

# 8-Day Virtual Counting Collections Launch CWCLA, August-September 2020

Overview of Counting Collections Mini Unit (~8 days)

Bend One: Mathematicians Count (2 days)

Bend Two: Mathematicians Count & Organize (3 days)

Bend Three: Mathematicians Count, Organize & Document Their Thinking (3 days)

Structure for Each Day		
The Launch	The Count	The Share (Discussion/ small group)
<ul> <li>Whole class, Synchronous (Morning meeting, math mini lesson)</li> <li>Synthesize and discuss learning from previous day</li> </ul>	<ul> <li>Asynchronous</li> <li>Students count independently</li> </ul>	<ul> <li>On Google Classroom</li> <li>In small groups</li> </ul>

#### Prework

### Family Communication (From Math ILT)

- What are Counting Collections?
- What can my child count for counting collections?
- How to "help"
- Teacher or ILT hosted workshop
  - Optional parent attendance

#### Teachers

- Create homogenous small groups and small group schedule for these two weeks of counting collections.
- Communicate small group meeting schedule to families

	Bend One: Mathematicians Count				
Day	The Launch	The Count	The Share		
#	(whole group time, i.e. math mini lesson)	(students task to do asynchronously)	(small group discussion)		
Day 1	<ul> <li>The Setup: Model with excitement all of the things you can count in the world <ul> <li>Model a collection you might have to count (i.e. coins, stamps, etc.)</li> <li>Model other things in your house you might count as well (forks, etc.)</li> </ul> </li> <li>What can mathematicians count? <ul> <li>Collections we have</li> <li>What else could be a collection?</li> <li>Brainstorm a list with students <ul> <li>Items in their house</li> </ul> </li> </ul> </li> <li>Teacher Goal: <ul> <li>Listen for students understanding of the term "collection" and what that means</li> <li>Listen for students' ideas and understanding of what they could count in their home.</li> </ul> </li> <li>The Task: <ul> <li>Mathematicians, today you will count. Go count! And be ready to share when we come back together tomorrow morning.</li> <li>Upload a photo of your count to Google Classroom</li> </ul></li></ul>	<ul> <li>Teacher Goal: Look for student mathematicians who you can celebrate! Maybe look for someone who: <ul> <li>Showed perseverance with their count</li> <li>Used a pattern to help them solve</li> <li>Included a math word somewhere in their explanation</li> </ul> </li> <li>Today, choose 2-3 students who you suspect would be comfortable sharing the steps they took with the class on tomorrow's Zoom.</li> <li>Resource for Primary Teachers Take notes on student understanding (Note-taking template)</li> <li>Student Task: <ul> <li>Count asynchronously</li> <li>Upload to Google Classroom</li> </ul> </li> </ul>	<ul> <li>Teacher Questioning</li> <li>Ask students questions that seek to better understand their thinking <ul> <li>Aim not to make assumptions about student method</li> <li>Ask questions to understand</li> </ul> </li> <li>My student's haven't had a chance to count before my scheduled small groups started!</li> <li>Options: <ul> <li>Group count using a document camera</li> <li>Display a picture of someone else's count, discuss what they think this mathematician did</li> <li>Use online manipulatives to group count</li> <li>Invite students to count during small group (maybe invite to till their cameras so you can see them work, voice over with questions</li> </ul> </li> </ul>		

Day 2	<ul> <li>The Setup: Celebrate MATH <ul> <li>Highlight how students took on challenge</li> <li>Identify any use of prior knowledge you can celebrate</li> <li>Use of math vocabulary</li> <li>Use of structure</li> <li>Use of skip counting etc.</li> </ul> </li> <li>Cultivate student identity as mathematicians</li> <li>The Discussion: <ul> <li>Invite 1-3 students to share their count from yesterday (who you pre-identified)</li> </ul> </li> <li>A note on student's sharing: In the classroom we might check with students to see if they would be comfortable sharing. As a virtual alternative, consider making the following options available to students when you are asking them to present: <ul> <li>You can present you count</li> <li>I can be your "microphone" and aim to share what you did and you can chime in as needed</li> <li>You can opt out of</li> </ul> </li> </ul>	<ul> <li>Teacher Goal: Look for organization <ul> <li>Highlight student work that uses any form of organization beyond "Counted" and "Uncounted" stacks</li> <li>Did they make smaller groups</li> <li>Did they make equal groups</li> <li>Did they circle each item on a piece of paper then count the circles?</li> </ul> </li> <li>Identify students with an organization strategy to share what they did in tomorrow's launch</li> <li>Student Task: <ul> <li>Count asynchronously</li> <li>Upload to Google Classroom</li> </ul> </li> </ul>	Teacher Questioning         Questioning         -       Ask students questions that seek to better understand their thinking         -       Aim not to make assumptions about student method         -       Ask questions to understand
	<ol> <li>1) Too can present you count</li> <li>2) I can be your "microphone" and aim to share what you did and you can chime in as needed</li> <li>3) You can opt out of sharing</li> </ol>		
	<ul> <li>What helped you as you counted yesterday?</li> <li>Highlight use of paper to keep track if that comes up organically.</li> <li>What did you find challenging about your</li> </ul>		

	<ul> <li>count yesterday?</li> <li>Is there anything you want to try as you count today?</li> <li><b>The Task:</b> <ul> <li>What else in your house can you count?</li> <li>Mathematicians, today you will count. Go count! And be ready to share when we come back together tomorrow morning.</li> </ul> </li> </ul>		
	Bend Two: Mather	maticians Count & Organize (	3 days)
Day 3	<ul> <li>The Setup:</li> <li>Yesterday you all took the time to carefully count. I noticed that some mathematicians used different strategies to organize (or sort) their thinking.</li> <li>I've asked to share what she did in her work yesterday.</li> <li>The Discussion:</li> <li>Why organization?</li> <li>Why organize as you work?</li> <li>What could happen if you don't organize?</li> <li>Does anyone have new ideas of how they might organize their next count?</li> <li>The Task:</li> <li>Today, I want you to find something to organize and count</li> </ul>	Teacher Goal: Look for organization-Highlight student work that uses a new or perhaps more advanced method of organization you think others could benefit from seeing Perhaps a student chooses to focus on groups of 10, or utilizes the idea of a 5 or ten frame Perhaps a child organizes like size groups using cupsStudent Task: Count asynchronously Upload to Google	<ul> <li>Teacher Questioning: Questioning to uncover student understanding:</li> <li>Continue to ask students questions that seek to better understand their thinking</li> <li>Also try asking questions that uncover possible misconceptions</li> </ul> Questioning to further students' understanding of why organization matters: <ul> <li>If relevant, revisit questions and probe for students understanding of why organizing helps us keep track of our counting</li> <li>i.e. "Why is it helpful to organize?" OR "How did 's organization help them to count accurately?"</li></ul>

		Classroom	
Day 4	<ul> <li>The Setup: <ul> <li>Yesterday you all took the time to carefully count. I noticed that some mathematicians used different strategies to organize their thinking. <ul> <li>I've asked to share what she did in her work yesterday.</li> </ul> </li> <li>The Discussion: Efficiency with Organization  <ul> <li>Why is it helpful to organize?</li> <li>Why might a mathematician use same size groups?</li> <li>Why might a mathematician use a ten frame?</li> <li>Do you see some methods of organization that feel more helpful than others?</li> </ul> </li> <li>The Task: <ul> <li>Today, I want you to find something to organize and count.</li> </ul> </li> </ul></li></ul>	Teacher Goal: Look for student work that shows clear and efficient organization. Bring a picture of this count to tomorrow's launch. Student Task: - Count asynchronously - Upload to Google Classroom	<ul> <li>Questioning to uncover student understanding: <ul> <li>Continue to ask students questions that seek to better understand their thinking</li> <li>Also try asking questions that uncover possible misconceptions</li> </ul> </li> <li>Questioning to further students' understanding of why organization matters: <ul> <li>If relevant, revisit questions and probe for students understanding of why organizing helps us keep track of our counting</li> <li>i.e. "Why is it helpful to organize?" OR "How did 's organization help them to count accurately?"</li> </ul> </li> </ul>
Day 5	<ul> <li>The Setup and Discussion:</li> <li>Show a picture <ul> <li>How did this mathematician count?</li> <li>What do you notice about their organization?</li> <li>What do you think their total was?</li> <li>What made it easier/harder to know their total?</li> </ul> </li> </ul>	<ul> <li>Teacher Goal: Look for someone who effectively recorded what they did <ul> <li>Can you tell what they did even if the mathematician wasn't there to explain</li> <li>Do you see the steps they took?</li> <li>Do you know how they got their total?</li> </ul> </li> </ul>	Questioning to uncover student understanding:-Continue to ask students questions that seek to better understand their thinking-Also try asking questions that uncover possible misconceptionsQuestioning to further students' understanding of why organization matters:

	The Task: - Today, I want you to find something to organize and count	Student Task: - Count asynchronously - Upload to Google Classroom	<ul> <li>If relevant, revisit questions and probe for students understanding of why organizing helps us keep track of our counting</li> <li>i.e. "Why is it helpful to organize?" OR "How did 's organization help them to count accurately?"</li> </ul>
	Bend Three: Mathematicians C	ount, Organize & Document T	heir Thinking (3 days)
Day 6	<ul> <li>The Set Up Yesterday you all took the time to carefully organize and count. I noticed that some mathematicians used different strategies to record their thinking. <ul> <li>I've asked to share what she did in her work yesterday.</li> </ul> The Discussion: <ul> <li>What's the purpose of recording?</li> <li>What do we mean by recording?</li> <li>Why is it important to record?</li> </ul> The Task: <ul> <li>Today, I want you to find something to organize, count, AND record!</li> </ul></li></ul>	<ul> <li>Teacher Goal: Look for a student whose work answers these three questions:</li> <li>Can someone else tell what you did to count?</li> <li>Do they know what you did first, second and third?</li> <li>Can they tell your total?</li> </ul> Student Task: <ul> <li>Count asynchronously</li> <li>Upload to Google Classroom</li> </ul>	<ul> <li>Model Questioning</li> <li>Model questioning to better understand (in hopes that students will begin to do the same in the days to follow) <ul> <li>Wait so first you? Why?</li> <li>How did you know?</li> </ul> </li> <li>Questioning to further students' understanding of why recording our thinking matters: <ul> <li>If relevant, revisit questions and probe for students understanding of why recording our thinking matters</li> <li>i.e. "Why is it important/helpful to record?" OR "How did 's method of recording help you understand what they did to count?" OR "Can you tell what did first? Second? Third? How do you know?"</li> </ul> </li> </ul>
Day 7	The Setup: Questions to ask of our recording	<b>Teacher Goal:</b> Look for opportunities to celebrate MATH	Encourage Student-Student Questioning - Asking questions of my

	<ul> <li>Can someone else tell what you did to count?</li> <li>Do they know what you did first, second and third?</li> <li>Can they tell your total?</li> <li>*This can become an anchor chart</li> <li>The Discussion:</li> <li>Look at student work samples.</li> <li>Pose to class: Can you answer these three questions based on what you see here?</li> <li>Questions to ask of our recording:</li> <li>Can someone else tell what you did to count?</li> <li>Do they know what you did first, second and third?</li> <li>Can they tell your total?</li> <li>The Task:</li> <li>Today, I want you to find something to organize, count, AND record!</li> </ul>	<ul> <li>Highlight how students took on challenge</li> <li>Identify mathematical growth         <ul> <li>Look for before and afters to celebrate</li> <li>Cultivate student identity as mathematicians</li> </ul> </li> <li>Student Task:         <ul> <li>Count asynchronously</li> <li>Upload to Google Classroom</li> </ul> </li> </ul>	<ul> <li>classmates to better understand their thinking</li> <li>Does anyone have a question for? <ul> <li>Why did you choose to?</li> <li>What did you mean by?</li> <li>Can you explain how you?</li> <li>How did you know?</li> </ul> </li> <li>Questioning to further students' understanding of why recording our thinking matters: <ul> <li>If relevant, revisit questions and probe for students understanding of why recording our thinking matters</li> <li>i.e. "Why is it important/helpful to record?" OR "How did 's method of recording help you understand what they did to count?" OR "Can you tell what did first? Second? Third? How do you know?"</li> </ul></li></ul>
Day 8	<b>The Setup:</b> Share celebrations, highlighting growth	<b>Teacher Goal:</b> -Look for connection to where we are heading next	Revisit reflection questions from today's launch: - What are some ways you have seen your
	<ul> <li>The Discussion:</li> <li>What are some ways you have seen your classmates or yourself grow as a mathematician?</li> <li>What are you feeling proud of?</li> <li>What have you learned</li> </ul>	Student Task: - Count asynchronously - Upload to Google Classroom - Reflect. Upload reflection.	<ul> <li>classmates or yourself grow as a mathematician?</li> <li>What are you feeling proud of?</li> <li>What have you learned about counting (numbers?) from our counting collections?</li> </ul>

about counting (numbers?) from our counting collections? <b>The Task:</b> - Today, I want you to find something to organize, count, AND record! - Reflect. When you are done counting, upload	Questioning to further students' understanding of why recording our thinking matters: - If relevant, revisit questions and probe for students understanding of why recording our thinking matters - i.e. "Why is it important (holpful to
reflection: - Reflection: - I used to think but now I think - I used to be the kind of mathematician who but now I am the kind of mathematician who - I am proud because	record?" OR "How did 's method of recording help you understand what they did to count?" OR "Can you tell what did first? Second? Third? How do you know?"

## Google Classroom Assignment Language:

# Creating 8 Counting Collection Assignments in G.C.

×	Assignment	Saved As	ign 👻
	Title Monday: Counting Collection	For	
	enfucions (opions) Reced do the conjugation we had in our maning meeting teday your task on a mathematician is to shore a collection to	Ma, Karla M., - All stude	ents *
6	count and COUNT!	Ungraded -	
1	When you are finished counting your collection, upload a picture of your count and anything you used to help you find your total.	Due	
	Ched + Create	Mon, Sep 7	•
		Topic Week of 9/7-9/11	
		Rubric	
		+ Rubric	
		Check plagiarism (originality)	

#### Other helpful resources:

### Other Key Teacher Resources:

- Question Guide
- Teachers Observations/Counting Looks Fors Sheet
- Teacher PD Deck on Counting Collections

### Family Communications and Supports for Counting Collections:

- "What is Counting Collections? And Other Tips for Families"
- Counting Collections at Home video (English)
- <u>Counting Collections at Home video (Spanish)</u>
- Parent Workshop Deck