



UP TO MY KNEES

BOOKMARK FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

DID YOU KNOW READING BOOKS IS A GREAT OPPORTUNITY TO SUPPORT STEM LEARNING?

Reading with older toddlers and preschoolers uses **PEER**:

- Use additional Prompts if needed,
- Evaluate and
- Expand your child's answers, and
- Repeat the prompts.

ABOUT THIS BOOK



Up To My Knees is a book written by Grace Lin. It is springtime. Mei plants a seed and watches it grow. How tall will it get?

WHERE CAN I FIND THIS BOOK?

Search [YouTube](#), [BookShare](#), [Archive.org](#), and your local library.

ADAPTATIONS

STEMIE's tips for making adaptations to the storybook reading process

<https://stemie.fpg.unc.edu/resource/a-guide-to-book-adaptations/>

Scan the QR code to download or view online.



Expanding | Science & Math

Up To My Knees

By Grace Lin

Complete a sentence



"There is a ----- (sprout)."

Recall



"What did Mei do after she dropped a seed in a hole?"

Open-ended questions



"What will happen after planting a seed?"

WH questions



"What makes plants grow? (water, sun, time)"

Distancing questions



"How can you find out who is taller/shorter?"

STEM Words & Ideas to Explore

- Plants
- Short & Tall
- Plant needs





UP TO MY KNEES

ADAPTATIONS FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

Every child is different. Do what works best for encouraging your child's independent exploration during this suggested literacy activity. These are only suggested activity adaptations. Consider consulting your child's care team first.



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.

SUPPORT CHILDREN WITH VISUAL IMPAIRMENT, DEAF-BLINDNESS, OR MULTIPLE DISABILITIES:



Storybox:

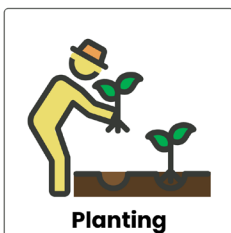
Select corresponding items and place them in a container or a box. Items may include:

- Seed packet
- Fake plants
- Dirt (in a taped shut bag or Ziplock)

This adaptation can also be used to:

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

SUPPORT ALTERNATIVE WAYS OF COMMUNICATION:



Pictures, Symbols, Signs, or Icons:

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

This adaptation can also be used to:

- Increase children's attention and engagement
- Support children's learning
- Support children who are deaf or have a hearing impairment



UP TO MY KNEES

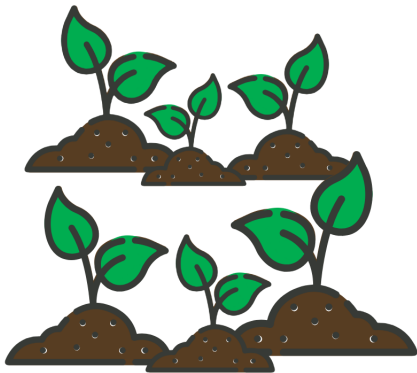
VISUAL CUES FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

How To Use VISUAL CUES:

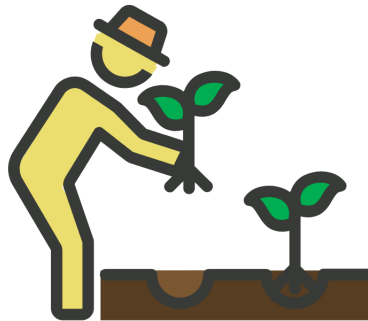
1. Print and cut out the images.
2. As you read, use tape or Velcro to attach the pictures to the corresponding pages in the book.

Check out STEMIE's tips for creating and using visual supports with

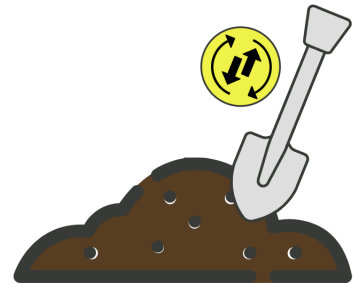
[A Guide to Visual Supports.](#)



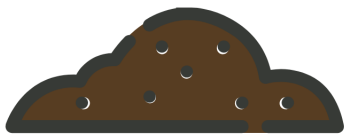
Garden



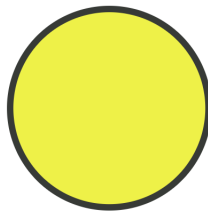
Planting



Dig



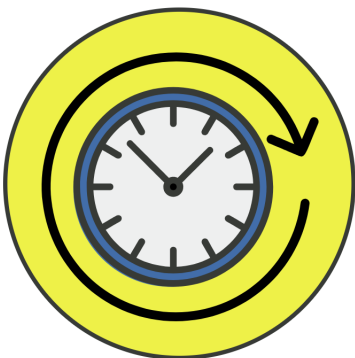
Soil



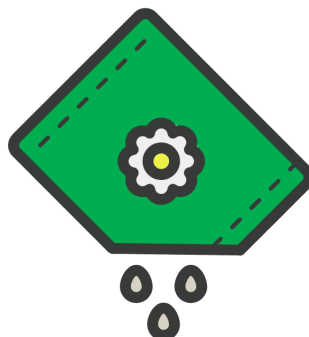
Sun



Water



Time



Seeds

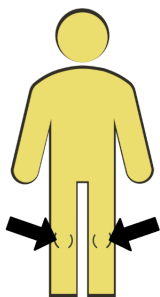


Toes

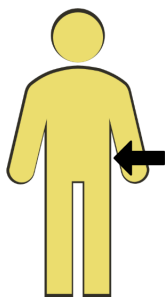


Up To My KNEES

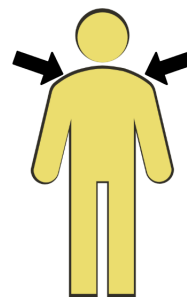
VISUAL CUES FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD



Knee



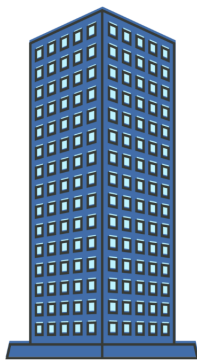
Waist



Shoulder



Short



Tall



Need more visual cues?

Use the empty squares above to create your own or visit [STEMIE's Visual Cue Library](#).



LOLA PLANTS A GARDEN

ACTIVITY IDEAS FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

GROWING PLANTS

Description: 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**.

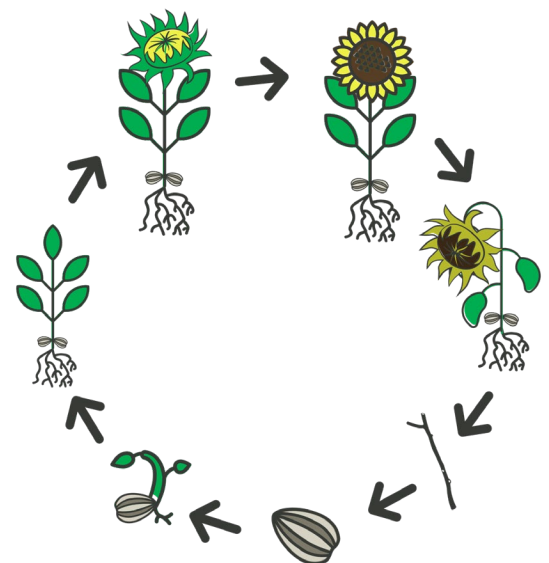
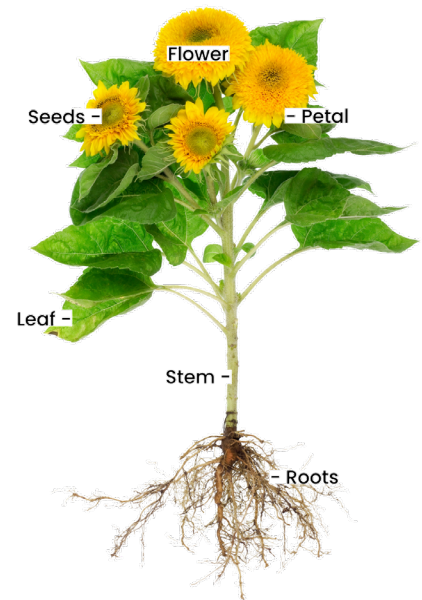
What My Child Is Learning!

Children learn best by interacting with people and objects. Introduce STEM words, ask questions, and encourage them to make connections between words and real-life experiences. This helps children develop fundamental critical thinking and problem-solving skills.

Observe the **growth of plants** by **planting seeds**. The activities below can be done over multiple days.

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 explore 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** (plants, flowers, trees) and non-living (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 we put in each spot?**" Note: Some of the easiest seeds to grow are beans and herbs.
4. Talk about how plants have **parts (roots, stem, flower s, leaves)** that help them grow and contribute to their **life cycle**.





LOLA PLANTS A GARDEN

ACTIVITY IDEAS FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

MEASURING PLANTS

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 learn best by interacting with people and objects. Introduce STEM words, ask questions, and encourage them to make connections between words and real-life experiences. This helps children develop fundamental critical thinking and problem-solving 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>

ADDITIONAL ACTIVITY IDEAS:

- 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!
- Go on a garden hunt. Walk through your neighborhood and see if you can find other people's gardens. Talk about what they might be **growing** and keep track of all the gardens you see!
- Check out our [Discovery Play Activities](#): Sorting Leaves, Gardening, and 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**.

