No new math concepts are introduced in the months of May and June. Instead of introducing new content weekly, you will use the following format to solidify children's understanding of the concepts introduced September through April:

1. **Facilitate a <u>Daily Fluency Activity</u> (large or small group, about 3 minutes) every day.**
   Choose from the suggested activities on page 1.

2. **Facilitate a <u>Concept Practice Activity</u> (small group, less than 10 minutes) at least once per week.**
   Choose from the suggested activities on page 2.

3. **Offer a <u>Learning Center Activity</u> every day and vary this activity based on interest (at least weekly).**
   Choose from the suggested activities on page 3.

The suggested activities on pages 1-3 are in random order and the concepts are familiar to students. Your goal is to build growing competency and confidence in these early math skills.

Pre-K Math – May 2015

Daily Fluency Activities – facilitate at least one activity daily; most are excellent transition tools!

Give Me 10! Throughout the day, announce "It's time to give me 10!" and engage children in 10 reps of a movement activity, such as jumping jacks, clapping hands, or hopping. Vary with different numbers and different movements.	**Counting Challenge** Let the children decide what they want to count! For example: Today I am going to count the windows in the room...the backpacks...the markers at my table. Challenge students with bigger numbers as you repeat this daily challenge for the remainder of the school year.
Elephant Trunk Splashes *"Eli elephant loves to swing his trunk to splash his friends! Pretend you're Eli. Swing your trunk and count to 20 with me."* Demonstrate swinging an arm back and forth, mimicking an elephant's trunk. Count to 20, keeping the movement synchronous with the count. If time permits, count again, but tell students to stop at a different number.	**Bird Wing Flapping** *"Let's flap our arms like birds 7 times and count our flaps! Join in when you are ready. 1, 2, 3, 4, 5, 6, 7."* Repeat until most students are flapping, counting, or, ideally, both flapping and counting. Repeat with different numbers.
On 5 We Jive 1, 2, tie my shoe (act out tying shoe). 3, 4, close the door (act out closing a door). On 5, we jive (count 5 fingers and shake hips). On 5, we jive (count 5 fingers and shake hips). Repeat chant.	**Pop Up (5) Game** Note: This quick counting game develops students' ability to count to 5. Each child "counts out" verbally and the student who says the number 5 "pops up" (stands). Continue until all students are standing. Repeat with different numbers. Begin with all students seated in a circle, or around the rug: Student A: 1 (remains seated). Student B: 2 (remains seated). Student C: 3 (remains seated). Student D: 4 (remains seated). Student E: 5 (stands, or pops up).
Clap, Stomp, Count Let's clap 9 times and count our claps! Join in when you are ready. 1, 2, 3, 4, 5, 6, 7, 8, 9. Repeat until most students are clapping, counting, or ideally, both clapping and counting. Pause between counts. Let's stomp 9 times and count our stomps! 1, 2, 3, 4, 5, 6, 7, 8, 9. (Follow the same process as above.) Repeat with different numbers.	**Calendar Math** Make the "date" more meaningful by adding a total physical response as children "count up" to today's date. For example, if today is May 5, we clap each number leading up to today and then do 5 jumping jacks to reiterate today's date, as in: Point to May 1 on the calendar, say "1" (clap once). Point to May 2 on the calendar, say "2" (clap twice). And so on, up to: Point to May 5 on the calendar, say "5" (clap 5 times). "Hooray! That's today!" (Do 5 jumping jacks, counting each one aloud)

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Concept Practice – Engage children in at least one practice activity weekly; please work in small groups of no more than 4-6.

Understanding Zero

Provide each child with 3 goldfish. Ask them to count their goldfish, "1 goldfish, 2 goldfish, 3 goldfish."

- Say, "We are going to catch each fish one at a time and eat them up!" Guide students to say how many goldfish they still have each time one is eaten: "3 goldfish, 2 goldfish, 1 goldfish."
- Say, "There are no goldfish left. How many goldfish are left?" Guide students to say, "Zero! 0 goldfish!"

Listen for misconceptions or misunderstandings that can be addressed in the Debrief. Use any combination of the questions below to help students express ideas, make connections, and use new vocabulary (zero).

- Show 2 blue cubes.) How many cubes are blue? Yellow? Green?
- How many flying elephants with green shoes are there in our class right now?

Understanding Counting and Sorting using Dot Columns

You need 3 different types of animal, 6 animals total for this activity (for example, 1 dog, 2 cats, and 2 horses).

- Place 6 animals on a sorting mat: "These animals are waiting to eat. How many (horses) are there?" Touch and count each animal as you sort them into 3 groups (still on the one sorting mat).
- "Before they can eat, the animals have to line up."
- Place a 1–3 column template next to the sorting mat. Point to the 1-dot column and ask, "How many animals will eat in this line?" and "Which group has 1 animal?" Have a student place the dog in the box above the dot.
- Repeat for 2 dots and 3 dots. After each group is placed in a line, guide students to discover that the number of animals stays the same, even though the way they are arranged changes.

Understanding Arrays

Tell students that the class is having a barnyard dance today:

- To model 1 row of 2, ask one child to be a dancing chicken, shaking one leg then the other as the class counts, "1 leg, 2 legs."
- To model 2 rows of 2, ask two children to make a dancing cow by forming a line, with the child in the back placing her hands on the shoulders of the other. Starting with the child in front, have each student shake one leg then the other as the class counts, "1 leg, 2 legs, 3 legs, 4 legs."
- To model 3 and 4 rows of 2, repeat the process by creating a dancing ant (6 legs) next, and then finally a dancing spider (8 legs)

Culminate the activity by having the spider dance a different way by first standing on its left legs and then on its right legs. Ask the students how many legs are in the air each time.

Note: Because animal legs come in pairs, they provide a context for later creating arrays of 2, 4, 6, and 8. Arrays provide a natural entry point for embedded numbers, as they make it easy to see a whole broken into different parts.

Understanding Arrays

Scatter 4 cotton balls (or pompoms) on the carpet and tell students some baby chicks just hatched, and the mommy hen is looking for them. Ask, "How many chicks are there? Count with me." Count chorally, "1, 2, 3, 4."

- Ask students, "How can we arrange the baby chicks so it's easier for them to follow their mommy?" Guide students to see that they can arrange them in a line and the count is still the same.
- Move the two chicks at the end of the line next to the first two, thus creating pairs (2 × 2 array). Say, "Sometimes, each chick follows the mommy with a partner. They make a pair."
- Separate the pairs of chicks (two groups of 2). Say, "Sometimes the pairs wander off together." Count each pair, "1, 2." Point out, "Look! I see partners that are also lined up!"
- Push the pairs of chicks back together (2 × 2 array) to follow the mommy, "1, 2, 3, 4."

Continue to ask "how many" questions. Challenge students by using up to 8 "chicks" to create arrays.

Understanding Addition

Working with a group of 4-6 children, narrate some more addition stories, then extend with the use of props:

- Invite 3 children to sit on the stage. While saying the word problem, tap students to indicate when they become part of the action. Say, "Listen to my addition story: Two friends are dancing. One more friend comes to dance."
- Ask, "Who can tell the story again?" Then ask, "How many friends are dancing in all?" Provide wait time, and then signal children to answer. Write 3 on the board, saying "3 friends."
- Extend this activity by adding the use of props. For example, invite all children to hold the parachute: "Listen to this addition story! Two balls are bouncing on the parachute. One more ball is now bouncing. How many balls are bouncing in all?"

Challenge children to create and narrate their own addition stories.

Understanding Subtraction

Working with a group of 4-6 children, re-introduce the idea of subtraction stories, then extend by using props:

- Invite 3 children to sit on the stage. While saying the word problem, tap students to indicate when they become part of the action. Say, "Listen to my subtraction story: Three friends are dancing. One friend stops to sit down."
- Ask, "Who can tell the story again?" Then ask, "How many friends did we take away?"
- Ask, "How many friends are dancing now?" Provide wait time. Then, signal the students to answer. Write 2 on the board, saying "2 friends."
- Extend by using props, such as the parachute and balls. "Five balls are bouncing on the parachute! Two balls fell onto the floor. How many balls are left on the parachute?"

Challenge children to create and narrate their own subtraction stories.

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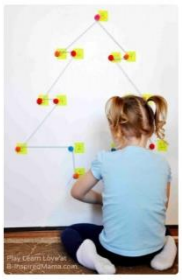
Learning Centers – Offer a learning center daily and vary it to meet students' needs (at least weekly).
*You are also welcome to revisit any learning center that was introduced September – April.

Number Recognition Dot-to-Dot

Use the process described here to create a giant dot-to-dot board. (Note that the "dots" are made by gluing pompoms to magnets.)



http://b-inspiredmama.com/holiday-dot-to-dot-counting-games/

You can make a thematic shape or stick with simple geometric shapes to reinforce shape recognition skills, too.

Reggio-Inspired Math Tray

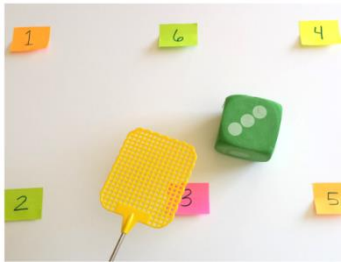
Use the process described here to create a Reggio-inspired math tray:

http://www.andnextcomesl.com/2014/08/reggio-inspired-preschool-math-tray.html

This learning experience reinforces multiple skills and can be easily adapted for different interests and different skill levels.

Smack the Number Counting Game

This thematic center is easy to prepare and is a great way to reinforce counting and 1:1 correspondence:



http://mominspiredlife.com/smack-number-counting-game/

Be sure to check out the Preschool Math Link this month too – there's another great option that uses a fly swatter and is easily adapted for multiple skill levels.

Sticky Learning Center

Adapt the idea described here to create a sticky learning center that invites children to sort and compare: http://www.icanteachmychild.com/sticky-learning/

This is a practical way to review more & less and same & different and can be extended to include working with arrays or even practicing addition and subtraction stories.

Consider sorting tangrams to create patterns as described here, too: http://playfullylearning.blogspot.com/2012/04/our-sticky-easel.html

Butterfly Busy Bags

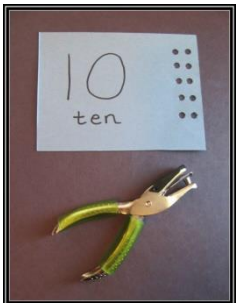
Use the process described here to create a thematic busy bag:

http://artsymomma.com/2014/06/butterfly-busy-bag-preschoolers.html

This is a simple way to reinforce counting, sorting, and patterning – consider creating a caterpillar and/or ladybug version, too!

Number Punch

Prepare index cards with numbers written on them (or consider providing cards from a deck of cards!).



Challenge children to use a hole puncher (great fine motor practice!) to punch the appropriate number of holes, as pictured here →

Save the dots to add to sensory bin or create caterpillars!