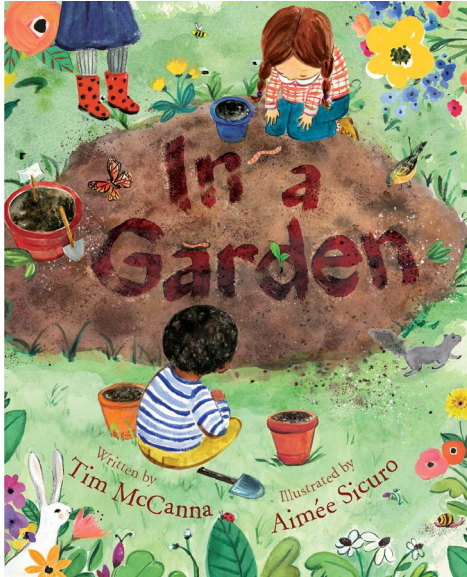




IN A GARDEN

STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

Every child is different, and these are only suggested adaptations and activities. Do what works best for encouraging your child's exploration during this literacy activity. Consult your pediatrician, physical therapist (PT), and/or occupational therapist (OT) first.



Did you know reading books is a great opportunity to support STEM learning?

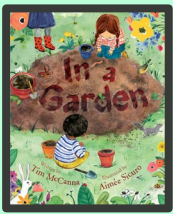
In a Garden is a book written by Tim McCanna and illustrated by Aimée Sicuro.

In a Garden uses simple words and colorful pictures to talk about the various **creatures and insects** that make their home in a garden.

- If you do not have a paper copy of this book, watch a YouTube video of someone reading the book. If you prefer to read it to your child yourself, just mute the audio.

<https://www.youtube.com/watch?v=I4I2p8kwfXo>

- Check your local library to see if it allows you to borrow a digital version of this book to read on a laptop, tablet, or phone.



IN A GARDEN BOOKMARK

STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

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- Print this page and cut around the edges.
- Do not forget to **PEER!** Use additional Prompts if needed, Evaluate and Expand your child's answers, and Repeat the prompts.
- Look at STEMIE's tips for making adaptations to the storybook reading process and on the following pages:
<https://stemie.fpg.unc.edu/guide-book-adaptations>
- If you print this page, you can download or view online by scanning the QR code below.



Expanding | Science

In a Garden

By Tim McCanna

C

Complete a sentence

"Worms and termites dig and toil moving through the garden ____ (soil)."

R

Recall

"What comes before the sprout pushing out?" (a seedling)

O

Open-ended questions

"What kinds of creatures live in a garden?"

W

WH questions

"Where does pollen cling?" (to the heads and feet of bees)

D

Distancing questions

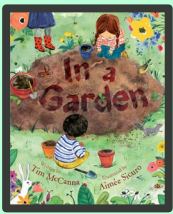
"What are some creatures or insects you have seen outside?"

STEM Words & Ideas to Explore

- Bugs
- Animals/Creatures
- Plant parts (seed, flower, pollen)
- Plant needs (rain, soil)
- Grow/Sprout



stemie.fpg.unc.edu



IN A GARDEN

ADAPTATIONS

STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

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SUPPORT CHILDREN WITH VISUAL IMPAIRMENT/DEAF-BLINDNESS/MULTIPLE DISABILITIES:

STORYBOX

Select corresponding items and place them in a container/box. Items may include:

- Seed packet
- Faux (fake) plants
- Dirt in a small close container or Ziplock bag



Image credit: Unsplash

This adaptation can also...

- Increase children's attention and engagement
- Support children with sensory challenges



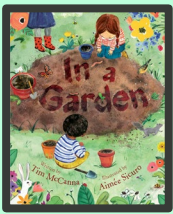
Follow your child's lead and interests. Enthusiastically ask your child questions about what they are doing and what they like.



Answer your child's questions. If you do not know the answer, work together with your child to discover the answer.



Encourage your child to participate in the activity as much as possible. Praise your child's efforts and successes.



IN A GARDEN ADAPTATIONS

STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

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SUPPORT ALTERNATIVE WAYS OF COMMUNICATION:

PICTURES, SYMBOLS, SIGNS, AND/OR ICONS

- Select pictures that correspond to items/objects/animals in the book
- Add signs and icons to the story
- Use pictures along with a communication board to support STEM learning

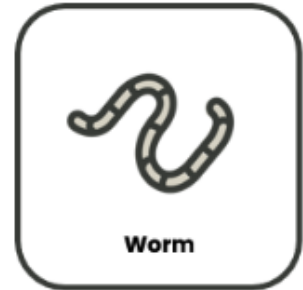


Image Credit: STEMIE

This adaptation can also...

- Increase children's attention and engagement
- Support children' learning
- Support children who are deaf/with hearing impairment



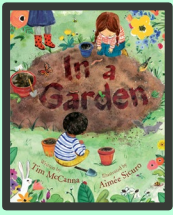
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IN A GARDEN ADAPTATIONS

STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

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VISUAL CUES:
USE TO PROMPT

HOW TO:

Step 1: Print and cut out the images. You can also create your own visual cues (empty squares included).

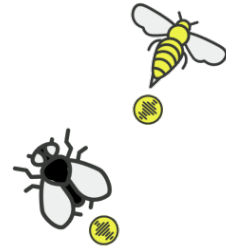
Step 2: As you read, use tape or Velcro to attach the pictures to the corresponding pages in the book.



Garden



Bird



Buzz



Seeds



Worm



Chirp



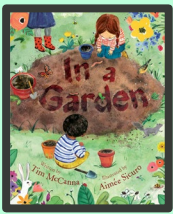
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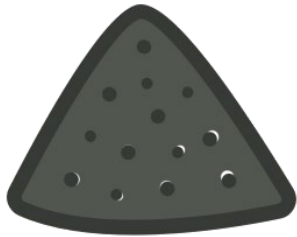
Encourage your child to participate in the activity as much as possible. Praise your child's efforts and successes.



IN A GARDEN ADAPTATIONS

STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

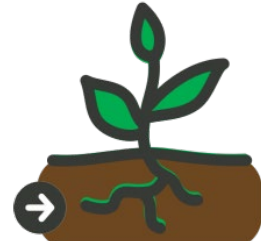
Every child is different, and these are only suggested adaptations and activities. Do what works best for encouraging your child's independent exploration during this daily routine. Consult your pediatrician, physical therapist (PT), and/or occupational therapist (OT) first.



Soil



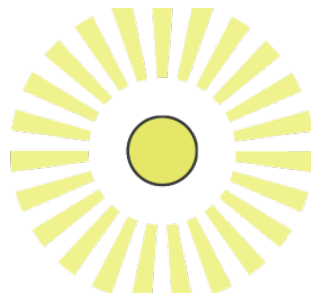
Shoot/Sprout



Roots



Flower



Sunlight



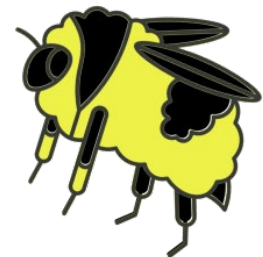
Rain



Stem



Ladybug



Bee



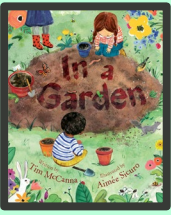
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Encourage your child to participate in the activity as much as possible. Praise your child's efforts and successes.



IN A GARDEN

EXPLORATION I

STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

Every child is different, and these are only suggested adaptations and activities. Do what works best for encouraging your child's independent exploration during this daily routine. Consult your pediatrician, physical therapist (PT), and/or occupational therapist (OT) first.

Plant Observer

Description: Help your child observe the various parts of plants. Talk about how plants use their parts (e.g., seeds, roots, stem, leaves, flower/fruit/vegetable) to meet their needs.

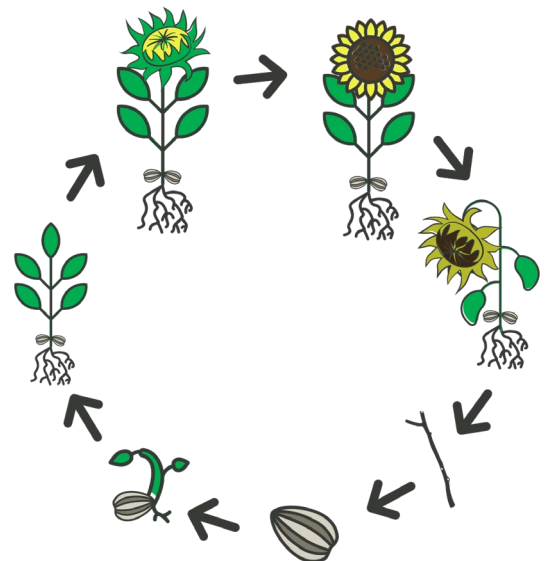
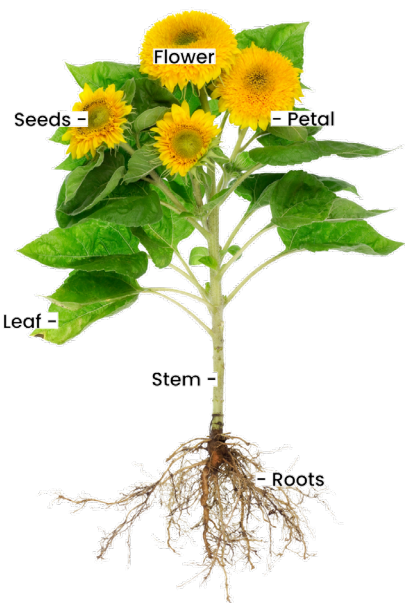
What My Child Is Learning!

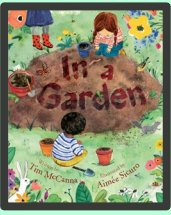
Children are naturally curious about their environment. Introduce STEM words, ask questions, and encourage them to identify **plant parts**. Help your child make a connection between words and real-life experiences and develop fundamental critical thinking and problem-solving skills.

Bring a magnifying glass for a stroll outdoors. Observe closely the **parts of flowers** and **trees**. Collect fallen bark and leaves to examine. Encourage your child to explore if they notice any bugs on the plants.

Explore faux (fake) flowers, plants, and fallen nature items.

Talk about how plants have parts (roots, stem, flower petals, leaves) that help them grow and contribute to their life cycle.





IN A GARDEN

EXPLORATION II

STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

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Plant Measurer

Description: Help your child learn to **measure** and take data by keeping a running record of plant heights they observe while they are outside playing or on a nature walk.

What My Child Is Learning!

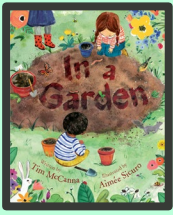
Children are naturally curious about their environment. Introduce STEM words, ask questions, and encourage them to identify **plants**. Help your child make a connection between words and real-life experiences and develop fundamental critical thinking and problem-solving skills, as well as math skills.

Give your child the lead to **measure!**

- Have your child stand next to a tree and ask "Which is **taller/shorter?** You or the **tree?**"
- Have your child stand in grass and ask "Which is **taller/shorter?** You or the **grass?**"
- Encourage children to find a plant that is **tall** enough to come up to their knees.

Adapted from LT². Learn more here: <https://www.learningtrajectories.org/math-activities/up-to-my-knees>





IN A GARDEN

EXPLORATION III

STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

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Gardener

Description: Help your child **observe** the **growth of plants** by planting **seeds**. The activities below can be done over multiple days.

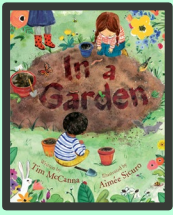
Help your child understand **plants have needs**, such as sunlight, water, air, and nutrient-rich soil and that **plants have parts** that help them meet these needs, such as leaves and roots.

What My Child Is Learning!

Children are naturally curious about their environment. Introduce STEM words, ask questions, and encourage them to identify **plants**. Help your child make a connection between words and real-life experiences and develop fundamental critical thinking and problem-solving skills.

Your child may ask questions about what they are observing so they can understand plant growth. If not, encourage their observations and engagement by asking them questions.

1. Take a stroll outdoors and scavenge for seeds to examine and then plant. These can be acorns, dandelion seeds, sunflowers, beans, and more. Ask, "What plant do you think this seed will sprout into?" "How can we help this seed sprout and grow?"
2. Compare and contrast **living** (e.g., plants, flowers, trees) and non-living (e.g., rocks, air, water, soil) things. Ask, "What do you know about soil?" "How are plants and soil the same? Different?" "How are rocks and soil the same, Different?"
3. Use recycled egg cartons filled halfway with soil, place 1 to 2 seeds on top of soil in each egg holder, lightly tap seed into soil, and add a few drops of water. Ask, "How tall do you think this sprout will get?" "How many seeds should be put in each spot?"
Note: Some of the easiest seeds to grow are beans and herbs.
4. Talk about how plants have **parts (i.e., roots, stem, flower petals, leaves)** that help them grow and contribute to their life cycle.



IN A GARDEN

EXPLORATION IV

STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

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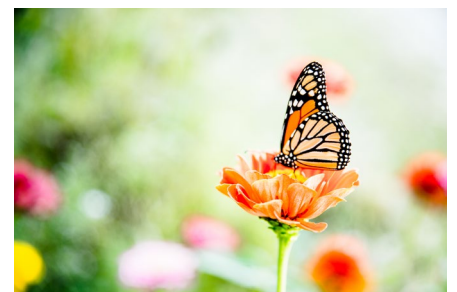
Bug Bungalow Builder

Description: Help your child recognize that some things are **living, like plants, flowers, and bugs** and that some things are non-living by foraging for natural items to use to create a house for insects. This activity can be done over multiple days. Encourage your child to explore properties of grasses, twigs, and leaves to determine their usefulness for creating and **building bug** bungalows. Bug bungalows invite insects that help keep plants healthy and protected from other harmful insects.

What My Child Is Learning!

Engineering for children birth to five is about exploring materials and building knowledge about them so that the materials can be used to solve problems and/or create something.

- Take a stroll outdoors and forage/look for long grasses, twigs, and leaves, while looking for bugs. They may be under sticks and leaves or sitting on top of flower blooms. Encourage engagement by asking "*What do you know about **bugs**?*" "*What do you want to know about **bugs**?*" "*Where do **bugs** usually live?*" "*Where can you find **bugs**?*"
- Explore these items naturally and invite children to think of an **idea or plan for building bug homes**. Encourage creativity by asking "*What can you use the grass for on the bug bungalow?*" "*What will you use to build the walls?*" "*How many twigs do you think you will need to build a bungalow wall?*" "*How long will you make your bug bungalow?*" "*What are some things you could add to improve the bungalow?*"
- Talk about how **creating** bug homes invites helpful insects, which are **living things**, which pollinate flowers and eat other bugs that harm plants, making them essential to a healthy **ecosystem/habitat**.



IN A GARDEN



ADDITIONAL ACTIVITY IDEAS

STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

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- Start a small vegetable garden with your child. **Make a plan**, plant the seeds, and tend to the garden. **Document how the plants grow** and research "recipes" to prepare once the vegetables grow. Be sure to record all the steps and decide if you should make any changes next year!
- Explore fruits and vegetables at the grocery store. Help your child research how some of their favorite produce grows and talk about different climates that allow for different fruits and vegetables to grow!
- Check out our Discovery Play Activity for Sorting Leaves
- Check out our Discovery Play Activity for Gardening
- Check out our Discovery Play Activity for Nature Scavenger Hunt
- Check out our My STEM Adventure app, available on the App Store and Google Play. Follow the storybook activity taller/bigger and shorter/smaller.

