Ready, Set Review
K-2

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Almost no student masters something new after one or two lessons or one or two homework assignments.
The most effective strategies for fostering mastery and retention of critical mathematics skills and concepts is daily cumulative review.
Number your paper one to five

1. 
2. 
3. 
4. 
5. 

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Mini Math

1. What is the sum of 9 and 5?
2. What number is the same as 5 tens and 7 tens?
3. What number is 10 less than 83?
4. Draw a rectangle and partition it into 3 parts.
5. About how long is this pencil in centimeters?
1. What is the sum of 9 and 5?

- Taken affirmative action on fact mastery by testing a fact using mental strategies
- Ascertained the number of students who still don’t have a command of this fact
- Provided, if appropriate, positive reinforcement about the progress your class is making
- Planted $9 + 8$ into memory banks as preparation for tomorrow.
2: What number is the same as 5 tens and 7 tens?

- Emphasized place value strategies for adding within 1000
- Reviewed that when adding, one adds tens and tens and sometimes it is necessary to compose hundreds
- Recognized that a topic taught one month earlier needs periodic attention and reinforcement
- Supported and gradual development of number sense for all students.
3. What number is 10 less than 83?

- Broadened place value to an understanding of 10 or 100 more and less than a given number and set the foundation for further exploration
- Emphasized place value strategies in mentally adding 10 to a given number
4. Draw a rectangle and partition it into 3 parts.

- Concretizing the mathematics by means of pictures and visualization
- Clear misunderstandings by analyzing drawings
5. About how long is this pencil in centimeters?

- Measurement is often the lost strand of the mathematics curriculum
- Reinforce the concept of estimation and length units
- Students need multiple opportunities to estimate and establish referents
Commit to helping students visualize mathematics

• Another way to view the 5 to 8 minutes allocated to this daily activity is to consider that 5 minutes x 180 days equal 900 minutes, or 15 hours!

• You know that you can change the world in 15 hours.

• Or think about how much can be accomplished in 15 one-hour tutoring sessions
Mini-Math Reviews

Quick, focused, aligned with the curriculum, reflective of what is coming on assessments, and wonderfully informative.

What more could we ask from the first few minutes of a lesson?
Now, your turn...

With someone in your grade level, create your own mini-math questions.

1. review basic fact concept (challenging facts)
2. place value concept
3. estimation
4. multiplying and dividing numbers by 10, 100 & 1000
5. concrete picture/visualization
6. measurement
In Summary

• A deliberate and carefully planned support for ongoing, cumulative review of key skills and concepts

• Using cumulative review to keep skills and understanding fresh, reinforce previously taught material, and give students a chance to clarify their understandings

• Classes that waste no time and begin with essential mathematics at the very start of every class

• The use of a brief review and whole-class checking of “mini-math: questions as an opportunity to re-teach when necessary
No more ineffective ...

Keeping Skills Sharp

1. \[8 + \square = 11\]
2. \[12 - \square = 5\]
3. \[129 + 59 = \square\]

4. If you buy something for 40¢, what is the greatest number of coins you can use if you do not have pennies?

5. What time is three hours and thirty minutes before 12:30?

6. Draw the whole if this is one-half.

7. How many tens are there in 153?

8. If you collect baseball cards and put them in a folder that has six on every page, how many pages do you need to hold all 32 of your cards?
Accessible Mathematics
10 Instructional Shifts That Raise Student Achievement
Steven Leinwand
Welcome

Please reference the pages in the navigation bar for links to various mathematics resources for teachers, administrators, teacher educators and others who are interested in the mathematics education of North Carolina's students.

* FOCUS * * COHERENCE * * RIGOR *
Let’s play some games!
Building Fluency Through Games

Developing fluency requires a balance and connection between conceptual understanding and computational proficiency. Computational methods that are over-practiced without understanding are forgotten or remembered incorrectly. Conceptual understanding without fluency can inhibit the problem solving process.

NCTM, Principles and Standards for School Mathematics, pg. 35

Why Play Games?
People of all ages love to play games. They are fun and motivating. Games provide students with opportunities to explore fundamental number concepts, such as the counting sequence, one-to-one correspondence, and computation strategies. Engaging mathematical games can also encourage students to explore number combinations, place value, patterns, and other important mathematical concepts. Further, they provide opportunities for students to deepen their mathematical understanding and reasoning. Teachers should provide repeated opportunities for students to play games, and let the mathematical ideas emerge as they notice new patterns, relationships, and strategies. Games are an important tool for learning. Here are some advantages for integrating games into elementary mathematics classrooms:
Updates

- New version of the K-2 Assessment
- Will release the 2013-2014 K-2 Assessment
- Reformatted the K-2 Formative and Instructional Task wiki
Join Our Listserv

1. Send an email to the Listserv by cutting and pasting the following address into the "To" box within your email application.

   join-k-5_math@lists.dpi.state.nc.us [Elementary requests]

2. Leave the subject line and the body of the message blank.

3. Once successfully subscribed, a confirmation email will be sent.
For all you do for our students!
What questions do you have?
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