

Grade 1: The First 10 Days

Launching Mathematics in the Common Core Classroom

The purpose of the First 10 Days is to establish math routines that will prepare students for the Common Core classroom. This resource provides lessons that allow students to develop number sense concepts within the structure of the CCSS Math Practices. As students transition into CCSS, time is needed to establish these mathematical practices. This document includes the following:

- Math Talk Moves for Mathematical Discussions
- Number Talks
- Expectations for partner games, center stations, and rotations
- Introduction to the Problem Solving Math notebook
- Cooperative learning groups
- Classroom routines to encourage Standards for Mathematical Practice

The instructional strategy, “Connecting to the Learning through Conversations about Mathematics,” is best defined by Fosnot and Dolk (2002). The purpose of this class conversation is to support the development of mathematicians in the classroom learning community, rather than fixing mistakes in the children’s work. This conversation enables the teacher to focus the students on reasoning about a few big mathematical ideas derived from the mathematical thinking present in students’ solutions. It focuses whole class discussion on two or three, strategically selected, student solutions in order to develop every student’s mathematical learning.

The goals of the classroom conversations are to provide opportunities for students to (Smith, 2011):

- Share ideas and clarify misunderstandings
- Develop convincing arguments regarding why and how things work
- Develop a language for expressing mathematical ideas
- Learn to see things from other people’s perspective

In this document, the Mathematician’s Chair and Number Talks develop the routine of classroom conversations.

Number Talks and Mathematician’s Chair

The purpose of the classroom conversations is for students to learn from each other. Students share their strategies, and listen to the strategies of others. They reinforce their own skills by explaining how they solved a problem, and they learn new ways of problem solving by listening to other students explain their thinking. They can safely work through mistakes and misconceptions by talking with their peers. At the beginning of the year, this sharing may take place in a big circle, so everyone can see each other. There may be a designated carpet square, or a student chair, or the teacher’s chair. The idea is to build a community of learners, where the thoughts of students are honored.

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	What?	Why?
Day 1 Goals: Set the stage for a math talk, choosing manipulatives appropriately, and drawing/writing in a problem-solving notebook.		
Day 1	<p><u>Problem Solving Expectations:</u> Present this problem to students: "I have a problem. I have a tree in my backyard and in the middle of that tree is a large hole. Last night, I looked inside the hole and saw 10 eyes. What could be in the hole?"</p> <ul style="list-style-type: none"> Allow the children to discuss what they think could be in the hole and why (5 frogs, 10 dogs looking sideways, 6 owls but one is looking backwards, etc.). Let's think about what we have to do to solve this problem. <p>For the <u>class chart</u>, discuss and chart expectations and behaviors:</p> <ul style="list-style-type: none"> Have a positive attitude (I can do this!) Keep trying and don't give up! Use good problem-solving strategies Work together, but do your own thinking Explain your thinking Safe Environment (what does that look like, sound like, feel like?) 	<p>To establish expectations for behaviors in a problem solving math classroom.</p> <p><u>Materials:</u> Chart paper Manipulatives</p>
	<p><u>Getting to Know the Problem Solving Notebook:</u></p> <ul style="list-style-type: none"> On a half sheet of paper, introduce the following problem: There are 10 students in a classroom. How many student eyes are there in all? Draw a picture and write a number sentence. Model how to glue this sheet into their notebook. Have manipulatives readily available to use for counting (unifix cubes, pattern blocks, color tiles, digi-blocks, animal counters, etc.) For classroom management purposes you may want manipulatives in bins in an assigned area of your classroom. <p>Add the following ideas to the <u>class chart</u> for gluing:</p> <ul style="list-style-type: none"> We glue one page at a time (Use one page for each problem.) We use "dot...dot...not a lot." (This refers to the amount of glue on the Problem of the Day sheet.) Use glue sticks, or bind the pages into student books. <p>After the children have correctly placed the problem in their notebook, allow children time to draw and write their responses.</p>	<p>To practice writing about math using precise vocabulary and set expectations for math notebook writing.</p> <p>To establish appropriate manipulatives use and to allow students to strategically choose them for later problem solving.</p> <p><u>Materials:</u> Half sheet of paper with Problem Solving question Problem Solving Notebook Glue sticks Glue</p>

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Day 1	<p><u>Introduce the Speaking and Listening Expectations:</u></p> <ul style="list-style-type: none"> • Talk with the students about the actions of a good listener. “What does a good listener do?” (A good listener listens with the intent to understand. They look at the person talking and visualize or picture what the speaker said in their head.) • <u>Introduce the Mathematician’s Chair:</u> • The purpose of the Mathematician’s Chair is to provide a public forum where students will share, discuss, and provide feedback to one another <p>Designate a special location as the Mathematician’s Chair (carpet spot, stool, teacher’s chair, etc.) and strategically select 2-3 students with different solutions (i.e. a picture, dots, numerals). If no responses are shared, ask the kids for ideas about how they could represent the number of student eyes in the classroom. Model Revoicing (see below). Record student ideas in a Big Class Problem Solving Notebook/Shared Math Journal (you could use a large spiral flip chart). After solutions are provided, ask, “Are there any questions or comments?” At the conclusion of each student’s chair time, the class applauds and the process continues with the next student.</p> <p><u>Math Talk:</u> Model Revoicing (Teacher repeats exactly what a student has said as students share during Mathematician’s Chair, the teacher can also prompt a student to revoice.)</p> <ul style="list-style-type: none"> ○ “What I heard you say was....” ○ “You’re saying...” 	<p>To set expectations for shared thinking and to respond to classmates in a reasonable manner</p> <p>The Big Class Problem Solving Notebook is a collection of math problems authored by the students, accessible in the class library. The math problems are continuously added throughout the year and is a class portfolio of student work.</p> <p><u>Materials:</u> Mathematician’s Chair Big Class Problem Solving Notebook/Shared Math Journal</p>
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Day 2 Goals: To set expectations and introduce non-verbal signals for math talks, continue drawing/writing in a daily Problem Solving Notebook, and practice the Mathematician's Chair.		
Day 2	<p><u>Problem Solving Notebook</u></p> <ul style="list-style-type: none"> • Review the expectations from the Problem Solving class chart. • Distribute and discuss today's problem: "There are 3 students sitting at a table. How many total fingers are at the table?" Draw your solution and write a number sentence. • Allow children time to glue the problem of the day in to their notebook and then write/draw their ideas in their notebook • The focus should be on "How can you show your answer?" • Have manipulatives available for counting and encourage students to use them to solve the problem. <p><u>Listening and Speaking Expectations:</u> Make a poster of a Good Listener and Not a Good Listener. Use student suggestions.</p> <p><u>Mathematician's Chair:</u></p> <ul style="list-style-type: none"> • Students may draw a literal picture, symbols, or an actual number. During Mathematician's Chair, ask the students how they found their answer. Encourage them to use the word count - "I counted..." Ask several volunteers to demonstrate how they counted (by 1s, 5s, 10s). It's important to point out the variety of solutions, especially students that used multiple methods. • Ask students which manipulatives they used and how they used them to solve the problem. • Add these ideas to Big Class Problem Solving Notebook (use labels and precise vocabulary) • Introduce Number Talk Norms (see below) 	<p>To practice writing in the math journal and set expectations for math notebook writing.</p> <p>Learn to share and discuss in the Mathematician's Chair.</p> <p>To encourage and establish Number Talk norms.</p> <p>To establish shared meaning and set expectations for class discussion and questioning.</p> <p><u>Materials:</u> Poster of a Good/Not Good Listener Mathematician's Chair Big Class Problem Solving Notebook Problem Solving Notebook 100 Chart Number line</p>

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Day 2	<p><u>Introduce Non-verbal Signals for Number Talks:</u></p> <ul style="list-style-type: none"> • Agree: Thumbs up held away from body • Disagree: “ Safe” sign in baseball: palms flat and down, in a crossing motion in front of the chest • I don’t know: hand over head, palm flat and facing floor, moves back and forth • Thinking: fist in front of chest • I have an answer: thumbs up in front of chest • I have another way of getting the answer: finger up in front of chest <p><u>Introduce Number Talk Norms:</u> Tell the students that we are going to be doing a Number Talk. They are to be thinking in their heads, and trying to figure out the number, or the answer to a problem. They will listen for how I want them to tell the number: I may say ‘whisper the number’ or ‘show me the number on your fingers.’ If I want you to shout out the number, I’ll say ‘shout out the number.’ Tell them that they should be ready to share how they figured out the number.</p> <p><u>Introduce Number Talks</u> Tell the students that we are playing a game called “Guess My Number.” Write the clues on the board as you say them. Clues: My number has one digit. My number is less than nine. My number is more than 3. My number is the amount of money in a nickel. My number is the number of fingers you have on one hand. When I say go, whisper my number. Go. How did you figure out my number? Call on students to reveal their thinking. Prompt them to say the number they chose, “because.....” Elicit participation from the group by a using their hand signals, do they agree/disagree with what was said? The class agrees on the real answer. Thank the students for their participation in the Number Talk.</p>	<p>Number Talks: The purpose of Number Talk Norms is to help build mental math strategies, learn to share strategies, develop computational fluency, and learn to represent solutions in multiple ways.</p> <p>Number Talk Norms allows students to make connections and find relationships and patterns.</p> <p>It also allows students to use the language of mathematics.</p> <p>The conversation is the focus of the Number Talks, and the teacher takes on the role of facilitator. The teacher is not the ultimate authority in Number Talks. Students are clarifying their thinking with each other.</p>
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Day 3	<p><u>Listening and Speaking Expectations:</u> Review the Good Listener and Not a Good Listener poster from Day 2.</p> <p><u>Mathematician's Chair:</u></p> <ul style="list-style-type: none"> • During Mathematician's Chair, ask the students how they found their answer. Ask "How many?" Encourage them to explain their thinking process and reasoning. Ask several students to share their solutions. Reminder to strategically select a variety of problem solving methods. • Add these ideas to Big Class Problem Solving Notebook/Shared Math Journal (use labels and precise vocabulary) <p><u>Review Number Talk Norms and Nonverbal Signals</u></p> <p><u>Number Talk:</u> Tell the students: In Today's Number Talk, we're going to share strategies to figure out an equation. Strategies are ways of thinking to help ourselves. Sometimes we use tools as our strategies, the 100s chart (have a poster displayed and available to use) or number lines (have one displayed and available to use) are examples. Sometimes we have strategies in our heads, for example, we know our doubles, $2 + 2 = 4$, and can use that to help us solve problems. One of our jobs as mathematicians is to build a tool box of tools, or strategies, that we can use to help ourselves. When we share our strategies, we help each other understand math. And that's one of the most important things about math, that it makes sense! And that it's fun!</p> <p>Write the equation on the board: $9 + 4 = \underline{\quad}$. Think about how to solve this problem. Put your fist on your chest like this (show). When you have one way of getting the answer, put up your thumb, like this (model). When you have a second way of getting the answer, put up a finger, like this (model). I'll ask you to tell me the answer when most people are ready. Now I'm giving you think time.</p> <p>Teacher calls for 4-5 answers, and lists all answers on the board without judgment. Call on 2-3 students to share their strategies and justify their answers with the class. Ask students to agree/disagree, and explain why. (Record student thinking on the board) Look for different ways of making ten and some leftover. The class agrees on the real answers. Briefly sum up the strategies used. Thank the students.</p>	<p>To understand the concept and encourage the use of number talks.</p> <p>Number talks can take many forms. During a number talk, the teacher writes a problem on the board, horizontally, and gives the students time to solve the problem mentally. The focus is "How did you get your answer?"</p> <p>Some teachers select a number of the day for the students to create a number sentence to equal that number. Some teachers choose a problem in order to unearth misconceptions.</p> <p>When most of the students are done thinking, and signal that they have an answer, the teacher calls for answers. All volunteered or requested answers are written on the board, correct or incorrect.</p> <p>Mistakes play a part in developing math thinking, as they call for questioning and discussion. Help the students realize that mistakes are important for our learning, and celebrate the opportunities!</p>
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Day 4 Goals: To review number talks and practice (with guidance) the routines and expectations of partner game play and math journal writing.	
Day 4	<p><u>Practice New Partner Math Game:</u> Revisit the math game from Day 3. Remind students about the game procedures and expectations. Review <u>anchor chart</u> on expectations for partner math games.</p> <ul style="list-style-type: none"> • Debrief “what is going well” vs. “what needs to be better” in relation to math games expectations. What were the tools used during the game? What tools were appropriate to use and/or not appropriate to use? <p><u>Problem Solving Notebooks:</u> Make a picture with the pattern blocks. Draw your picture in your notebook. Count the number of corners on each pattern block. How many total corners are there?</p> <p><u>Review Listening and Speaking Expectations</u></p> <p><u>Mathematician's Chair:</u> Share some of the math journal entries and emphasize any new strategies. Add the ideas to the Big Class Notebook.</p> <p><u>Math Talk:</u> Allow student to practice “Restating.” Introduce the Math Talk move of applying reasoning to someone else’s reasoning. Ask a child if they agree or disagree with someone and why. You can also encourage students to add on to what someone else has just said. Reminder to praise student math talk and applaud volunteers.</p>
	<p>To establish expectations for independent games and activities.</p> <p><u>Materials:</u> Manipulatives</p> <p>To practice drawing and writing about math.</p> <p><u>Materials:</u> Pattern Blocks</p> <p>To set expectations for sharing their thinking using their Problem Solving Notebooks</p> <p>To practice expectations for participation during math discussions.</p>

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Day 4	<p><u>Review non-verbal Signals for Number Talks:</u></p> <p><u>Number Talk:</u> In today's Number Talk we're going to work with today's date: _____ for example 8/16/13. What strategies could I use to add all of those digits together and get a sum? Write $8 + 1 + 6 + 1 + 1 + 3 = \underline{\quad}$ on the board. Remind the students that they should be ready to share their strategies with the class. Model hand signals. Give think time.</p> <p>When most students indicate that they are ready through their hand signal, then call on four or five students to share their sum and record them on the board.</p> <p>Ask for students to share their strategies and justifications with the class. Record their thinking on the board. Encourage the class to use hand signals to agree/disagree, and explain why. Encourage the use of the 100s chart and number line by having them present in the classroom.</p> <p>Thank the children for participating.</p>	<p>The benefits of sharing computation strategies include: considering and testing other's strategies, building a tool box of efficient strategies, making decisions about choosing strategies as being more efficient for specific problems.</p> <p>Difficulty getting started? Ask questions: What is the problem asking us to find out? What do you know? Without giving away the answer, how are you thinking about solving the problem?</p>
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Day 5 Goals: Continue number talks and to develop expectations for working in small groups.		
Day 5	<p><u>Introduce Small Groups</u>: Break the class into 3-4 heterogenous groups. Assign groups to their own location within the classroom. Provide instructions on behavior expectations, rotation procedures, and clean up signal. Give each group a bin with one type of manipulative and allow groups to explore the items for 5 minutes. At the end of the time, signal for clean up time. Create a sticker chart and reward groups who clean up quickly and quietly. Have students rotate to each station so that each group will have an opportunity to explore each type of manipulative.</p> <p>Establish clear expectations for small group activity rotations:</p> <ul style="list-style-type: none"> • When will we rotate and what is the signal? • How do I know what to do first, then next? • Where will activities be located and who will get them? • What is the expectation for clean up between activities? 	<p>To establish expectations for small group and center work.</p> <p>To establish expectations for independent games and activities.</p> <p><u>Materials</u>: Bins Manipulatives</p>
	<p><u>Problem Solving Notebooks</u>: There are 16 cubes in a bin and 14 cubes outside the bin. How many cubes are there in all? How can you show your answer? Draw a picture and write a number sense.</p> <p>Note: Any addition result unknown problem using a double-digit and double-digit addend can be used. Addition with regrouping is suggested.</p>	<p>To practice drawing and writing about math, express opinions, and give feedback about classroom math routines.</p>
	<p><u>Review Listening and Speaking Expectations</u></p> <p><u>Mathematician's Chair</u>: Share some of the math journal entries and emphasize any number sense routines. Add the ideas to the Big Class Notebook. Reminder to praise student math talk and applaud volunteers.</p> <p><u>Review non-verbal signals for number talks</u>, <u>Number Talk</u>: $16 + 19 = \underline{\quad}$ Discuss different tools in the classroom that could help us in our mental math. How could we show this on a number line? How could we show this on a hundreds chart? What patterns do we notice when we add tens?</p>	<p>To practice expressing opinions, and giving feedback about classroom math routines.</p> <p>Is there is an error in the solution path? Ask: do you agree/disagree? Why? Could both of these answers be correct? Could we draw or model this?</p>

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Day 6 Goals: To practice expectations for working in small groups and in partner games.		
Day 6	<p><u>Continue with Small Group Rotation:</u> Extend the time at each station (5-10 minutes). While all other groups will continue with the manipulative exploration, one group will play the partner game previously introduced. Continue to monitor and set expectations for stopping, cleaning up, and rotating. Select a team captain responsible for bringing the bins to and from the designated area. Continue to praise those groups following agreed upon procedures.</p>	<p>Monitor and emphasize expectations of students as they work independently.</p>
	<p><u>Problem Solving Notebook:</u> Revisit the expectations for math notebook writing.</p> <p>Draw a triangle, a square, a rectangle, and a circle. Which one does not belong? Why or why not? Have children glue the problem of the day into their math notebooks and complete the problem.</p> <p><u>Mathematician's Chair:</u> Share some of the math notebook entries celebrate efforts and establish pride in written work. Record ideas in the Big Class Notebook.</p> <p>Allow student to practice "Restating." Practice applying reasoning to someone else's reasoning. Ask a child if they agree or disagree with someone and why. You can also allow students to add-on to what someone else has just said.</p> <p><u>Number Talk:</u> $26 - 9 = \underline{\quad}$</p> <p>Ask students to make sense of the work. For example: Why did Jose take away ten instead of nine? Why did he add one at the end? Explain why Jenny broke the number nine apart into six and three. Why did she select those numbers?</p>	<p>To practice drawing and writing about math.</p> <p>To express their opinions, critique the reasoning of others, agree/disagree, etc.</p> <p>If there are a limited number of participants, after a quiet think time suggest: "turn to one other person and share your answer and how you thought about it." Then prompt: Let's list our solution strategies. Who thought the same way/differently? Who has the same answer, but a different way to explain it?</p>

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Day 7 Goals: To practice expectations for working in small groups and partner game play.

Day 7	<p><u>Introduce New Partner Game or Small Group Activity:</u> As a whole group, revisit class anchor chart of game expectations. Introduce a new game and review the games rules. Model the new game/activity and have all the students play. Inform students that the new game will be added to the group rotation.</p> <p>Game ideas can come from the enVision materials, the additional resources in the curriculum maps, and from your own bank of materials.</p>	<p>To continue building independence and appropriate communication with partners.</p>
	<p><u>Problem Solving Notebook:</u> Revisit expectations for math notebook writing.</p> <p>Ways to Make a Number: Choose a double-digit target number (such as 22). Ask students to show different ways to make the target number. Students might use visual representations, equations, models, etc. Provide manipulatives for use.</p> <p><u>Mathematician's Chair:</u> As students share their ways to make the number, revisit the math talk expectations:</p> <ul style="list-style-type: none"> • How many ways might there be to make this number? • What is it about the number ___ that gave you the idea to show it this way? • How are ___'s way and ___'s way alike? How are they different? <p>Record ideas in Big Class Notebook and allow students to practice Math Talk Moves</p> <p><u>Number Talk:</u> $17 - 8 = \underline{\quad}$ After sharing solutions, ask: Why did this student subtract seven first? What did they do next? Another strategy started at eight. Can you always solve subtraction problems by adding on?</p>	<p>To practice drawing and writing about math.</p> <p>To express their opinions, critique the reasoning of others, agree/disagree, etc.</p> <p>If there are few or no questions around someone's solution strategy, ask: Who can explain ___'s thinking? Do you agree/disagree with the strategy? Why?</p>

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Day 8 Goals: review math talk, combining problem solving expectations with the enVision material and the Problem Solving Notebook.		
Day 8	<p><u>Introduce New Partner Game or Small Group Activity:</u> As a whole group, revisit class anchor chart of game expectations. Introduce a new game and review the games rules. Model the new game/activity and have all the students play. Inform students that the new game will be added to the group rotation.</p> <p><u>Problem Solving Expectations</u> Present this problem to students: "It was a nice, sunny day and I decided to go to the beach. At the beach, I saw 10 fins in the water. What was in the water?"</p> <ul style="list-style-type: none"> • Allow the students to discuss how they might solve the story problem. Enable discussion through "Turn and Talk," "Think-Pair-Share," or as a whole group. • If "Turn and Talk" or "Think-Pair-Share" is used, ask students what it looks like and model the procedures if necessary. • Distribute the "Beach Count" story, enVision Topic 1 • Read the story aloud and solve each story problem as a whole group. Use gestures and allow students to speak about the problem and solutions. • Provide crayons to color each story as it is solved. • Model expectations for writing the solution and for coloring each story problem. If needed, revisit the class chart to remind students of expectations and behaviors. • Distribute the Problem Solving Notebook for each student. • Ask students to create their own beach count story. Direct students to draw pictures and write the story in their Problem Solving Notebook. • If needed, brainstorm a list of beach animals using a Thinking Map or chart. Use sentence starters – "Count the (<u>animal</u>). (<u>#</u>) and (<u>#</u>). How many (<u>#</u>) (<u>action</u>)? Solution (<u>#</u>) (<u>animals</u>). For example: How many birds are flying? How many birds are walking?" • Have manipulatives readily available to use for counting (unifix cubes, pattern blocks, color tiles, digi-blocks, animal counters, etc.) For classroom management purposes you may want manipulatives in bins in an assigned area of your classroom. 	<p>To establish expectations for behaviors in a problem solving math classroom.</p> <p>To practice writing about math using precise vocabulary and set expectations for math notebook writing.</p> <p>To use appropriate tools strategically (MP5)</p> <p><u>Materials:</u> Two-part pattern cards (Teaching Tool 8) Counters Teaching Tool 14 Work Mats Crayons Beach Count story problem Manipulatives</p>

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Day 8	<p><u>Class Chart</u> Add additional ideas to the class chart for coloring and writing solutions in the Problem Solving Notebook.</p> <p><u>Review the Mathematician's Chair:</u></p> <ul style="list-style-type: none"> • Strategically select a few students with different solutions for the beach count problem (i.e. a picture, dots, numerals). • Model "Revoicing" (see below). • Record student ideas in a Big Class Problem Solving Notebook/Shared Math Journal • Sharing student is prompted to ask if there are any questions or comments. • At the conclusion of each student's chair time, the class applauds and the process continues with the next student. <p><u>Math Talk:</u></p> <ul style="list-style-type: none"> • Model "Revoicing" (Teacher repeats exactly what a student has said as students share during Mathematician's Chair, teacher can prompt other students to revoice.) • "What I heard you say was...." • "You're saying..." <p><u>Number Talk:</u> Maria had some pennies. There were 8 pennies on the floor and there were 11 pennies in her piggy bank. How many pennies did she have?</p> <p>Share solutions, share strategies, thank the children.</p>	<p>To set expectations for shared thinking and to respond to classmates in a reasonable manner</p> <p><u>Materials:</u> Mathematician's Chair Big Class Problem Solving Notebook/Shared Math Journal</p> <p>A student who is unconvinced of an answer should be encouraged to keep thinking, and keep trying to understand. If it doesn't make sense yet, keep thinking!</p>
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Day 9 Goals: review expectations for number talks, using manipulatives appropriately, writing/drawing in the Problem Solving Notebook with an enVision lesson, and to practice the Mathematician's Chair.		
Day 9	<p><u>Problem Solving Notebook</u></p> <ul style="list-style-type: none"> Review the expectations from the Problem Solving class chart. Pass out Two-Part Pattern Cards (Teaching Tool 8) and model how to use the cards. Distribute Part-Part-Whole Mat (Teaching Tool 1) and give 6 counters per student. If counters are not available, use Teaching Tool 14. First model how to make 2 patterns using the 5 counters by placing some counters on the left side and some on the right side. Hold up the 4 and 1 Two-Part Pattern card. Check for understanding and have the students discuss the different strategies to place 5 counters on the mat. Then, have students make 2 patterns using 6 counters (enVision Topic 1-1). Have students record draw their patterns and responses in their Problem Solving Notebook. Focus on "How can you show your answer?" <p><u>Mathematician's Chair:</u></p> <ul style="list-style-type: none"> Students may draw pictures, symbols, or an actual number. During Mathematician's Chair, ask the students how they found their answer. Encourage them to use the word count - "I counted..." Ask several volunteers to demonstrate how they made 6. It's important to point out the variety of solutions, especially students that used multiple methods. Ask students how they solved the problem. Add these ideas to Big Class Problem Solving Notebook (use labels and precise vocabulary) <p><u>Number Talk:</u> Teacher presents a Head Problem, an oral, multi-step problem that is not written on the board: 10 add 2 add 4 add 1 equals _____. Students discuss how they pictured the problem in their minds as they did it. Numbers can be given, or clues can be given, such as "add the number of legs on a dog." Or subtract the number of eyes you have. Write it down beforehand, so that you know all the steps!</p>	<p>To model and set expectations and practice writing in the math journal.</p> <p>Use appropriate tools strategically (MP5)</p> <p>Materials: Class chart (review) Teaching Tool 1 Teaching Tool 8 Teaching Tool 14 Problem Solving Notebook Counters</p> <p>Continue to share and discuss in the Mathematician's Chair.</p> <p>To encourage and establish Number Talk norms.</p> <p>To establish shared meaning and set expectations for class discussion and questioning.</p> <p>Materials: Poster of a Good/Not Good Listener Mathematician's Chair Big Class Problem Solving Notebook Problem Solving Notebook</p>

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Day 10 Goals: Continue number talks, model appropriate vs. inappropriate use of math tools during game play, and continue the Problem Solving Notebook.		
Day 10	<p><u>Introduce a Partner Math Game:</u></p> <ul style="list-style-type: none"> • Show how to play a math game (i.e. Center Activity Games in the Teaching Tools pouch). • Sample Game – Combining Objects – Use classroom objects, such as books, to model 6 and 7. • Model appropriate vs. inappropriate use of the math tools involved. • Create Math Partner Game <u>class chart</u> to record expectations. <ul style="list-style-type: none"> ○ What will the games look like? ○ What will the game sound like? ○ Where will the games take place? ○ What will be the role of each partner during the game? ○ What are the expectations for clean up? • After the game is played for about 5 minutes, stop and facilitate a class self-assessment of expectations. What went well? What do we need to work on? What were the tools used during the game? What tools were appropriate to use and/or not appropriate to use? • Game play should continue after self-assessment in order for pairs to work toward meeting classroom expectations. Observe students and identify students that may need additional support. <p><u>Problem Solving Notebook:</u></p> <ul style="list-style-type: none"> • Review class chart for expectations. • Draw a circle on the board and identify the inside and outside of the circle. • Place a paper plate on the ground. With 6 counters, ask students to predict what would happen if you dropped the counters onto the plate? How many will land inside the plate? How many will land outside the plate? • Model the expectations on how to drop the counters onto the plate. • Distribute plates and 6 counters for each student. • Ask students to drop their counters above the plate to see which landed on and which landed off the plate. • Ask students to write their results in their Problem Solving Notebook using pictures and numbers. • Pose the question: how might you show the results in an equation? 	<p>To establish expectations for independent games and activities.</p> <p><u>Materials:</u> Chart paper Paper plates Counters</p>

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Day 10	<p><u>Listening and Speaking Expectations:</u> Review the Good Listener and Not a Good Listener poster.</p> <p><u>Mathematician's Chair:</u></p> <ul style="list-style-type: none"> • During Mathematician's Chair, ask the students what happened to their counters and to demonstrate their game results. Ask students how many counters landed inside and outside the plate. • Encourage them to provide their prediction and to explain their thinking process and reasoning. Ask several students to share their game results. • Reminder to strategically select a variety of student responses. • Add these ideas to Big Class Problem Solving Notebook/Shared Math Journal (use labels and precise vocabulary) <p><u>Number Talk:</u> Present the problem: $10 + 11 = \underline{\quad}$ After sharing strategies, highlight the doubles plus one strategy.</p>	<p>To practice listening and speaking in the Mathematician's Chair.</p> <p>To understand the concept and encourage the use of number talks.</p> <p>Now that the class has experienced a variety of number talks, from the short: Guess My Number, Number of the Day, and Head Problem, to the longer equations and word problems, they will be able to do them at a rate of 3-4 times a week.</p>
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CONGRATULATIONS!

You have worked hard to establish the following important routines and expectations with your students during the first ten days of school:

- Math Talk Moves
- Classroom conversations using Number Talks and the Mathematician's Chair
- A beginning collection of math games that can be added to and used regularly
- Expectations for partner game playing and rotations for small groups
- Problem Solving Math Notebooks for problem solving and reflection

By establishing and continuing to build these routines, your classroom is now a place where the Standards for Mathematical Practice can grow and thrive!

References:

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