

GETTING STARTED

with PLANTS

Your students are going to love learning all about plants through exploration with real world connections, and you are going to love all that is packed in this Plants Unit! This overview is set up to show you everything that is included and how it can be used best. Pick and choose what works for you and your students.

PLANTS science	
M Monday	PLANTS INTRODUCTION Read a nonfiction book about plants. Answer the questions of the week from your plant! Complete the Plant PowerChart. Complete the Plant Needs activity. Observe the plant grow throughout the following days/weeks and record observations in a journal. Each day please see our selection of plants songs, books, and videos!
T Tuesday	PLANT NEEDS Read a nonfiction book about plants. Complete the Plant Needs PowerChart. Color and keep the Plant Needs Experiment. Complete the Plant Needs Book.
W Wednesday	PARTS OF A PLANT Read a nonfiction book about plants. Complete the Parts of a Plant PowerChart. Observe a real plant in a class, looking at the parts. Complete the Parts of a Plant Worksheet.
Th Thursday	LIFE CYCLE OF A PLANT Read a nonfiction book about plants. Complete the Cycle of a Plant PowerChart. Complete the Cycle of a Plant Worksheet.
F Friday	PLANT CRAFT Read a nonfiction book about plants. Make Plant Needs and Parts of a Plant PowerCharts. Complete Plant Craft!

LESSON PLANS

These comprehensive lesson plans are ready for you to integrate learning about plants into every aspect of your classroom. They are perfect for supplementing existing curriculum or pulling engaging activities when you're short on time.

science: PLANTS

Dear Families,

We are learning all about plants in the classroom this week. We will be studying the different parts of a plant, the life cycle of a plant, discussing what plants need to survive, and observing real plants just like scientists!

At-Home Activity:

To learn about plants at home, try planting your own seeds and observing them for a few weeks. You could also observe plants that are already in your yard or neighborhood. Talk about the different parts of the plant: Do you notice any other animals interacting with the plants? What is your plant typically used for? What stage of plant growth are you observing?

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AT-HOME LETTER

Send home these notes and let families know what their children are learning about in science. This letter also includes ideas for families to extend the learning at home.

TEACHER GUIDE for PLANTS

TYPES OF PLANTS

- Scientists estimate that there are around 390,000 known types of plants.
- Plants can be classified in many ways, but one common classification is by size.

TYPES OF PLANTS BASED ON SIZE

- Herbs:** Herbs are the smallest in size. They usually have few branches, or none. They can be filled with vitamins and minerals and have a short life span. Examples include basil, mint, or ginger.
- Shrubs:** Shrubs are larger than herbs but smaller than trees. Their stems are harder and less breakable than herbs. Examples include butterfly bush, Forsythia, rose-of-Sharon, hydrangea.
- Trees:** Trees are the largest and oldest living thing on earth. They can bear leaves and fruits. Types of trees include oak, pine, apple, coconut, palm, or evergreen.
- Creeper:** Creepers grow along the ground by extending their branches. They have thin, long and weak stems that can't stand up on their own. Examples include pumpkin and watermelon.
- Climbers:** Climbers also have long, thin, and weak stems. They rely on external supports, like fences, trees, and walls, to grow and thrive like grapevine.

KNOW?

almost everywhere on the planet, on land, in mountains, in valleys, and in deserts.

PARTS

parts of most plants that live on land are the roots, stems, leaves, flowers, fruits, and seeds.

The roots' job is to anchor the plant into the soil to get the nutrients and water that the plant needs to survive.

The stems help support the plant and transport the water and sugar through the plant.

Photosynthesis occurs most often in the leaves. This is how and when Food For the Plant occurs. The green in the leaves, called chlorophyll, captures the energy from the light and uses it to produce sugar.

Flowers are the reproductive part of a plant. They usually have petals and smell nice to attract bees and butterflies. After they are pollinated, they usually surround seeds to protect the seeds.

Many plants have seeds that can develop into a new plant. The seed contains an embryo under a protective coat that can develop into a new plant.

WHO? Plants are used as medicine! The first medicine for aches was the bark of a willow tree.

TEACHER GUIDE

Everything you need to know for teaching about plants is ready and ready for you in this guide. When students want to dig deeper, you will be prepared with fun facts to keep their interest and deepen their knowledge.

SCIENCE CENTER

Use this guide for tips on how to set up your science center and keep students motivated to enter the science center each day to make new discoveries.

SCIENCE CENTER for PLANTS

GETTING STARTED

Fill your center with lots of fun materials that your students can use to investigate and explore plants. Suggested materials to include plant life cycle cards, real plant pieces including stems, leaves, roots, and seeds, seeds, soil, magnifying glasses, plant vocabulary cards, and non-fiction plant books.

SHARING TIME

Have the students who went to the science center that day tell the class what they discovered or answered and any questions they may have. We have a list of open-ended questions in this unit.

If children are excited about discovery in the science center, you can ask classmates to join you near the science center so your little scientist can share their findings and enthusiasm in just a short minute or two. Use a sign or chart that displays the time for the kids to congratulate the scientist and return to their center. It can be as simple as a "Hot burns, high five, thumbs up, or a song like "Good Job, Good Job." Help your student's enthusiasm in the science center will entice others to go there tomorrow.

QUESTIONS TO ASK for PLANTS

- 1) Can you label the parts of a plant?
- 2) Where do you see plants when you are home? At school?
- 3) What do plants need to survive?
- 4) Which part of the plant absorbs water and nutrients?
- 5) Which part of the plant helps a plant in the upright position?
- 6) Why do you think that some flowers, and some do not?
- 7) What are some different kinds of plants that you know of?
- 8) Are plants living or non-living do you know?
- 9) What do you think would happen if a plant that never got any sunlight?
- 10) Do you think a plant could self? Why or why not?

SCIENCE talk

How would you know _____?
Why do you think that _____?
What else might have caused _____?
How can you explain your findings? Recall in your own words _____?
How was it different than _____?
How will you know if _____?
Do you think you could _____?
How did you decide _____?
Can you tell me about that _____?
How does that work _____?
Can you show me a picture of your findings?
What do you think is most important?
What happened when _____?
How is this similar to something else you know?
Can you think of another way _____?
Create a new solution _____?
How would you handle this problem/challenge/question?

QUESTIONS

Encourage your students' natural curiosities with questions regarding plants. You may also print off the provided list of open-ended questions that can be used with any science lesson to encourage "science talk" with your class.

PLANT BOOKS

To help with the planning of your Plants Unit, we have curated a list of our favorite plant books.

Click a picture to be taken to the book on Amazon.



BOOK LIST

To make planning easy, we have curated a list of our favorite plant books that will engage your students while they learn new information.

PLANT VIDEOS

To help with the planning of your Plants Unit, we have curated a list of our favorite plant videos.

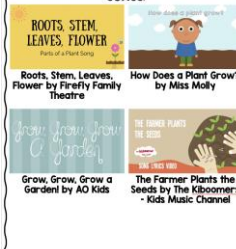


VIDEO LIST

To make planning easy, we have curated a list of our favorite plant videos. Each picture is linked to the corresponding video.

PLANT SONGS

To help with the planning of your Plants Unit, we have curated a list of our favorite plant songs.



SONG LIST

Our song list is linked and ready to use with your students. You can show them the video with the song, or simply play the song in the background during center time, dismissal, clean-up, or any other transition during the day.

LESSON CONTENT

for PLANTS



PLANTS POWERPOINT

This includes a PowerPoint to project on a smartboard and printable posters to use as a big book or display in your science center.



PLANT HOUSE ACTIVITY

To kick off your Plants Unit, engage students in this simple but exciting experiment where they grow their own plant.

Name: _____	
Plant Observations	
Day: _____	Day: _____
Day: _____	Day: _____
Day: _____	Day: _____

PLANT OBSERVATION

Use this recording sheet for students to record what they notice while observing their Plant House.



YES NO

QUESTION OF THE WEEK

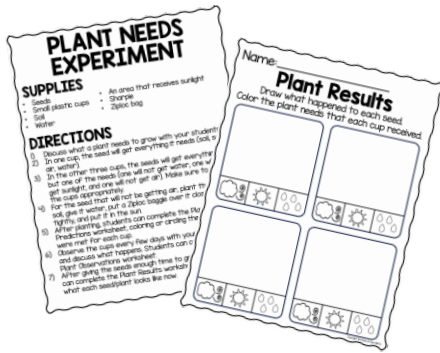
Use this question to engage your students, pique their interest, and get them talking about plants and seeds.



PLANT NEEDS POWERPOINT

This includes a PowerPoint to project on a smartboard and printable posters to use as a big book or display in your science center.

PLANT NEEDS EXPERIMENT



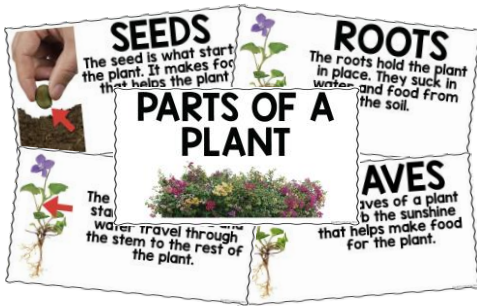
Introduce this experiment after learning about what plants need to survive. Use the provided recording sheets for students to make predictions and record results once you give the plants several days to grow.

PLANT NEEDS MINI BOOK



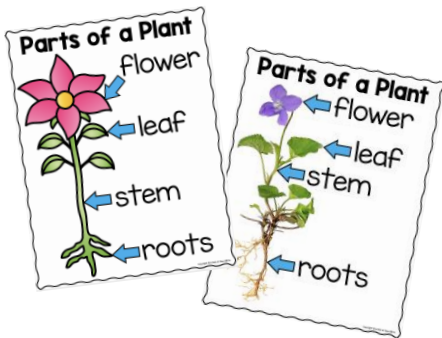
After learning about what plants need, students can show what they've learned by making this mini book.

PARTS OF A PLANT POWERPOINT



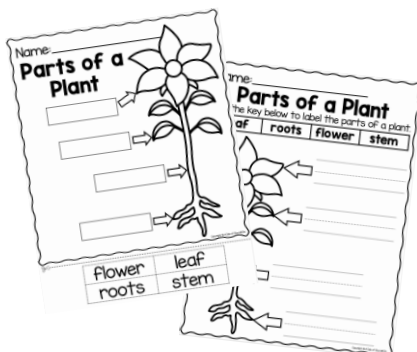
This includes a PowerPoint to project on a smartboard and printable posters to use as a big book or display in your science center.

PARTS OF A PLANT VISUAL POSTERS



Use these posters to refer to throughout the week after learning about the parts of a plant.

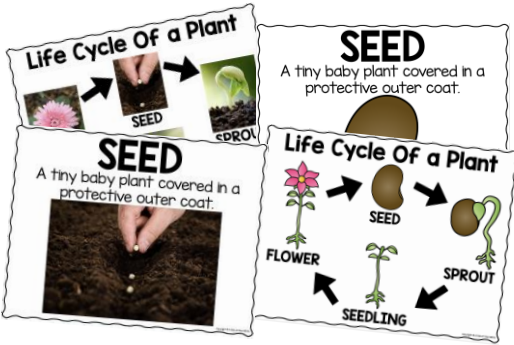
PARTS OF A PLANT WORKSHEET



After learning about the different parts of a plant, students can show what they've learned by completing one of these worksheets.

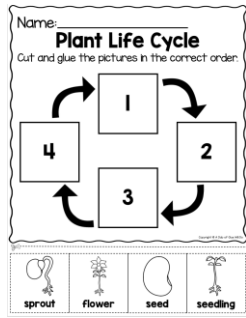
PLANT LIFE CYCLE POSTERS

Use these posters to teach students the steps of the life cycle of a plant. Keep the posters up in your science center to refer to throughout the week.



PLANT LIFE CYCLE WORKSHEET

After learning about the life cycle of a plant, students can show what they know with this worksheet.



PLANT CRAFTIVITY

To culminate the unit, students can create this plant craft, using what they've learned about the parts of a plant and what plants need to survive.

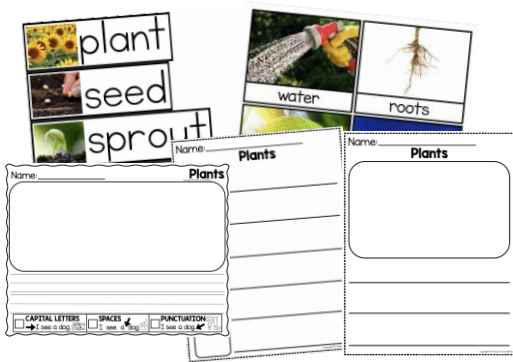


BONUS MATERIALS

for PLANTS

WRITING CENTER

Set up your writing center with word cards and writing papers that meet the needs of your students. No writing lines or list writing paper? There is something for every learner.



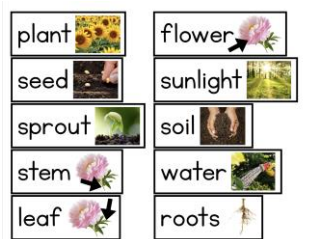
DEFINITION POSTERS

These posters use real-life pictures and simple definitions that are easy for students to understand. Hang them up in your science center, add new ones to your whole group area each day, or project on your smart board.



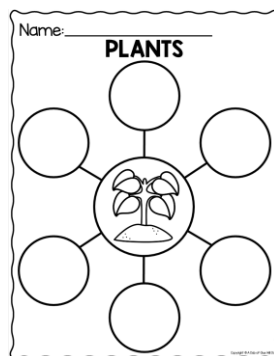
WORD WALL

Add the new vocabulary you are introducing to your students throughout the week to the word wall. Students can refer to these words throughout the year.



CIRCLE MAPS

Use this circle map when introducing plants to see what your students know, or after you teach the unit for them to demonstrate their new knowledge. This can be used individually, as a graphic organizer, or as a whole group.



IN MY GARDEN EMERGENT READER

Students can practice reading and review color words with this easy reader. After reading the book in whole group, copies can be put in the reading center or sent home for extra practice.



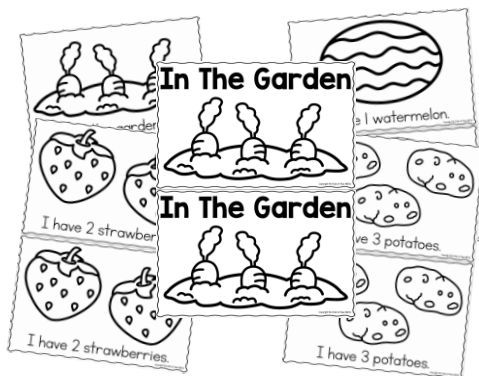
I CAN PLANT EMERGENT READER

Students can practice reading while reviewing the steps of planting a seed with this easy reader. After reading the book in whole group, copies can be put in the reading center or sent home for extra practice.



IN THE GARDEN EMERGENT READER

Students can practice reading and counting with this easy reader. After reading the book in whole group, copies can be put in the reading center or sent home for extra practice.



PLANT NEEDS EMERGENT READER

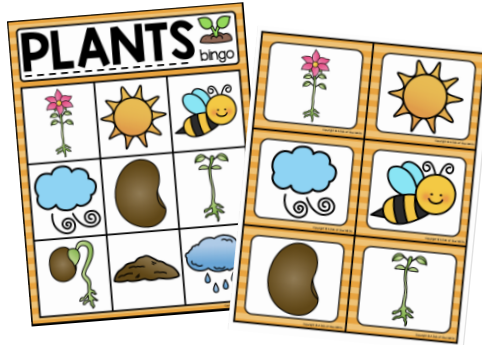
Students can practice reading while reviewing plant needs with this easy reader. After reading the book in whole group, copies can be put in the reading center or sent home for extra practice.





FINGERPLAY

Use this fingerplay to transition throughout the unit. Put a copy in the library center for students to practice.



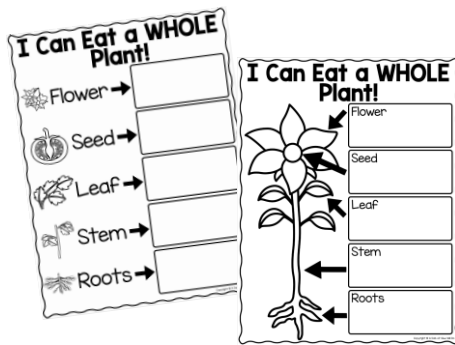
PLANTS BINGO

Add this Plants Bingo game to your lesson plans as a fun way to practice listening skills. Prep for Fun Friday or have a volunteer play with students at a center. Bingo boards and calling cards are included in color or black & white.



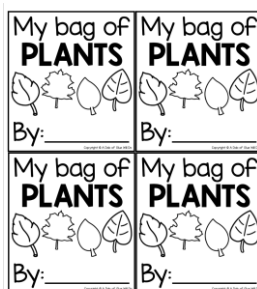
HOW TO GROW A PLANT SEQUENCING

Students can use the pocket chart cards to sequence the steps of growing a plant and record the sentences on the provided recording sheets.



I CAN EAT A WHOLE PLANT WORKSHEET

Use this worksheet to discuss what types of plants can be eaten and what foods represent each part.



MY BAG OF PLANTS PRINTABLE

Staple this label on a brown paper bag and take students outside for a "Plant Walk" where students will gather plant pieces they find outside.

PLANT SENSORY BIN
 Suggested Materials:
 - 200 grams of sensory flours
 - 1/2 cup of water
 - 1/2 cup of oil
 - 1/2 cup of brown sugar
 - 1/2 cup of salt
 - 1/2 cup of baking powder
 - 1/2 cup of vanilla extract
 - 1/2 cup of green food coloring
 - 1/2 cup of yellow food coloring
 - 1/2 cup of red food coloring
 - 1/2 cup of blue food coloring
 - 1/2 cup of purple food coloring
 - 1/2 cup of pink food coloring
 - 1/2 cup of white food coloring
 - 1/2 cup of black food coloring
 - 1/2 cup of brown food coloring
 - 1/2 cup of grey food coloring
 - 1/2 cup of tan food coloring
 - 1/2 cup of light blue food coloring
 - 1/2 cup of light green food coloring
 - 1/2 cup of light purple food coloring
 - 1/2 cup of light pink food coloring
 - 1/2 cup of light brown food coloring
 - 1/2 cup of light grey food coloring
 - 1/2 cup of light tan food coloring
 - 1/2 cup of light light blue food coloring
 - 1/2 cup of light light green food coloring
 - 1/2 cup of light light purple food coloring
 - 1/2 cup of light light pink food coloring
 - 1/2 cup of light light brown food coloring
 - 1/2 cup of light light grey food coloring
 - 1/2 cup of light light tan food coloring

SENSORY BIN

Make this sensory bin for your students to do some hands-on learning and exploration.



PLANT PERSON

Make this adorable plant person craft to celebrate all the learning students have done about plants. These make great gifts for families.



Name: _____

PLANTS		
can	have	are

PLANTS CAN-HAVE-ARE

After learning about plants, complete this Can-Have-Are chart as a whole group and/or independently.

PLANT STEM
 How does water travel through roots and stems?
SUPPLIES
 - Glass jars
 - Celery stalks (could also use Chinese cabbage or cornstarch)
 - Food coloring
 - Water
DIRECTIONS
 1. Cut off the bottoms of each celery stalk. Try to choose stalks that have leafy tops.
 2. Fill jars half full of water and add a few drops of food coloring.
 3. Put the celery stalks in the water and let them sit for a while.
 4. After about 20 minutes, you should see some color moving up. Overnight you might see the color all the way to the leafy green leaves.
 5. After completing the activity, ask students these questions:
 - What do plants need to grow?
 - How do you think the color travels up the celery stalk?
 - Do different colors work better than others?
 - What do you think will happen if you split a celery stalk partially in half (with the top part not split) and put one half in one color and the other half in another color?
 - Will they rise to make one single color at the top? Or will each side stay a separate color?

PLANT STEM

Complete this engaging Plant STEM activity with your students to demonstrate the way water travels through a plant.

Plant life cycle

flower	seed	seedling
ower	seed	seedling
ver	seed	seedling

○ ○ ○ ○

PLANT LIFE CYCLE HAT

Students can show what they know about the order of the plant life cycle with this fun hat.