



BABY LOVES QUARKS!

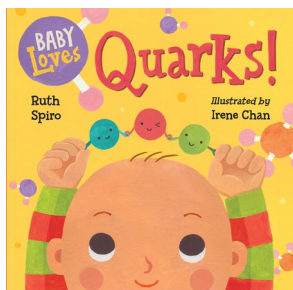
BOOKMARK FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

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

Reading with babies and toddlers uses strategies such as:

- **Pointing to pictures**
- **Using expressive facial features and voices**
- **Spending as much time as your child wants on pages they are very curious about**
- **Modeling the right answer to help your child learn new words**
- **Asking simple Wh- questions, such as "What is this color?"**

ABOUT THIS BOOK



Baby Loves Quarks! is a book written by Ruth Spiro and illustrated by Irene Chan.

Comparisons between a baby's toys and atoms introduce your child to **science** concepts and **engineering** in a simple and exciting way! What do you think your favorite toy is made of?

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.



Foundational | S & E

Baby Loves Quarks!

By Ruth Spiro

Point to pictures



Be Expressive!



Model correct answers

"Smash. Say 'Smash.'"



'WH' questions

"What sticks together?"
[quarks]



Do not rush

Wait for a response after each comment or question



STEM Words & Ideas to Explore

- Build
- Part & Whole





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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:

- Balls
- Blocks

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



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VISUAL CUES FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

How To Use VISUAL CUES:

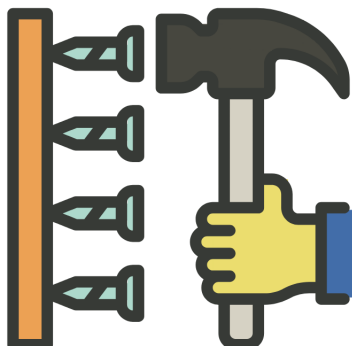
1. Print and cut out the images.
2. As you read, use tape or Velcro to attach the pictures to the corresponding pages in the book.

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

[A Guide to Visual Supports.](#)



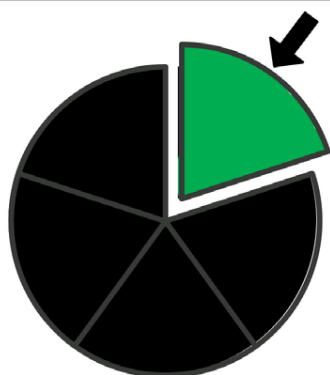
Baby



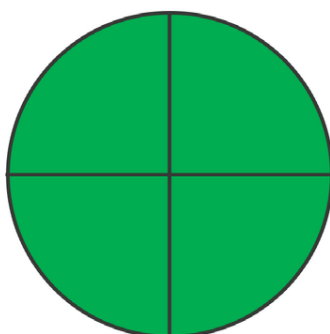
Build



Blocks



Part



Whole



Need more visual cues?

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



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ACTIVITY IDEAS FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

BUILDING TOWERS



Description: Help your child **observe** and **explore** the **characteristics** of blocks and **spatial positioning**.

While **building** with blocks, Lincoln logs, or other stacking toys, use language such as “**on top, up, on bottom, beside**” to begin facilitating those spatial concepts required in daily life and building tasks. You can also **explore what makes a good material to build with**.

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. Early engineering for young children is about exploring, playing, and figuring out how things work by trying ideas, testing them, and learning from what happens.

While **building** with blocks with your child, describe where the block is going. Say, for example, “I put a block **on top**.” Try messing up a tower on purpose. For example, stack a large block on top of a smaller one, and problem-solve with your child how to fix it.

While children are learning how to express words, they may already have numerous ways to communicate! Watch for their cues as they may express their curiosity and interest by turning toward or pointing to the blocks. Using open-ended questions offers an opportunity for children to explore the block that they are interested in.

Introduce various textures by using blocks that are **soft/fabric**, and **hard/wood/plastic**. Talk about how the **different textures** feel and encourage your child to **touch and explore**.

Try building with things that are less sturdy as well, like cotton balls, to see how they **fall down** by themselves, as compared to harder materials like blocks that do not fall over by themselves.



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ACTIVITY IDEAS FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

ADDITIONAL ACTIVITY IDEAS:

- Learning about atoms and molecules is exciting but also challenging to teach young children because these concepts are seemingly invisible. As you go about your day with your child, point out that everything is made up of atoms and molecules, even though we can't observe them by themselves. Activities focused on making an atom or molecule bigger and more concrete can be great tools for parents and teachers. Check out this activity where children, as young as toddlers, can make models of atoms. You can also scale this activity down by simply gluing pom-poms on a piece of paper and helping the child draw lines between them to show they are connected. This activity is also great for tactile learners and children with visual impairment/blindness.
<https://kidsactivitiesblog.com/47951/atoms-molecules-fun-wayslearn/>
- Stack small boxes in short towers and go bowling! See if you can knock over the towers with a ball. Encourage your child to predict and test which box towers get knocked down.
- Use **spatial and positional language**! Use these tips for integrating spatial and positional language into everyday conversation. Ask, "What did you **create**?" "Can you fit [**inside, outside, on top of, under**] of it?" "What is it for?"
- Check out our [**Discovery Play Activities**](#) for Building Blocks.

