



TEN BLACK DOTS

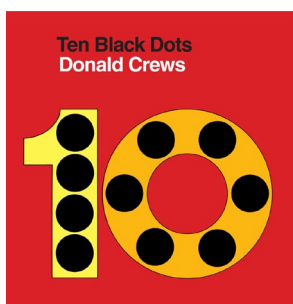
BOOKMARK FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

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



Ten Black Dots is a book by Donald Crews. Dots are used to make different objects while **counting**. What can you **make** with **ten circles**?

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 | Math

Ten Black Dots

By Donald Crews



Complete a sentence

"Eight dots can make the wheels of a _____ (train)."



Recall

"What did they make with the five black dots?"



Open-ended questions

"How many dots do you think there are?"



WH questions

"Where did the balloons go?" (in the sky, they were set free)



Distancing questions

"What could you make from ten black dots?"

STEM Words & Ideas to Explore

- Numbers & Counting
- Shapes
- Colors





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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:

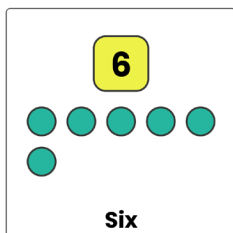
Select corresponding items and place them in a container or a box. Items may include:

- Small circle objects
- Buttons
- Plastic coins

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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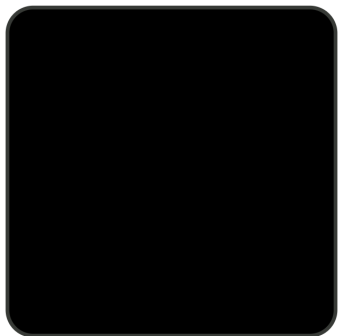
VISUAL CUES FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

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

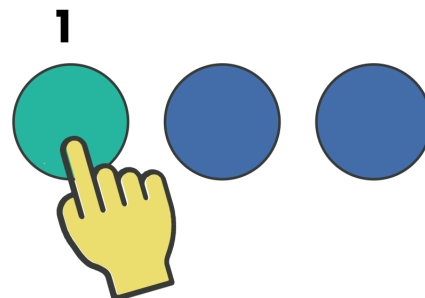
[A Guide to Visual Supports.](#)



Black



How many



Count

0

Zero

1



One

2



Two

3



Three

4



Four

5



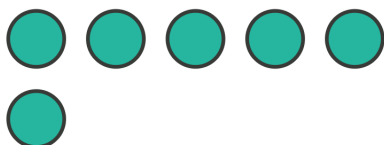
Five



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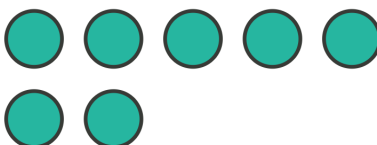
VISUAL CUES FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

6



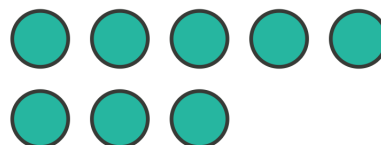
Six

7



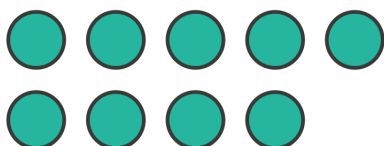
Seven

8



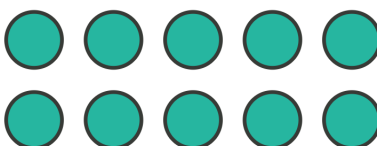
Eight

9

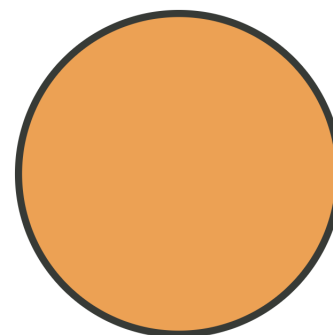


Nine

10



Ten



Circle



Need more visual cues?

Use the empty squares above to create your own or visit [STEMIE's Visual Cue Library](https://www.stemielearningtrajectories.com/visual-cue-library).



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ACTIVITY IDEAS FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

COUNTING FOODS



Description: Help your child learn to **count** during daily routines and activities. Encourage your child to **count** their food items and other items during mealtimes.

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, as well as math skills.

Mealtime is great opportunity for practicing number operations, like **addition and subtraction**, and is already a part of a child's daily routine! Ask, "I am giving you **five** crackers to start. I see you ate **two** crackers. **How many** do you **have left**?" "**How many more** do you need to need to have **five** on your plate?"

During mealtime, you can ask, "**How many** blueberries are on your plate? Can you put **one** on my plate and **one** on your sibling's plate?"

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

- Ask, "**How many** do you notice on your plate? On my plate?" Encourage your child **count the number** of food items on each plate.
- If children count the food items accurately, ask "So, **how many all together**?"
- Count plates for dinner and ask, "How many plates are there?" "Can you show me the number using your fingers?"
- Support children in understanding the principal of **cardinality** by gesturing to all the food together.
- If children need support **counting one by one**, point to each food item as children count, correcting as needed.

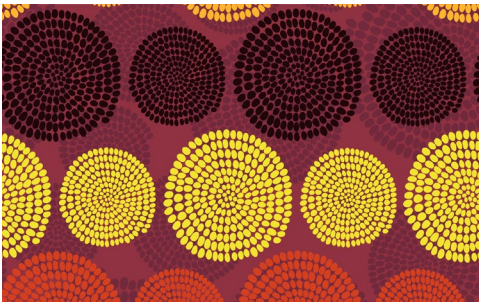
Make sure to provide praise and encouragement for children's efforts and progress. You can say "Wow! I like the way you count. You **counted** the plates by saying the **numbers** aloud. I knew that you could do it!"



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ACTIVITY IDEAS FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

SORTING SHAPES



Description: Help your child **notice** and **identify shapes**. Label and talk about shapes you notice during your daily routines.

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, as well as math skills.

Provide household items that are different shapes on the floor or table for your child to explore. Allow your child to explore those items in their own way and using different senses. Narrate the actions and experiences as they explore the items. You may say, "What **shape** are you holding?" Build upon the shape exploration and help your child **sort shapes** out by putting **circles together, squares together**. Explore how **shapes** are the **same and different**.

Play a game of *I-Spy* with your child, adding in a rule to say the shape of the object you 'spy'. Go first, so your child has a model of how to incorporate shapes into the game. Begin with simpler shapes then increase the difficulty, just like the author did in the book! Say,

- "I spy, with my little eye, a **big circle**." (clock)
- "Wow, I like how you told me the **shape of the object is a square**. A **square** has **4** sides that are all the **same length**."



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ACTIVITY IDEAS FOR STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

ADDITIONAL ACTIVITY IDEAS:

- Practice **counting** by asking questions within daily routines. Ask, “**How many** eyes do you have?” “**How many** pencils do we have?”
- Use real objects to practice basic **addition** and **subtraction**. Draw a picture of a car together. Say, “Here is **one** wheel (**one circle**). **How many more** wheels does a car need?”
- Check out [Storybook Conversations](#) for *Ten Apples Up On Top* and for *Pete the Cat and His Four Groovy Buttons*
- Give your child a set of items like blocks or pebbles and see **how many designs** they can make with the materials. You can **add and take away the number** of objects and see how the **shapes** change!
- During daily routines, talk with your child about **how many** things you need for certain activities. For example, when you’re brushing your teeth, you only need **1** toothbrush, but when you’re having snack you probably need **more than one** raisin. Explore with your child how some activities **need more and/or less** things.

