

Garden Detectives



Explore the garden with this kit. Complete with activities for both the artist and observer, this kit comes with multiple ways to explore the world of plants.





INVENTORY OF TRUNK

Garden Detectives

IN	OUT	
		<u>Activity Binder</u>
<input type="checkbox"/>	<input type="checkbox"/>	Librarian Instructions
<input type="checkbox"/>	<input type="checkbox"/>	Inventory Sheet
<input type="checkbox"/>	<input type="checkbox"/>	Book list/Introduction
<input type="checkbox"/>	<input type="checkbox"/>	Sorting Seeds
<input type="checkbox"/>	<input type="checkbox"/>	Looking Up Close: Plants
<input type="checkbox"/>	<input type="checkbox"/>	Plant Art: Rubbings
<input type="checkbox"/>	<input type="checkbox"/>	Prompts
<input type="checkbox"/>	<input type="checkbox"/>	Additional Resources
<input type="checkbox"/>	<input type="checkbox"/>	Consumables List
<input type="checkbox"/>	<input type="checkbox"/>	Extension Activity Ideas
<input type="checkbox"/>	<input type="checkbox"/>	Science Process Skills Vocabulary
<input type="checkbox"/>	<input type="checkbox"/>	Asking Questions
<input type="checkbox"/>	<input type="checkbox"/>	<i>The Art (and Science) of Asking Questions</i>
<input type="checkbox"/>	<input type="checkbox"/>	<i>Seeds in the Window, Soil in the Sensory Table: Science Educations through Gardening and Nature-Based Play</i>
<input type="checkbox"/>	<input type="checkbox"/>	<i>Mud, Marvelous Mud</i>
<input type="checkbox"/>	<input type="checkbox"/>	<i>Childhood in the Garden: A Place to Encounter Natural and Social Diversity</i>
<input type="checkbox"/>	<input type="checkbox"/>	Parent surveys
<input type="checkbox"/>	<input type="checkbox"/>	3 laminated sheets
		<u>Books</u>
<input type="checkbox"/>	<input type="checkbox"/>	<i>Tap the Magic Tree</i> by Christie Matheson
<input type="checkbox"/>	<input type="checkbox"/>	<i>A Seed is Sleepy</i> by Dianna Aston
<input type="checkbox"/>	<input type="checkbox"/>	<i>Tops and Bottoms</i> by Janet Stevens
<input type="checkbox"/>	<input type="checkbox"/>	<i>Flip, Float, Fly: Seeds on the Move</i> by JoAnn Early Macken
<input type="checkbox"/>	<input type="checkbox"/>	<i>Seeds (Plant Parts)</i> by Vijaya Khisty Bodach
<input type="checkbox"/>	<input type="checkbox"/>	<i>Flowers (Plant Parts)</i> by Vijaya Khisty Bodach
<input type="checkbox"/>	<input type="checkbox"/>	<i>The Giving Tree</i> by Shel Silverstein
<input type="checkbox"/>	<input type="checkbox"/>	<i>Leaf</i> by Sandra Dieckmann
<input type="checkbox"/>	<input type="checkbox"/>	<i>Exploring Leaves</i> by Kristin Sterling
<input type="checkbox"/>	<input type="checkbox"/>	<i>Red Leaf, Yellow Leaf</i> by Lois Ehlert

☐ ☐ *We're Going on a Leaf Hunt* by Steve Metzger

Sorting Seeds

☐ ☐ 4 sorting trays

☐ ☐ Variety of seeds

Looking Up Close: Plants

☐ ☐ 2 boxes of prepared slides

☐ ☐ Various containers of pressed flowers and plants

☐ ☐ 4 hand loupe magnifiers

☐ ☐ 3 zoom microscopes

☐ ☐ 4 hand lenses

☐ ☐ Petri dishes

☐ ☐ Laminated plant diagram

☐ ☐ 16 commercial crops mounted (DO NOT OPEN)

☐ ☐ Lifecycle of a green bean plant model

Plant Art: Rubbings

☐ ☐ 1 rubber aspen leaf replica

☐ ☐ 1 rubber manzanita leaf replica

☐ ☐ 1 rubber sugar maple leaf replica

☐ ☐ 1 rubber red oak leaf replica

☐ ☐ 1 rubber giant sequoia leaf replica

☐ ☐ 1 rubber fern replica

☐ ☐ 16 rubbing template

To Be Provided by Borrowing Library*

☐ ☐ Copy paper

☐ ☐ Jumbo Crayons

☐ ☐ Additional seeds

☐ ☐ Additional pressed plants

* Some of these materials are provided in the kit but may be recommended to purchase as they will not be restocked by NMSL in the future.

Checked by _____

Date _____

Checked by _____

Date _____

Sorting Seeds

Investigate the magic of seeds using your sense of touch and sight.

How can you sort the seeds? Are all seeds the same? What do you notice about the seeds you are sorting?

Beforehand

Check to make sure that loupes, hand lenses, and specimens are in good repair. Wipe off fingerprints if needed. There should be a variety of seed specimens; different species, sizes, shapes, textures etc. Replace seeds as needed.

Materials Included

- Trays with dividers such as party trays
- Variety of seeds
- Hand lenses or other magnifiers from *Looking Up Close* activity optional

Materials to Gather

- Additional seeds (plant and seed guide included)

Setup

Select several varieties of seeds and put them in the center of a few trays for sorting. Choose a few sorting prompts to place with the trays.

Questions to Extend Discoveries

Invite participants to discover what they can about seeds by exploring their appearance and texture. Extend discoveries through questioning:

“What do the seeds look like?”

“Are all the seeds the same?”

“How are they alike/different?”

“What kind of plant do you think this seed is from?”

“Are the seeds smooth or rough?”

Why do you think the seed looks/feels this way?”

“Have you seen seeds like this before? Where?”

“How do you think you could sort the seeds, do some go together?”

Looking Up Close: Plants

Take an up-close look at plants! What can you discover when you look through a magnifying glass? What new things can you discover about plants?

Beforehand

Check to make sure that loupes, hand lenses, and specimens are in good repair. Wipe off fingerprints if needed. There should be a variety of plant specimens; different species, sizes, shapes, textures etc. Replace and re-seal specimens as needed.



Materials Included

- Hand lenses
- Bug Loupe Magnifiers
- Pocket Microscopes
- Variety of plant specimens
- Petri dishes to house specimens such as leaves, flowers and petals, bark etc. as needed
- Laminated plant diagram

Materials to Gather

- Additional specimens such as leaves, flowers, and bark (some specimens provided - found specimens encouraged)

Setup

Select several plant specimens and put them in the center of one or two tables as space allows. Place a variety of hand lenses, bug loupes, and MicroBrite microscopes with the specimens to invite participants to look at the plants. Place prompts on table(s).

Questions to Extend Discoveries

Invite participants to examine the specimens carefully using magnifiers. Participants can look at, feel, and even smell the plants. What can they discover?

“What do the plants look like up close?”

“What do you notice when you look at them?”

“Have you seen plants like this before?”

“What do the plants look/feel/smell like?”

“Can you sort the plants into categories? How would you sort them?”

“Are all the plants the same?”

Image Source: By Anturaju Daniel from Romania - Macro 002, CC BY 2.0,

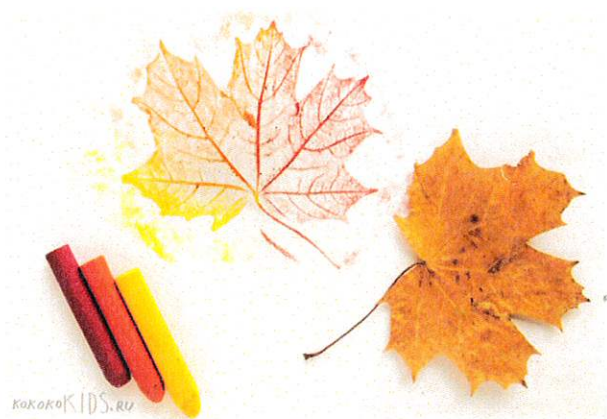
<https://commons.wikimedia.org/w/index.php?curid=41012078>

Plant Art: Rubbings

Make your own plant art to take home! Discover the unique and beautiful textures and patterns of plants by creating rubbings.

Beforehand

Check to make sure that crayons, rubbing plates and leaf replicas are in good repair. Make sure paper is available. Collect plant material from outside if possible. Cover table(s) as desired.



Materials Included

- Copy paper
- Crayons with paper wrappers removed (jumbo as available)
- Plant rubbing plates
- Leaf replicas

Materials to Gather

- Additional leaves, flowers, and other plant materials for rubbing

Setup

Select several rubbing plates and leaf replicas to set out on table(s) along with found plant material from outside. Set crayons and paper on tables near plates and replicas to invite participants to create their own. Create a 'demo' rubbing and set up alongside prompt.

Questions to Extend Discoveries

Invite participants to create their own rubbings with a variety of leaf replicas and rubbing plates by placing them under a sheet of copy paper and gently rubbing over them with a crayon. Encourage participants to consider the following:

- “What do you notice about the different patterns the leaves make?”
- “What happens when you rub a crayon over different kinds of leaves/plates?”
- “Do different textures make different patterns on your paper?”

Image Source: <http://www.kokokokids.ru/2011/10/fall-art.html#more>