Unit 9 – Botany

Joyful Discoveries Preschool Curriculum

PROJECT READY
MOUNT ST. JOSEPH UNIVERSITY®

Revision Date: May 2024

Unit 9 Botany:
Circle Time, Small Group, & Centers

Knowledge Building Targets	**Oral Language Skill Targets**
1. What a seed needs to grow 2. Life cycles: plants, trees, butterflies 3. Gardens & plants 4. Parts of a flower 5. Kinds of flowers 6. Butterflies: types, what they eat, migration 7. Importance of bees 8. Importance of trees & plants 9. Animals that live in trees 10. Types of birds and their nests 11. How & why birds build nests 12. Scientists and what they do: naturalists	1. Answering questions 2. Stating an opinion 3. Academic vocabulary 4. Story vocabulary: author, illustrator, title, character (who), setting (where) 5. Length of sentences 6. Extended decontextualized accounts, explanations, and narratives 7. Retelling/summarizing 8. Fluency
Early Literacy Skills	**Math Skills**
1. Print/book skills: title, author, directionality 2. Listening comprehension a. Answering key questions (focus on who, when, what questions) b. Memory for events c. Retelling d. Following directions 3. Sequencing of events 4. Fiction vs. nonfiction 5. Writing skills a. Prewriting strokes b. Letter formation c. Shared writing 6. Early writing through crafts	1. Small number recognition without counting 2. Counting 3. Number recognition 4. More than, less than, same 5. Number after knowledge 6. Number comparisons 7. Number after equals ones more 8. Addition 9. Subtraction 10. Patterns 11. Story problems

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Unit 9: Botany Overview

Overview of Part 1- Plants & Flowers

Book 1	Book 2	Book 3	Book 4	Book 5
One Bean by Anne Rockwell	*Planting a Rainbow* by Lois Ehlert	*Little Honey Bee* by Jane Ormes	*Lola Plants a Garden* by Anna McQuinn	*In a Garden* by Tim McCanna

Book 6	Book 7	Book 8	Book 9
Inch By Inch by Leo Lionni (Measurement)	*I Can Grow a Flower* by Dawn Sirett	*The Curious Garden* by Peter Brown	*One Little Lot* by Diane Mullen

Overview of Part 2- Butterflies, Bees & Bugs

Book 10	Book 11	Book 12	Book 13	Book 14
Butterflies by Marfe Ferguson Delano	*Waiting for Wings* by Lois Ehlert * Dramatic Play Center introduced	*100 Bugs!* by Kate Narita (Addition)	*Bee* by Britta Teckentrup	*Monarch and Milkweed* by Helen Frost & Leonid Gore

Overview of Part 3- Trees

Book 15	Book 16	Book 17	Book 18
A Tree Grows Up By Marfe Ferguson Delano	*A Tree is Nice* by Marc Simont	*Tall, Tall Tree* by Anthony Fredericks	*The Busy Tree* by Jennifer Ward & Lisa Falkenstein

Overview of Part 4- Birds

Book 19	Book 20	Book 21	Book 22
Bird Builds a Nest by Martin Jenkins	*Owl Babies* by Martin Waddell	*Balance the Birds* by Susie Ghahremani (Balance scale)	*Bird Watch* by Christie Matheson

Wordless Books for the Botany Unit

Wordless Books—Botany
Little Butterfly by Laura Logan
Bee & Me by Alison Jay

Material List for Unit 9- Botany

Whole Group Reading	
Books	**Cost**
One Bean by Anne Rockwell	$7.99
Planting a Rainbow by Lois Ehlert	$8.49
Little Honey Bee by Jane Ormes	$13.54
Lola Plants a Garden by Anna McQuinn	$5.59
In a Garden by Tim McCanna	$14.76
Inch By Inch by Leo Lionni	$8.79
I Can Grow a Flower by Dawn Sirett	$11.69
The Curious Garden by Peter Brown (Challenge)	$14.99
One Little Lot by Diane Mullen (Challenge)	$16.99
Butterflies by Marfe Ferguson Delano	$4.49
Waiting for Wings by Lois Ehlert	$15.19
100 Bugs! by Kate Narita	$13.49
Bee by Britta Teckentrup	$9.99
Monarch and Milkweed by Helen Frost & Leonid Gore (Challenge)	$17.31
A Tree Grows Up by Marfe Ferguson Delano	$4.99
A Tree is Nice by Janice May Udry	$7.99
Tall, Tall Tree by Anthony Fredericks	$7.69
The Busy Tree by Jennifer Ward & Lisa Falkenstein	$9.89
Bird Builds a Nest by Martin Jenkins	$4.49
Owl Babies by Martin Waddell	$15.26
Balance the Birds by Susie Ghahremani	$14.49
Bird Watch by Christie Matheson	$14.39
Wordless Books	
Little Butterfly by Laura Logan	$13.86
Bee & Me by Alison Jay	$12.77
Total Book Cost	$269.12

Craft and Additional Materials	
Ziplock bags, sandwich size (*One Bean* craft)	Likely already purchased
Paper towels (*One Bean* craft)	Likely already purchased
Lima bean seeds (*One Bean* craft)	$8.99 (150 pack)
Light blue construction paper (*Lola Plants a Garden* craft)	$3.62 (50 sheets)
Green construction paper (*Lola Plants a Garden* craft)	$4.59 (100 sheets)
Liquid glue (*Lola Plants a Garden* craft)	Likely already purchased
Plastic straws (*Lola Plants a Garden* craft)	$4.99 (100 pack)
2 inch ceramic pot (*I Can Grow a Flower* craft)	$16.99 (32 pack)
Flower seeds (*I Can Grow a Flower* craft)	$9.32 (50,000 pack)
Soil (*I Can Grow a Flower* craft)	$12.49 (2 pack)
Colorful Paint and Paintbrushes (*I Can Grow a Flower* craft)	Likely already purchased
Clothespins (*Little Butterfly* craft)	$5.96 (50 pack)
Coffee filters (*Little Butterfly* craft)	$1.96 (200 pack)
Spray bottle (*Little Butterfly* craft)	$14.99 (6 pack)
2 Small Bowls (*Bee and Me* craft)	$7.75 (6 pack)
Foam Dice (*Little Butterfly* craft)	$5.96 (12 pack)
Small Tongs (*Little Butterfly* craft)	$5.19 (6 pack)
Bee Erasers (*Little Butterfly* craft)	$9.99 (144 pack)
Total Cost of Crafts and Math Materials	$112.79

Material List for Unit 9- Botany

(Continued)

Dramatic Play Center- Nature Center	
Balance the Birds- Balance Scale	$24.99
Balance the Birds- Large Bird (1 per class)	$15.99 (set of 12)
Balance the Birds- Small Birds (20 per class)	$13.98 (set of 48)
Balance the Birds- Unifix Cubes (20 per class)	$10.65 (set of 100)
Insect Wing Costumes	$23.99
Rulers	Likely Already Purchased
Tape Measure	$8.99 (set of 10)
Butterfly Garden	$24.99
Butterfly Life Cycle Model	$9.99
Bug Catching Kit and Tools	$10.99
Insect Figurines	$14.99
Flower Building Set	$22.99
Sensory Bin- "Dirt" (Torn paper)	Likely Already Purchased
Sensory Bin- "Seeds"	Cost Varies
Sensory Bin- Watering can and gardening tools	$16.95
Sensory Bin- Flowers	$16.97 (12 bundles)
Sensory Bin- Flower Vases	$27.99 (set of 10)
Total Cost of Center	$244.15

Total cost for Unit 9= $548.76

Materials to Prepare (Found in Materials Binder)			
	Teacher's Manual	www.readingscience.org	Print 2-sided, put in binder
	Book 3- *Little Honeybee* Counting Cards	Page materials binder	Print 1-sided, cut into cards, laminate, cut again
	Book 4- *Lola Plants a Garden* craft	Page manual OR Page 11 materials binder	Cut green construction paper into thin strips for use as flower stems, cut ends of straws and peel back to create flower "stamp" OR print flower templates and cut for students
	Book 6- *Inch By Inch* Measurement Inch Worms	Page manual	Print inchworms, cut, laminate, cut again, glue to popsicle sticks (1 for each student)
	Book 10- *Butterflies* Observation Notebook	Page materials binder	Print, staple into notebook (1 for each student)
	Dramatic Play Center- Memory Games	Page materials binder	Print 1-sided, cut into cards, laminate, cut again (Butterfly and Bird Memory)
	Book 12- *100 Bugs!* Counting Cards	Page materials binder	Print 1-sided, cut into cards, laminate, cut again
	Book 17- *Tall, Tall Tree Counting Cards*	Page materials binder	Print 1-sided, cut into cards, laminate, cut again
	Book 19- *Bird Builds a Nest* Matching Cards	Page materials binder	Print 1-sided, cut into cards, laminate, cut again
	Book 21- *Balance the Birds* Bird Weights	Page Teacher's manual	Glue small weights to birds to make them balance on scale

Additional (Optional) Books About Plants and Flowers
Seed Magic by Natalie McKinnon
Flowers Are Calling by Rita Gray
From Seed to Plant by Gail Gibbons
Plant the Tiny Seed by Christie Matheson
The Tiny Seed by Eric Carle
Counting in the Garden Kim Parker
Counting On the Woods by George Ella Lyon
It's Pumpkin Time by Zoe Hall
In the Tall, Tall Grass by Denise Fleming
Alison's Zinnia by Anita Lobel

Additional (Optional) Books About Butterflies, Bees & Bugs
Are You a Butterfly? by Judy Allen & Tudor Humphries
Butterflies & Caterpillars- True or False by Melvin & Gilda Berger
Beginner's Guide to Butterflies by Stokes Guides
Peterson's Field Guide for Young Naturalists- Caterpillars

Additional (Optional) Books About Trees
Redwoods by Jason Chin
In a Nutshell by Joseph Anthony

Additional (Optional) Books About Birds
The Bird Alphabet Book by Jerry Pallotta
A Home for Bird by Phillip C. Stead
A Nest Full of Eggs by Priscilla Belz Jenkins
Baby Bird's First Nest by Frank Asch
Bird Song by Betsy Franco & Steve Jenkins

Botany Dramatic Play Center— Nature Center

<u>Purpose</u>: Promote creative play, exploration and experimentation, and oral language skills.

<u>Materials</u>: insect wing costumes for dress up, balance scale and birds, items for measuring (inchworms, rulers, tape measures), butterfly habitat, life cycle model, and basket with everyone's observation journal, bug catching kit and insect figurines, flower garden building set, sensory bin with "dirt," "seeds," watering can, flowers, flower vases, etc., Types of Birds Memory Game, Types of Butterflies Memory Game

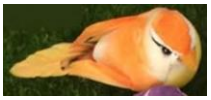
We suggest Adding these materials after Book 11 *Waiting for Wings.* Children will have exposure to the concept of plants after Part 1 and will be beginning Part 2- Butterflies, Bees, and Bugs.

<u>How it Works</u>: Explain the concept of a nature center. Show children all the activities and provide a few ideas for play.

For the first few days, a teacher should be near this center to help students engage appropriately with the toys, tools, and games.

Dramatic Play Center- Materials

Balance Scale
$24.99



Big Bird

Small Birds (need 8-10)

Insect Wing Costumes
$23.99

Tape Measure
$8.99 (set of 10)

Butterfly Garden
$24.99

Butterfly Life Cycle Model
$9.99

Bug Catching Kit
$10.99

Insect Models
$14.99

Flower Garden Building Set
$22.99

Watering Can and Tools
$16.95

Faux Flowers
$16.97 (12 bundles)

Flower Vases
$27.99 (set of 10)

Whole Group Circle Time—Basic Outline

1. Gathering Together (2 min): ABC Song to call student to circle.
2. Language Time! (3 min) – Nursery Rhyme, Finger Play, Song, Poem
3. Learning New Things (10 min)
    a. Topic discussion for week 1: Showing Kindness to our Friends & Community
    b. Story & Discussion Using 1, 2, 3 Shared Story Routine
    c. Included periodically: Shared Writing Experience
4. Highlight Center Where You Can Learn More

Second Read of Circle Time Story – Basic Outline

1. Story & Discussion, 1, 2, 3 Shared Story Routine
2. Follow Up Activity or Craft

The 1, 2, 3 Shared Story Routine – Read Two Times

1st Read – Focus on Listening to the Story—Whole Group Story Time

1. **Before:**
1. Introduce the topic
2. Introduce the book to generate excitement.
3. Point out title, author, & illustrator.
2. **During**:
1. Read with very few interruptions so children can get a sense of the full story.
2. Model Thinking Aloud.
3. Draw children's attention to key content, vocabulary, and story elements: characters, setting, the problem, etc.
3. **After:**
1. Ask their opinion—did they like it? Thumbs up/down. Why? Provide a sentence stem.
2. Questions: Ask simple questions about the book.
3. Review vocabulary & connect content of the book to their knowledge of the topic.
(2 & 3 should go in the order that makes sense for the book discussion)

2nd Read – Discuss Together & Activity

1. **Before:**
1. Ask the children if they can remember what this book is about—show them the cover to remind them.
2. Point out the title, author, & illustrator.
3. Tell them we are going to read the story again and discuss the story. So be ready to share your ideas!
2. **During**:
1. Read with excitement and fluency.
2. Ask questions about how characters feel or what they might be thinking.
3. Highlight key vocabulary, content, and story elements.
3. **After:**
1. Ask for their opinion—did they like it? Thumbs up/down. Why? Provide a sentence stem.
2. Ask a few questions about story elements and discuss 2-3 interesting vocabulary words.
3. Complete follow up activity

Shared Writing Experience - Basic Outline

Exposing children to print at an early age is helpful in many aspects of learning to read. The Shared Writing Routine is done across a number of books (not all) in each Unit at least once a week.

Goals of the Shared Writing experience:

- Meaningful exposure of children to print, helping them understand that print carries meaning,
- Demonstration of the process of transcribing speech to print,
- Highlighting of specific letter-sound relationships and conventions of writing.

When planning Shared Writing experiences, make sure to keep the following in mind:

1. Facilitate the production of a topical message that is reflective of your current Project Ready! theme. Make sure this message incorporates **target vocabulary** and **current theme**.
2. Keep sentences constructed short (5-7 words) and the total text brief (2-4 sentences).
3. When gathering input from children regarding the written message construction, "recast" the messages to ensure that they are clear and reflect content from the theme. This "recasting" requires restating students' input into clear and grammatically standard statements.

You can use this Shared Writing Preparation Template to prepare for a shared writing experience:

1. Topic of Message: (to be reflected in the first and last sentence):
Plan your topic sentence or the topic that you will communicate in the first sentence.

Vocabulary word(s) to include:
Include a word or words that have been highlighted in the 1, 2, 3 Shared Reading Routine.

Specific letter(s) or conventions to highlight:
This could include attention to spaces between words, directionality, punctuation, capital letters, and sentence types.

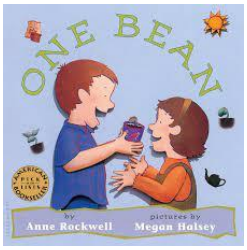
2. Plan your sentences. *Often you will follow this pattern:*

Topic -
Detail -
Detail -
Detail -
Concluding

The Shared Writing Routine utilizes these three steps repeatedly for each sentence written together: Plan – talk to the children about what to write; Write – write within view of the children and "think aloud" as you write your sentence, highlighting the vocabulary and conventions you planned; Read – Point to each word and read the sentence together. There are four different types of writing highlighted across the curriculum

1. Tell a Story **2. Express Ideas** **3. Share Information** **4. Discuss & Respond to Questions**

With most writing teachers should facilitate the development of a paragraph structure including an introductory (topic) sentence, followed by details, and finished with a "wrap up" (concluding) sentence. By continually modeling the basic paragraph structure, a foundation for this type of organization within children's writing is established.



Unit: Botany, Part 1- Plants & Flowers
Book 1: *One Bean* by Anne Rockwell
Extra Materials Needed:

1. Before

1. **Topic Introduction**- *Today is an exciting day! We are going to start learning about something new. We are going to learn about plants! We will learn about what plants need to grow, animals that help plants, and animals that need plants. Did you know that animals need plants?*
2. **2. Book Introduction**- *Look at the cover of this book. I see two children. They're holding something that looks like a tiny plant. I see some small pictures, too. I see soil, the sun, and a watering can. I think I know why those are on the book.*
3. **3. Title and Author**- Draw attention to title and author

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "This meant it was time to plant my bean." *I think the bean might be a seed! They're going to plant this bean and a plant will grow from it. Do you think so?*
- "My bean was dangling from the end of it." *That's interesting! The baby plant is growing up and the bean seed is still attached. Do you see it dangling here?*
- "just like the one bean that had started it all!" *The baby plant is all grown up and it made its own seeds! These seeds could be planted to make more bean plants.*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Seeds need soil, water, and sunlight to grow into plants.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  wrinkly- having lots of little lines
  The skin on the bean is wrinkly. It has lots of little lines all over it.
  buds- little growths on a plant that will turn into a leaf or flower
  Do you see the little green bumps, the buds? I think they will become flowers.
  blossomed- grew flowers
  The white flowers blossomed all over the plant! Do you see the flowers?

3. After

1. Ask their Opinion- *I liked that book! My favorite part was when the plant blossomed with flowers.* Call on a few children to answer, "My favorite part was…"
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *What did the bean plant need to grow?* (soil, water, sunlight)
- *How did the plant change? What did it look like at the beginning? The end?* (It started as a seed. It grew into a big plant with leaves. It made its own beans.)

3. Follow Up Activity- Story Retell
- Explain, *We are going to tell the story again. I want you to help me. Raise your hand if you can help me finish my sentence.* Show pictures in book to help children remember if necessary.

First, the children had a dry, smooth... (bean.) *They put it in a wet paper towel. When it got big and wrinkly, they put it in a cup and covered it with…* (soil.) *Then one day it popped out of the soil. The plant grew and grew until it blossomed with…* (flowers.) *When the flowers fell off, there were tiny bean pods full of…* (bean seeds.)

Language Time

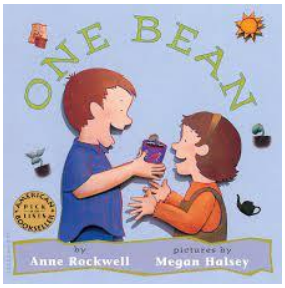
Five Little Seeds

Five fat seeds in a flower pot.
Make a fist

One grew…two grew…three grew…four grew…five grew…
Hold up 1 finger, then 2, 3, 4, and 5

They grew and they grew and they did not stop!
Raise hand in the air very slowly

Until one day, the pot went POP!
Clap hands together



Unit: Botany, Part 1- Plants & Flowers
Book 1: *One Bean* by Anne Rockwell

Re-Read & Activity- Craft

Extra Materials Needed: book, small zip-lock bags (1 for each student), damp paper towels (1-2 for each student), bean seeds (possibly soaked overnight)

Before:

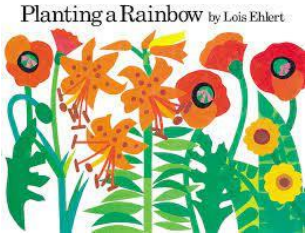
1. Ask if they can remember what this book is about- show them the cover to remind them.
We have already read this story. Do you remember it? Look at the cover. Do you remember what is in this little pot? Tell me one thing you remember about this little plant.
2. Point out title & author- ask if anyone can tell you what the author does.
The title of this story is One Bean. The author of the story is Anne Rockwell. Who remembers what the author does? Tell me! Yes, the author writes the words. The illustrator is Megan Halsey. She made the beautiful pictures.
3. Tell them this time we are going to read and discuss the story so be ready to share your ideas!
We are going to read the story again. Pay close attention so we can talk about the book when it's done.

During:

1. Read with excitement and fluency.
2. Ask Questions
   a. "This meant it was time to plant my bean." *What do you see in this picture? The children are gathering the things the plant will need. Raise your hand if you want to tell us one thing the plant will need.*
   b. "It needed a bigger place to live and grow." *The plant needs a bigger place to grow. What did the children do to help the plant?*
   c. "Those little green bumps were buds." *What did the buds grow into?*
   d. "lots of white flowers blossomed among the green, green leaves." *The leaves fell off next. What grew when the flowers fell off?*

After:

1. Ask for their opinion- did they like it? Thumbs up/down? What was your favorite part? Provide a sentence stem "My favorite part was…"
2. Discussion questions
   a. *Who was in this story?* (children- a boy and a girl)
   b. *What did the plant need to grow?* (soil, water, sunlight)
3. Do craft activity. Remember, these groups should be heterogenous so students can learn oral language skills from each other. After reading the story again, introduce the craft. Give each child a zip-lock bag. Either label the bag with their name or encourage students to do this step on their own. Explain, *We will be growing our own bean seeds. How did the children first help the seed to grow?* Remind students that the children first placed the bean seed into a wet paper towel. Give each child a damp paper towel, or a dry paper towel that they can make damp with a spray bottle. Show children how to place the paper towel into the bag and "plant" their seed on the paper towel. Zip the bag closed and place it in a bright spot. Taped to a window is a great spot! Over the course of 1-3 weeks, observe the bean seeds as they begin to grow. Roots and shoots will develop. Baby plants can be removed and planted in soil if desired.



Unit: Botany, Part 1- Plants & Flowers
Book 2: *Planting a Rainbow* by Lois Ehlert
Extra Materials Needed:

1. Before

1. Topic Introduction- *Yesterday we started learning about plants. We learned that plants need soil, water, and sunlight to grow. We read a book about a bean seed growing into a big bean plant. Turn to someone sitting next to you and tell them one thing that happened as the plant grew.*
2. Book Introduction- *Look at these beautiful flowers! The title of this book is Planting a Rainbow. Everyone say, "Planting a rainbow." I think this book might be about how flowers can be colorful like a rainbow.*
3. Title and Author- Draw attention to title and author

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "Every year Mom and I plant a rainbow." *I don't think the author means they plant a real rainbow. Real rainbows don't grow under the ground.*
- "We order seeds from catalogs and wait all winter long" *They bought seeds and made plans for their garden all winter. You can't plant in the winter.*
- "Then it's time to go to the garden center" *The garden center is a store where you can buy everything for plants.*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Plants are colorful! Plants grow from seeds and bulbs.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  bulbs- a big, round seed that is about the size of your fist
  Do you see the bulbs planted under the ground? Let's count them.
  seedlings- young plants
  This wagon is filled with baby plants called seedlings that they will buy.
  sow- plant seeds in the ground
  They planted lots of tiny seeds. Do you see where they sowed the seeds?

3. After

1. Ask their Opinion- *I liked seeing all the colors of plants! What was your favorite color?* Call on a few children to answer, "My favorite color was…"
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *What colors did we see in this book?* (red, orange, yellow, green, blue, purple)
- *How did the family start their garden?* (planted bulbs, ordered seeds, bought seedlings, etc.)

3. Follow Up Activity- Vocabulary Review
- Explain, *We talked about some of the important words in this book. One word was sow. Let's say that together. Sow. Sow means to plant seeds in the ground. I'm going to say something you can do in a garden and you will tell me yes if it is sowing or no if it is not sowing.*
  - *Digging a hole and putting a green bean seed in the dirt.* (yes)
  - *Picking an apple from a tree.* (no)
  - *Planting a watermelon seed in a pot with soil.* (yes)

Language Time

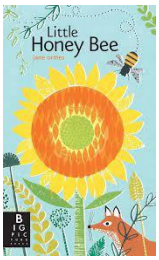
Five Little Seeds

Five fat seeds in a flower pot.
Make a fist

One grew…two grew…three grew…four grew…five grew…
Hold up 1 finger, then 2, 3, 4, and 5

They grew and they grew and they did not stop!
Raise hand in the air very slowly

Until one day, the pot went POP!
Clap hands together



Unit: Botany, Part 1- Plants & Flowers
Book 3: *Little Honey Bee* by Jane Ormes
Extra Materials Needed:

1. Before

1. Topic Introduction- *We have been learning about something new. Do you remember what we've been reading and talking about? Plants! Studying plants is called botany. Let's clap that word together. Bot-an-y. We are doing botany!*
2. Book Introduction- *The cover of this book is so pretty! I see an orange and yellow flower. What kind of flower do you think this is? Do you see this striped creature here? This is a honeybee. Honeybees get their food from flowers so we often see them near flowers like this one. This book is called Little Honey Bee.*
3. Title and Author- Draw attention to title and author

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "in the winter cold." *This flower is growing when there is still snow on the ground. I didn't know there are some flowers that start to grow when it's still winter.*
- "Five cherry blossoms opening in the trees." *Let's see what's under the cherry blossom flap. These are called inchworms. We are going to read a book about inchworms soon.*
- "Nine climbing roses rambling all about." *Let's count the roses.*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  There are many different kinds of flowers. Bees are often found near flowers.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  nodding- bobbing up and down
  We can nod our heads. The tulip has a heavy flower so it nods on its stem.
  petals- the colorful parts of a flower
  Poppies have red petals.
  unfurl- to open, unfold
  All of the flowers have unfurled. They are so pretty and colorful!

3. After

1. Ask their Opinion- *Did you like that story? Thumbs up if you did. Turn to someone near you and tell them one thing we saw in the book.*
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *What did we count in this book?* (flowers)
- *When did this story start? What season was it at the beginning?* (winter)

3. Follow Up Activity- Math Word Problem
- Explain, *We counted different kinds of flowers in this book.* Show page with cherry blossoms and hollyhocks and count flowers on each page. *If we start with six crimson hollyhocks then take away five cherry blossoms how many flowers are left? Let's do subtraction to find out. When we subtract, we take away. Let's use our fingers to help. Everyone start with six crimson hollyhocks* Hold up six fingers. Wiggle each as you count. *1,2,3,4,5,6. Now, let's take away five cherry blossoms.* Put fingers down one by one as you count *1,2,3,4,5. How many flowers are left? One. Six minus five equals one. Say that with me.* Repeat equation.

Language Time

Five Little Seeds

Five fat seeds in a flower pot.
Make a fist

One grew…two grew…three grew…four grew…five grew…
Hold up 1 finger, then 2, 3, 4, and 5

They grew and they grew and they did not stop!
Raise hand in the air very slowly

Until one day, the pot went POP!
Clap hands together

Unit: Botany, Part 1- Plants & Flowers
Book 3: *Little Honey Bee* by Jane Ormes

Re-Read & Activity- Math Activities

Extra Materials Needed: book, flower counting cards (see Botany Materials binder) and other math materials as needed

Before:

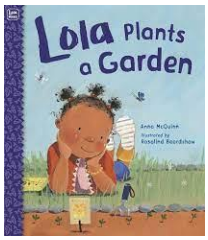
1. Ask if they can remember what this book is about- show them the cover to remind them.
We have already read this story. Do you remember it? What did we count in this book? Raise your hand if you remember the name of one flower we saw in the book?
2. Point out title & author- ask if anyone can tell you what the author does.
The title of this story is Little Honey Bee. The author of the story is Jane Ormes. Who remembers what the author does? Tell me. Yes, the author writes the words. She is also the illustrator so that means she also…
Pause to give students a chance to tell about the work of the illustrator. *Yes! Jane Ormes wrote the words and drew the pictures.*
3. Tell them this time we are going to read and discuss the story so be ready to share your ideas!
We are going to read the story again. Pay close attention so we can talk about the book when it's done.

During:

1. Read with excitement and fluency.
2. Ask Questions
   a. "three sunny daffodils" *What color are the daffodils?* (Yellow)
   b. "Four nodding tulips" *What does nodding mean? Let's nod our heads.* (bobbing up and down)
   c. "their petals to the sky." *The petals are the colorful part of the flower? What color are the poppy petals?* (Red)
   d. "Nine climbing roses" *There are nine roses. How many honeybees are on this page?* (Nine- lift the flap to reveal the hidden honeybee)
   e. "Ten white-and-yellow daisies stretching petals out." *The daisies are white and yellow. What color are the daisy petals?* (white)

After:

1. Ask for their opinion- did they like it? Thumbs up/down? Why? Provide a sentence stem.
Did you like this story? Raise your hand to tell me about your favorite part.
2. Discussion questions
   a. *What did we count in this book?* (flowers and honeybees)
   b. *How many nodding tulips did we count?* (four)
   c. *Who came to the garden when the flowers grew?* (bird, honeybees, foxes)
3. Do a math activity. Remember, these groups should be homogenous and small so each child's math skill level can be targeted. Manipulatives: flower counting cards (see Botany binder)



Unit: Botany, Part 1- Plants & Flowers
Book 4: *Lola Plants a Garden* by Anna McQuinn
Extra Materials Needed:

1. Before

1. Topic Introduction- *We have been talking about plants. Studying plants is called botany. Let's clap that word together. Bot-an-y. Great! Say it one more time. Botany. We are learning about plants so we're doing botany.*
2. Book Introduction- Show book cover. *I see a familiar character. This is Lola! We read a book about Lola getting a cat earlier this year. Do you remember how Lola adopted a cat and was patient and kind while her cat got used to her house? I think this book might be about Lola and plants. What do you think?*
3. Title and Author- Draw attention to title and author

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "Mommy says there is room near the vegetables." *I think that means Lola will get to plant her own garden near the vegetable garden in her yard. Let's see!*
- "The seed packets mark where the flowers are planted." *That's a good idea! Plants take a long time to grow so the seed packets will help them know where they planted each flower until the plants are big.*
- "Orla, Ben, and Ty are coming" *I wonder if they will like Lola's garden?*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Growing a garden is a lot of work but it's fun.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  poem- a type of writing that has a rhythm like a song and sometimes rhymes
  Lola's favorite poem is about Mary Mary. Do you know that poem?
  shoots- a new growth on a plant
  Lola sees tiny green shoots. They're just starting to poke out of the ground.
  weeds- any plant that is growing where it isn't wanted.
  Lola gets rid of the weeds so the plants she wants have room to grow.

3. After

1. Ask their Opinion- *Thumbs up if you liked that story of Lola growing a pretty garden. Turn to someone near you and tell them one thing you would plant in your garden if you had one.* Call on a few children to answer, "I would plant…"
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *Who was this story about?* (Lola, her mommy, her friends)
- *How did Lola feel when her friends came over to see her garden?* (happy)

3. Follow Up Activity- Story Retell
- Explain, *We are going to tell the story again. I want you to help me. Raise your hand if you can help me finish my sentence.* Show pictures in book to help children remember if necessary.

Lola wanted to plant a… (garden.) *Mommy said there was room by the vegetables. Lola went to the garden store to buy…* (seeds.) *She planted the seeds and waited patiently. One day Lola saw tiny green…* (shoots.) *Lola's friends came to visit her garden. They loved everything about it and Lola felt so…*(happy!)

Language Time

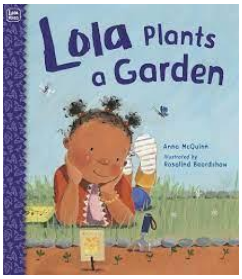
Five Little Seeds

Five fat seeds in a flower pot.
Make a fist

One grew…two grew…three grew…four grew…five grew…
Hold up 1 finger, then 2, 3, 4, and 5

They grew and they grew and they did not stop!
Raise hand in the air very slowly

Until one day, the pot went POP!
Clap hands together



Unit: Botany, Part 1- Plants & Flowers
Book 4: *Lola Plants a Garden* by Anna McQuinn
Re-Read & Activity- Craft

Extra Materials Needed: book, white tagboard printed with tree picture and seasons

Before:

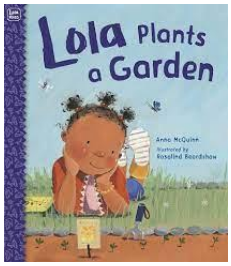
1. Ask if they can remember what this book is about- show them the cover to remind them.
We have already read this story. Do you remember it? Look at the cover. What is this girl's name? What did she do in this book?
2. Point out title & author- ask if anyone can tell you what the author does.
The title of this story is Lola Plants a Garden. The author of the story is Anna McQuinn. Who remembers what the author does? Tell me! Yes, the author writes the words. The illustrator is Rosalind Beardshaw. She drew the pictures of Lola and her garden.
3. Tell them this time we are going to read and discuss the story so be ready to share your ideas!
We are going to read the story again. Pay close attention so we can talk about the book when it's done.

During:

1. Read with excitement and fluency.
2. Ask Questions
   a. "Her favorite poem is the one about Mary Mary." *What is Lola's favorite poem?*
   b. "Mommy makes a list." *Why is Mommy making a list? What is she writing down?*
   c. "Lola's friends love everything about her garden." *How do you think Lola feels? She worked so hard to make her pretty garden and her friends love it.*
   d. "What kind of garden will Lola plant next?" *What do you think Lola should plant next?*

After:

1. Ask for their opinion- did they like it? Thumbs up/down? Do you think you would like to grow a garden. Everyone tell me, "I would like to grow a garden" or "I would not like to grow a garden."
2. Discussion questions
   a. *Where does this story take place?* (Lola's house, her garden)
   b. *What did Lola plant in her garden?* (flowers)
3. Do craft activity. Remember, these groups should be heterogenous so students can learn oral language skills from each other. After reading the story again, introduce the craft. Give each child a piece of light blue construction paper and several green strips for stems. Demonstrate how to glue the stems to make a garden then dip straw "stamps" to make flowers on the ends of each stem. Or, demonstrate how to color flower templates and glue to the end of each stem.



Unit: Botany, Part 1- Plants & Flowers
Book 4: *Lola Plants a Garden* by Anna McQuinn

Tell a Story

Extra Materials Needed: book and whiteboard or chart paper to create shared writing

Shared Writing Preparation Template: Tell a Story

Topic Sentence: Prepare this topic sentence by writing it on the Shared Writing board, leaving a blank space for the purple word:

Lola wants to make her own garden.

Vocabulary to include, if possible:

poem- a type of writing that has a rhythm like a song and sometimes rhymes
Lola's favorite poem is about Mary Mary. Do you know that poem?

shoots- a new growth on a plant
Lola sees tiny green shoots. They're just starting to poke out of the ground.

weeds- any plant that is growing where it isn't wanted.
Lola gets rid of the weeds so the plants she wants have room to grow.

Specific letters or conventions to highlight:
Current letters from the alphabetic group, capitals, periods

Plan your detail and concluding sentences (You can utilize the following.)

Detail: Her family helps her get ready for the garden.
Detail: They buy seeds and choose flowers.
Detail: Lola and Mommy make the garden.
Detail: Lola waits for the garden to grow.
Conclusion: Finally, Lola invites her friends to see her garden and they love it!

Steps in the Process

Discuss the book and vocabulary: *We read this book called Lola Plants a Garden. In this story, Lola wanted her own garden. She worked hard and her garden was beautiful!*

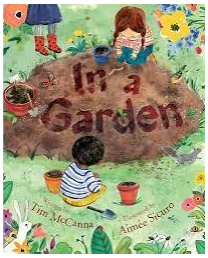
Write Topic Sentence
Plan: *We are going to work together to tell the story of Lola. What did Lola want? A garden!*
Write: Write garden to complete the sentence.
Read aloud, pointing to each word: *Lola wants to make her own garden.*

Write Detail Sentence(s)
Plan: *Let's work together to tell the rest of the story. What happened next?* Guide children by showing them a few pictures in the book, if necessary. Remember the planned detail sentences are available if your students need more direction. Otherwise, write the ideas they share.
Write: Her family helps her get ready for the garden.
Read aloud, pointing to each word: *Her family helps her get ready for the garden.* Read again, encouraging children to read with you.

Continue adding detail sentences if students are engaged.

Write Concluding Sentence
Plan: *We told all about how Lola made her garden. Now what happened at the end of the story?*
Write: Finally, Lola invites her friends to see her garden and they love it!
Read aloud, pointing to each word: *Finally, Lola invites her friends to see her garden and they love it!* Read again, encouraging children to read with you

***Read whole paragraph with students. Post writing where they can return to it frequently to "read."**



Language Time

Five Little Seeds

Five fat seeds in a flower pot.
Make a fist

One grew…two grew…three grew…four grew…five grew…
Hold up 1 finger, then 2, 3, 4, and 5

They grew and they grew and they did not stop!
Raise hand in the air very slowly

Until one day, the pot went POP!
Clap hands together

Unit: Botany, Part 1- Plants & Flowers
Book 5: *In a Garden* by Tim McCanna
Extra Materials Needed:

1. Before

1. Topic Introduction- *We've been learning about Botany. Let's clap that word. Bot-an-y. Botany is the study of plants. We've been learning about how plants grow.*
2. Book Introduction- *This book looks interesting! I see children sitting on the ground. I see colorful flowers and plants and a big pile f something brown. What do you think this brown pile is? I am guessing these kids are making a garden.*
3. Title and Author- Draw attention to title and author *The title of this story is In a Garden. The author is Tim McCanna. He wrote the words. The illustrator is Aimee Sicuro. She drew the pictures.*

2. During

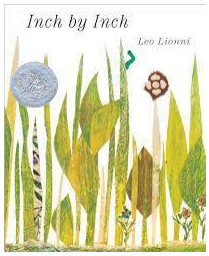
1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "moving through the garden soil." *Look at the earthworms moving through the tunnels they dug in the soil. Did you know that worms live in the dirt?*
- "newborn flowers find their way." *Wow! These new flowers are so colorful and beautiful! How are the children helping these new baby flowers?*
- "Time goes by and by and then…" *I think it's winter! It's snowy and cold. There's nothing growing in the garden. I wonder what happened to that seed we just saw.*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Gardens are full of life- both plants and animals.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  bursting- popping open
  The little sprout in bursting through the soil. Do you see it?
  nectar- sugary syrup in plants, collected by bees to make honey
  The bees are taking sips of nectar from the flowers.
  disguise- changing the way you look to hide
  The crafty bugs disguise themselves so the hungry owl can't see them.

3. After

1. Ask their Opinion- *Thumbs up if you liked that book. My favorite part was the bunnies sneaking carrots.* Call on a few children to answer, "My favorite part was…"
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *Where did this story take place?* (in a garden)
- *What creatures did we see in the garden?* (bugs, owls, bunnies, worms, etc.)

3. Follow Up Activity- Rhyming Practice
Explain, *There were lots of rhyming words in this book. Remember rhyming words sound the same at the end. Let's go back and read parts of the book. Nod your head if the words rhyme. Listen closely.* Reread the passages. Emphasize the words in bold. Ask *Do those words rhyme? Do they sound the same at the end?* Read the whole passage, emphasizing the words in bold.
- *Then at last a tiny **shoot** ever slowly forms a **root**.* (Yes)
- *In a garden showers **fall**, dainty drinks for one and **all**.* (Yes)
- *Finding **shelter** in the **shade**.* (No)



Language Time

Five Little Seeds

Five fat seeds in a flower pot.
Make a fist

One grew…two grew…three grew…four grew…five grew…
Hold up 1 finger, then 2, 3, 4, and 5

They grew and they grew and they did not stop!
Raise hand in the air very slowly

Until one day, the pot went POP!
Clap hands together

Unit: Botany, Part 1- Plants & Flowers
Book 6: *Inch By Inch* by Leo Lionni
Extra Materials Needed: book

1. Before

1. Topic Introduction- *We have been learning about plants. When we study plants, we are doing botany. Turn to someone sitting near you and tell them one thing you know about plants.*
2. Book Introduction- *Do you see the tiny little inchworm crawling up the plant? Inchworms are kind of like tiny caterpillars.* *Use this book to introduce measurement. Measure classroom items with the inchworms.
3. Title and Author- Draw attention to title and author *The title of this book is Inch by Inch. Leo Lionni is the author and illustrator.*

2. During

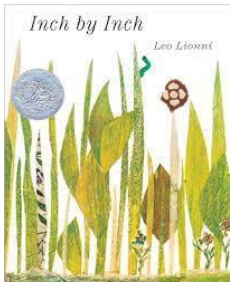
1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "That's easy..." *The inchworm is one inch long. He can use his body to measure. He inches along and counts as he goes. That's how he finds out how big something is.*
- "The inchworm measured the neck of the flamingo." *I think the flamingo's neck is going to be very long! Much longer than the robin's tail.*
- "Then the inchworm had an idea." *I wonder what the inchworm is planning. How can he measure a song? He measures things you can see, not songs.*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Inchworms are one inch long.
  We use inches to measure small things.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  gobble- eat quickly
  The hungry robin was about to gobble the inchworm.
  measure- see how long or tall something is
  The inchworm is useful because it can measure things.

3. After

1. Ask their Opinion- *I liked that book. I think it would be fun to measure with your body like an inchworm. Thumbs up if you would like to measure like that, too.*
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *Who was this story about?* (inchworm)
- *How did the inchworm escape from the nightingale? What did he do?* (He measured inch by inch until he was out of sight)

3. Follow Up Activity- Vocabulary Review
- Explain, *We talked about some of the important words in this book. One word was measure. Measure means to see how long or tall something is. Thumbs up if this is something you could measure:*
  - *a robin's tail feathers* (yes)
  - *a toucan's beak* (yes)
  - *a whole hummingbird* (yes)
  - *a nightingale's song* (no)



Unit: Botany, Part 1- Plants & Flowers
Book 6: *Inch By Inch* by Leo Lionni

Re-Read & Activity- Math Activities

Extra Materials Needed: book, inchworms on popsicle sticks (see Botany Materials binder)

Before:

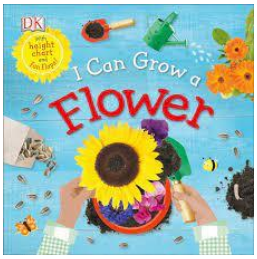
1. Ask if they can remember what this book is about- show them the cover to remind them.
We have already read this story. Do you remember it? Look at the cover. Do you remember what this little creature is called? Why is he useful? What can he do?
2. Point out title & author- ask if anyone can tell you what the author does.
The title of this story is Inch by Inch. The author of the story is Leo Lionni. Who remembers what the author does? Tell me. Yes, the author writes the words. The illustrator is also Leo Lionni. He drew the pictures, too!
3. Tell them this time we are going to read and discuss the story so be ready to share your ideas!
We are going to read the story again. Pay close attention so we can talk about the book when it's done.

During:

1. Read with excitement and fluency.
2. Ask Questions
   a. "He was about to gobble him up." *What was the robin about to do to the inchworm? What does gobble mean?* (Eat him quickly.)
   b. "I am useful. I measure things." *What does measure mean?* (See how tall or long something is.)
   c. "One, two, three, four, five inches." *How is the inchworm measuring the robin's tail?* (He's inching along and counting how his body fits.)
   d. "the legs of the heron…" *How many inches do you think the heron's legs are? The robin's tail was five inches. Do you think the legs are longer or shorter than the robin's tail?* (longer)
   e. "Measure my song" *Can the inchworm really measure the nightingale's song?* (No)

After:

1. Ask for their opinion- did they like it? Thumbs up/down? Why? Provide a sentence stem.
Did you like this story? Raise your hand to tell me. "I liked this story because…"
2. Discussion questions
   a. *Who was this story about?* (inchworm)
   b. *What did the inchworm measure?* (the robin's tail feather, the heron's legs, etc.)
   c. *How long was the robin's tail feathers?* (five inches)
3. Do a math activity. This is a unique math lesson. Take a break from the usual math skills lessons. Everyone will do the same math activity for this book. Groups should be small. After rereading part or all of the book, demonstrate how to move the inchworm on a popsicle stick to measure small classroom items. Give each student an inchworm and encourage them to measure more items. Support students based on their needs. Some may need more practice as a group while others will be ready to try measuring independently after a bit of instruction.



Unit: Botany, Part 1- Plants & Flowers
Book 7: *I Can Grow a Flower* by Dawn Sirett
Extra Materials Needed:

1. Before

1. Topic Introduction- *We have been learning about botany- the study of…* (pause to give children a chance to complete the sentence) *plants! Let's clap the word botany. Bot-an-y. How many parts are in that word? Three! Yesterday, we read about an interesting creature that could measure with its body. What was that creature called?*
2. Book Introduction- *What do you think this story will be about? I see hands planting a flower in a pot. Do you recognize anything else on the cover? There are little flaps inside this book. We'll open some of them to see what's hiding behind.*
3. Title and Author- Draw attention to title and author

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "I wonder what these striped seeds will grow into. Let's find out." *Do you see the striped seeds? What kind of plant do you think these seeds will become?*
- "We check it each day, and keep the soil moist." *The plant needs sun and water. That's why they put it by a window and have to keep the soil moist.*
- "the tallest flower in the garden… a beautiful…" *What did the seed become? Let's lift this flap to find out..*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  All plants begin as seeds or bulbs. Plants need sun, water, and soil.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  seeds- part of the plant that can grow into a new plant
  There are tiny seeds and bigger seeds but all can grow into a new plant.
  shoots- baby plants that are just beginning to pop out of the dirt
  The shoot is just starting to grow out of the dirt.
  buds- little growths on a plant that will turn into a leaf or flower
  This bud is a baby flower. It's on the top of the plant.

3. After

1. Ask their Opinion- *That book was fun! I liked watching the plant grow into a tall sunflower! Tell someone sitting near you about your favorite part. Say, "My favorite part was…"*
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *What does a plant need to grow?* (sun, water, soil)
- *What kind of plant did the striped seed become?* (a tall sunflower)

3. Follow Up Activity- Game: Was it in the Book?
- Explain, *We are going to play a game called Was it in the Book? I'm going to say a fact. You will nod your head if the fact was in the book and shake your head if it wasn't in the book.* Practice nodding and shaking.
  - *Most plants grow from seeds or bulbs.* (Yes)
  - *Plants grow best in the dark, with no sun.* (No)
  - *The little striped seeds became a tall sunflower.* (Yes)

Language Time

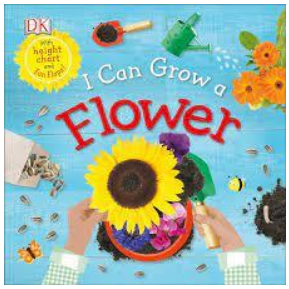
Five Little Seeds

Five fat seeds in a flower pot.
Make a fist

One grew…two grew…three grew…four grew…five grew…
Hold up 1 finger, then 2, 3, 4, and 5

They grew and they grew and they did not stop!
Raise hand in the air very slowly

Until one day, the pot went POP!
Clap hands together



Unit: Botany, Part 1- Plants & Flowers
Book 7: *I Can Grow a Flower* by Dawn Sirett

Re-Read & Activity- Craft

Extra Materials Needed: book, soil, small pots, paint, seeds

Before:

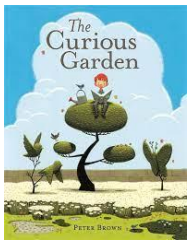
1. Ask if they can remember what this book is about- show them the cover to remind them.
We have already read this story. Do you remember it? Look at the cover. Do you remember what kind of plant they grew in this book?
2. Point out title & author- ask if anyone can tell you what the author does.
The title of this story is I Can Grow a Flower. The author of the story is Dawn Sirett. Who remembers what the author does? Tell me! Yes, the author writes the words. The illustrator is Claire Patane. She made the beautiful pictures.
3. Tell them this time we are going to read and discuss the story so be ready to share your ideas!
We are going to read the story again. Pay close attention so we can talk about the book when it's done.

During:

1. Read with excitement and fluency.
2. Ask Questions
   a. "But where do they come from?" *Where do plants come from?*
   b. "I wonder what these striped seeds will grow into?" *Do you remember what those tiny striped seeds grew into?*
   c. "We put our pot near a window." *Why did they put the pot near the window?*
   d. "Then a bud grows at the top." *What will this bud become?*

After:

1. Ask for their opinion- did they like it? Thumbs up/down? What was your favorite part? Provide a sentence stem "My favorite part was…"
2. Discussion questions
   a. *What does a plant need to grow?* (sun, water, soil)
   b. *How can you help a seed grow into a plant?* (put the seed in soil, give it sunlight, water it)
3. Do craft activity. Remember, these groups should be heterogenous so students can learn oral language skills from each other. After reading the story again, introduce the craft. Give each child a small pot, colorful paints, and a paintbrush. Encourage children to decorate the pots with paint. Allow the pots to dry before helping children to fill the pots with soil and plant a few small seeds inside. This might be best managed over multiple days.



Unit: Botany, Part 1- Plants & Flowers
Book 8: *The Curious Garden* by Peter Brown
Extra Materials Needed:

CHALLENGE

1. Before

1. Topic Introduction- *We have been learning about botany. Botany is the study of plants. We've learned so much about plants. Raise your hand if you want to share one thing you know about plants.*
2. Book Introduction- *I'm so excited to read this book! I'm wondering why this boy is sitting on top of a tree. He has a watering can and he's reading a book. Look at the trees! They have such interesting shapes. What shapes do you see?*
3. Title and Author- Draw attention to title and author *The title of this story is The Curious Garden. Peter Brown is the author. What does the author do?*

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "They needed a gardener." *Liam noticed the colorful wildflowers are dying. I wonder who will take care of them.*
- "Liam and the curious garden explored every corner of the railway." *I don't think the plants are really exploring the railway, but they are growing and making more.*
- "the plants soon awoke from their winter sleep." *Liam planned all winter and was ready to help the plants start growing again when the weather got warm.*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Gardeners work hard to care for their plants. Gardens bring color and variety.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  dreary- sad, not colorful or interesting
  The city without gardens was a dreary place. Do you think it looks sad?
  curious- wanting to learn something new, wanting to explore
  Liam is curious about the tracks. He wants to explore them.

3. After

1. Ask their Opinion- *I liked watching the garden grow as the boy took care of the wildflowers and plants. Thumbs up if you like that, too.*
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *Who was the curious gardener?* (The boy, Liam)
- *What happened to the garden in winter?* (snow fell on the city, Liam couldn't visit his plants)

3. Follow Up Activity- Story Retell
- Explain, *We are going to tell the story again. I want you to help me. Raise your hand if you can help me finish my sentence.* Show pictures in book to help children remember if necessary.

There once was a city without any… (gardens.) *One day a curious boy noticed a dark stairwell leading to railroad tracks. He ran up the stairs and saw…* (wildflowers and plants.) *He knew he could help. The plants patiently waited while the boy learned how to be a gardener. Soon, the plants covered the tracks. There was color everywhere. Many years later the entire city…* (had blossomed, was covered in plants and flowers.) *The end.*

Language Time

Five Little Seeds

Five fat seeds in a flower pot.
Make a fist

One grew…two grew…three grew…four grew…five grew…
Hold up 1 finger, then 2, 3, 4, and 5

They grew and they grew and they did not stop!
Raise hand in the air very slowly

Until one day, the pot went POP!
Clap hands together

Unit: Botany, Part 1- Plants & Flowers
Book 9: *One Little Lot* by Diane Mullen
Extra Materials Needed:

1. Before

1. Topic Introduction- *We have been learning about the study of plants, called Botany. Let's clap that word. Bot-an-y. We've read lots of books about plants and flowers. Today we are going to read our last book about plants and flowers. Tomorrow we will start learning about something new related to botany.*
2. Book Introduction- *I see people with happy, smiling faces. It looks like they are in a garden. I see a tall building behind these people. I'm wondering if this story is about a garden growing in a big city. Do plants grow around tall buildings?*
3. Title and Author- Draw attention to title and author

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "as silent strangers hurry by without a glance." *All of the people are so busy going to work or school. They are neighbors but they are strangers.*
- "Maybe, just maybe, they all say." *I wonder what they are imagining.*
- "Ten newfound friends clean and chop and peel." *The neighbors are friends now. They worked together to grow this garden.*
- "Neighbors pick…" *These plants are food! Do you recognize any of these foods?*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Neighbors can work together to grow a garden that can feed their community.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  abandoned- alone, no one taking care of it
  The lot is empty with no building and no one to take care of it.
  preparing- getting ready
  They spent three days preparing the lot. What are they getting ready?
  soil- dirt that is full of the things plants need to grow
  They filled the garden beds with soil so the plants can grow.

3. After

1. Ask their Opinion- *I liked that book! My favorite part was finding the animals in the holes in the pictures.* Call on a few children to answer, "My favorite part was…"
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *Where did the story take place?* (a city, an empty lot, a community garden)
- *What did the neighbors grow in their garden?* (beans, bok choy, etc.)

3. Follow Up Activity- Math Word Problem
- Explain, *In this story, neighbors worked together to grow a garden. They had 4 planter boxes. At the end of the story, there were 9 plants. Were there more planter boxes or more plants? To answer that question, we have to figure out which number is bigger. Is 4* (hold up 4 fingers) *a bigger number or is 9* (hold up 9 fingers) *a bigger number? Nine is the number that is bigger. That means there were more plants than planter boxes because there were 9 plants and only 4 boxes. Thank you for helping me figure out that math problem.*

Language Time

Five Little Seeds

Five fat seeds in a flower pot.
Make a fist

One grew…two grew…three grew…four grew…five grew…
Hold up 1 finger, then 2, 3, 4, and 5

They grew and they grew and they did not stop!
Raise hand in the air very slowly

Until one day, the pot went POP!
Clap hands together

Unit: Botany, Part 2- Butterflies, Bees & Bugs
Book 10: *Butterflies* by Marfe Ferguson Delano
Extra Materials Needed:

1. Before

1. **Topic Introduction**- *We have been learning about Botany, the study of plants. We learned a lot about plants and flowers. Now we are going to learn about animals that needs plants. These animals get their food from plants and they helps the plants. Isn't that amazing? The animals need plants and the plants need the animals.*

2. Book Introduction- *What animal do you see on the cover of this book? This book is about butterflies! Butterflies need plants and they help plants. Amazing!*

3. Title and Author- Draw attention to title and author

2. During

1. Read- Read with few interruptions so children can follow the full story.

2. Model Thinking Aloud- Pause to model what good readers think about.

- "They flit over fields and wander through woods." *I don't think I've ever seen so many butterflies before. Have you ever seen a butterfly?*
- "it tastes the flower with the tips of its feet!" *I taste with my mouth, not my feet. Butterflies taste flowers with their feet. I wonder what that would be like.*
- "The shell is called a chrysalis" *The caterpillar made a chrysalis. Let's clap that word. Chrys-a-lis. What will it look like when it comes out?*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.

- Key content
  Butterflies start life as caterpillars.
  Caterpillars create a chrysalis around their bodies and come out as butterflies.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  nectar- sugary liquid in flowers
  The butterfly can suck nectar from the flower.
  chrysalis- a thin shell the caterpillar makes around itself
  The caterpillar makes a chrysalis around itself and comes out a butterfly.

3. After

1. Ask their Opinion- *Butterflies are so interesting! Did you enjoy that book about butterflies? Thumbs up if you did.*

2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)

- *What was this book about?* (butterflies)
- *What do butterflies eat?* (nectar, rotten food, dead bugs, etc.)

3. Follow Up Activity- Game: Was it in the Book?

- Explain, *We are going to play a game called Was it in the Book? I'm going to say a fact. You will nod your head if the fact was in the book and shake your head if it wasn't in the book.* Practice nodding and shaking.
  - *Butterflies taste flowers with their feet.* (Yes)
  - *Butterflies only eat nectar from flowers.* (No)
  - *Butterflies eat nectar, rotting fruit, and even dead bugs.* (Yes)
  - *Baby butterflies are caterpillars.* (Yes)

Language Time
The Caterpillar

A little caterpillar crawled to the top of a tree. "I think I'll take a nap," it said.
Use your left arm as the tree (hold it vertically) and the first two fingers on your right hand as the caterpillar inching up the tree)

So- under a leaf he began to creep
Cover your 2 fingers (the caterpillar) with opened left hand (leaf)

To spin a chrysalis
Put hands together to form a ball shape

Then he fell asleep
Fold hands and lay your cheek on them

He slept and he slept in his chrysalis bed
Hold your left hand (chrysalis) over your right fist (caterpillar)

Til the sun came up one sunny spring day and said, "Wake up, wake up, little sleepy head. Wake up. It's time to get out of bed."
Shake your right fist (caterpillar) and slowly emerge from under left hand.

So- he opened his eyes that sunshiny day and… OH! He was a butterfly and he flew away!
Join hands together and flap like a butterfly.

Unit: Botany, Part 2- Butterflies, Bees & Bugs
Book 10: *Butterflies* by Marfe Ferguson Delano

Re-Read & Activity- Craft

Extra Materials Needed: book, butterfly observation journal (see Botany Materials binder), butterfly life cycle model, Butterfly habitat and caterpillars

Before:

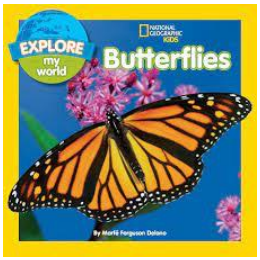
1. Ask if they can remember what this book is about- show them the cover to remind them.
We have already read this story. Do you remember it? Look at the cover. What is this animal called? Let's clap that name. But-ter-fly. We are learning about butterflies because they need plants and they are helpful to plants.
2. Point out title & author- ask if anyone can tell you what the author does.
The title of this story is Butterflies. The author of the story is Marfe Ferguson Delano. Who remembers what the author does? Tell me! Yes, the author writes the words. There is no illustrator for this story because the pictures are real photographs. No one drew these pictures.
3. Tell them this time we are going to read and discuss the story so be ready to share your ideas!
We are going to read the story again. Pay close attention so we can talk about the book when it's done. We are going to read about how butterflies change over time. We'll use these models (show life cycle models) *to help us see how the butterfly changes.*

During:

1. Read with excitement and fluency.
2. Ask Questions- focus on pages 20-25 and use the life cycle models to illustrate how the butterfly changes
   a. "she lays her eggs on it." *The mother butterfly lays her eggs on a leaf that her babies can eat. When the babies hatch, what do you think they will do?* (eat the leaf)
   b. "The eggs hatch and out creep the babies." *The babies are tiny little caterpillars. What color are the tiny caterpillars in this picture?* Show eggs/baby caterpillars on leaf model
   c. "Eat, grow, split, wriggle." *What is happening to the caterpillar?* (growing) Show model of large caterpillar
   d. "The shell is called a chrysalis." *What is going to happen inside the chrysalis?* (It becomes a butterfly) Show model of chrysalis.
   e. "Out crawls the new butterfly." *What comes out of the chrysalis?* (a butterfly) Show butterfly model.

After:

1. Ask for their opinion- did they like it? Thumbs up/down? What is your favorite part? Provide a sentence stem "My favorite part is…"
2. Discussion questions
   a. *What animal was this book about?* (caterpillars and butterflies)
   b. *What do butterflies eat?* (nectar, rotting fruit, bugs)
3. Do craft activity. Remember, these groups should be heterogenous so students can learn oral language skills from each other. After reading the story again, introduce the craft. Give each child a Butterfly Observation Journal. Show them the caterpillars and the habitat. Explain, *We are going to watch these caterpillars grow and change over time. They will live in our classroom. We will use these journals to record what we see.* Give children crayons, pencils, or markers to write 1 and draw what they see.
   Revisit this activity daily or every few days to allow students to record their observations of the changes.



Unit: Botany, Part 2- Butterflies, Bees & Bugs
Book 10: *Butterflies* by Marfe Ferguson Delano

Discuss and Respond to Questions

Extra Materials Needed: book and whiteboard or chart paper to create shared writing

Shared Writing Preparation Template: Discuss and Respond to Questions

Topic Sentence: Prepare this topic sentence by writing it on the Shared Writing board, leaving a blank space for the purple word:

How do butterflies change as they grow?

Vocabulary to include, if possible:

nectar- sugary liquid in flowers

The butterfly can suck nectar from the flower.

chrysalis- a thin shell the caterpillar makes around itself

The caterpillar makes a chrysalis around itself and comes out a butterfly.

Specific letters or conventions to highlight:
Current letters from the alphabetic group, capitals, periods, question mark

Plan your detail and concluding sentences (You can utilize the following.)

Detail: First, butterflies are tiny eggs on leaves.
Detail: Then a small caterpillar comes out of the egg.
Detail: The caterpillar eats and gets bigger.
Detail: Next, the big caterpillar makes a chrysalis around itself.
Conclusion: Finally, it comes out of the chrysalis and is a butterfly.

Steps in the Process

Discuss the book and vocabulary: *We read this book called Butterflies. In this story, we see how butterflies grow and change. We learned that butterflies are grown up caterpillars. We also learned what butterflies eat and how they protect themselves from predators.*

Write Topic Sentence

Plan: *We are going to work together to answer a question. What was this book about? Butterflies! We are going to answer this question about butterflies.*
Write: Write butterflies to complete the sentence.
Read aloud, pointing to each word: *How do butterflies change as they grow?*

Write Detail Sentence(s)

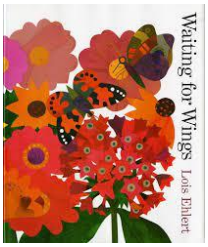
Plan: *Let's work together to answer that question about butterflies. Let's start at the very beginning. What do brand new baby butterflies look like? Here's a hint- they aren't butterflies yet.* Guide children by showing them a few pictures in the book, if necessary. Remember the planned detail sentences are available if your students need more direction. Otherwise, write the ideas they share.
Write: First, butterflies are tiny eggs on leaves.
Read aloud, pointing to each word: *First, butterflies are tiny eggs on leaves.* Read again, encouraging children to read with you.

Continue adding detail sentences if students are engaged.

Write Concluding Sentence

Plan: *Now, we need to tell what happens after the chrysalis. What comes out of the chrysalis?*
Write: Finally, it comes out of the chrysalis and is a butterfly.
Read aloud, pointing to each word: *Finally it comes out of the chrysalis and is a butterfly.* Read again, encouraging children to read with you

***Read whole paragraph with students. Post writing where they can return to it frequently to "read."**



Language Time
The Caterpillar

A little caterpillar crawled to the top of a tree. "I think I'll take a nap," it said.
Use your left arm as the tree (hold it vertically) and the first two fingers on your right hand as the caterpillar inching up the tree)

So- under a leaf he began to creep
Cover your 2 fingers (the caterpillar) with opened left hand (leaf)

To spin a chrysalis
Put hands together to form a ball shape

Then he fell asleep
Fold hands and lay your cheek on them

He slept and he slept in his chrysalis bed
Hold your left hand (chrysalis) over your right fist (caterpillar)

Til the sun came up one sunny spring day and said, "Wake up, wake up, little sleepy head. Wake up. It's time to get out of bed."
Shake your right fist (caterpillar) and slowly emerge from under left hand.

So- he opened his eyes that sunshiny day and… OH! He was a butterfly and he flew away!
Join hands together and flap like a butterfly.

Unit: Botany, Part 2- Butterflies, Bees & Bugs
Book 11: *Waiting for Wings* by Lois Ehlert
Extra Materials Needed: Dramatic Play Center prepared and ready for play

1. Before

1. Topic Introduction- *We have been learning about plants. Yesterday, we started learning about an animal that needs plants and helps plants. Turn to someone near you and tell them the name of that animal.*
2. Book Introduction- *Do you see an animal hiding in the flowers? What animal is it? Butterflies. Let's clap that word. But-ter-flies.*
3. Title and Author- Draw attention to title and author *This story is called Waiting for Wings. It's about butterflies. It's also a rhyming book. Listen for the words that rhyme. They sound the same at the end.*

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "clinging to leaves with butterfly glue." *Do you see the eggs? What color are the tiny eggs?*
- "When it's time, each case is torn- wings unfold; new butterflies are born!" *Do you hear the rhyming words? Torn, born. They sound the same at the end.*
- "We watch them circle, land on their feet," *I just remembered something we read in the other book about butterflies. They taste with their feet! The butterfly is tasting the flower as it lands on its feet.*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Butterflies change a lot as they grow.
  They all follow the same life cycle changes- egg, caterpillar, chrysalis, butterfly
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  caterpillar- larvae, young butterflies or moths
  The caterpillars creep and chew leaves. They eat lots so they can grow.
  chrysalis- a thin shell the caterpillar makes around itself
  The case is a chrysalis. Caterpillars change inside the chrysalis.

3. After

1. Ask their Opinion- *Thumbs up if you liked that book.*
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *Where do butterflies lay their eggs?* (on plants and leaves)
- *When does the caterpillar come out of the chrysalis?* (when it's a butterfly)

3. Follow Up Activity- Introduce dramatic play center (Nature Center)
- Show the children the items in the center. Ensure that a teacher is available near this area to help children engage with the toys appropriately while using their new vocabulary and background knowledge to engage in pretend play together. Children might dress as insects and pretend to grow and change from caterpillars to butterflies. Teachers might help children learn to play Memory with Types of Butterflies or Types of Birds Memory Games. Teachers can model how to pretend to catch bugs in the bug house or build a flower garden.

Unit: Botany, Part 2- Butterflies, Bees & Bugs
Book 12: *100 Bugs!* by Kate Narita
Extra Materials Needed:

1. Before

1. Topic Introduction- *We have been learning about butterflies. We know how they grow and change. We know that they need plants and they are helpful to plants. Today we are going to read about other animals that are similar to butterflies.*
2. Book Introduction- *Look at the cover of the book. What do you see in this picture? Do you recognize any of these animals?*
3. Title and Author- Draw attention to title and author *The title of this book is 100 Bugs! All of these animals that are flying around are types of bugs. I think we might be counting bugs in this book. What do you think?*

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "1 by the old hose, 9 by the gold rose" *Do you hear the rhyming words? Hose, rose. They rhyme. They sound the same at the end.*
- "4 by the rafters, 6 by the asters" *There are 4 ladybugs by the rafters and 6 by the asters. How many ladybugs is that altogether? 4 plus 6 equals… 10!*
- "90 from before, plus 10 more. 100 bugs out and about!" *We saw 10 of each type of bug. Altogether that's 100 bugs!*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  There are different ways to add up to 10. There are different types of bugs.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  explorers- people who go on adventures to find new things or places
  These explorers are waking up, ready for bug-counting fun.
  farrow- a group of baby pigs all born at the same time, a litter of pigs
  There are three bugs by the farrow of pigs. Can you count them?
  darting- moving suddenly and quickly
  The damselflies are darting all about. They're moving quickly. Find them!

3. After

1. Ask their Opinion- *I liked counting all of those bugs. My favorite bug was the lightening bugs.* Call on a few children to answer, "My favorite bug was…"
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *What did we count in that book?* (bugs)
- *How many bugs did we count in all?* (100!)

3. Follow Up Activity- Math Word Problem
- Explain, *We counted bugs in this book. There were so many different types of bugs! How many of each type of bug were there? Let's look at the katydids to help us remember. There were 9 katydids* (hold up 9 fingers) *by the wood box and 1 katydid* (hold up 1 finger) *by the white phlox. How many katydids were there in all? Let's use our fingers to help us figure it out. 9 by the wood box* (hold up 9 fingers and keep them up) *plus 1* (hold up 1 more finger) *by the white phlox equals… 10! Let's count. 1,2,3,4,5,6,7,8,9,10. Nine plus one equals ten. Thank you for helping me do that math problem about katydids.*

Language Time
The Caterpillar

A little caterpillar crawled to the top of a tree. "I think I'll take a nap," it said.
Use your left arm as the tree (hold it vertically) and the first two fingers on your right hand as the caterpillar inching up the tree)

So- under a leaf he began to creep
Cover your 2 fingers (the caterpillar) with opened left hand (leaf)

To spin a chrysalis
Put hands together to form a ball shape

Then he fell asleep
Fold hands and lay your cheek on them

He slept and he slept in his chrysalis bed
Hold your left hand (chrysalis) over your right fist (caterpillar)

Til the sun came up one sunny spring day and said, "Wake up, wake up, little sleepy head. Wake up. It's time to get out of bed."
Shake your right fist (caterpillar) and slowly emerge from under left hand.

So- he opened his eyes that sunshiny day and… OH! He was a butterfly and he flew away!
Join hands together and flap like a butterfly.

Unit: Botany, Part 2- Butterflies, Bees & Bugs
Book 12: *100 Bugs!* by Kate Narita

Re-Read & Activity- Math Activities

Extra Materials Needed: book, bug manipulatives OR picture cards (see Botany Materials binder) and other math materials as needed

Before:

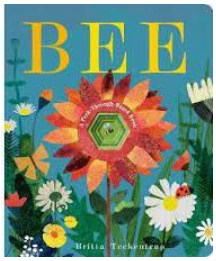
1. Ask if they can remember what this book is about- show them the cover to remind them.
We have already read this story. Do you remember it? Look at the cover. What did we count in this book? There were different kinds of bugs in this book. Do you remember any of the bugs?
2. Point out title & author- ask if anyone can tell you what the author does.
The title of this story is 100 Bugs! The author of the story is Kate Narita. Who remembers what the author does? Tell me. Yes, the author writes the words. The illustrator is Suzanne Kaufman. What does the illustrator do? They draw the pictures.
3. Tell them this time we are going to read and discuss the story so be ready to share your ideas!
We are going to read the story again. Pay close attention so we can talk about the book when it's done.

During:

1. Read with excitement and fluency.
2. Ask Questions
   a. "Explorers, explorers, rising with the sun." *What is an explorer?* (Someone who goes on adventures to find new places or things.)
   b. "How many bugs zipping about?" *2 dragonflies are by the weather vane and 8 are by the bugbane. How many is that altogether? Let's count to find out.* (10)
   c. "Ladybugs, ladybugs" *What colors do ladybugs have on their bodies?* (red, black, white)
   d. "50 bugs hanging out!" *How many bugs? There were 10 walking sticks, 10 dragonflies, 10 leafhoppers, 10 ladybugs, and 10 bumblebees. How many is that altogether?* (50!)
   e. "Lightning bugs, lightning bugs" *Its spring again. Why do you think these are called lightning bugs?* (They flash their bright lights, like lightning)

After:

1. Ask for their opinion- did they like it? Thumbs up/down? Why? Provide a sentence stem.
Did you like this story? Raise your hand to tell me. "I liked this story because…"
2. Discussion questions
   a. *What did we count in this book?* (bugs)
   b. *How many of each kind of bug were there?* (10)
   c. *What kinds of bugs did we see?* (katydid, lightning bugs, walking sticks, etc.)
   d. *Who found the bugs?* (the explorers, a boy and a girl)
3. Do a math activity. Remember, these groups should be homogenous and small so each child's math skill level can be targeted. Manipulatives: insect figurines ($14.99 for set) or bug pictures (see Botany Materials binder)



Unit: Botany, Part 2- Butterflies, Bees & Bugs
Book 13: *Bee* by Britta Teckentrup
Extra Materials Needed:

1. Before

1. Topic Introduction- *We have been learning about bugs. Bugs often hang around plants because they need plants. They can also be helpful to plants. We learned that butterflies eat the nectar from plants. Today we are going to learn about a bug.*
2. Book Introduction- *Look at this beautiful, colorful flower! There's a little hole in the center of the flower. If I look very closely, I see a bug in there. The bug is small. It has wings. Its body is striped black and yellow. I wonder what kind of bug that is.*
3. Title and Author- Draw attention to title and author *The title of this book is Bee. The author and illustrator is Britta Teckentrup.*

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "A wonder of nature is about to unfold." *A wonder of nature? That sounds like something amazing is about to happen. I wonder what it is.*
- "Gathering nectar as she goes" *The bee drinks nectar. It is food for the bee.*
- "Were given life by one small bee." *The bee helped all of these flowers to grow by spreading pollen.*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Bees need flowers for food.
  Bees help flowers make more by spreading their pollen from flower to flower.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  hue- different colors
  The bee is visiting flowers of every hue. What colors of flowers do you see?
  pollen- powder on a flower that is needed to make more flowers
  The bee is all dusty with pollen. It's dropping yellow pollen everywhere.
  blossom- new, small flower
  The wind is making the blossoms shake a little bit.

3. After

1. Ask their Opinion- *Did you like reading about the bee? Tell someone near you one thing that bees do.*
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *Who was this story about?* (a bee)
- *What do bees eat?* (nectar from flowers)

3. Follow Up Activity- Rhyming Practice
Explain, *There were lots of rhyming words in this book. Remember rhyming words sound the same at the end. Let's go back and read parts of the book. Nod your head if the words rhyme. Listen closely.* Reread the passages. Emphasize the words in bold. Ask *Do those words rhyme? Do they sound the same at the end?* Read the whole passage, emphasizing the words in bold.
- *Dawn is breaking on a brand-new **day**, And in the meadow, poppies **sway**.* (Yes)
- *The little bee beats her **wings** As she travels here and **there**.* (No)
- *Harvesting flowers one by **one**, Her compass is the midday **sun**.* (Yes)

Language Time
The Caterpillar

A little caterpillar crawled to the top of a tree. "I think I'll take a nap," it said.
Use your left arm as the tree (hold it vertically) and the first two fingers on your right hand as the caterpillar inching up the tree)

So- under a leaf he began to creep
Cover your 2 fingers (the caterpillar) with opened left hand (leaf)

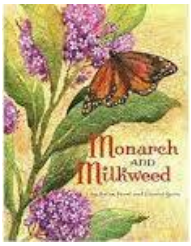
To spin a chrysalis
Put hands together to form a ball shape

Then he fell asleep
Fold hands and lay your cheek on them

He slept and he slept in his chrysalis bed
Hold your left hand (chrysalis) over your right fist (caterpillar)

Til the sun came up one sunny spring day and said, "Wake up, wake up, little sleepy head. Wake up. It's time to get out of bed."
Shake your right fist (caterpillar) and slowly emerge from under left hand.

So- he opened his eyes that sunshiny day and… OH! He was a butterfly and he flew away!
Join hands together and flap like a butterfly.



Unit: Botany, Part 2- Butterflies, Bees & Bugs
Book 14: *Monarch and Milkweed* by Helen Frost & Leonid Gore
Extra Materials Needed:

1. Before

1. Topic Introduction- *We have been learning about bugs. Bugs are really interesting because they need plants and they also help plants. Yesterday, we learned how bees help flowers make more and they need flowers for food. Today we are going to read about another bug and a plant that it needs.*
2. Book Introduction- *Do you see this beautiful butterfly? What color is it? It is sitting on a plant. What do you think the butterfly is doing on the plant?*
3. Title and Author- Draw attention to title and author *The title is Monarch and Milkweed. A monarch is a kind of butterfly. Milkweed is a kind of plant.*

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "and tastes home." *Remember how butterflies taste with their feet? The monarch tastes home when it lands on the milkweed. I think that means that the butterfly makes its home on milkweed.*
- "stopping on each to lay one shiny egg." *Each egg has its own milkweed plant.*
- "all the way to Mexico" *Monarchs fly all the way to Mexico every year when it gets colder in the fall.*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Monarch butterflies need milkweed for food and a safe place to lay eggs.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  nectar- sugary liquid in flowers
  The monarch drinks nectar from the dandelion.
  caterpillar- larvae, young butterflies or moths
  The caterpillar is shorter than an eyelash when it first leaves its egg.
  chrysalis- a thin shell the caterpillar makes around itself
  The chrysalis hangs from a leaf.

3. After

1. Ask their Opinion- *Did you like that book about the monarch? My favorite part was when the monarch landed on the milkweed and tasted home.* Call on a few children to answer, "My favorite part was…"
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *What did the monarch caterpillar eat?* (milkweed leaves)
- *What does the monarch caterpillar eat?* (nectar)

3. Follow Up Activity- Wrap up learning about Butterflies, Bees & Bugs
Explain, *We finished our last book about bugs. Bugs are very cool because they need plants and they help plants. Turn to someone near you and tell them one thing you learned about:*
- *bees*
- *bugs*
- *butterflies*

Language Time
The Caterpillar

A little caterpillar crawled to the top of a tree. "I think I'll take a nap," it said.
Use your left arm as the tree (hold it vertically) and the first two fingers on your right hand as the caterpillar inching up the tree)

So- under a leaf he began to creep
Cover your 2 fingers (the caterpillar) with opened left hand (leaf)

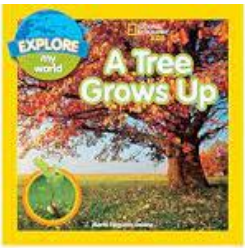
To spin a chrysalis
Put hands together to form a ball shape

Then he fell asleep
Fold hands and lay your cheek on them

He slept and he slept in his chrysalis bed
Hold your left hand (chrysalis) over your right fist (caterpillar)

Til the sun came up one sunny spring day and said, "Wake up, wake up, little sleepy head. Wake up. It's time to get out of bed."
Shake your right fist (caterpillar) and slowly emerge from under left hand.

So- he opened his eyes that sunshiny day and… OH! He was a butterfly and he flew away!
Join hands together and flap like a butterfly.



Unit: Botany, Part 3- Trees
Book 15: *A Tree Grows Up* by Marfe Ferguson Delano
Extra Materials Needed:

1. Before

1. Topic Introduction- *Yesterday we finished learning about bugs. Today we are going to start learning about something new related to botany. Do you remember that word, botany? It means the study of plants. Let's clap it. Bot-an-y.*
2. Book Introduction- *Look at the cover of the book. I see a big tree with colorful leaves. This little picture shows a tiny, baby tree. I think this book might be about how a tree gets bigger.*
3. Title and Author- Draw attention to title and author *This is a nonfiction book called A Tree Grows Up. The author is Marfe Ferguson Delano.*

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "Its stem, called a trunk" *As the tree grows, this thin green stem will become the thick trunk of the tree.*
- "When it's five year old, it's tall enough for people to stand under." *Trees grow slowly. It takes five years for the tree to be taller than a person.*
- "One spring, when the oak tree is about 30 years old, surprise!" *An oak tree has to grow for 30 years before it grows flowers and acorns.*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Acorns become oak trees. It takes 30 years for an oak tree to be fully grown.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  acorn- the seed of an oak tree
  Squirrels eat acorns but they don't eat them all.
  root- the part of the plant that is underground
  When an acorn splits open, a root grows down into the soil.
  trunk- the main body of the tree
  The trunk and branches grow thicker as the tree gets older.

3. After

1. Ask their Opinion- *I liked learning about how an oak tree grows up. My favorite part was when the tree started making its own acorns.* Call on a few children to answer, "My favorite part was…"
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *What was this book about?* (an acorn becoming an oak tree)
- *What does the oak tree look like in the winter?* (like it's sleeping)

3. Follow Up Activity- Game: Was it in the Book?
- Explain, *We are going to play a game called Was it in the Book? I'm going to say a fact. You will nod your head if the fact was in the book and shake your head if it wasn't in the book.* Practice nodding and shaking.
  - *Squirrels think acorns are yucky. They don't eat them.* (No)
  - *Squirrels eat crunchy acorn in the fall.* (Yes)
  - *Apples grow on oak trees.* (No)
  - *Flowers and acorns grow on oak trees.* (Yes)

Language Time

Birds in a Tree

There was one little bird, in a little tree. She was all alone and she didn't want to be.
Hold up 1 finger, make it wiggle like a little bird.

So she flew far away, over the sea
Hide 1 finger (bird) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 2 fingers up.

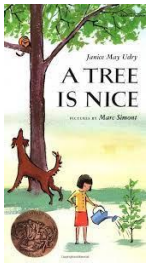
There were two little birds, in a little tree. They were all alone and they didn't want to be.
Hold up 2 fingers, make them wiggle.

So they flew far away, over the sea
Hide 2 fingers (birds) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 3 fingers up.

Repeat, adding 1 bird each time until there are 5 birds.

Last verse:
Now there are 5 little birds living in the tree. They are five kind friends that are happy as can be.
Wiggle 5 fingers.



Unit: Botany, Part 3- Trees
Book 16: A *Tree is Nice* by Janice May Udry
Extra Materials Needed:

1. Before

1. Topic Introduction- *Yesterday we started learning about trees. We learned that trees are plants that grow and change over time. Trees need soil, water, and sunlight just like other plants.*
2. Book Introduction- *When I look at this book cover, I see a very tall tree and a very small tree. I see someone watering the small tree and a cat way up high in the tall tree. I'm guessing this book will be about trees.*
3. Title and Author- Draw attention to title and author *The title is A Tree is Nice. Janice May Udry is the author and Marc Simont is the illustrator.*

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "Birds build nests in trees and live there." *We know all about bugs who need plants. Birds are another animal that needs a kind of plant, trees.*
- "A tree is nice for a house to be near." *Big trees can even shade a whole house and keep it cool.*
- "Every day for years and YEARS" *It takes a long time for a tree to grow! Look how small the boy was when he planted the tree and how big he is now.*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Trees are nice. They provide lots of important things for people and animals.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  trunk- the main body of the tree
  The trunk holds up all the branches of the tree.
  shade- a dark, cool spot away from the sun
  The cows are lying in the shade because it is hot. The shade makes it cooler.
  shovel- a tool for digging holes
  You need a shovel to plant a tree.

3. After

1. Ask their Opinion- *That book made me feel grateful for trees! Thumbs up if you, also, are happy that we have trees.*
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *What kind of plant was this book about?* (tree)
- *How are trees useful?* (good for climbing, provide shade, etc.)

3. Follow Up Activity- Vocabulary Review
- Explain, *We talked about some of the important words in this book. One word we talked about what shade. Shade is a cooler spot away from the sun. Trees make shade. Another word we talked about what shovel. A shovel is a tool for digging holes. I'm going to give you clues and you will tell me if I'm talking about shade or a shovel.*
  - *This is a tool you might have hanging in your garage. It's sharp. It has a long handle. We use it to dig holes.* (shovel)
  - *This is a dark place that helps us stay cool when the sun is hot. Trees give us this.* (shade)

Language Time

Birds in a Tree

There was one little bird, in a little tree. She was all alone and she didn't want to be.
Hold up 1 finger, make it wiggle like a little bird.

So she flew far away, over the sea
Hide 1 finger (bird) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 2 fingers up.

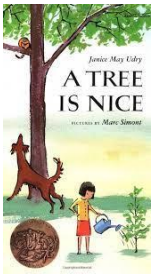
There were two little birds, in a little tree. They were all alone and they didn't want to be.
Hold up 2 fingers, make them wiggle.

So they flew far away, over the sea
Hide 2 fingers (birds) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 3 fingers up.

Repeat, adding 1 bird each time until there are 5 birds.

Last verse:
Now there are 5 little birds living in the tree. They are five kind friends that are happy as can be.
Wiggle 5 fingers.



Unit: Botany, Part 3- Trees
Book 16: A *Tree is Nice* by Janice May Udry

Discuss and Respond to Questions

Extra Materials Needed: book and whiteboard or chart paper to create shared writing

Shared Writing Preparation Template: Discuss and Respond to Questions

Topic Sentence: Prepare this topic sentence by writing it on the Shared Writing board, leaving a blank space for the purple word:

Why is a tree nice?

Vocabulary to include, if possible:

trunk- the main body of the tree
The trunk holds up all the branches of the tree.

shade- a dark, cool spot away from the sun
The cows are lying in the shade because it is hot. The shade makes it cooler.

shovel- a tool for digging holes
You need a shovel to plant a tree.

Specific letters or conventions to highlight:
Current letters from the alphabetic group, capitals, periods, question mark

Plan your detail and concluding sentences (You can utilize the following.)

Detail: Trees give us leaves that we can jump in.
Detail: Trees give us shade to keep us cool.
Detail: Birds can build their nests in trees.
Detail: Some trees give us food, like apples.
Conclusion: Trees do many wonderful things for us.

Steps in the Process

Discuss the book and vocabulary: *We read this book called A Tree is Nice. We saw some of the wonderful things trees do for us.*

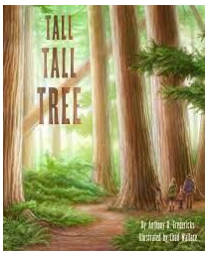
Write Topic Sentence
Plan: *We are going to work together to answer this question. What word is missing from my sentence?*
Write: Write tree to complete the sentence.
Read aloud, pointing to each word: *Why is a tree nice?*

Write Detail Sentence(s)
Plan: *Let's work together to answer this question. What do trees do for us?* Guide children by showing them a few pictures in the book, if necessary. Remember the planned detail sentences are available if your students need more direction. Otherwise, write the ideas they share.
Write: Trees give us leaves that we can jump in.
Read aloud, pointing to each word: *Trees give us leaves that we can jump in.* Read again, encouraging children to read with you.

Continue adding detail sentences if students are engaged.

Write Concluding Sentence
Plan: *We told about how nice trees are. Now we need to tell our readers that we are done. How could we do that?*
Write: Trees do many wonderful things for us.
Read aloud, pointing to each word: *Trees do many wonderful things for us.* Read again, encouraging children to read with you

***Read whole paragraph with students. Post writing where they can return to it frequently to "read."**



Unit: Botany, Part 3- Trees
Book 17: *Tall, Tall Tree* by Anthony Fredericks
Extra Materials Needed:

1. Before

1. Topic Introduction- *We have been learning about trees. Turn to someone near you and tell them one thing you know about trees.*
2. Book Introduction- *I see loads of tall trees in this picture. They trees are so tall I can't even see the top. This is a counting book. It's also a rhyming book. Listen for the words that rhyme.*
3. Title and Author- Draw attention to title and author *This book is called Tall Tall Tree. The author is Anthony D. Fredericks. He wrote the words. Chad Wallace is the illustrator. He drew the pictures.*

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "High in this tall, tall tree, Insects, birds, and mammals." *I hope we will see all the animals that live in this big tree.*
- "Eight sleeping bats" *Bats sleep upside down. That's so silly. Do you do that?*
- "Crawl along the needles" *The redwood tree's leaves are called needles. Why do you think they are called needles?*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Redwood trees are very tall.
  Redwood trees are home to lots of animals.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  seldom- not often, rarely
  Many creatures that aren't often seen live in the redwood forest.
  canopy- very top of the trees in the forest
  We learned about the canopy when we were talking about the rainforest.
  darting- moving suddenly and quickly
  The woodrats move quickly. They dart into the sticks.

3. After

1. Ask their Opinion- *I liked seeing all the animals that live in tall redwood trees. Which animal was your favorite? Tell someone next to you about your favorite.*
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *What was this story about?* (redwood trees and the animals that live in them)
- *Who in our class wants to visit a tall, tall redwood forest? Raise your hand.*

3. Follow Up Activity- Math Word Problem
- Explain, *We counted animals in this book. We saw 3* (hold up 3 fingers) *climbing salamanders and 4* (hold up 4 fingers) *busy woodpeckers. How many animals is that altogether. Let's use our fingers to help us figure that out. 3* (hold up 3 fingers and keep them up) *salamanders plus 4* (hold up 4 fingers and keep them up) *woodpeckers equals… Let's count. 1,2,3,4,5,6,7. Seven! 3 plus 4 equals 7. Thank you for helping me figure out that math problem.*

Language Time

Birds in a Tree

There was one little bird, in a little tree. She was all alone and she didn't want to be.
Hold up 1 finger, make it wiggle like a little bird.

So she flew far away, over the sea
Hide 1 finger (bird) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 2 fingers up.

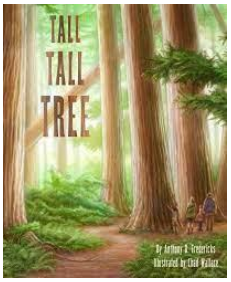
There were two little birds, in a little tree. They were all alone and they didn't want to be.
Hold up 2 fingers, make them wiggle.

So they flew far away, over the sea
Hide 2 fingers (birds) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 3 fingers up.

Repeat, adding 1 bird each time until there are 5 birds.

Last verse:
Now there are 5 little birds living in the tree. They are five kind friends that are happy as can be.
Wiggle 5 fingers.



Unit: Botany, Part 3- Trees
Book 17: *Tall, Tall Tree* by Anthony Fredericks

Re-Read & Activity- Math Activities

Extra Materials Needed: book, picture cards (see Botany Materials binder) and other math materials as needed

Before:

1. Ask if they can remember what this book is about- show them the cover to remind them.
We have already read this story. Do you remember it? Look at the cover. What were these tall trees called? What did we count in this book? We saw and counted all the animals that make their homes in the redwood tree. Who remembers one animal?
2. Point out title & author- ask if anyone can tell you what the author does.
The title of this story is Tall, Tall Tree. The author of the story is Anthony Fredericks. Who remembers what the author does? Tell me. Yes, the author writes the words. The illustrator is Chad Wallace. What does the illustrator do? They draw the pictures.
3. Tell them this time we are going to read and discuss the story so be ready to share your ideas!
We are going to read the story again. Pay close attention so we can talk about the book when it's done.

During:

1. Read with excitement and fluency.
2. Ask Questions
   a. "Who are very seldom seen." *What does seldom mean?* (Not often, rarely) *The animals that live in the tree are not often seen.*
   b. "Nest in the canopy." *What does canopy mean?* (the very top of trees) *Owls make their nests in the very top of the tree.*
   c. "And now comes number…" *The next number will rhyme with sticks. What number rhymes with sticks?* (Six)
   d. "They flash in black and yellow," *How many bumblebees?* (seven) *Let's see if we can find them all.*
   e. "Nine Bananas Slugs" *What color are the banana slugs?* (yellow like bananas)

After:

1. Ask for their opinion- did they like it? Thumbs up/down? Why? Provide a sentence stem.
Did you like this story? Raise your hand to tell me. "I liked this story because…"
2. Discussion questions
   a. *What was this story about?* (the animals that live in tall redwood trees)
   b. *How many chattering chipmunks did we count ?* (six)
   c. *How many busy woodpeckers did we count?* (four)
   d. *Where did all of these animals live?* (the redwood tree, the tall tall tree)
3. Do a math activity. Remember, these groups should be homogenous and small so each child's math skill level can be targeted. Manipulatives: animal pictures (see Botany Materials binder)

Unit: Botany, Part 3- Trees
Book 18: *The Busy Tree* by Jennifer Ward & Lisa Falkenstein
Extra Materials Needed:

1. Before

1. Topic Introduction- *We have been learning about trees. Trees are very important to lots of animals. Today we are going to read our last book about trees. Tomorrow, we will start learning about something new related to Botany.*
2. Book Introduction- *Look at the cover of the book. I see so many animals! It looks like they are all in a tree. Tell someone near you the name of an animal you see.*
3. Title and Author- Draw attention to title and author *The title of this book is The Busy Tree. The author is Jennifer Ward. She wrote the words.*

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "nibbled by chipmunks who scratch at the ground" *This tree has acorns. It must be an oak tree!*
- "then at night starts to prowl." *The owl lives in a hole in the trunk. It comes out at night and sleeps during the day.*
- "shading the children below as they play." *The tree is helping these children by giving them shade to keep them cool while they play.*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Trees are important and help many animals, including people.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  roots- the part of the plant that is underground
  This tree has long, winding roots that help it eat and stand tall.
  acorn- the seed of an oak tree
  Chipmunks are eating the crunchy acorns.
  trunk- the main body of the tree
  The busy ants scurry up the trunk.

3. After

1. Ask their Opinion- *Thumbs up if you liked that story.* Call on a few children to answer, "My favorite part was…"
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *What was this book about?* (a busy oak tree)
- *What animals did the oak tree help?* (chipmunks, ants, woodpeckers, owls, etc.)

3. Follow Up Activity- Rhyming Practice
Explain, *There were lots of rhyming words in this book. Remember rhyming words sound the same at the end. Let's go back and read parts of the book. Nod your head if the words rhyme. Listen closely.* Reread the passages. Emphasize the words in bold. Ask *Do those words rhyme? Do they sound the same at the end?* Read the whole passage, emphasizing the words in bold.
- *….lives in my **bark**, …. from dawn until **dark**.* (Yes)
- *…leafy and **high**, …soar through the **sky**.* (Yes)
- *Hear my green **leaves** as they shake in the **wind.*** (No)

Language Time

Birds in a Tree

There was one little bird, in a little tree. She was all alone and she didn't want to be.
Hold up 1 finger, make it wiggle like a little bird.

So she flew far away, over the sea
Hide 1 finger (bird) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 2 fingers up.

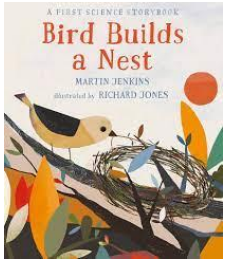
There were two little birds, in a little tree. They were all alone and they didn't want to be.
Hold up 2 fingers, make them wiggle.

So they flew far away, over the sea
Hide 2 fingers (birds) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 3 fingers up.

Repeat, adding 1 bird each time until there are 5 birds.

Last verse:
Now there are 5 little birds living in the tree. They are five kind friends that are happy as can be.
Wiggle 5 fingers.



Unit: Botany, Part 4- Birds
Book 19: *Bird Builds a Nest* by Martin Jenkins
Extra Materials Needed:

1. Before

1. Topic Introduction- *Yesterday we finished learning about trees. Trees are a kind of plant. The study of plants is called Botany. We are doing Botany right now as we learn about plants. Today we are going to start learning about something new*
2. Book Introduction- *When I look at this picture, I see a bird working hard to do something. It looks like the bird is building a nest. We learned in our books about trees that birds build their nests in trees.*
3. Title and Author- Draw attention to title and author *The title is Bird Builds a Nest. The author is Martin Jenkins.*

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "First she needs some breakfast." *I wonder what birds eat for breakfast. It's something nice and juicy. Let's keep reading to find out what it is.*
- "She needs twigs. Lots of twigs." *Why does Bird need twigs? What is she going to do with them?.*
- "Can you guess what it's waiting for?" *Why did she make a nest? What is it for?*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Birds build nests in trees.
  Birds push and pull twigs to make their nest. It is hard work.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  pulls- move something toward you (closer to you)
  The bird pulls hard on the big worm but it's too strong and won't come out.
  twigs- small sticks
  Bird is looking for twigs. Some are too big and heavy.
  pushes- move something away from you
  Bird pushes a twig into the side of her nest.

3. After

1. Ask their Opinion- *Thumbs up if you liked that book about bird making a nest.*
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *Who was this story about?* (Bird)
- *How did Bird make a nest? What did Bird do to get her nest ready?* (collect twigs, push and pull the twigs into the right shape, gather soft things, etc.)

3. Follow Up Activity- Story Retell
- Explain, *We are going to tell the story again. I want you to help me. Raise your hand if you can help me finish my sentence.* Show pictures in book to help children remember if necessary.

It was a beautiful day! Bird was up early and she wanted some… (breakfast.) *She pulled on a big worm but it was too strong so she found a smaller worm to eat. Then Bird started her work. She was looking for…* (twigs) *She collected twigs and pushed and pulled to make a…* (nest.) *Next, she added softer things. Her nest was ready and waiting. It was waiting for…* (eggs!)

Language Time

Birds in a Tree

There was one little bird, in a little tree. She was all alone and she didn't want to be.
Hold up 1 finger, make it wiggle like a little bird.

So she flew far away, over the sea
Hide 1 finger (bird) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 2 fingers up.

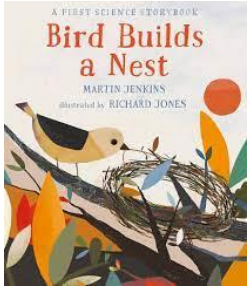
There were two little birds, in a little tree. They were all alone and they didn't want to be.
Hold up 2 fingers, make them wiggle.

So they flew far away, over the sea
Hide 2 fingers (birds) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 3 fingers up.

Repeat, adding 1 bird each time until there are 5 birds.

Last verse:
Now there are 5 little birds living in the tree. They are five kind friends that are happy as can be.
Wiggle 5 fingers.



Unit: Botany, Part 4- Birds
Book 19: *Bird Builds a Nest* by Martin Jenkins

Re-Read & Activity- Bird and Nest Matching Game

Extra Materials Needed: book,

Before:

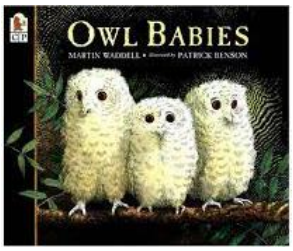
1. Ask if they can remember what this book is about- show them the cover to remind them.
We have already read this story. Do you remember it? Look at the cover. What did Bird make in this story? What did Bird's nest look like?
2. Point out title & author- ask if anyone can tell you what the author does.
The title of this story is Bird Builds a Nest. The author of the story is Martin Jenkins. Who remembers what the author does? Tell me! Yes, the author writes the words. The illustrator is Richard Jones. He made the beautiful pictures.
3. Tell them this time we are going to read and discuss the story so be ready to share your ideas!
We are going to read the story again. Pay close attention so we can talk about the book when it's done.

During:

1. Read with excitement and fluency.
2. Ask Questions
   a. "What she wants is a nice juicy…" *What did Bird want for breakfast?* (a worm)
   b. "She pulled hard" *Pulled means bringing something closer to you. Can you pretend to pull a big worm? What would that look like?*
   c. "Carefully, she pushes a twig into the side of the nest" *Push means to move something away from you. Can you pretend to push a twig into a nest. What would that look like?*
   d. "Can you guess what it's waiting for?" *Why did Bird make the nest? What is the nest waiting for?* (Eggs!)

After:

1. Ask for their opinion- did they like it? Thumbs up/down? What was your favorite part of the story?
2. Discussion questions
   a. *Why did Bird collect twigs in this story?* (She was making a nest.)
   b. *Where did Bird make her nest?* (in a tree)
3. Do craft activity. Remember, these groups should be heterogenous so students can learn oral language skills from each other. After reading the story again, introduce the activity. Show children the bird and nest matching cards. First, show each bird card and identify each bird by name. Explain, *Every bird builds a different kind of nest. Birds live in different places and they are all different sizes. Birds make nests that are perfect for them. Today we are going to look at these birds and match them to their nests. Let's think about what each kind of bird looks like and where they live to help us match them to their nests.* Work together to make observations about each bird and match the bird to its nests. Make observations about the nest (size, location, etc.) to help children make matches.



Unit: Botany, Part 4- Bird
Book 20: *Owl Babies* by Martin Waddell
Extra Materials Needed:

1. Before

1. Topic Introduction- *Yesterday we started learning about birds. Birds are animals that need trees. Many birds make their nests in trees. Some birds eat things that live in trees or grow on trees.*
2. Book Introduction- *These are baby owls. How many babies do you see? I think they look a little scared. Do you think so, too? Let's read the book to find out why they are scared.*
3. Title and Author- Draw attention to title and author *The title of this book is Owl Babies. The author is Martin Waddle. He wrote the words.*

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "It was their house." *Trees are so important for many animals. Owls need trees for their homes. They live in the trunk of trees.*
- "She'll bring us mice and things that are nice." *Owls eat mice. The baby owls are thinking about the food Mommy will bring back for them.*
- "AND SHE CAME" *Mommy Owl came back! The babies must be so happy!*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Mother owls leave their babies to hunt for food.
  Owls live in trees.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  trunk- the main body of the tree
  The owl babies live in the trunk of a tree.
  hunting- looking for food
  Mommy is not with her babies because she is looking for food. She's hunting.
  branch- a big part of the tree, coming from the trunk
  The baby owls sit on the branches and wait for Mommy.

3. After

1. Ask their Opinion- *I felt a little bit sad for the baby owls when I was reading that book. Thumbs up if you enjoyed reading the story. Thumbs down if you didn't like it.*
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *Who was this story about?* (Mommy, Percy, Sarah, Bill)
- *Where did the owl family live?* (in a tree)

3. Follow Up Activity- Story Retell
- Explain, *We are going to tell the story again. I want you to help me. Raise your hand if you can help me finish my sentence.* Show pictures in book to help children remember if necessary.

One day, there were three owls. They lived in a tree with their mother. One night they woke up and their mother was… (gone.) *They thought she had gone hunting. They climbed out of their nest and waited on…* (branches.) *They waited and waited and got a little scared because the forest was dark and their were noises all around them. Then, Mommy…* (came back) *The owl babies felt so…* (happy!)

Language Time

Birds in a Tree

There was one little bird, in a little tree. She was all alone and she didn't want to be.
Hold up 1 finger, make it wiggle like a little bird.

So she flew far away, over the sea
Hide 1 finger (bird) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 2 fingers up.

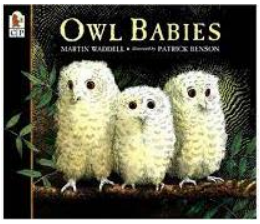
There were two little birds, in a little tree. They were all alone and they didn't want to be.
Hold up 2 fingers, make them wiggle.

So they flew far away, over the sea
Hide 2 fingers (birds) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 3 fingers up.

Repeat, adding 1 bird each time until there are 5 birds.

Last verse:
Now there are 5 little birds living in the tree. They are five kind friends that are happy as can be.
Wiggle 5 fingers.



Unit: Botany, Part 4- Birds
Book 20: *Owl Babies* by Martin Waddell

Tell a Story

Extra Materials Needed: book and whiteboard or chart paper to create shared writing

Shared Writing Preparation Template: Tell a Story

Topic Sentence: Prepare this topic sentence by writing it on the Shared Writing board, leaving a blank space for the purple word:

Sarah, Percy, and Bill are baby owls.

Vocabulary to include, if possible:

trunk- the main body of the tree

The owl babies live in the trunk of a tree.

hunting- looking for food

Mommy is not with her babies because she is looking for food. She's hunting.

branch- a big part of the tree, coming from the trunk

The baby owls sit on the branches and wait for Mommy

Specific letters or conventions to highlight:

Current letters from the alphabetic group, capitals, periods

Plan your detail and concluding sentences (You can utilize the following.)

Detail: One day, the owl babies woke up and saw Mommy was gone.
Detail: They came out of their nest and sat on the branches to wait.
Detail: The owl babies got scared because it was dark and noisy.
Detail: The babies felt lonely and wished their mother would come back.
Conclusion: Mommy owl came back!

Steps in the Process

Discuss the book and vocabulary: *We read this book called Owl Babies. In this story, three owl babies were sad because their mother was gone.*

Write Topic Sentence

Plan: *We are going to work together to tell the story of the owl babies. How did the story begin?*
Write: Write owls to complete the sentence.
Read aloud, pointing to each word: *Sarah, Percy, and Bill are baby owls.*

Write Detail Sentence(s)

Plan: *Let's work together to tell the rest of the story. What happened next?* Guide children by showing them a few pictures in the book, if necessary. Remember the planned detail sentences are available if your students need more direction. Otherwise, write the ideas they share.
Write: One day, the owl babies woke up and saw Mommy was gone.
Read aloud, pointing to each word: *One day, the owl babies woke up and saw Mommy was gone.* Read again, encouraging children to read with you.

Continue adding detail sentences if students are engaged.

Write Concluding Sentence

Plan: *We told most of the story. Now we need to tell what happened at the end. How could we do that?*
Write: She came back!
Read aloud, pointing to each word: *She came back!* Read again, encouraging children to read with you

***Read whole paragraph with students. Post writing where they can return to it frequently to "read."**

Unit: Botany, Part 4- Birds
Book 21: *Balance the Birds* by Susie Ghahremani
Extra Materials Needed:

1. Before

1. Topic Introduction- *We have been learning about birds. Birds need trees. Why do birds need trees? Turn to someone near you and tell them.*
2. Book Introduction- *I see a lot of birds in this picture. It looks like they are landing on a tree's branches. The birds look a little wobbly to me. I wonder why. This is a math book. We are going to do some counting.*
3. Title and Author- Draw attention to title and author *The title of this book is Balance the Birds. The author is Susie Ghahremani. What does the author do? She writes the words in the book!*

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "Half on the left side, and half on the right." *The birds landed on the tree branches. Half on one side, half on the other. I wonder what will happen.*
- "One side is too light. Unless…" *The sides aren't balanced. I wonder if they can make them balanced again.*
- "How will these birds balance?" *This bird is much bigger. Can they balance?*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Balance means to make even on both sides.
  Birds must balance in a tree so they don't fall.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  balance- make even on both sides
  The birds balance with half on the left side and half on the right.
  remain- leftover
  Some birds left but half remain. Half are still on the tree.
  heavy- weighs a lot
  One side has too many birds. It's too heavy.

3. After

1. Ask their Opinion- *Did you like that story about how birds can balance in a tree? Everyone tell me together. Say, "I liked the story" or "I didn't like the story." 1,2,3.*
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *Who was this story about?* (birds)
- *Where did the birds balance?* (in a tree)

3. Follow Up Activity- Math Word Problem
- Explain, *We counted some birds in this book. The birds tried to balance on the tree.* Show picture in book. *In this picture, two birds perch here and two hop there. How many birds is that altogether? Let's count the birds in this picture to find out. 1,2,3,4. Two plus two equals four. Let's say that together. Two plus two equals four. Thanks for helping me to figure out that math problem.*

Language Time

Birds in a Tree

There was one little bird, in a little tree. She was all alone and she didn't want to be.
Hold up 1 finger, make it wiggle like a little bird.

So she flew far away, over the sea
Hide 1 finger (bird) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 2 fingers up.

There were two little birds, in a little tree. They were all alone and they didn't want to be.
Hold up 2 fingers, make them wiggle.

So they flew far away, over the sea
Hide 2 fingers (birds) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 3 fingers up.

Repeat, adding 1 bird each time until there are 5 birds.

Last verse:
Now there are 5 little birds living in the tree. They are five kind friends that are happy as can be.
Wiggle 5 fingers.

Unit: Botany, Part 4- Birds
Book 21: *Balance the Birds* by Susie Ghahremani

Re-Read & Activity- Math Activities

Extra Materials Needed: book, balance scale, large bird glued to unifix cubes, small birds (roughly 10) glued to unifix cubes

Before:

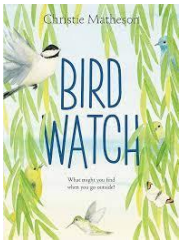
1. Ask if they can remember what this book is about- show them the cover to remind them.
We have already read this story. Do you remember it? Look at the cover. What happened in this book?
2. Point out title & author- ask if anyone can tell you what the author does.
The title of this story is Balance the Birds. The author of the story is Susie Ghahremani. Who remembers what the author does? Tell me. Yes, the author writes the words.
3. Tell them this time we are going to read and discuss the story so be ready to share your ideas!
We are going to read the story again. Pay close attention so we can talk about the book when it's done. While we read, we are going to use this balance scale and these birds to act out what happens in the story. This scale will be like the tree in the story. It will tell us when the two sides are balanced. We know the scale is balanced because this arrow will point to the middle.

During:

1. Read with excitement and fluency. Add, take away, and move birds on the balance scale to represent what is happening in the story. Discuss whether the scale is balanced and how to make it balance.
2. Ask Questions
   a. "Half on the left side, and half on the right." Place 4 small birds in one basket and 4 in the other. *Are they balanced?* (Yes. They are even on both sides.)
   b. "Uh-oh! Off they go!" Remove birds from one basket. *Is this balanced?* (No)
   c. "Two perch here, and two hop there…" Move two birds to the empty basket. *Are they balanced now?* (Yes)
   d. "One small bird remains." Remove all but one bird. *Is it balanced?* (No)
   e. "How will these birds balance?" Put large bird in empty basket. *How do we balance these birds?* (We need more light birds.) Add light birds until they balance with the heavy bird. *Are they balanced?* (Yes)

After:

1. Ask for their opinion- did they like it? Thumbs up/down? Why? Provide a sentence stem.
Did you like this story? Raise your hand to tell me. "I liked this story because…"
2. Discussion questions
   a. *What was this story about?* (birds balancing in a tree)
   b. *What does balance mean?* (even on both sides)
   c. *How do we know something is balanced with our scale?* (the arrow will point to the middle)
3. Do a math activity. Encourage children to experiment by placing different numbers of birds into the scale and trying to make them balance.



Unit: Botany, Part 4- Birds
Book 22: *Bird Watch* by Christie Matheson
Extra Materials Needed:

CHALLENGE

1. Before

1. Topic Introduction- *Today we are going to read our last book about Botany. Botany is the study of plants. We've been reading about birds because birds need trees and trees are a kind of plant. This is our last book about birds.*
2. Book Introduction- *This picture is beautiful! I see all kinds of birds hiding in these green leaves. How many birds do you see?*
3. Title and Author- Draw attention to title and author *This story is called Bird Watch. Lots of people like to go bird watching. They sit quietly and observe the birds. I think this book is going to be about watching birds.*

2. During

1. Read- Read with few interruptions so children can follow the full story.
2. Model Thinking Aloud- Pause to model what good readers think about.
- "Birding Checklist" *We are going to see all of these birds in the story. Let's read their names so we know who we are looking for.*
- "Blow on a dandelion" *I have blown on a dandelion before! It makes the fluffy seeds fly everywhere. Have you ever tried that?*
- "Count them quietly so you don't scare them away." *Let's whisper as we count the doves. Don't scare them!*

3. Draw Attention to Key Events and Vocabulary- Pause to highlight vocabulary and key concepts.
- Key content
  Many animals need trees and other plants.
- Vocabulary: briefly define/highlight vocab words when they come up in the story. Reinforce throughout the day.
  treasures- something very special, valuable
  There are treasures hiding in trees and on the ground and in the air.
  feast- a very large meal
  The dandelions seeds are a feast for the birds.
  nectar- sugary liquid in flowers
  The hummingbirds are searching for nectar.

3. After

1. Ask their Opinion- *I liked that book! We saw a lot of the animals we have been learning about in Botany. There were birds, butterflies, ladybugs. What else? Thumbs up if you liked that story.*
2. Ask Questions- Check their understanding. Ask children to respond in different ways (choral response, individual response, talking to their elbow partners, etc.)
- *Who was brave around the hawks?* (hummingbird)
- *Where did this story take place?* (near trees, in a forest)

3. Follow Up Activity- Wrap up unit
Explain, *We finished our last book about botany. Let's talk about some of the things we have learned about. Turn to someone sitting near you and tell them:*
- One plant we learned about.
- One bug we learned about.
- One bird we learned about.

Language Time

Birds in a Tree

There was one little bird, in a little tree. She was all alone and she didn't want to be.
Hold up 1 finger, make it wiggle like a little bird.

So she flew far away, over the sea
Hide 1 finger (bird) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 2 fingers up.

There were two little birds, in a little tree. They were all alone and they didn't want to be.
Hold up 2 fingers, make them wiggle.

So they flew far away, over the sea
Hide 2 fingers (birds) behind your back.

And brought back a friend to live in the tree.
Bring hand from behind back, now with 3 fingers up.

Repeat, adding 1 bird each time until there are 5 birds.

Last verse:
Now there are 5 little birds living in the tree. They are five kind friends that are happy as can be.
Wiggle 5 fingers.

Wordless Books Small Group Work for the Botany Unit

Books in this Unit

Little Butterfly by Laura Logan
Bee and Me by Alison Jay

Wordless Books General Outline

Skills Targeted: Length of sentences, retelling, explanations, vocabulary, and listening comprehension, and print/book skills.
Materials: Books and follow up activity

Outline of Activity: Wordless book routine—SAMMY

1. **Show** children the book, read title & author, and generate excitement
2. **Ask** "***What do you think this book is about?***"
3. **Model**--Read it the first time with the children where you tell the story—asking a few basic questions as you read.
4. **Make sure they understood** what happened in the story by asking a few questions/reviewing: who the characters were, what the problem was that resolved, and how it ended.
5. **Your Turn:** Read the story again, this time letting the children tell the story. Provide prompts as needed—what is happening on this page? Who is that? How did the story end? Have the child complete your sentence--The girl and the boy became ____(friends).
6. After Reading Activity.

Differentiation:

Children Who Need a Challenge: Allow students to retell the entire story. Only guide them when they seem stuck.

Children Who Need Support: Do most of the retell. Provide students with sentence starters so they can participate successfully in retelling the story.

Little Butterfly by Laura Logan

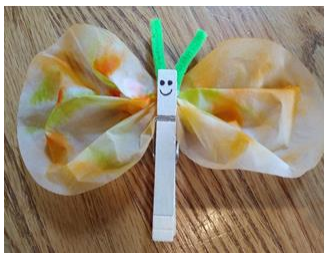
sentences, retelling, explanations, vocabulary, and listening comprehension, print/book skills

Materials: *Little Butterfly* by Laura Logan, Craft supplies for making coffee filter butterfly (coffee filters, markers, spray bottle with water, clothespins, pipe cleaners)

Story Synopsis: A young girl wearing an orange cloak around her shoulders gets off the school bus. Her cloak tears. A monarch butterfly follows her. Feeling sad, the little girl sits under a tree to look at her cloak. Her cat climbs into her lap but soon snatches the butterfly, tearing its wing. The little girl is angry with her cat and feels sad for the butterfly. She holds the butterfly in her hands before releasing it into the air. The butterfly flies away and the little girl lies down to rest. Hundreds of butterflies join her and she goes on an amazing adventure, soaring through the air. The injured butterfly reappears and the little girl runs happily after it, pretending that her own torn cloak is a butterfly's wings.

Outline of Activity: Wordless book routine—SAMMY

1. **Show** children the book, read title & author, and generate excitement by reminding children of some background knowledge around butterflies.
2. **Ask** "***what do you think this book is about***" Say, "This book is called *Little Butterfly*. I see a little girl resting under something orange. She is surrounded by butterflies. I think this book is going to be about this girl watching butterflies."
3. **Model**--Read it the first time with the children where you tell the story—
   asking a few basic questions as you read. "How does the girl feel about her torn cloak? Oh no! What happened to the butterfly? The girl is flying with the butterflies. How do you think she feels? What is the girl pretending her orange cloak is?
4. **Make sure they understood** what happened in the story by asking a few
   questions/reviewing. "What happened to the girl's cloak? What happened to the butterfly's wing? Where did the girl and the butterflies go?
5. **Your Turn:** Read the story again, this time letting the children tell the story.
   Provide prompts as needed.
6. **After Reading Activity**— Create a coffee filter butterfly. First, color the coffee filter with markers. Spread the color by lightly spraying the coffee filter with water. Allow the coffee filter to dry. Scrunch the filter in the middle to resemble the wings of a butterfly. Put the coffee filter wings into the clothespin. Decorate the clothespin to make the butterfly's face and antennae.



Differentiation:

Children Who Need a Challenge: Allow students to retell the entire story. Only guide them when they seem stuck.

Children Who Need Support: Do most of the retell. Provide students with sentence starters so they can participate successfully in retelling the story.

Bee and Me by Alison Jay

Skills Targeted: Length of sentences, retelling, explanations, vocabulary, and listening comprehension, print/book skills

Materials: *Bee and Me* by Alison Jay, Small bee manipulatives, small tongs, 2 bowls, 1 dice

Story Synopsis: Somewhere in a busy city, a young girl reads a book alone in her room. A bee flies into her bedroom window, frightening her. She traps the bee inside a drinking glass where he becomes weak. The little girl learns from a book that bees need sugar water. She gives some to the bee and he feels better. The little girl releases the bee out her window but he soon returns wet from a storm. This time she lets him in willingly and cares for him. They spend time together doing fun things and he grows bigger and bigger as she feeds him sugar water. Eventually the bee is so big that he carries her on his back while he flies around visiting plants. He shows her how he helps plants with pollination. They bring some plant seeds back with them and plant them in her window box. The bee flies away. As the seasons change, the plants begin to grow, as does the little girl's friendship with a neighbor.

Soon the whole city is full of plants, bees, and butterflies.

Outline of Activity: Wordless book routine—SAMMY

1. **Show** children the book, read title & author, and generate excitement
2. **Ask** "***what do you think this book is about***" *What do you think the bee is dropping?*
3. **Model**--Read it the first time with the children where you tell the story—
   asking a few basic questions as you read. "What flew into the girl's room? Does the bee feel well? What is the girl doing to help the bee?
4. **Make sure they understood** what happened in the story by asking a few questions/reviewing.
5. **Your Turn:** Read the story again, this time letting the children tell the story.
   Provide prompts as needed.
6. **After Reading Activity**— Play bee transfer game. Take turns rolling the rice. Count the dots on the side of the dice that is up. Using the tongs, transfer that many bees from the full bowl to the empty bowl. Continue taking turns until all the bees have been transferred.

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