
COUNTING COLLECTIONS

Presented by Jen Barker

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Green Timbers Elementary, Surrey, BC

Contact Info:

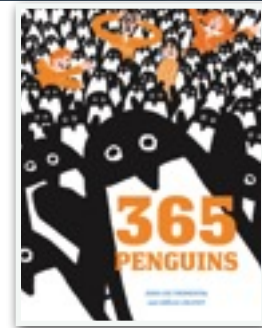
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COUNTING COLLECTIONS

Potential content learning intentions:

Number concepts including:

- Subitizing
- Stable order count
- Cardinality
- One-to-one correspondence
- Magnitude - Relative size of numbers
- Counting forward
- Counting On
- Skip Counting
- Place Value
- Flexible counting strategies
- Connecting Repeated Addition to Multiplication
- Multiplicative Thinking
- Connecting Multiplication to Division
- Fractions as sets of
- Addition of Decimals and Fractions
- Percent



Launch with a book!



Potential Curricular Competency learning intentions:

- **Reasoning and Analyzing** through estimating and developing mental math strategies and abilities to make sense of quantities
- **Understanding and Solving** through using multiple strategies
- **Communicating and Representing** their thinking not only orally but through concrete materials, pictorial representations, and symbolically
- **Connecting and Reflecting** through visualizing and describing mathematical concepts, connecting mathematical concepts, and sharing and reflecting upon their thinking

What do I need?

- Anything - dollar store items - bulk food items - math manipulatives
- Build kits (10 – 20), (21 – 50), (51 – 100), (100 - 200), (200 - 500)
- Tools: ice cube trays, ten frames, hands, feet, scarf holders, coffee filter, cupcake liners, plates, cups, etc.

Potential Mini Lessons:

- How might we estimate?
- What is a range?
- How could we use this new tool?
- How might we record how we counted?
- What could I use to help me skip count beyond what I know?
- How does organizing our collections in groups of and/or arrays help us with think about multiplication? And division?
- How might I use multiplication facts I know to help me answer questions I don't know?
- How could you describe how you counted your collection through the lens of division?
- How many different related equations can you record that show how you counted your collections?
- How might we use our collections to think about factors and multiples?
- How might you count your collections through the lens of fractions of a set?
- If 100 items were considered to be one whole, what fraction do you have? What if 10 items were considered a whole?
- Being responsive - I've been noticing... and I'm wondering...

Guiding Questions during a Conferral:

Our goal is to build content understanding and build their identity as mathematicians. We do this by:

- Ask open questions to get an idea about where their understanding is.
 - How's it going?
 - What are you thinking about?
 - What are you working on figuring out?
 - What are you wondering about?
 - Notice the strategies and name them.
 - Consider how you will nudge their learning forward.
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