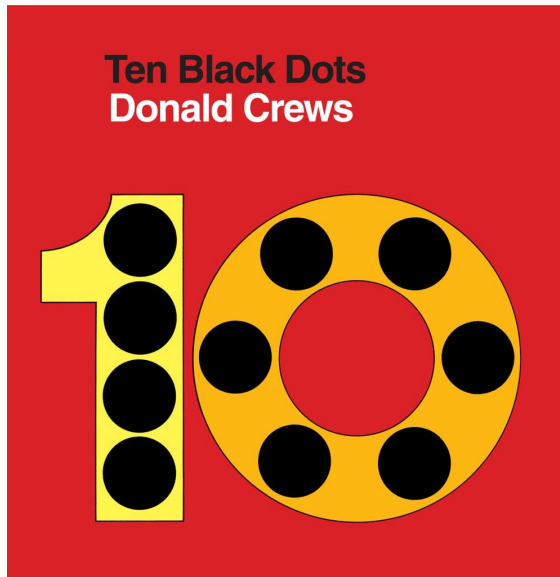




TEN BLACK DOTS

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?

Ten Black Dots is a book written by Donald Crews

In this rhyming book, the author explores all the different objects that can be made from **ten** black dots.

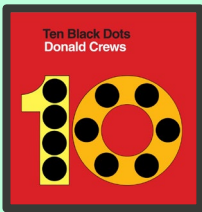
- If you do not have a paper copy of this book, watch a YouTube video of someone reading the book. If you prefer to read it to your child yourself, just mute the audio.

<https://www.youtube.com/watch?v=uPJEqUB2CxA>

- 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.

- Or find it online:

<https://archive.org/details/tenblackdots00crew/page/n9/mode/2up>



TEN BLACK DOTS BOOKMARK

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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 | Math

Ten Black Dots

By Donald Crews

C

Complete a sentence

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

R

Recall

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

O

Open-ended questions

"How many dots do you think there are?"

W

WH questions

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

D

Distancing questions

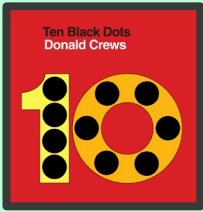
"What could you make from ten black dots?"

STEM Words & Ideas to Explore

- Counting
- Numbers
- Shapes
- Operations (add & subtract)



stemie.fpg.unc.edu



TEN BLACK DOTS

ADAPTATIONS

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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:

- Small circle objects (e.g., buttons, coins)



Image credit: Microsoft Stock

This adaptation can also...

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



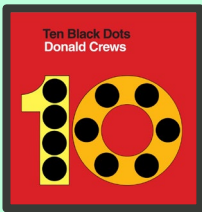
Follow your child's lead and interests. Enthusiastically ask your child questions about what they are doing and what they like.



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.



TEN BLACK DOTS

ADAPTATIONS

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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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TEN BLACK DOTS ADAPTATIONS

STORYBOOK CONVERSATIONS WITH YOUR YOUNG CHILD

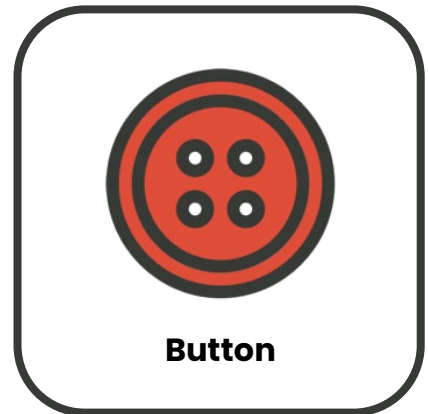
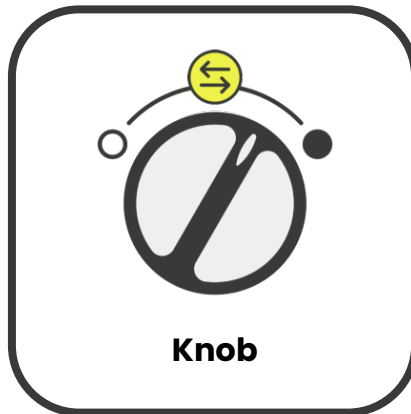
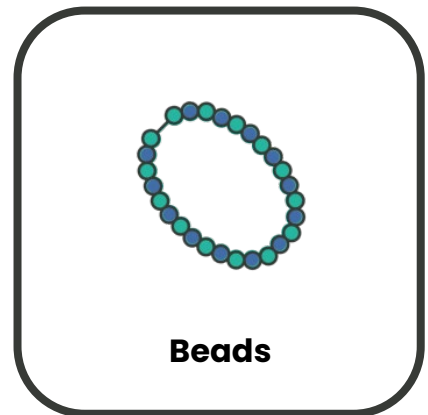
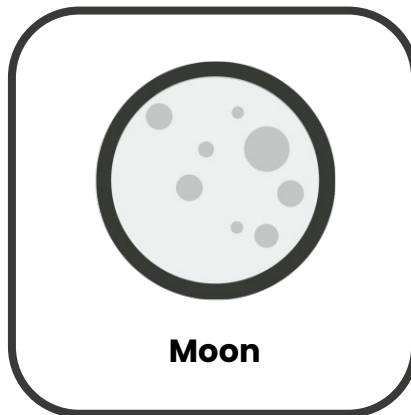
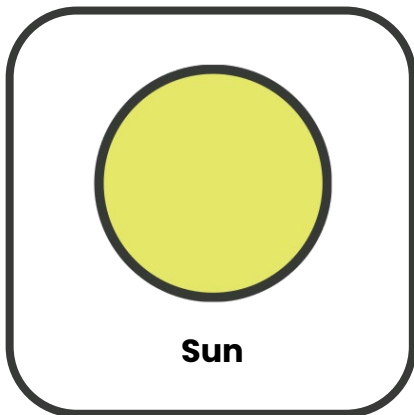
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VISUAL CUES:
USE TO PROMPT

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.



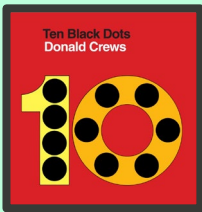
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Count



Zero



One



Two



Three



Four



Five



Six



Seven



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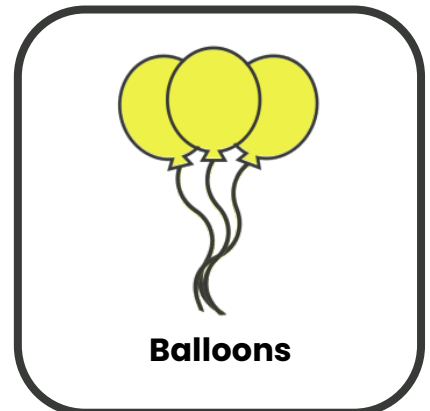
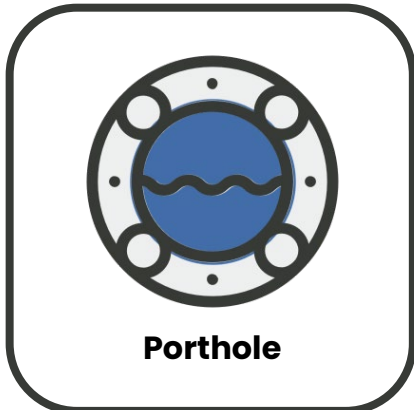
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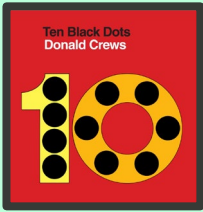
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TEN BLACK DOTS

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.

Food Counter

Description: Help your child learn to **count** during daily routines, such as snack and mealtime.

What My Child Is Learning!

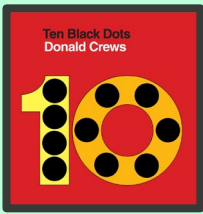
Children are naturally curious about their environment. Help children make a connection between the **numbers and counting**. Help your child make a connection between words and real-life experiences and develop fundamental critical thinking and problem-solving skills, as well as math skills.

Snack and/or 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?"

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.
- Ask, "If I have **three** crackers in this hand, **how many more** do I need to have **six**?"
- 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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Shape Observer

Description: Help your child **notice shapes**. Provide household items of 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?"

What My Child Is Learning!

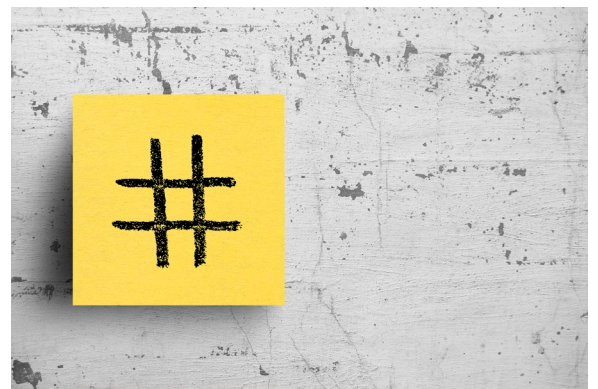
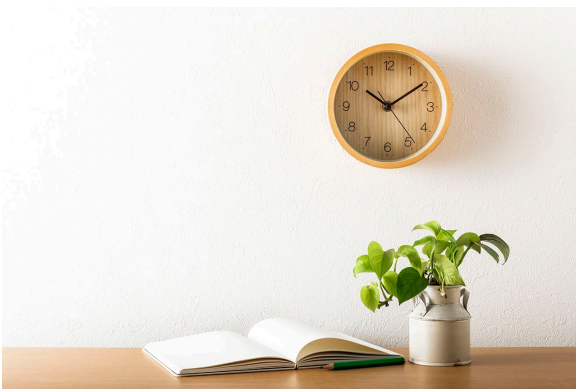
Children learn best by interacting with people and objects. Introduce STEM words, ask questions, and encourage them to recognize shapes in their daily routines. Help your child make a connection between words and real-life experiences and develop fundamental critical thinking and problem-solving skills, as well as math skills.

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**."

Encourage children to search for and name shapes in their environment. Try asking:

- "What objects are shaped like a **circle**?"
- "What can you find in your room that is shaped like a **triangle**?"
- "How many **squares** can you find?"



TEN BLACK DOTS



ADDITIONAL ACTIVITY IDEAS

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- 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*
- Check out Storybook Conversations 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 goldfish. Explore with your child how some activities **need more and/or less** things.

