

We Skoolhouse



Ready-Made Curriculum: **Plant Power: From Seed to Sprout**



Introduction: Plant Power: From Seed to Sprout

This investigation invites children to explore the life of a plant—from seed to sprout and beyond. Through planting, observing, comparing, and caring, they build an understanding of what plants need to grow and how they change over time.

This guide can be followed step by step or used more fluidly—adapt it to your setting, your children, and their pace. Some groups may move through the exploration quickly, while others may linger for weeks. Let curiosity and engagement shape the rhythm. Deep learning happens through repetition, reflection, and returning to familiar ideas with fresh eyes.

The activities and suggestions included are not directives, but invitations—ways to meet all learners without pressure or expectation. Embedding the investigation across centers offers multiple entry points, but there's no one right way to engage. Avoid directing or redirecting. Trust in each child's natural drive to explore, and allow learning to unfold with authenticity and joy.

This guide includes daily prompts, journal ideas, suggested vocabulary, recommended books, and ways to incorporate the unit into centers. Use what fits, adjust what's needed, and let the children lead the way.

Books Used Throughout the Unit:

- A Seed Is Sleepy by Dianna Hutts Aston
- Up in the Garden and Down in the Dirt by Kate Messner
- From Seed to Plant by Gail Gibbons
- The Tiny Seed by Eric Carle
- Thank You Garden by Liz Garton

Vocabulary

Seed, sprout, soil, roots, stem, leaves, bud, bloom, nutrients, sunlight, water, absorb, photosynthesis, observe, compare, measure, growth, environment, cycle, predict, document, journal, investigate, texture, pattern, living, germinate, adapt, habitat

Week 1: What Do Plants Need?

Focus Concept: Seeds, soil, water, and sunlight

Weekly Objective: Children begin their plant inquiry by planting seeds and exploring the basic elements needed for growth. They start seed journals (drawing only), observe and compare seeds and soil, & begin caring for their planted cups. This week lays the foundation for deeper observation and scientific thinking.

Monday – Let's Plant!

Morning Meeting

- Book: A Seed Is Sleepy by Dianna Hutts Aston
- Prompt: "What do plants need to grow?"
- Start a Wonder Wall—a dedicated space where children's questions, predictions, and discoveries are collected and revisited throughout the investigation. Discussion questions:
 - "Have you ever planted something before?"
 - "What do you think is happening inside a seed?"

Follow-Up Investigation

- Children plant seeds in individual cups using soil and water.
- Each child labels their cup and places it in a sunlight area.
- Begin Seed Journals, welcoming children to draw their planted cup as it looks today.

Closing Circle

- Reflect: "How did it feel to plant something today?"
- Add additional questions or predictions to the wonder wall.



Tuesday – Exploring Seeds

Morning Meeting

- Book: A Seed Is Sleepy (revisited)
- Discussion questions:
 - “Are all seeds the same?”
 - “What do you notice about these seeds?”

Follow-Up Investigation

- Children examine and sort real dried seeds using magnifiers.
- Group seeds by size, shape, color, or texture.
- In Seed Journals, draw two different seeds side-by-side.
- Optional: add simple labels or comparison language (“This one is small. This one is smooth.”)

Closing Circle

- Share favorite seeds and describe their features.
- Add new vocabulary to a word wall or new questions to the wonder wall.



Wednesday – Starting an Experiment

Morning Meeting

- Book: Up in the Garden and Down in the Dirt by Kate Messner
- Focus on what happens underground during early plant growth.
- Introduce a three-cup class experiment:
 - Cup 1 = water + sun
 - Cup 2 = sun only
 - Cup 3 = water only
- Discussion questions:
 - “Which one do you think will grow?”
 - “What might happen if a seed gets no water?”

Follow-Up Investigation

- Children help set up and label the three experiment cups.
- Create a class chart showing the three conditions and space to track changes.
- In Seed Journals, draw the experiment cups using symbols or labels.
- Make and record individual predictions.

Closing Circle

- Share predictions and post them near the experiment setup.
- Add predictions or new questions to the Wonder Wall.



Thursday – What's in the Soil?

Morning Meeting

- Book: Up in the Garden and Down in the Dirt (revisited)
- Focus on soil life, roots, and underground movement.
- Discussion questions:
 - “What is soil made of?”
 - “What helps plants grow underground?”

Follow-Up Investigation

- Children explore trays filled with compost, sand, dirt, and pebbles.
- Use scoops, sifters, and magnifiers to observe and compare materials.
- Make a soil collage using earth-toned materials (fabric scraps, paper, string, rocks).
- Optional journal prompt: “What I saw in the soil...”

Closing Circle

- Reflect: “What did the soil feel like? Did anything surprise you?”
- Add soil-related questions or vocabulary to the Wonder Wall.

Friday – First Sprout Check

Morning Meeting

- Book: The Tiny Seed by Eric Carle
- Discussion questions:
 - “What helped the tiny seed grow?”
 - “What might help ours grow?”

Follow-Up Investigation

- Children observe their planted cups for any visible changes.
- Use linking cubes to measure cup height or early sprout (if applicable).
- In Seed Journals, draw an updated observation and label visible changes (seed, root, sprout).

Closing Circle

- Reflect on the week: “What did you learn about seeds?”
- Revisit predictions on the Wonder Wall—any changes or confirmations?



Week 2: What Do Plants Need?

Focus Concept: Germination and early growth

Weekly Objective: Children observe changes in their planted seeds and begin to understand the process of germination. They revisit their seed cups daily, update their journals with more detail, and begin to compare and sequence the stages of growth. Measurement, labeling, and observation are introduced gradually, supporting early scientific thinking.

Monday – Did it Grow?

Morning Meeting

- Book: A Seed Is Sleepy
- Discussion questions:
 - “What do you notice in your seed cup today?”
 - “What do you think is happening underground?”

Follow-Up Investigation

- Children observe their planted seed cups and check for changes.
- Use linking cubes to measure the height of the sprout or cup.
- Update Seed Journals with a new drawing. Add labels if ready: seed, root, sprout.
- Begin comparing cups: “Which ones are sprouting?” “Which haven't changed?”

Closing Circle

- Share: “What's different from last week?”
- Add growth-related discoveries to the Wonder Wall.



Tuesday – Inside a Seed

Morning Meeting

- Book: From Seed to Plant by Gail Gibbons
- Discussion questions:
 - “What’s inside a seed?”
 - “How does a tiny plant know how to grow?”

Follow-Up Investigation

- Children dissect a soaked bean seed using magnifiers and tweezers.
- Observe and discuss parts (seed coat, tiny root, baby plant).
- In Seed Journals, draw and label the inside of a seed.
- Optional: glue seed pieces to paper and match labels.

Closing Circle

- Reflect: “What did we find inside the seed?”
- Add seed part vocabulary and questions to the Wonder Wall.



Wednesday – Starting an Experiment

Morning Meeting

- Book: From Seed to Plant (revisited)
- Focus on the sequence of plant growth.
- Discussion questions:
 - “What happens first when a plant starts to grow?”
 - “What happens next?”

Follow-Up Investigation

- Children create a simple timeline with three stages: seed, sprout, small plant.
- Draw each stage in a row or on a wheel.
- In journals, choose their plant’s current stage and record it.
- Compare growth between children: “Are all of our plants in the same stage?”

Closing Circle

- Reflect: “What stage is your plant in today?”
- Add new questions to the Wonder Wall: “What happens after a sprout?”



Thursday – Act it Out!

Morning Meeting

- Book: The Tiny Seed (revisited)
- Use the story's structure to talk about how plants move, grow, and stretch.
- **Discussion questions:**
 - "What would it feel like to be a seed growing roots?"
 - "What would your arms (stems) be doing?"

Follow-Up Investigation

- Children act out each stage of plant growth using movement, scarves, or music.
- After movement, draw "my plant pose" in Seed Journals.
- Label the part of the plant they were acting out (e.g., root, stem, leaf).
- Optional: dictate or write a sentence: "I was a ___ and I ___."

Closing Circle

- Share drawings of plant movement.
- Reflect on what part was hardest to become and why.

Friday – What Kind of Plant?

Morning Meeting

- Book: Up in the Garden and Down in the Dirt
- Focus on the different types of plants pictured: flowers, vegetables, leaves.
- Discussion questions:
 - "What do you think your seed will become?"
 - "What are some plants you like to eat or see?"

Follow-Up Investigation

- Children look at photos or books showing a variety of plants (flowers, food, trees).
- In Seed Journals or on paper, paint or draw what they think their plant will become/how it will look.
- Add sentence stem: "My plant might grow into a ___."
- Optional: graph class predictions (flower, vegetable, tree, other).

Closing Circle

- Share predictions and compare choices.
- Add favorite plants or new vocabulary to Wonder Wall.



Week 3: Parts of a Plant

Focus Concept: Plant anatomy and function

Weekly Objective: Children explore and name the basic parts of a plant—root, stem, leaf, flower—and begin to understand the role each part plays in helping the plant grow. They revisit their growing plants, add more detail & labeling to journal entries, & represent plant parts through art, movement, & comparison.

Monday – Did it Grow?

Morning Meeting

- Book: From Seed to Plant by Gail Gibbons
- Discussion questions:
 - “What is the first part of a plant to grow?”
 - “What does a root do?”

Follow-Up Investigation

- Observe seed cups closely and look for visible root growth.
- Use magnifiers and draw today's observation in Seed Journals.
- Label visible parts: root, seed, soil.
- Compare cups to see which ones have roots peeking out.

Closing Circle

- Reflect: “Why do roots grow first?”
- Add root-related questions and discoveries to the Wonder Wall.



Tuesday – How a Plant is Built

Morning Meeting

- Book: A Seed Is Sleepy
- Review the sequence of plant growth and transition into full plant form.
- Discussion questions:
 - “What parts does a plant have when it's finished growing?”
 - “What do each of those parts do?”

Follow-Up Investigation

- Children draw a full plant diagram with four basic parts: root, stem, leaf, flower.
- Label each part using a word bank, pre-cut labels, or children can write the parts.
- If ready, compare real leaves or stems to their drawings.
- Optional: use cut-and-paste or collage materials to build a labeled plant.

Closing Circle

- Share plant diagrams and reflect on which part was most fun or tricky to draw.

Wednesday – The Job of Each Part

Morning Meeting

- Book: From Seed to Plant (final revisit)
- Focus on each part of the plant and what it does.
- Discussion questions:
 - “What does the stem help the plant do?”
 - “How do leaves help the plant?”

Follow-Up Investigation

- Match real plant parts (cut flower, celery stalk, fresh leaf) to the words: stem, leaf, flower.
- Use color-coded cards or create a matching game.
- In journals, children choose one part of a plant to draw and write:
 - “The ___ helps the plant ___.” (dictated or supported)
- Optional: set up a celery or flower + food coloring experiment to observe how water moves through a stem.

Closing Circle

- Share what part of the plant they drew & what it does.
- Add function-based questions to the Wonder Wall.



Thursday – Build a Plant

Morning Meeting

- Book: The Tiny Seed by Eric Carle
- Use the story as a narrative model for the growth of a complete plant.
- Discussion questions:
 - “What did the tiny seed grow into?”
 - “Can we build a plant using different materials?”

Follow-Up Investigation

- Use collage or loose parts (yarn, felt, paper, string) to build a full plant.
- **Closing Circle**
 - Reflect: “What materials worked best to build each part of the plant?”



Friday – Movement & Review

Morning Meeting

- Book: From Seed to Plant (quick flip-through review)
- Use this as a recap of the plant parts and their functions.
- Discussion questions:
 - “Can we become the parts of a plant with our bodies?”
 - “What would it feel like to be a leaf blowing in the wind?”
- Follow-Up Investigation
 - Children act out each part of a plant using movement (roots spread low, stems reach tall, leaves stretch, flowers open).
 - Then draw themselves as a part of a plant in Seed Journals.
 - Label their chosen part and what it does.
 - Optional: photograph each child in a plant pose to add to journals or wall displays.
- Closing Circle
 - Reflect: “What part of a plant would you be & why?”
 - Review the Wonder Wall and see if any earlier questions have now been answered.



Week 4: Plants and Their Purpose

Focus Concept: What plants give us and how we care for them

Weekly Objective: Children reflect on the growing process, explore what plants offer humans and animals, and experience harvesting or caring for live plants. They revisit and revise journal entries, create final representations, and help close out the investigation through gratitude and reflection.

Monday – Why Do We Grow Plants?

Morning Meeting

- Book: Thank You, Garden by Liz Garton Scanlon
- Focus on how the garden helps people and how people help the garden.
- **Discussion questions:**
 - “What do gardens give to people, animals, or the earth?”
 - “What do we give back to them?”
- **Follow-Up Investigation**
 - Explore real or photo examples of plant contributions (food, shade, air).
 - Children draw something they're thankful plants give us in their Seed Journals.
 - Add a sentence stem: “Plants give us ___.”
 - Optional: Take a trip to explore plants (e.g. trees in nature for air and shade, fruits and veggies as a source of food).
- **Closing Circle**
 - Reflect: “What's your favorite thing that plants give us?”



Tuesday – Helping Our Plants

Morning Meeting

- Book: From Seed to Plant
- Discussion questions:
 - “What do plants need from us?”
 - “How do we know when they need help?”

Follow-Up Investigation

- Care for growing plants: water, check leaves, prune, or rotate toward light.
- In Seed Journals, draw themselves helping their plant with a label or sentence.
- Alternative: Offer art materials for children to create their own plants.

Closing Circle

- Reflect: “What did you do to help your plant today?”
- Add new responsibilities or questions to the Wonder Wall.



Wednesday – Reflect & Revisit

Morning Meeting

Book: Thank You, Garden

- Discussion questions:
 - “How do we care for our garden—and how does it care for us?”
 - “What do you remember about your plant's first days?”

Follow-Up Investigation

- Set up a quiet reflection table with Seed Journals, magnifiers, and plants
- Invite close looking: “What do you see now that you didn't before?”
- Encourage additions (in their journals and/or on loose paper) using drawing, dictation, or annotation.

Closing Circle

- Reflect together: “What has changed in your plant?”
- Add key quotes or updates to the Wonder Wall.



Thursday – Thank You, Plant!

Morning Meeting

- Book: Thank You, Garden
- Discussion questions:
 - “What would you say to your plant if it could hear you?”
 - “What are you thankful for about this investigation?”

Follow-Up Investigation

- In journals, children draw their plant one last time.

Closing Circle

- Add final reflections or appreciations to the Wonder Wall.



Friday – Gratitude & Celebration

Morning Meeting

- Book: Thank You, Garden by Liz Garton Scanlon
- Discussion questions:
 - “What are we thankful for after growing our plants?”
 - “How did we help our plants & how did they help us?”

Follow-Up Investigation

- Children create a final representation of their learning:
 - A drawing, collage, or watercolor of their plant
 - Optional: include a gratitude message, “Thank you for ___”
 - Bind into a class book, send home, or display on a wall or documentation panel

Closing Circle

- “What did you enjoy most during this investigation?”
- “How can we keep taking care of plants or nature in other ways?”
- Celebrate with a nature walk or quiet time outside with their journals



About Centers, Provocations, and Materials

The following center setups and materials are designed to support the investigation across the unit. The intention is not to do everything at once—but to select, rotate, and adapt based on the children's interests, developmental needs, and the rhythm of the group.

These ideas should be seen as options to choose from, not a checklist to complete. Overloading the space with too many choices can overwhelm young children. Instead, offer a small number of materials at a time, and observe how children engage with them before introducing more.

You might choose to:

- Keep certain materials consistent for multiple weeks to allow for repetition and mastery.
- Rotate in new elements slowly to spark renewed interest or deeper thinking.
- Modify invitations to become more complex or more accessible as needed.

Children should be welcomed to:

- Make choices about how and where they work within the classroom.
- Move materials between areas (when appropriate) to support their ideas or projects.
- Combine materials across centers to create more layered and meaningful representations.
- Take responsibility for the tools they use by helping to return them when finished.

While autonomy is encouraged, a sense of shared care and responsibility is expected. In all cases, the role of the adult is to:

- Observe how materials are used and what thinking is emerging.
- Document children's approaches, choices, and discoveries.
- Decide when to step back, when to scaffold, and when to offer something new.





Science & Discovery Center

Purpose: Encourage observation, experimentation, comparison, and tracking of real plant growth over time.

Materials & Setup Options:

- **Seed Display:** Clear containers with various dried seeds (sunflower, pumpkin, beans, etc.) and magnifying glasses. Include printed labels and small sorting trays.
- **Soil Exploration Trays:** Dishes with samples of compost, dirt, sand, and pebbles. Laminate simple prompts: "What do you notice?" "Which feels the softest?"
- **Sprouting Cups:** Beans growing in bags or clear plastic cups with moist paper towels. Label each and tape to a window or place on a shelf.
- **Controlled Experiments:** Set up three labeled cups—one with sunlight and water, one with water but no light, one dry. Children observe & compare daily.
- **Measurement Tools:** Linking cubes, yarn strips, and laminated charts for height tracking. Provide clipboards and pencils for informal documentation.
- **Plant Part Models:** Real roots, leaves, or dried flowers with labeled diagrams to examine side-by-side.

Notes: You may provide simple vocabulary cards (root, sprout, compare, measure).

Dramatic Play

Purpose: Foster role-play, vocabulary development, and connection to real-world plant-related routines.

Materials & Setup Options:

- **Gardener's Corner:** Include gloves, aprons, clipboards, and watering cans. Use real tools when safe, or sturdy plastic versions.
- **Flower Shop/Farmer's Market:** Add fabric flowers, produce baskets, paper money, and shopping bags. Post signs with plant names and prices.
- **Seed Station:** Recycle seed envelopes or create pretend packets. Add scales and order forms for pretend shopping or planting.
- **Plant Care Routine:** Label pots as "water me," "needs sun," etc. Rotate child jobs (checker, sprayer, replanter) into classroom roles.

Notes: Join in on role-play as a botanist, shopper, or caretaker to inspire and encourage storytelling through pretend scenarios and "interviews."

Sensory Table

Purpose: Offer hands-on opportunities to explore texture, change, and transformation through plant-related materials.

Materials & Setup Options:

- **Dry Sensory Bin:** Fill with a mix of dry beans, lentils, and sunflower seeds. Add scoops, tweezers, cups, and sorting trays.
- **Soil Exploration Bin:** Provide potting soil, small shovels, watering cans, and planters. Rotate in compost or sand as the unit progresses.
- **Planting Station:** Include moist paper towels, spray bottles, beans, and ziplock bags for children to try their own sprouting setup.
- **Discovery Bin:** Hide worm figures, seed pods, or fake bugs in soil for children to find. Prompt: "What lives underground?"

Notes: Limit materials to avoid overstimulation. Encourage cleanup routines like sorting seeds back into jars or wiping wet surfaces.



Art Studio

Purpose: Support observation, creativity, and symbolic representation of plant concepts through diverse materials.

Materials & Setup Options:

- **Drawing Station:** Offer clipboards or trays with real plants, seed packets, and natural objects. Include pencils, pastels, and fine-tip markers.
- **Watercolor Table:** Small jars of greens, browns, yellows. Add thin brushes and black crayons for resist work. Visual prompts may include their own plants, real images of plants you print, or a real bouquet of flowers for still life work.
- **Collage Area:** Earth-toned scraps, yarn, natural textures (twine, seeds, bark). Use for seed stories, soil layering, or imaginary gardens.
- **Life Cycle Work:** Blank paper circles or wheels divided into four stages where children can draw and label the parts and stages.
- **Clay & Natural Materials:** Air-dry clay with toothpicks, string, and real seeds for sculpting root systems or plant parts.

Notes: Add visual models alongside materials. Display child work to spark inspiration and support process reflection.

Blocks and Construction

Purpose: Allow children to design garden spaces, planter boxes, and natural environments using spatial reasoning and collaborative building.

Materials & Setup Options:

- **Block Materials:** Offer wooden blocks, ramps, planks, and natural stackables like tree slices or corks.
- **Fabric Props:** Green felt for grass, brown fleece for soil, blue fabric strips for rivers or rain.
- **Loose Parts:** Include pinecones, bark, seed pods, stones, and dried moss. Present in divided trays for selection.
- **Mini Figures:** Small animal figurines, bugs, or gardeners to place in the environment.
- **Structure Invitations:** Post visual prompts like “Can you build a planter box?” or “Can you make a garden path?”

Notes: Provide a sturdy tray nearby for transporting natural materials from other centers. Invite reflection: “What does your garden need?”

Literacy Center

Purpose: Support early reading, writing, and vocabulary development through plant-related prompts and materials.

Materials & Setup Options:

- **Word Wall:** Feature laminated vocabulary cards with photos and definitions (seed, sprout, sunlight, root, soil, grow).
- **Emergent Readers:** Provide leveled or repetitive texts about gardens, seeds, and plants. Add some relative easy reader books to this space as well.
- **Writing Prompts:** Sentence strips like “My plant is...” “A seed needs...” “I noticed...” with word banks for support.
- **Labeling Activities:** Plant diagrams with movable word labels and blank sheets of paper to create and/or label root, stem, leaf, flower.

Notes: Rotate prompts as vocabulary grows. Encourage children to revisit the Wonder Book during closing circles or partner work.



"Look deep into nature, and then you will understand everything better." — Albert Einstein