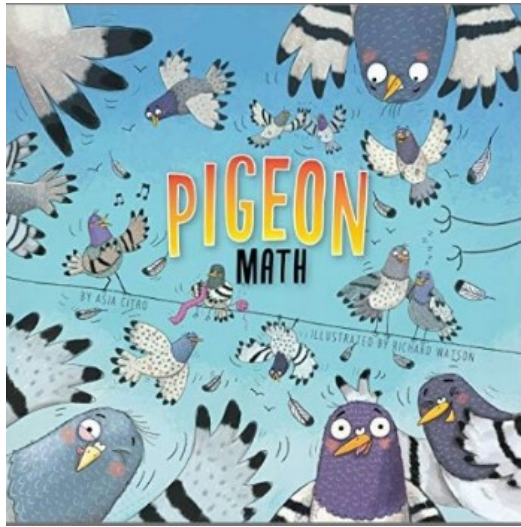


Primary task

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BIG IDEA: becoming flexible and nimble with our number sense; building our fact fluency
Visualize and infer story details



By Asia Citro

Before Reading

Counting chaos ~ How do we count when objects and images are not grouped in friendly formations? Visit the front & back end pages and ask children.

This book invites children to recognize groups of numbers in a variety of configurations; as parts of the whole; as parts contained in larger numbers.

How many pigeons are on the clothes line? Are we able to count on to determine how many pigeons on the cover.

During Reading

Use this story context to create part/part/whole relationships. Cognitive Guided Instruction calls this **join/separate**. Children will work with a particular number in various settings for several months before they know all the parts with ease and confidence.

Using number combinations to solve subtraction. Knowing the parts of a number well enough to identify a missing part requires children to combine parts with ease. The more children know about combining (composing/decomposing) numbers the easier it will be to work with missing parts.

Cognitive guided instruction opportunities:

Join Start unknown: $\underline{\quad} + 3 = 8$

Join Change unknown: $5 + \underline{\quad} = 8$

Join Result unknown: $3 + 5 = \underline{\quad}$

Separate Start unknown: $\underline{\quad} - 3 = 5$

Separate Change unknown: $8 - \underline{\quad} = 5$

Separate Result unknown: $8 - 5 = \underline{\quad}$

After Reading

Explore all 4 number sense relationships ~ part/part/whole; spatial reasoning (clothesline activity or rekenreks representing *perching pigeon* stories); 1 or 2 more/less; benchmarks of 5 & 10

Kathy Richardson in her book How Children Learn Number Concepts writes: *I realized that for children numbers are adjectives, not nouns.* Children would use their fingers to count and Kathy learned to say: "This time I will say numbers, but you think of what the numbers mean."

Kathy says, "What did you think about?" Children eagerly offer the visualizations of quantity and the operation of subtraction from their own stories and experiences. p.70

Kathy is not discouraging fingers, rather encouraging visualization and describing all the parts of a number.

Name: _____

Create as many number stories as you can using the *perching pigeons* picture.

Are the pigeons **joining** the flock or are the pigeons **separating** from the flock ?

Create a *simple sketch* to show your math stories. Write the equation too!

Strong verbs for subtraction/separating stories:

tumbled

plummeted

dove

dipped down

dropped suddenly

nosedived

Strong verbs for addition/joining stories:

added

swooped in

gathered

alighted upon

