. Harvest enough produce together for everyone to have a taste of each item, if possible. You'll be chopping these up into bite-sized pieces before the tasting, so you can often harvest just one of each fruit or vegetable to serve the whole group.
 5. Add all produce to the colander(s).
 6. Together with Scouts, wash your hands thoroughly one more time.
 7. Rinse all produce well under running water before eating. Have Scouts look closely to make sure all soil, insects and the like are removed from the food.

8. If you harvested a few bigger crops, such as a tomato, carrot, or apple, chop produce up so that there is at least one piece for each Scout to taste.
9. Let Scouts know that you hope they'll try everything, but there's no need to finish it if they don't like it. They can always put it in the compost. Brainstorm together some polite things to say in that case, such as "It turns out, raw broccoli is not my favorite."
10. Give each Scout a piece of one type of produce to taste, but ask them to wait so that you can all enjoy it at the same time.
11. **Tasting:** Have Scouts look at it, smell it, feel it and then close their eyes, put the food in their mouths, and focus their attention on the flavors in the food as they taste it. Then have them open their eyes and describe it. *What did you notice about the color? The texture? The smell? The flavors? Did it remind you of anything else you've ever eaten? Based on how it felt and smelled, did it taste how you expected, or different?*
12. Continue with other foods in the garden. Compare each one to the last ones.

Elaborate and Evaluate

1. Gather in a circle. Discuss: *What was your favorite thing you tried today?*
2. Share out.
3. In their journals, have Scouts draw their favorite snack, with a line connecting it to all the things that went into it, like sunlight, water, hard work, etc.
4. Celebrate with your Sprout Scouts cheer!

Remember to use a **Participation Structure** from p. 16 during your share out!

tool safety note

A good starter harvest knife is a round-tipped, serrated steak knife such as those found at:

make it your own

Some fun garden-fresh snacks include:

- One-Bite Salsa: Pick a cherry tomato, a sprig of cilantro, and add a squeeze of lemon and enjoy together in one bite.
- Six Plant Part Wraps: Pick a lettuce leaf. Add a small piece from a root, stem, flower, fruit and seed crop, such as a piece of carrot, chard stem, broccoli, and strawberry (fruit and seed!). Wrap in the lettuce leaf and enjoy.
- Kabobs: See the Go, Grow, Glow Sticks activity in Adventure One for more on this idea. Scouts can make their own veggie kabobs by sticking just about anything they've got growing on a toothpick or other skewer.
- Veggies with Dip
- A Taste Test: Have Scouts close their eyes and try two different foods. Then have them guess what each one was. Or have Scouts taste two different root crops, or two different leaf crops, or two different varieties of a crop, or even two parts of the same plant (such as a kale leaf and a kale stem) and ask them which they like better.

STANDARDS CONNECTIONS

This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Common Core English Language Arts • 3-5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others' ideas and expressing their own clearly.

Common Core English Language Arts • 2.L.5.a

Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).

Next Generation Science • 5.LS2.1

Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.



Adventure 4 | Activity 2

Grades: 3-5

Estimated Time: 30 minutes

Location: Outdoors with lots of indoor options

party prep

MATERIALS

- Chart paper or whiteboard and markers
- 1 old phone book or thick stack of newspaper for each pair of Scouts
- 1 old dish towel for each pair of Scouts
- In the garden: Colorful flowers that you can pick
- Hammers – Scouts can all share 1 hammer, but an ideal scenario would be about 1 for every 4 Scouts
- 1 roll of wide painter's tape (the blue stuff)
- Watercolor paper
- Scissors – ideally 1 for each pair of scouts
- Optional: Cameras for Scouts

PREPARATION

- Practice flower pounding, using the procedure described below. Some flowers work better than others, so it's a good idea to try it out and determine some good flowers ahead of time.
- Decide who you'll be inviting to the Final Feast. This could be Scouts' families, other members of the summer camp or after-school club of which you're a part, or any other community member you think would enjoy celebrating the accomplishments of the Scouts.

DESCRIPTION

Let's use natural materials from our garden to make beautiful party invitations and decorations from our harvest!

ACTIVITY

Engage – Discussion

1. Gather in a circle.
2. *Close your eyes and think of the most beautiful place you've ever been. Once you've got it in your mind, open your eyes and share with a friend.*
3. *Now let's look around the garden to find the beauty here. When we come through here in a rush, or focused on a task, we can miss some of the most beautiful parts. Today we're going to learn to slow down, notice the details, and then use some of the most beautiful things in our garden to make decorations for our harvest party!*

Explore – Human Camera

1. Play Human Camera, a game adapted from Joseph Cornell's *Sharing Nature with Children II*. To start, pair up Scouts. In each pair, one will be the "photographer" and one will be the "camera."
2. **Model:** Ask for a volunteer to be your "camera" while you demonstrate. Have

this volunteer close their eyes then show your Scouts how to safely lead this person around the garden. Walk slowly, holding her hand and elbow in your hands. Demonstrate how to talk the “camera” through a tricky spot, such as a place where they have to step over a small object.

3. Stop when you arrive at something beautiful, such as a blooming flower or a water drop caught on a spider web.
4. Gently tilt the “camera’s” head toward this beautiful view, and then explain, *When I tap you on the shoulder, you’ll open your eyes. When I tap the other shoulder, you close them again. This is your camera shutter opening and closing to take a picture.*
5. Tap on one shoulder and, after about two seconds, tap on the other shoulder.
6. Thank the volunteer and ask her to return to the circle.
7. Ask Scouts to take turns in their pairs so that each person gets to be the photographer and the camera.
8. Give them about 5–10 minutes to explore the garden in this way. As they’re playing, watch carefully to make sure that all of the photographers understand how to guide their cameras slowly and safely.
9. Have Scouts return to the circle and describe to the group what they “photographed.”
10. Options: If you have time, you can have the photographers show the cameras a sight and then guide them to another place. Then the cameras can open their eyes and try to find the location of that picture they took before switching roles. Also, if your Scouts have cameras, you can have them take real photographs of these spots.

make it your own

To save time, you can also pre-make the invitations on watercolor paper and just have the Scouts decorate them.

Explain – Preparing for the Final Feast

1. *In two weeks (or whenever you have planned), we’re going to have a Final Feast to celebrate your hard work as Scouts and enjoy a meal together with the fruits and vegetables that you grew!*
2. Discuss who will be invited to the party. Depending on your situation, you might be announcing your plan, or brainstorming ideas with the Scouts.
3. **Making Invitations:** *Let’s make invitations and decorations for our party using natural materials from the garden!*
4. *For our invitations, what information will we need? Have Scouts share ideas. As they share, write down the information, exactly as you would want it written on an invitation, on the chart paper where everyone can see them. Remember to include:*
 - a. Name of the Party, such as “Sprout Scouts Final Feast”
 - b. Location
 - c. Start and End Times
5. Give each Scout a piece of watercolor paper and have them copy the information to create as many invitations as you need.
6. Demonstrate how to decorate paper by pounding flowers.

Elaborate and Evaluate

1. Gather in a circle around all of the art and crafts you’ve made together. Take a “gallery walk,” around the circle, allowing each Scout to get a close look at the art made by their friends.

Ask your Scouts: *These colorful flowers are so beautiful! How do they help our garden grow?* Share ideas. If no one mentions it, remind them that the colors in the flowers help attract pollinators, which allow the plants to make fruits and seeds.

2. Make a plan for how to distribute invitations. You might be handing them to families when they pick up their Scouts, hand delivering them to teachers together, or sending them home with Scouts. If you are sending them home with Scouts, be sure to also email or call families to make sure the message gets through.
3. Celebrate with your Sprout Scouts cheer!

pounding flowers

1. To start, cut the watercolor paper into the shape that you want: You could cut these into invitation cards, name cards to go at each seat at the table bookmarks to go on top of each plate, or whatever else you want to make. You could even use butcher paper to make table runners for the party.
2. Harvest a handful of fresh flowers and leaves. Cut the stems and as much of the green back of the flower off as possible. If the flower has a thick center, remove it and use only the petals.
3. Find a place where you can make some noise and there's a hard surface you can pound on, such as a wooden picnic table or out on the blacktop.
4. Place a phone book or thick stack of newspaper on top of an old dishtowel. Place a piece of watercolor paper on top of that.
5. Place the flowers facedown on the paper.
6. Pull off a piece of painter's tape long enough to cover all your flowers. Before sticking it to the paper, stick it to your pant leg and pull it off once or twice to remove some of the tack.
7. Cover the flowers completely with painter's tape.
8. Pound on the tape with a hammer, making sure to hit each section multiple times. (The newspaper or phonebook is there to dampen the noise.)
9. Carefully peel off a corner of the tape to see if the flowers have left a mark, or if they need more pounding.
10. When you're satisfied with the print, peel off all the tape. The flowers should have left color prints on the paper.
11. Remove any flower pieces that are still stuck to the paper.

tool safety note

Emphasize for Scouts that hammers are heavy and they need to be careful not to pound their fingers. Since the tape is holding their flowers in place, they do not need to have a hand on the paper at all. The best way to do this is check to make sure they're at least one arm's length away from any neighbors, hold the hammer by the handle with both hands, and then pound on their flowers.

make it your own

Flower Pounding is a fun and unique way to make decorations, but it's only one way! The possibilities for Earth Art in the garden are endless! You and your Scouts can use your creativity, along with whatever is abundant in your garden, to make all sorts of crafts. For more ideas and inspiration, look up Andy Goldsworthy Earth Art or search Pinterest for "garden crafts."

STANDARDS CONNECTIONS

This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Common Core English Language Arts 3-5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others' ideas and expressing their own clearly.



Adventure 4 | Activity 3

Grades: 3-5

Estimated Time: Flexible

Location: Indoors or outdoors

sharing the harvest

MATERIALS

- *How Groundhog's Garden Grew* children's book by Lynne Cherry
- In the garden: Produce to harvest and give away
- Boxes or bags for produce
- If you're hosting a Free Farmers' Market:
 - Poster or other paper and markers to make signs
 - 1 large table
- Optional: Recipes to go with the produce you'll be giving away

PREPARATION

- Get a copy of *How Groundhog's Garden Grew* by Lynne Cherry from your school or public library, if possible.
- Find a way to donate food. A few good options include:
 - **Option 1:** Connect with someone at a local food bank, shelter, Meals on Wheels program, or other organization that provides food to people in need. To do this, you can:
 - Search for a local food bank, shelter, Meals on Wheels program, or other organization that provides food to people in need.
 - Ask someone there how your Scouts can donate produce from their garden.
 - Arrange a time for you to drop off your donated produce, or ask if someone can pick up the produce and tell your Scouts a little bit about the program.
 - Optional: Arrange for your Scouts to be involved in a program event, such as serving soup at a Soup Kitchen or handing out food during the Food Bank food distribution.
- **Option 2:** Host a Free Farmers' Market in a place that gets a lot of foot traffic, such as outside a school when the bell rings. For this option:
 - Ask permission from the school principal, home or business owner, or other person in charge of the space where you hope to host your Farmers' Market.
 - Optional: Have Scouts make and post signs ahead of time to advertise the Free Farmers' Market. Include date, time and location.
- Musical Option: Learn "Magic Penny" by Malvina Reynolds. Write the words to the song where everyone can see them.

DESCRIPTION

We've grown so much food! Let's share this with our community!

ACTIVITY

Engage – Reading

1. Gather in a circle.
2. If you have the book, read aloud *How Groundhog's Garden Grew* by Lynne Cherry. Pause along the way for Scouts to remember ways that they have done the same things squirrel and groundhog are doing in the book, like planting, gathering seeds, composting, attracting beneficial insects, etc.
3. *In the story, groundhog has so much produce all at once that he decides to share with his friends. Who here has shared something with friends? Have Scouts tell about personal experiences they've had with sharing.*

Explore – Discussion

1. *Sadly, not every person has access to healthy food like this. What might be some barriers that prevent all people from getting fresh fruits and vegetables? Share ideas. If no one mentions it, add additional barriers that exist, such as not having enough money; not being strong and healthy enough to get yourself to the grocery store; not having a grocery store that sells fresh produce in walking distance from your home, or not having a car; or not having the resources, time and land to grow your own produce.*

Explain – Harvesting

1. *Today we're going to harvest and share some of our produce with people in our community.*
2. Look around the garden with Scouts and identify what's available to harvest from the garden. Review safe harvesting

procedures from the Harvest Time activity in this Adventure.

3. Harvest together and add produce to boxes or bags.

For Donating Produce to a Local Organization:

1. Brainstorm with Scouts ahead of time to come up with questions they have for the leaders of that program, such as “How many people do you serve?” or “What do you plan to do with this produce?”
2. Bring Scouts to the site. Introduce them to your contact there, and give them some time to deliver the produce and have a conversation with the program representative.
3. Optional: Involve Scouts in giving the produce directly to the program participants, such as by having them hand out food at the Food Bank or serve soup at the Soup Kitchen.

For the Free Farmers' Market:

1. Have Scouts make signs that say “Free Vegetables from the Such-and-So Garden, Grown by Sprout Scouts!” or something along those lines.
2. Optional: Have Scouts copy recipes to go with the produce they'll be giving away.
3. Have Scouts brainstorm things to say to people, such as “It's free! It's fresh! It's fantastic for you!” and then have them practice.
4. Together with the Scouts, set up a table and signs in a location that gets a lot of foot traffic, such as outside a school when the bell rings.
5. Have Scouts talk with people and hand out free produce.
6. Clean up together.

Elaborate and Evaluate

1. Discuss:
 - *How did you feel when you gave away some of the food we've grown?*
 - *How else could we work together to support people in need in our community?*
2. Celebrate with your Sprout Scouts cheer!

Remember to use a **Participation Structure** from p. 16 during your share out!

STANDARDS CONNECTIONS

This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Common Core English Language Arts • 3-5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others' ideas and expressing their own clearly.

NOTE: This activity may also relate to the Social Studies standards in your region.



Adventure 4 | Activity 4

Grades: 3-5

Estimated Time: 2 hours – 1 hour to prepare before guests arrive and 1 hour with guests

Location: Indoors or outdoors

the final feast

MATERIALS

- Sprout Scouts journals to send home
- A Sprout Scouts Enjoying the Harvest Certificate for each Scout
- A sink or other source of running water – A hose over a bucket can work well, especially if the hose is Food Grade
- Hand soap near the sink or hose
- Basket, bowl or colander for harvesting
- If needed for your harvest: Harvest knives or digging tools (see Harvest Time activity in Adventure Four: Enjoying the Harvest for more information on harvest tools)
- Colander or salad spinner for washing produce
- 1 cutting board for each Scout or pair of Scouts
- 1 knife for each Scout or pair of Scouts
- 1 bucket where Scouts can put their knives when they're not using them
- 1 big salad bowl
- 1 jar or cup and a fork for dressing
- Salad tongs
- 1 plate or bowl and 1 fork for each Scout
- Ingredients for your salad: Salad is very flexible, meaning you don't need to have a certain amount of each item to make it work. Simply fill a bowl with lettuce and/or spinach, and top with any other

fruits or veggies that are good raw. Your ingredients might include:

- Lettuce and/or spinach
- Carrots
- Broccoli
- Sugar snap peas
- Radishes
- Carrots
- Apples, pears, citrus, berries, or other fruits
- Cucumber
- Sunflower seeds
- Ingredients for a simple dressing, such as:
 - 1 clove garlic
 - ¼ cup Balsamic vinegar
 - ½ cup olive oil
 - 1 teaspoon honey
 - ¼ teaspoon salt

Spring Roll Option: 1 rice paper wrap for each Scout

PREPARATION

- At least two weeks prior to the event, invite special guests to share the Final Feast with you. These might be Scouts' families and friends, other groups from the summer camp or after-school program, teachers, or other community members. For more ideas on inviting

them, see the activity earlier in this Adventure.

- Walk around your garden and identify all the ingredients you will be able to harvest and use.
- Optional: Walk around your garden and look for any “velcro” plants you have. This can be any leaf that sticks to your clothes when you press it on flat. Comfrey or bean leaves work well.
- Gather any ingredients not growing in your garden.
- Set all cooking equipment out in the area where you’ll be cooking with the Scouts. Place the knives in a closed container or other place where Scouts can’t reach them.
- Write down 1–2 specific positive memories around each Sprout Scout and the positive qualities they demonstrated, such as: *James, you were so caring with our plants, and you always noticed when they needed more water; or Tanya, you worked so well with all of the other Scouts to make the hard work fun, like when we were weeding and you started making us laugh.*
- Musical Option: Learn “Dirt Made My Lunch” by the Banana Slug String Band. Write the words to the song where everyone can see them.

DESCRIPTION

Let’s use our garden bounty to cook up and enjoy a feast together!

ACTIVITY

Engage – Discussion

1. At least one hour before your guests arrive, gather Scouts in a circle to introduce the Final Feast. *Our hard work has paid off and now we get to prepare and enjoy a feast together with our families and friends using things we’ve grown in our garden!*

2. Discuss: *Have you ever cooked or prepared a meal before?* Have Scouts share experiences they’ve had with cooking.

Explore – Recipe

1. Give Scouts the recipe they’ll be following. *What do you see in this recipe that we have growing in our garden?*

Explain – Party Prep

1. Together with Scouts, wash hands thoroughly with running water and hand soap.
2. Harvest: Walk around the garden together and harvest everything you’ll be using to make your meal. Review safe harvesting procedures from the Harvest Time activity in this Adventure.
3. Together with Scouts, wash your hands thoroughly one more time.
4. Gather Scouts in a circle where everyone can see you.
5. Cut all round things, like tomatoes, cucumbers, or apples, in half. Explain, *This will give you a flat surface to put on your cutting board, so that your produce doesn’t roll while you’re cutting it.*
6. **Model:** Before allowing Scouts to use knives, demonstrate safe use of a kitchen knife.
7. Leave a sample of each type of produce on your cutting board for Scouts to refer to later on. For example, if you want them to cut carrots into ¼-inch rounds or create bite-sized cubes of cucumbers, make some and leave them out for the Scouts to reference.
8. **Prepare Produce:** Give each Scout a piece of produce, or allow them to choose one.
9. Have Scouts rinse all produce well under running water. Ask them to look closely to make sure all soil, insects and the like are removed from the food.

10. Give Scouts time to prepare their produce as you demonstrated. As they're working with knives, walk around and make sure everyone is using their knife safely.
11. As they finish, ask if they see anyone they can help. For example, if one Scout is finished chopping carrots, but another still has a big head of broccoli to chop, they can cut that in half and each chop half the head of broccoli.
12. Once a few Scouts finish and there is no one left to help, have them add their ingredients into the salad bowl, place their knives in the knife bucket, and then wash their cutting boards or other equipment they used.
13. Demonstrate dishwashing, emphasizing the importance of removing all food; washing every surface with dish soap; rinsing thoroughly; and, if relevant at your site, sanitizing equipment with a quick dip in bleach water.
14. **Make a Dressing:** When they finish with the dishes, they can start making the dressing. Each Scout can read one line of the recipe and use the measuring cups and spoons to measure and add that ingredient. Make sure they show you before adding anything to the jar, as one tablespoon (instead of ¼ teaspoon) of salt, for example, could ruin the whole thing!
15. Again, have Scouts wash the dishes they used.
16. **Set the Scene:** Set up a table or other seating area for enjoying the salad. Use the decorations you made in the activity to make the spot look really inviting!
17. Set out a plate or bowl and a fork for each Scout and each guest.
18. Optional: Show your Scouts the “velcro” plant, if you have one, and teach them how to make garden badges. Simply make a tiny, boutonniere-sized bouquet with a few small flowers, tear off a

“velcro” leaf, and stick the bouquet to your shirt using the leaf.

Elaborate and Evaluate – Closing Badge Ceremony

1. When the guests have arrived, the table is set, the salad and dressing are made, and (in an ideal world) the dishes are clean, gather Scouts and guests together in a circle.
2. Welcome the guests and thank them for being here.

make it your own

This meal is meant to feature produce grown by the Scouts. If you planted a Salad Garden in Adventure Two, then you can make a salad with the harvest from it. Depending on the season and what you have growing, however, you might choose a different theme for your meal. Some other great options include:

- Lettuce Rolls – Simply wrap your salad ingredients in a large lettuce leaf and hold with a toothpick!
- Spring Rolls – If you have a means to boil water, get some rice paper wraps and wrap salad ingredients into Spring Rolls!
- Salsa
- Stir Fry
- Soup
- Spaghetti Squash with Tomato Sauce
- Green Bean Paté
- Zucchini Baba Ganoush
- Veggie Quesadillas
- Veggie Lasagna

... You get the idea! To find loads of recipes to choose from, visit MyPlate.gov, search lifelab.org for recipes, or other kid- and health-focused websites.

3. **Introductions:** Go around the circle and have everyone do a name sandwich, like the Scouts did during the Welcome to Sprout Scouts session. For Scouts, have them share their name; a positive memory they have from Sprout Scouts that is represented in that salad bowl, such as building the compost, working together to water those plants, harvesting the carrots, grating the beets, or something else; and then their name one more time. For guests, have them share their name, how they are connected to the Sprout Scouts, and then their name again.
4. Explain that this Salad Feast is a celebration of all of the Scouts' hard work, and all that they've learned about growing, tending, and preparing healthy foods.
5. Let every guest know that you hope they'll try the salad, but there's no need to finish it if they don't like it. They can always put it in the compost.
6. Show them the bin where they can put dirty dishes when they've finished.
7. Pour the dressing on the salad and toss it in.
8. **Enjoy the salad together!**
9. **Recognizing Scouts:** As people are seated and enjoying the feast, take a few moments to honor each Scout's contribution individually. To do this:
 - a. Stand where everyone can see you, and explain that you'll be presenting patches to each Scout for his or her accomplishments.
 - b. Call up one Scout at a time. Use the notes you prepared (see the Preparation section above) to share one or two positive attributes that he or she demonstrated. Include specific examples.
 - c. Give the Scout their **Enjoying the Harvest Certificate** and final Sprout Scouts patch and invite a round of applause from everyone.
 - d. Continue until each Scout has been recognized for their accomplishments.
10. Reiterate for the whole group that this Feast represents a tremendous amount of hard work and learning on the part of the Scouts. Express how proud you are of them. Give them a round of applause together, as a whole group.
11. Invite people to put their dishes in the dirty dish bin and then the Scouts

knife safety

- **Elbow room:** Make sure you are at least half an arm's length away from your nearest neighbor. An easy way to do this is to stick out your elbows and make sure they can't touch anyone.
- Place flat side of produce down first.
- **Claw and Saw:** Hold your fruit or vegetable on the cutting board with one hand in a claw shape, keeping your fingers curled in. With the other hand, hold the knife by the handle and saw, or cut, your produce, keeping a safe distance from your "claw" hand.
- **Low and Slow:** Keep your knife down by your cutting board at all times. If you need to stop and go somewhere, place your knife in the knife bucket at the table before you walk away from the table.
- **Eyes on the Prize:** Stay focused on the task at hand by keeping your eyes on your produce at all times until you finish cutting.

can give them guided tours of the garden, or just enjoy some time together in the space. Optional: Scouts can take guests to the “velcro” plant, if you have one, to make garden badges.

12. Have Scouts teach guests the Sprout Scouts Cheer and do it all together!
13. As the Scouts leave, stand at the garden gate or other exit and explain that you’re going to give each Scout one of the 3 Hs: a handshake, a high five, or a hug. They can tell you which one they want on their way out.

fyi

If you have access to warm water, spring rolls can be lots of fun! Here’s how to make them:

- Using the same ingredients as you would for a salad, have Scouts put each chopped veggie in its own separate bowl.
- Add a spoon to each bowl.
- Demonstrate how to dip one sheet of rice paper into warm water for as long as is advised on the package, until it feels pliable.
- Remove the paper and put it on a plate.
- Use the spoons to add different produce items in a row in the middle of your rice paper, leaving a lot of space empty.
- Fold the top and bottom ends of the rice paper over your veggies.
- Roll the paper up tight around your veggies.

Congratulations! You made a spring roll! You can drizzle dressing on top, or use it as a dipping sauce.

STANDARDS CONNECTIONS

This extracurricular activity provides children with an opportunity to practice and apply the following academic content standards they may be working on in school:

Common Core English Language Arts • 3-5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3–5 topics and texts, building on others’ ideas and expressing their own clearly.

Common Core English Language Arts • 2.L.5.a

Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).

Next Generation Science • 5.LS2.1

Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

Take Home Activity

Family Food Stories



Hey Scouts!

As we learned this week, harvesting food you've grown yourself is challenging, fun and rewarding all at the same time! Food connects us all together. After all, every person eats! And at the same time, food also shows how we're unique because there are so many different food preferences, food traditions, and the like. Let's learn a bit more about each other and ourselves by talking with someone in our community about food.

Your task is to record a Food Story shared with you by someone in your family or community. For this Food Story, you can interview a parent or guardian, a grandparent, an aunt or uncle, a friend of the family, or someone else important to you.

First ask them about one of their favorite memories involving food. When they have finished sharing that memory, work with your grown-up to write up the story they told you, as you remember it. Include specific details, such as where they were; who was with them; what they ate; and why they remember it so well. Then check your story with them for accuracy and update it with any details you might have missed. When the story is ready, make two illustrations to go with the story: one by you, and one by the person who shared the story with you.

To get one step closer to completing your Scouts Adventures:

- **Bring your story and illustrations to share with your fellow Sprout Scouts**

Due Date: _____

Enjoying the Harvest: Background for Scouts and Their Grown-Ups

In Sprout Scouts, we have been learning about the joy of harvesting, cooking and sharing food from our garden. One of the greatest things about food is that it's universal. After all, everybody has to eat! And another great thing about food is that it reflects our diversity, our culture, and our traditions. By learning and sharing stories from their families and communities, the Sprout Scouts can learn a bit about your cultural traditions, and also about one another's.



Certificate of Completion

Adventure Four: Enjoying the Harvest

Congratulations, Scout!

Troop Name Date Scout Leader



Appendix

FOODCORPS
**SPROU
SCOUTS**



join in!

**hands-on, skills-based
activities around
growing, preparing, and eating
healthy food!**

Start & end date:

Meeting day:

Meeting time:

Meeting location:

To learn more:



PERMISSION SLIP TEMPLATE

Dear Parent or Guardian:

FoodCorps connects kids to healthy food in school. We are a team of AmeriCorps leaders who serve in high-need schools to make sure students learn what healthy food is, fall in love with it, and eat it every day. We focus our service on delivering hands-on lessons in gardening, cooking and tasting healthy food; improving school meals; and encouraging a schoolwide culture of health.

Sprout Scouts is a hands-on opportunity for your child to participate in skills-based activities around growing, preparing, and eating healthy food. Sprout Scouts activities will take place outside of the regular school hours, such as after school or during summer break.

Below you is a form granting permission for your child to participate in this club. Please sign and return this completed form to the FoodCorps service member working with your child.



I give permission for my child to participate in Sprout Scouts outside of the regular school day, such as after regular school instruction or during summer break, under the auspices of [ENTER AFTER-SCHOOL, SUMMER, or OTHER PROGRAM HERE]. I understand that while the FoodCorps service member teaching my child will take all reasonable care of my child, FoodCorps and its partner organizations cannot be held responsible for any loss, damage, or injury suffered during or arising from participation in these activities.

By signing below, you indicate that you are a parent or legal guardian of the child listed below, that you have read and understand this form, and that you acknowledge that it is legally binding.

Printed Name of Child

Child pick-up and drop-off details

Please include approved plans and the names of those authorized to pick up the student.

School and Teacher of Child

After-School or Summer Program Name

Allergies (please list all)

Emergency Contact Name

Emergency Contact Phone Number(s)

Printed Name of Parent or Guardian

Signature of Parent or Guardian

Date



VIDEO & PHOTOGRAPHY RELEASE FORM

Dear Parent or Guardian:

FoodCorps connects kids to healthy food in school. We are a team of AmeriCorps leaders who serve in high-need schools to make sure students learn what healthy food is, fall in love with it, and eat it every day. We focus our service on delivering hands-on lessons in gardening, cooking and tasting healthy food; improving school meals; and encouraging a schoolwide culture of health.

Below you will find a form granting permission to FoodCorps, Inc. and those authorized by FoodCorps, Inc. to interview, videotape and photograph your child during FoodCorps activities, and granting FoodCorps the right to own such interview materials, videotapes, and photographs. Please review this form, sign and return to your child's FoodCorps service member

Thank you!



I authorize FoodCorps, its partners and its agents to interview, videotape, audiotape or photograph my child at activities hosted by FoodCorps and any related in-school activities. I understand that FoodCorps, its partners and agents may use such interview material, photographs or video or audio recordings that include my child for public relations, news articles or telecasts, education, advertising, research, inclusion on the FoodCorps website, fundraising and other purposes. I grant and convey to FoodCorps all right, title and interest in all such interview materials, photographs, or video or audio recordings, and I waive any right that my child or I may have to inspect or approve such media or how it is used. I also agree that I will not seek royalties in connection with any recordings, photographs, or other media that includes my child, nor will I seek any other compensation for my child's participation in the activities described in this form.

By signing below, you indicate that you are a parent or legal guardian of the child listed below, that you have read and understand this form, and that you acknowledge that it is legally binding.

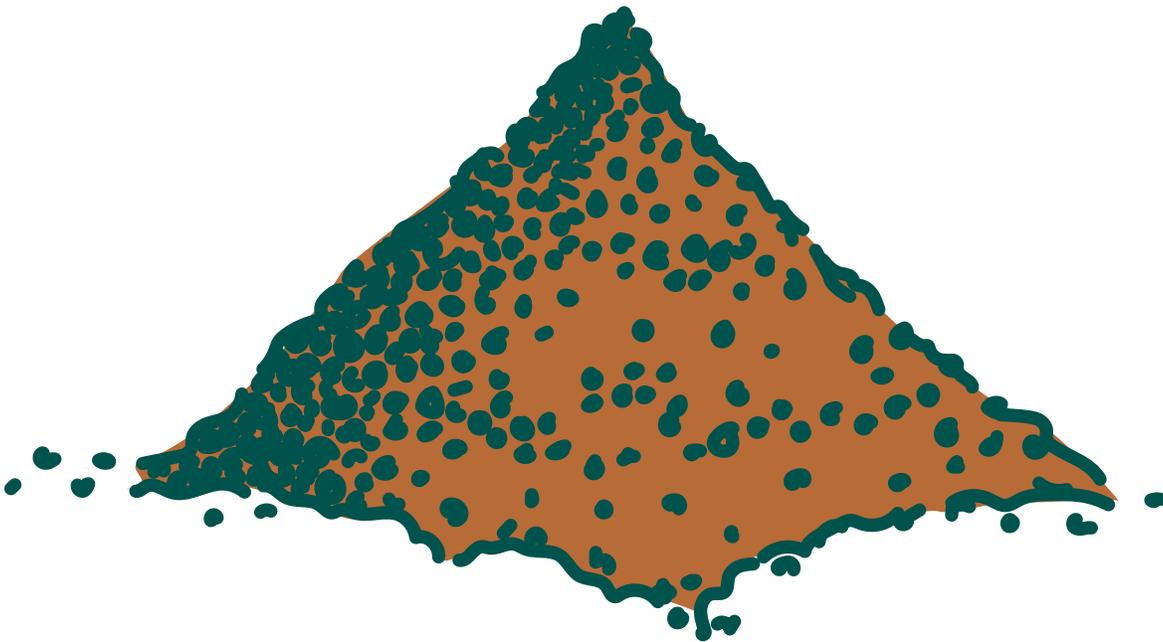
Printed Name of Child

School and Teacher of Child

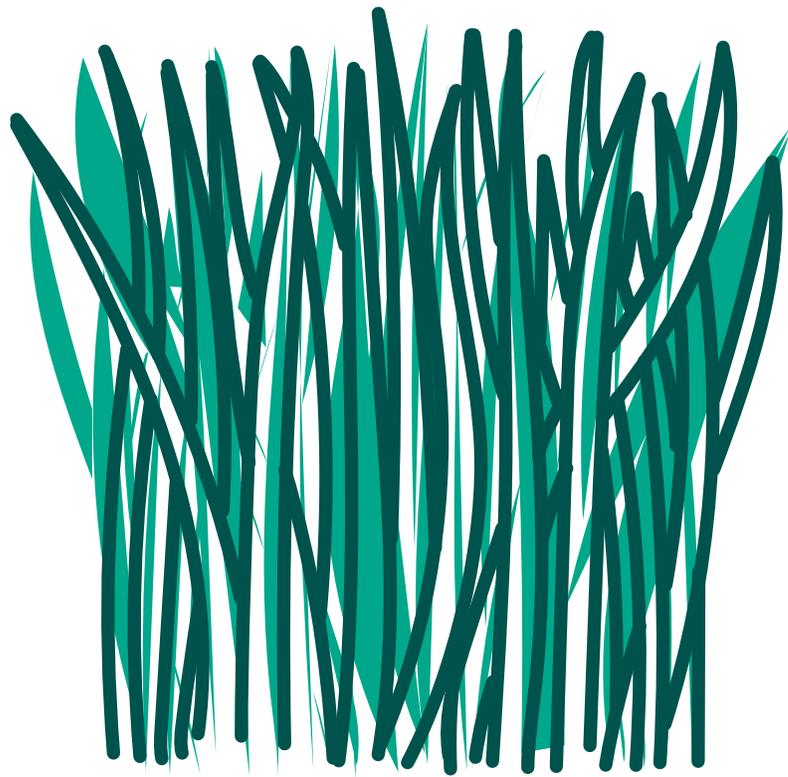
Printed Name of Parent or Guardian

Signature of Parent or Guardian

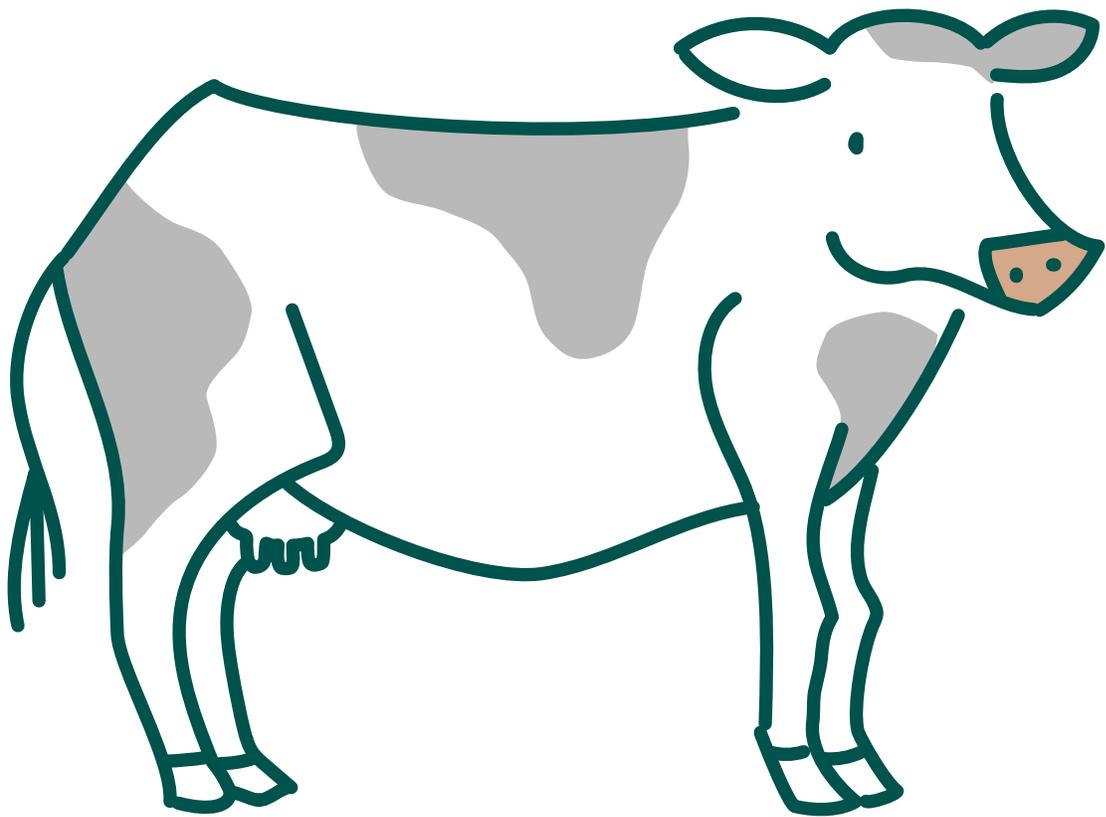
Date



soil



grass



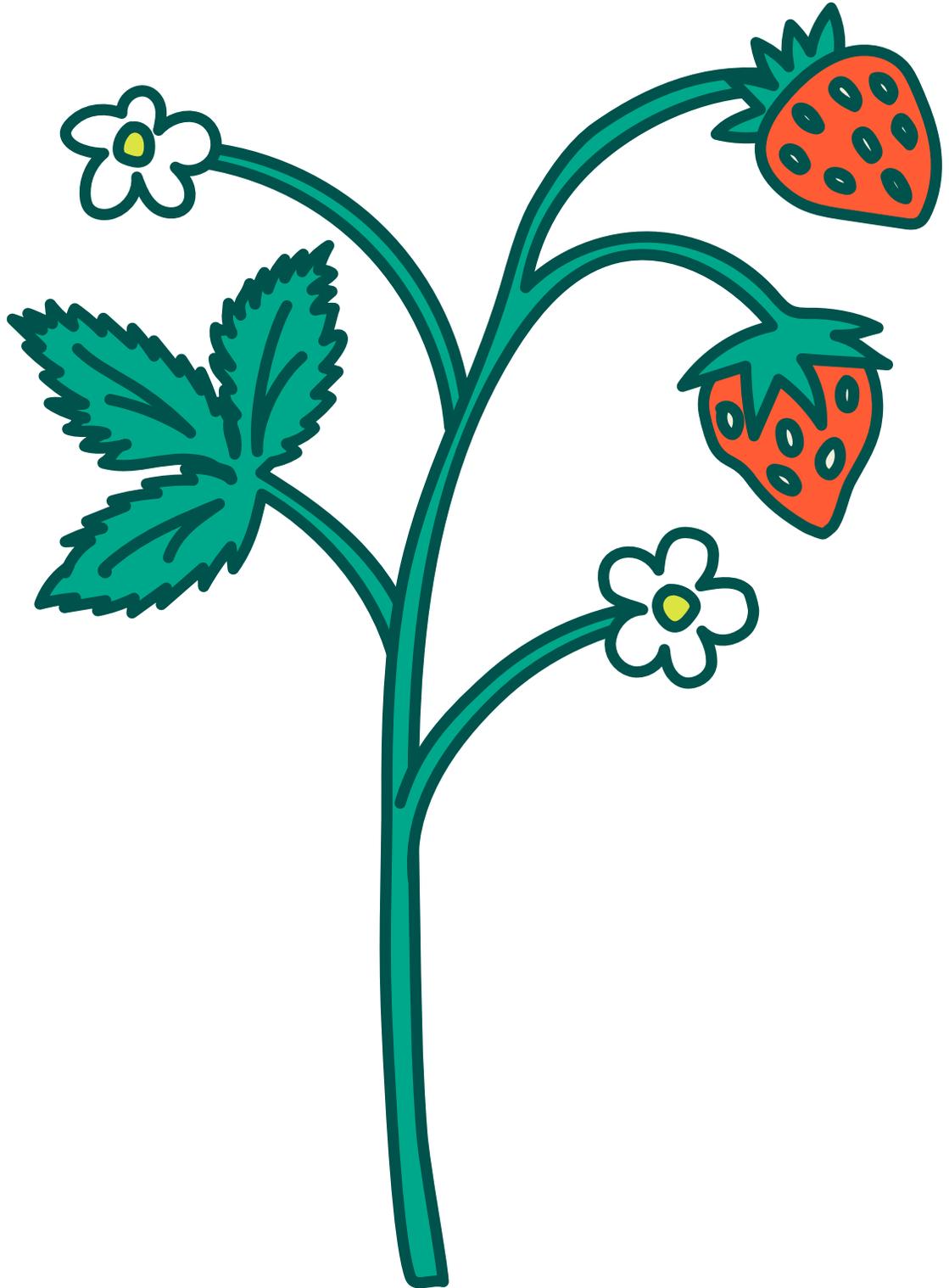
COW



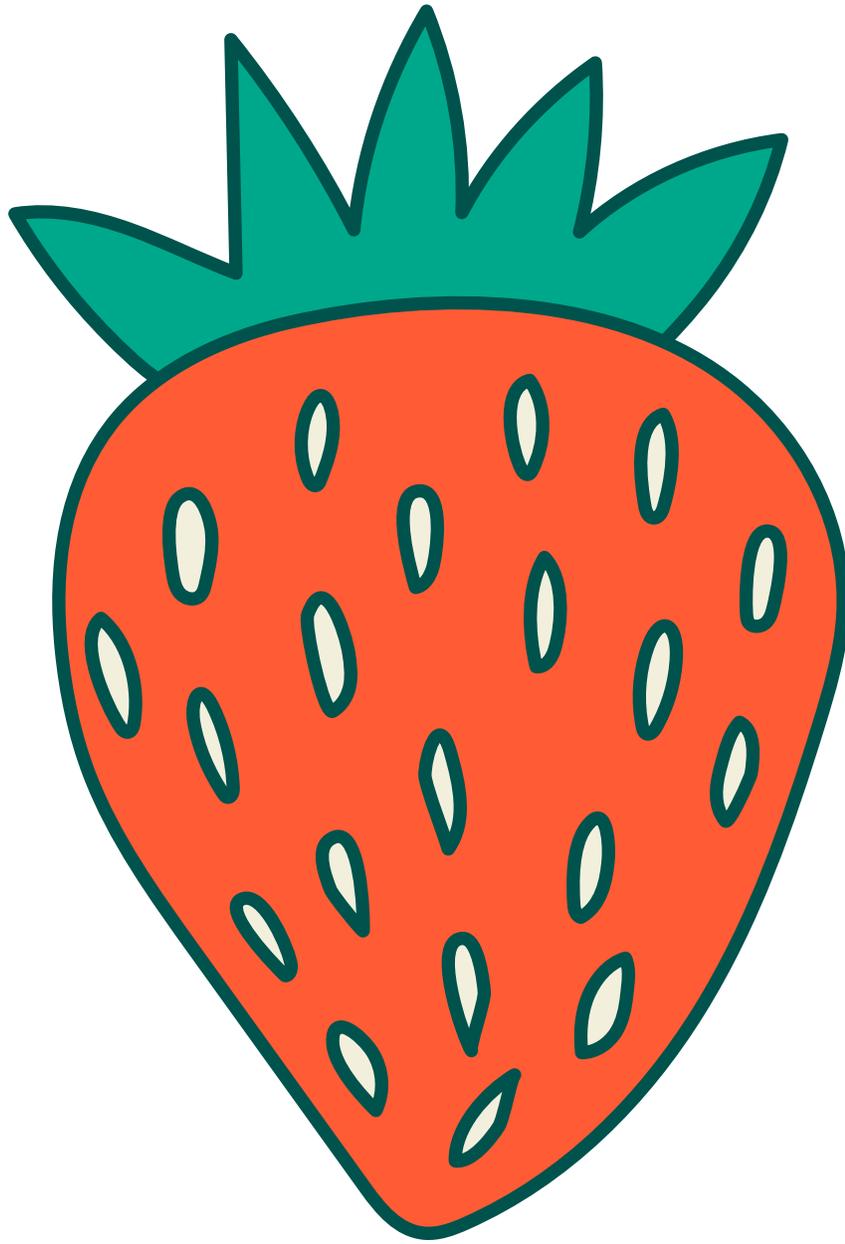
milk



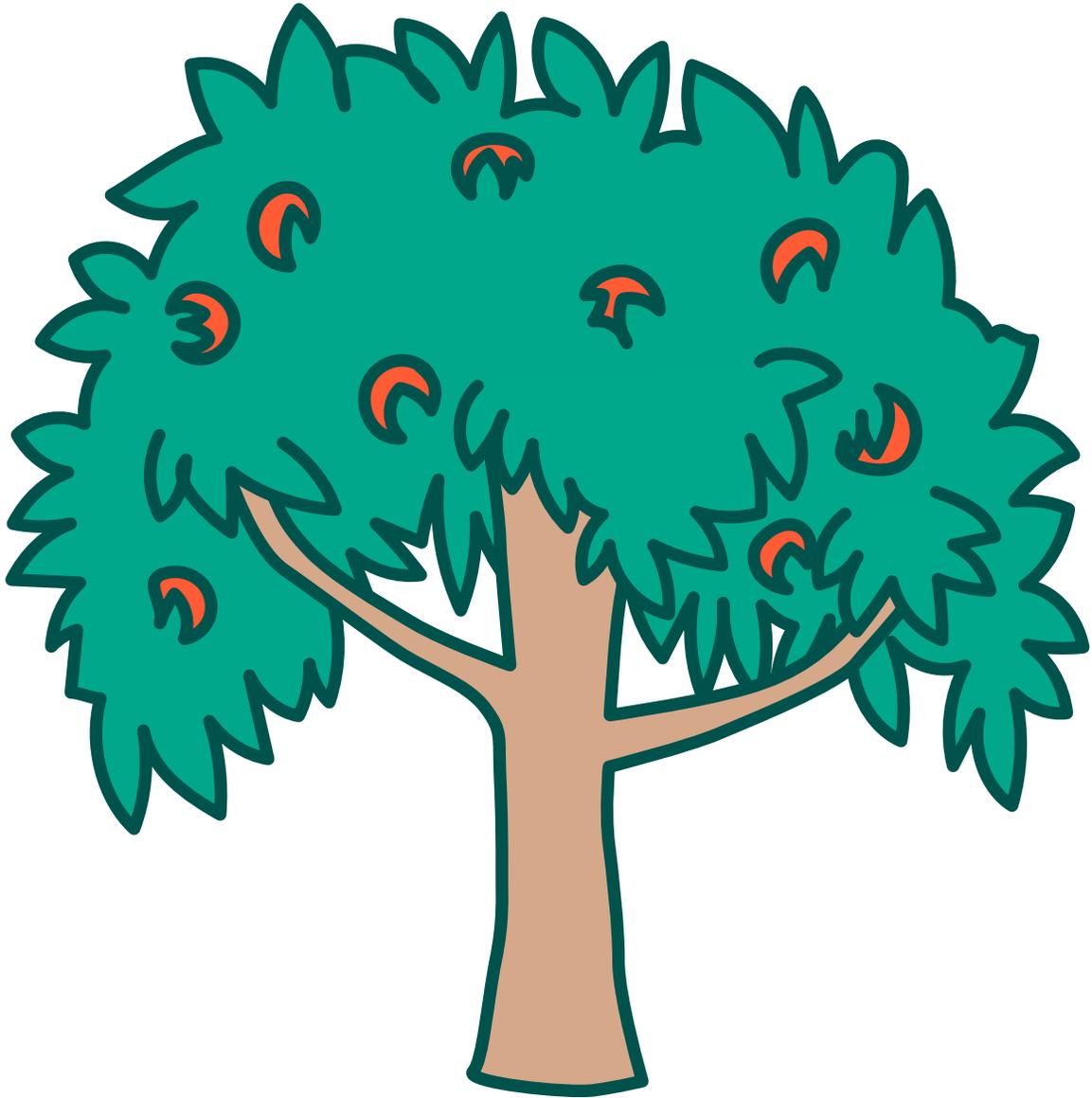
yogurt



strawberry plant



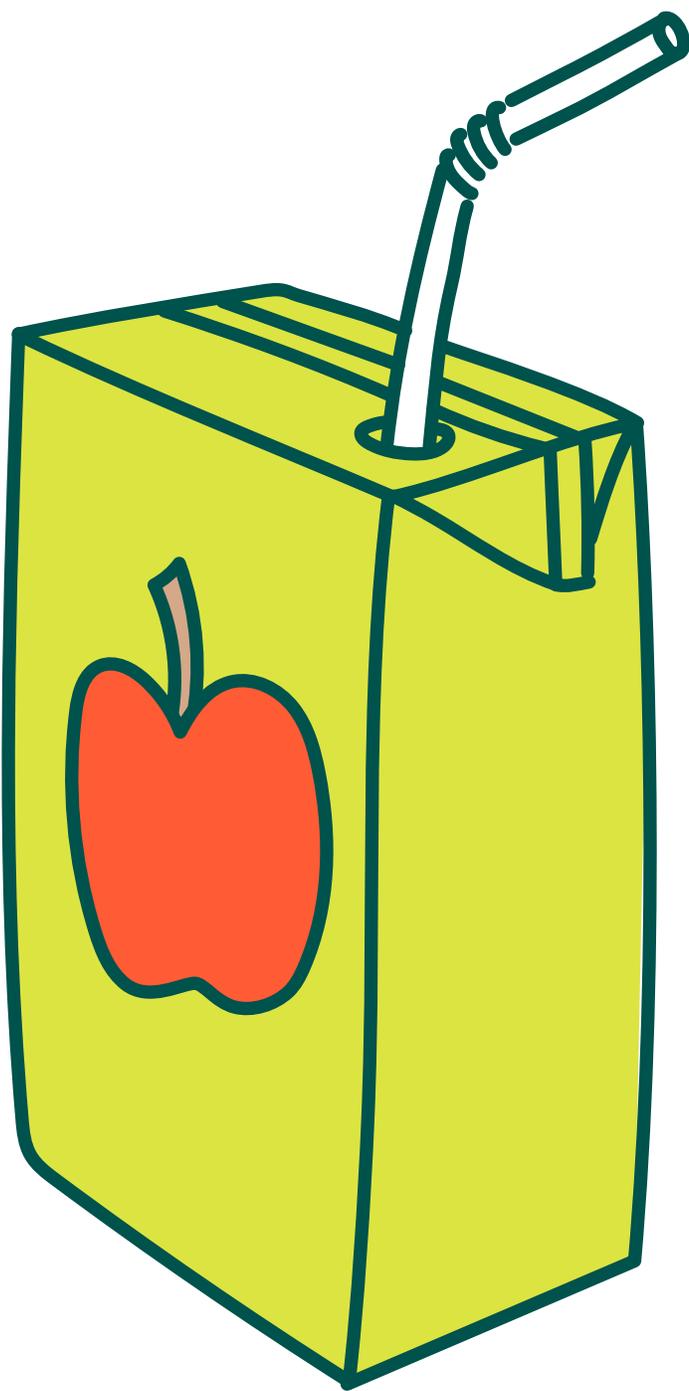
strawberry



apple tree



apple



apple juice



apple core



smoothie



SOIL CHART:

