



**Dr. John D. Barge, State School Superintendent**  
*"Making Education Work for All Georgians"*



# Common Core Georgia Performance Standards Third Grade

**Turtle Gunn Toms**  
Elementary Mathematics Specialist

**Brooke Kline**  
Secondary Mathematics Specialist



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Thank you for being here today.



You will need the following materials during today's broadcast:

- Third Grade handouts/resource packet
- Connecting cubes, color tiles, 2 color counters, tracing paper or patty paper, 2 paper clips
- Note-taking materials

(This session is being recorded, and all materials, including the powerpoint, are available for download)



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Activate your brain



011-44      350

12/12

1              0

- My sisters-in-law country code
- Number of figs on our fig tree
- Number of monkeys I've owned
- Pitch of our roof
- Temperature at which to bake a pork pie

Number sense builds on students' natural insights and convinces them that mathematics makes sense, that it is not just a collection of rules to be applied.

Hilde Howden, 1989



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Why Common Core Standards?



- Preparation: The standards are college- and career-ready. They will help prepare students with the knowledge and skills they need to succeed in education and training after high school.
- Competition: The standards are internationally benchmarked. Common standards will help ensure our students are globally competitive.
- Equity: Expectations are consistent for all – and not dependent on a student's zip code.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Why Common Core Standards?



- **Clarity:** The standards are focused, coherent, and clear. Clearer standards help students (and parents and teachers) understand what is expected of them.
- **Collaboration:** The standards create a foundation to work collaboratively across states and districts, pooling resources and expertise, to create curricular tools, professional development, common assessments and other materials.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Common Core State Standards



Building on the strength of current state standards, the CCSS are designed to be:

- Focused, coherent, clear and rigorous
- Internationally benchmarked
- Anchored in college and career readiness
- Evidence and research based



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Common Core State Standards in Mathematics



K 1 2 3 4 5 6 7 8 9 - 12

Measurement and Data

Counting  
and  
Cardinality

Number and Operations  
Fractions

Number and Operations in Base Ten

Operations and Algebraic Thinking

Geometry

Statistics and  
Probability

Ratios &  
Proportional  
Relationships

F

The Number  
System

Expressions and  
Equations

Statistics and  
Probability

Functions

Number and  
Quantity

Algebra

Geometry

Modeling



**Dr. John D. Barge, State School Superintendent**  
"Making Education Work for All Georgians"



# Standards for Mathematical Practice



1. Make sense of problems and persevere in solving them.
6. Attend to precision.

2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others

4. Model with mathematics.
5. Use appropriate tools strategically.

7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Reasoning and explaining

Modeling and using tools

Seeing structure and generalizing



Dr. John D. Barge, State School Superintendent  
"Making Education Work for All Georgians"

(McCallum, 2011)

## Geometry

## Domain



- Reason with shapes and their attributes.

## Standards CLUSTER Heading

**MCC3.G.1-** Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

## Standards

**MCC3.G.2-** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.*



Dr. John D. Barge, State School Superintendent  
"Making Education Work for All Georgians"



While the standards focus on what is most essential, they do not describe all that can or should be taught. A great deal is left to the discretion of teachers and curriculum developers. The aim of the standards is to articulate the fundamentals, not to set out an exhaustive list or a set of restrictions that limits what can be taught beyond what is specified.

[corestandards.org](http://corestandards.org)



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# So what's a Third Grade teacher to do?



- Read your grade level standards. Use the CCGPS Teaching Guide found on [georgiastandards.org](http://georgiastandards.org) and in Learning Village.
- Discuss the standards with your colleagues.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Third Grade Curriculum Map



Common Core Georgia Performance Standards: Curriculum Map

| Unit 1   | Unit 2   | Unit 3  | Unit 4  | Unit 5   | Unit 6  | Unit 7   | Unit 8                   |
|--|--|---|---|--|---|--|--------------------------|
| <b>Numbers and Operations in Base Ten</b>                        | <b>Operations and Algebraic Thinking: the Relationship Between Multiplication and Division</b> | <b>Operations and Algebraic Thinking: the Properties of Multiplication and Division</b> | <b>Operations and Algebraic Thinking: Patterns in Addition and Multiplication</b>       | <b>Geometry</b>                                | <b>Representing and Comparing Fractions</b>                   | <b>Measurement</b>   | <b>Show What We Know</b> |
| MCC3.NBT.1<br>MCC3.NBT.2<br>MCC3.NBT.3<br>MCC3.MD.3<br>MCC3.MD.4 | MCC3.OA.1<br>MCC3.OA.2<br>MCC3.OA.3<br>MCC3.OA.4<br>MCC3.MD.3<br>MCC3.MD.4                     | MCC3.OA.5<br>MCC3.OA.6<br>MCC3.OA.7<br>MCC3.MD.3<br>MCC3.MD.4                           | MCC3.OA.8<br>MCC3.OA.9<br>MCC3.MD.3<br>MCC3.MD.4<br>MCC3.MD.5<br>MCC3.MD.6<br>MCC3.MD.7 | MCC3.G.1<br>MCC3.G.2<br>MCC3.MD.3<br>MCC3.MD.4 | MCC3.NF.1<br>MCC3.NF.2<br>MCC3.NF.3<br>MCC3.MD.3<br>MCC3.MD.4 | MCC3.MD.1<br>MCC3.MD.2<br>MCC3.MD.3<br>MCC3.MD.4<br>MCC3.MD.7<br>MCC3.MD.8 | <b>ALL</b>               |

These units were written to build upon concepts from prior units, so later units contain tasks that depend upon the concepts addressed in earlier units. All units will include the Mathematical Practices and indicate skills to maintain.



**Dr. John D. Barge, State School Superintendent**  
*"Making Education Work for All Georgians"*

# Third Grade Overview



## Unit 1: Numbers and Operations in Base Ten

- **MCC3.NBT.1**
- **MCC3.NBT.2**
- **MCC3.NBT.3**
- **MCC3.MD.3**
- **MCC3.MD.4**

### Number and Operations in Base Ten

- Use place value understanding and properties of operations to perform multi-digit arithmetic.

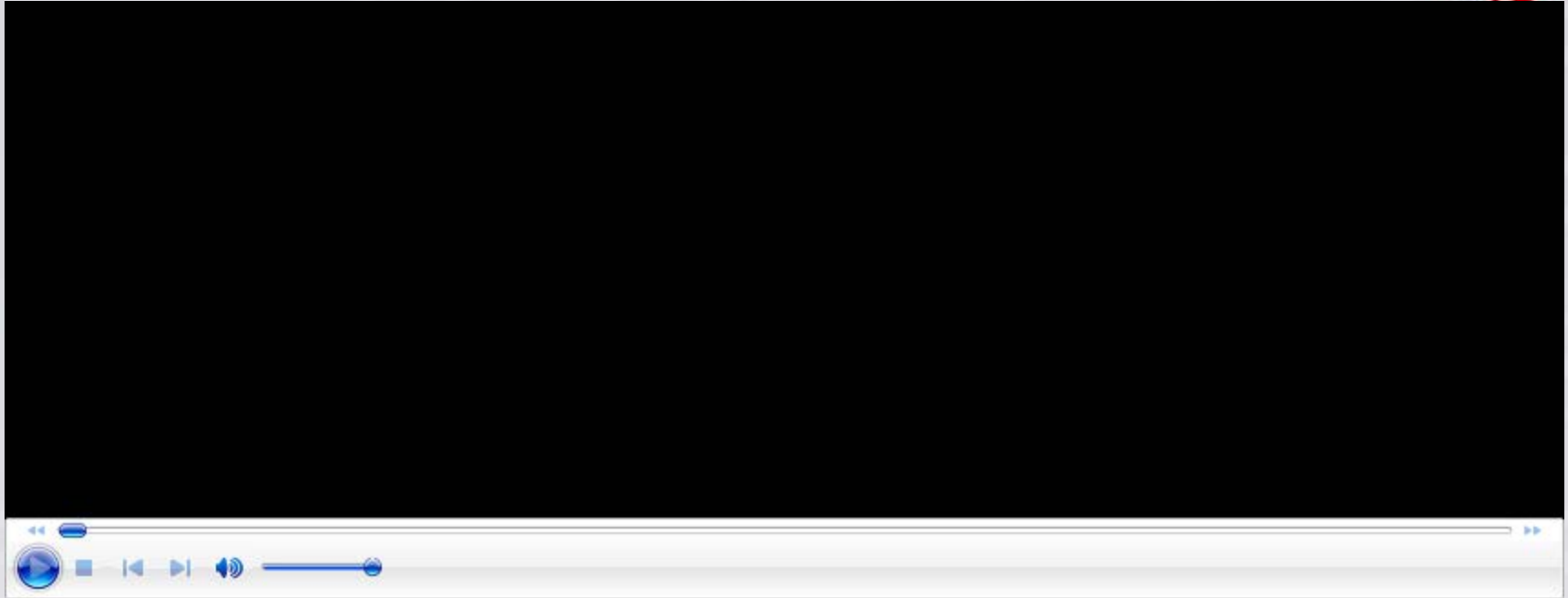
### Measurement & Data

- Represent and and interpret data



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Student Understanding?



© 2010 by Math Solutions. Used with permission. All rights reserved.  
[www.mathsolutions.com](http://www.mathsolutions.com)



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Third Grade Overview



## Unit 2: Operations and Algebraic Thinking: The Relationship Between Multiplication and Division

- **MCC3.OA.1**
- **MCC3.OA.2**
- **MCC3.OA.3**
- **MCC3.OA.4**
- **MCC3.MD.3**
- **MCC3.MD.4**

### **Operations and Algebraic Thinking**

- Represent and solve problems involving multiplication and division.

### **Measurement & Data**

- Represent and interpret data.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*



# Third Grade Overview




## Unit 3: Operations and Algebraic Thinking: The Properties of Multiplication and Division



- **MCC3.OA.5**      **Operations and Algebraic Thinking**
  - Understand properties of multiplication and the relationship between multiplication and division.
- **MCC3.OA.6**
- **MCC3.OA.7**
- **MCC3.MD.3**      **Measurement & Data**
  - Represent and interpret data
- **MCC3.MD.4**




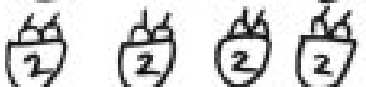
*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

 = 16 apples **one way**  
 $8 + 8$  or  $2 \times 8 = 16$   
 or  $16 \div 2 = 8$


---

  $4 + 4 + 4 + 4$   
 = 16 apples **two ways**  
 or  $4 \times 4 = 16$  or  $16 \div 4 = 4$

---

 = 16 apples **three ways**  
  
 $2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$   $8 \times 2 = 16$  or  $16 \div 8 = 2$

---

  
 $16 \times 1$  or  $16 \div 1 = 16$  apples **four ways**

There are 16 apples to be put into bowls. Each bowl must have the same number of apples. Show as many different solutions as you can.

# Journaling



- Every day
- Provide a rubric (look online, then refine)
- Teach organization
- 3 stages- familiarization, mathematization, induction



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Third Grade Overview



## Unit 4: Operations and Algebraic Thinking: Patterns in Addition and Multiplication

- MCC3.OA.8
- MCC3.OA.9
- MCC3.MD.3
- MCC3.MD.4
- MCC3.MD.5
- MCC3.MD.6
- MCC3.MD.7

### **Operations and Algebraic Thinking**

- Solve problems involving the four operations, and identify and explain patterns in arithmetic.

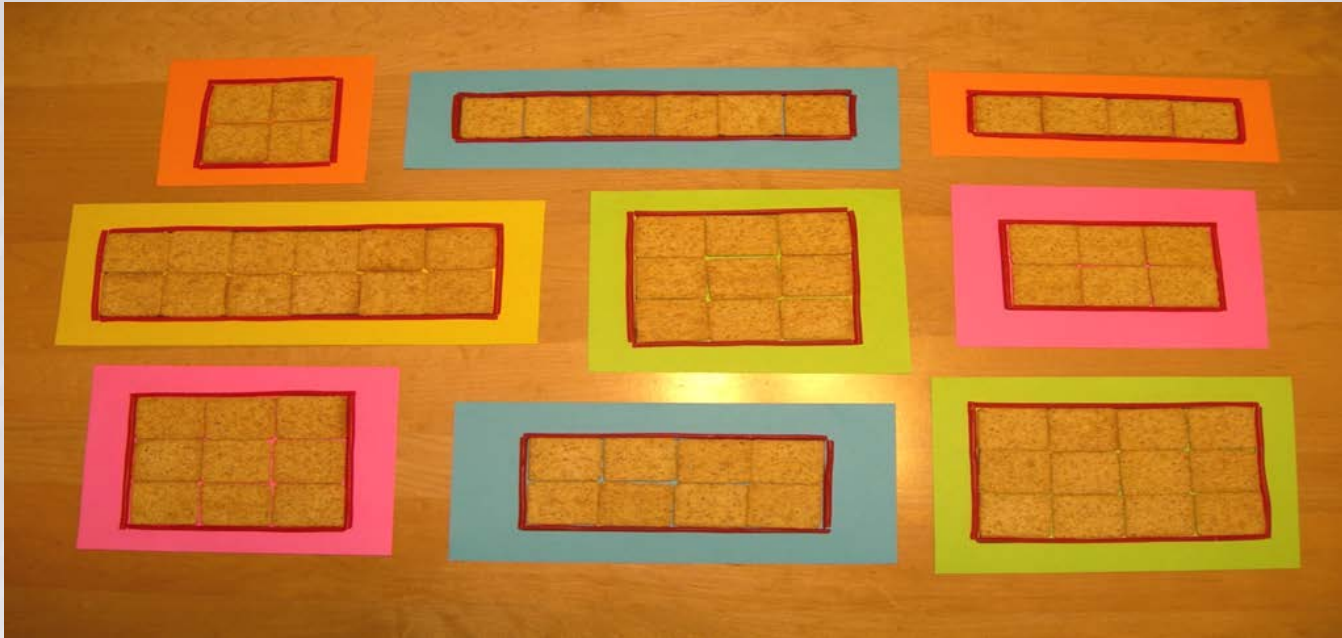
### **Measurement & Data**

- Represent and interpret data
- Geometric measurement: understand concepts of area and relate area to multiplication and to addition



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Cheezy Multiplication



**Dr. John D. Barge, State School Superintendent**  
*"Making Education Work for All Georgians"*

# Third Grade Overview



## Unit 5: Geometry

**MCC3.G.1**

### **Geometry**

- Reason with shapes and their attributes

**MCC3.G.2**

**MCC3.MD.3**

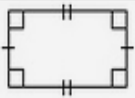
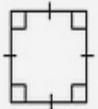




### **Measurement and Data**

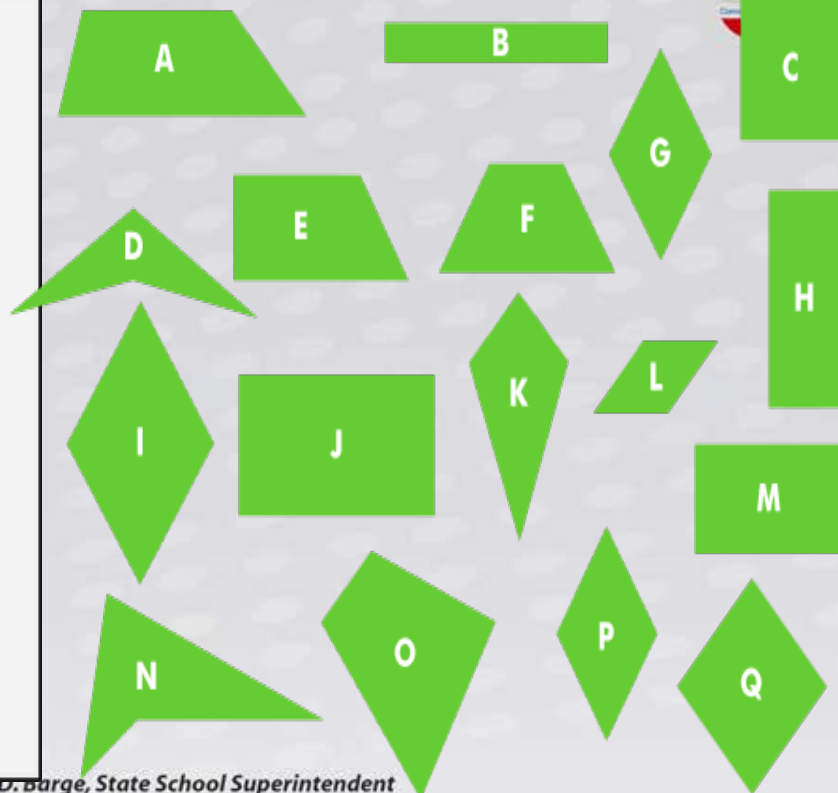
- Represent and interpret data

**MCC3.MD.4**



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

| <i>Quadrilateral</i> | <i>Properties</i>   |
|----------------------|---|
| <i>Rectangle</i>     | 4 right angles and opposite sides equal<br>              |
| <i>Square</i>        | 4 right angles and 4 equal sides<br>                     |
| <i>Parallelogram</i> | Two pairs of parallel sides and opposite sides equal<br> |
| <i>Rhombus</i>       | Parallelogram with 4 equal sides<br>                     |
| <i>Trapezoid</i>     | Two sides are parallel<br>                               |
| <i>Kite</i>          | Two pairs of adjacent sides of the same length<br>       |





# Third Grade Overview

## Unit 6: Representing and Comparing Fractions

- **MCC3.NF.1**      **Number and Operations- Fractions**
- **MCC3.NF.2**      •Develop understanding of fractions as numbers
- **MCC3.NF.3**      **Measurement and Data**
- **MCC3.MD.3**      •Represent and interpret data.
- **MCC3.MD.4**



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*



# Third Grade Overview



## Unit 7: Measurement

### Measurement and Data

- **MCC3.MD.1**
  - **MCC3.MD.2**
  - **MCC3.MD.3**
  - **MCC3.MD.4**
  - **MCC3.MD.7**
  - **MCC3.MD.8**
- Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.
  - Represent and interpret data
  - Geometric Measurement: understand concepts of area and relate area to multiplication and to addition.
  - Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Third Grade Overview

## Unit 8: Show What We Know



**Dr. John D. Barge, State School Superintendent**  
*"Making Education Work for All Georgians"*

# What's Different in Third Grade?



## Operations and Algebraic Thinking

- Estimation and rounding
- Understand order of operations
- Arithmetic patterns

## Number and Operations in Base Ten

- Rounding to the nearest 10 or 100

## Number and Operations- Fractions

- Understand a fraction  $a/b$  as the quantity formed by  $a$  parts of size  $1/b$
- Unit fractions (see above)
- Fractions as numbers on number line
- Fractions limited to denominators of 2,3,4,6, and 8



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# What's Different in Third Grade



## Measurement and Data

- Weight
- Volume
- Measurement data
- Area as additive- partitioning shapes

## Geometry

- Classification of geometric figures



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Common Misconceptions



## Operations and Algebraic Thinking

- Thinking a symbol is always the place for the answer.
- Thinking a certain symbol can only represent a certain number.
- Overgeneralization of fact family idea
- Key words

## Number and Operations in Base Ten

- Rounding

## Number and Operations- Fractions

- Denominator/size confusion
- Overgeneralization of shape division



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Common Misconceptions



## Measurement

- Scale markings
- Graph scale confusion
- Closest numeral to hand is the time
- Coin value and size
- Object size/attribute makes equal values appear unequal
- Estimation and rounding

## Geometry

- Area and perimeter confusion
- Limited exposure to shapes/shape relationships



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

Focus  
Coherence  
Fluency  
Deep Understanding  
Applications  
Balanced Approach



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Focus

Coherence

Fluency

Deep Understanding

Applications

Balanced Approach



**Dr. John D. Barge, State School Superintendent**  
*"Making Education Work for All Georgians"*



# Focus



The student...

- spends more time thinking and working on priority concepts.
- is able to understand concepts and their connections to processes (algorithms).



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Focus



## The teacher...

- builds knowledge, fluency, and understanding of why and how certain mathematics concepts are done.
- thinks about how the concepts connect to one another.
- pays more attention to priority content and invests the appropriate time for all students to learn before moving onto the next topic.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

| <b>Grade</b> | <b>Priorities in Support of Rich Instruction and Expectations of Fluency and Conceptual Understanding</b> |
|--------------|---|
| K–2          | Addition and subtraction, measurement using whole number quantities                                       |
| 3-5          | Multiplication and division of whole numbers and fractions  |
| 6            | Ratios and proportional reasoning; early expressions and equations  |
| 7            | Ratios and proportional reasoning; arithmetic of rational numbers   |
| 8            | Linear algebra  |
| 9-12         | Modeling  |

# Critical Areas



In Third Grade, instructional time should focus on **four critical areas**:

- Developing understanding of multiplication and division and strategies for multiplication and division within 100
- Developing understanding of fractions, especially unit fractions (fractions with a numerator 1)
- Developing understanding of the structure of rectangular arrays and of area
- Describing and analyzing two-dimensional shapes



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Sample high leverage task



## True or false?

- $0 \times 7 = 7 \times 0$
- $1 \times 9 = 9 \times 1$
- $3 \times 6 = 6 \times 3$
- $8 \div 2 = 2 \div 8$
- $7 \times 5 + 7 \times 3 = 7 \times 8$
- $2 \times 3 \times 5 = 6 \times 5$
- $2 \times 3 \times 5 = 10 \times 3$
- $10 \times 2 < 5 \times 2 \times 2$
- $0 \times 6 > 3 \times 0 \times 2$
- $7 \times 7 < 7 \times 2 + 7 \times 5$



Dr. John D. Barge, State School Superintendent  
"Making Education Work for All Georgians"

# What is no longer in Third Grade ?



What about

- Decimals?
- We will be using metric when measuring weight and volume.

What about Calendar Time?



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

Focus  
Coherence  
Fluency  
Deep Understanding  
Applications  
Balanced Approach



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Coherence



The student...

- builds on knowledge from year to year, in a coherent learning progression.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*



# Coherence

The teacher.....

- connects mathematical ideas across grade levels.
- thinks deeply about what is being focused on.
- thinks about the way those ideas connect to how they were taught the year before and the years after.



# What do Third Grade students bring? What are they connecting to later?



## From 2-

- Fluent addition and subtraction to 18.
- Foundational place value understanding.
- Foundational ideas about shape and position in space.
- Ability to compare and categorize.
- Understanding of quantities to 1000.
- Measurement as unit iteration
- Foundational data ideas
- Foundational ideas about addition and subtraction

## Later-

- Deep understanding of addition and subtraction, multiplication and division.
- Useful place value understanding.
- Understanding of defining attributes about shape, comparison of shape.
- Foundational fractional relationships.
- Continuation of fluency/algebraic thinking.
- Measurement/addition/subtraction relationships
- Data analysis



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Sample Coherence Task



I shared a bag of grapes with my monkey. I ended up with 17 more grapes than my monkey and my monkey had 29. How many grapes were in the bag to begin with?

Use a number line to find and explain the answer.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Again, where is it all going?



- Deep understanding of addition and subtraction.
- Useful place value understanding.
- Understanding of defining attributes about shape, comparison of shape.
- Foundational fractional relationships.
- Continuation of fluency, algebraic thinking.
- Measurement/addition/subtraction relationships
- Data analysis



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

Focus  
Coherence  
**Fluency**  
Deep Understanding  
Applications  
Balanced Approach



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Fluency

The student...

- spends time practicing skills with intensity and frequency.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Fluency



The teacher...

- pushes students to know basic skills at a greater level of fluency based on understanding.
- focuses on the listed fluencies by grade level.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*



| Grade | Required Fluency  |
|-------|---|
| K     | Add/subtract within 5   |
| 1     | Add/subtract within 10  |
| 2     | Add/subtract within 20 & Add/subtract within 100 (pencil and paper)   |
| 3     | Multiply/divide within 100 & Add/subtract within 1000   |
| 4     | Add/subtract within 1,000,000   |
| 5     | Multi-digit multiplication  |
| 6     | Multi-digit division & Multi-digit decimal operations   |
| 7     | Solve $px + q = r$ , $p(x + q) = r$   |
| 8     | Solve simple $2 \times 2$ systems by inspection   |
| 9-12  | Algebraic manipulation in which to understand structure.<br>Writing a rule to represent a relationship between two quantities.<br>Seeing mathematics as a tool to model real-world situations.<br>Understanding quantities and their relationships. |



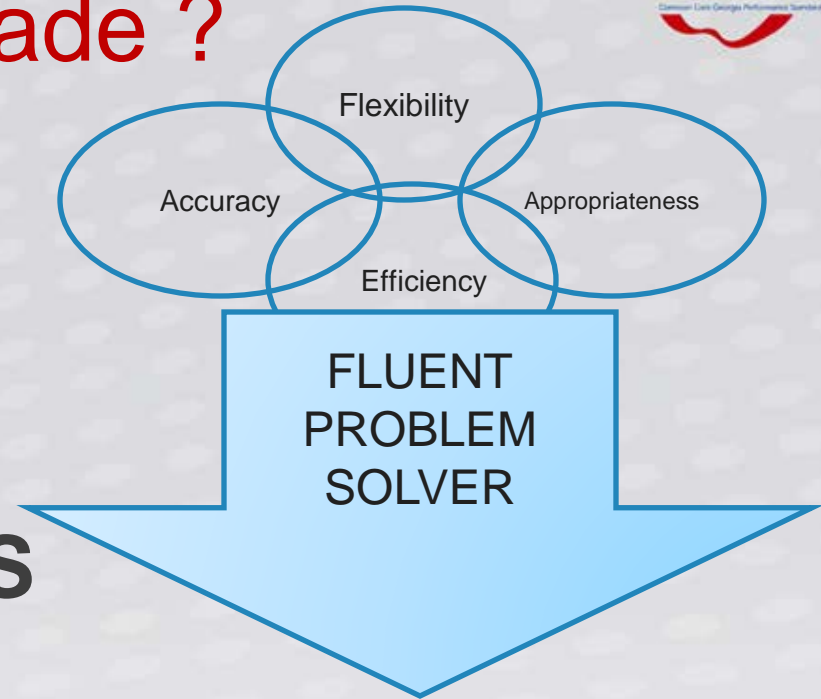
*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*



# What does Fluency Look Like in Third Grade ?



- **FLEXIBILITY**
- **ACCURACY**
- **EFFICIENCY**
- **APPROPRIATENESS**



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# What does Fluency Look Like in Third Grade ?



- **MCC3.OA.7- Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that  $8 \times 5 = 40$ , one knows  $40 \div 5 = 8$ ) or properties of operations. *By the end of Grade 3, know from memory all products of two one-digit numbers.***

Build fluency using:

- number string
- bead strings
- Rekenrek
- number line
- meaningful tasks

Build memory using:

- games, games, games
- application



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Multiplication Four Across

**Materials:** Two paper clips and several two color counters.

**Number of Players:** 2

**Directions:** The first player takes the two paper clips and places them on the row of digits appearing below the grid, either on two different digits or on the same digit (being able to put them on the same digit allows for multiplying a digit by itself). He or she multiplies the two numbers together, produces a product, and places a two-color counter over that product on the game board. The second player moves **ONE** of the paper clips to a different digit, produces a product and places a two-color counter over that product on the game board. Play alternates in this way, each player moving only one marker at a time to a different digit, until one player has captured four squares in a row (horizontally, vertically, or diagonally).

|    |    |    |    |    |    |
|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  |
| 7  | 8  | 9  | 10 | 12 | 14 |
| 15 | 16 | 18 | 20 | 21 | 24 |
| 25 | 27 | 28 | 30 | 32 | 35 |
| 36 | 40 | 42 | 45 | 48 | 49 |
| 54 | 56 | 63 | 64 | 72 | 81 |

1 2 3 4 5 6 7 8 9

Dr. John D. Barge, State School Superintendent

*"Making Education Work for All Georgians"*

Let's play  
a game

(Thanks, Mike- love this game!)



Focus  
Coherence  
Fluency  
**Deep Understanding**  
Applications  
Balanced Approach



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Deep Understanding



The student...

- shows mastery of material at a deep level in numerous ways.
- uses mathematical practices to demonstrate understanding of different material and concepts.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Deep Understanding



The teacher...

- asks self what mastery/proficiency really looks like and means.
- plans for progressions of levels of understanding.
- spends the time necessary to gain the depth of the understanding.
- becomes flexible and comfortable in own depth of content knowledge.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Deep Understanding Sample Task



## Score It!

Take a look at the task, and think about this:

- How do we get started?
- What might students do?
- What should teachers do?
- How should it end?



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Task Structure

- Pre-Assessment/Opening
- Collaborative activity
- Whole-class discussion
- Return to the pre-assessment/opening and bring it all back to the standards





Focus  
Coherence  
Fluency  
Deep Understanding  
**Application**  
Balanced Approach



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Application



The student...

- applies mathematics in other content areas and situations.
- chooses the right mathematics concept to solve a problem when not necessarily prompted to do so.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Application



The teacher...

- contextualizes mathematics.
- creates real world experiences in which students use what they know, and in which they are not necessarily prompted to apply mathematics.



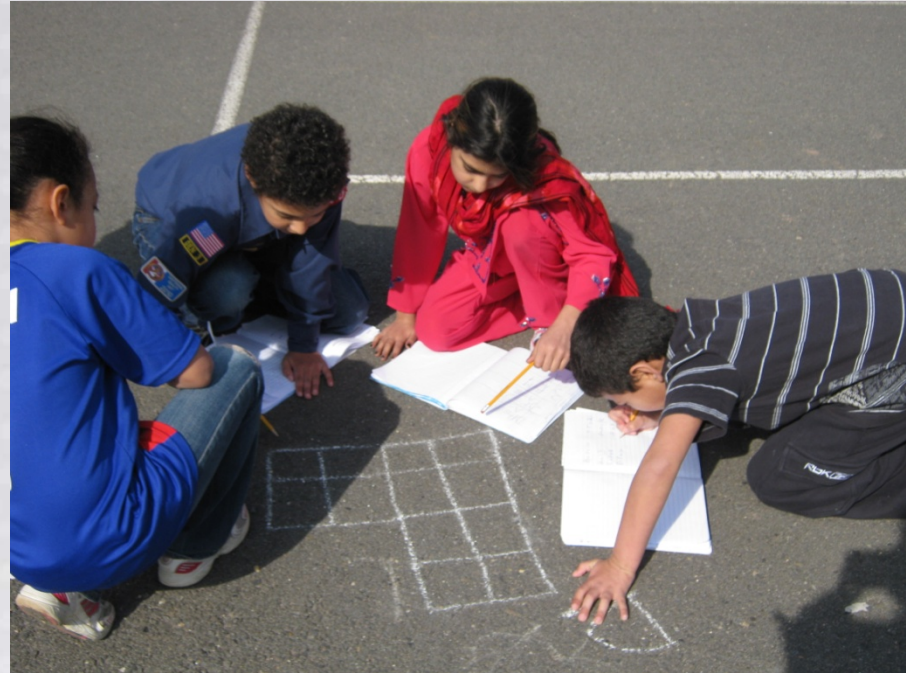
*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Mathematizing Third Grade



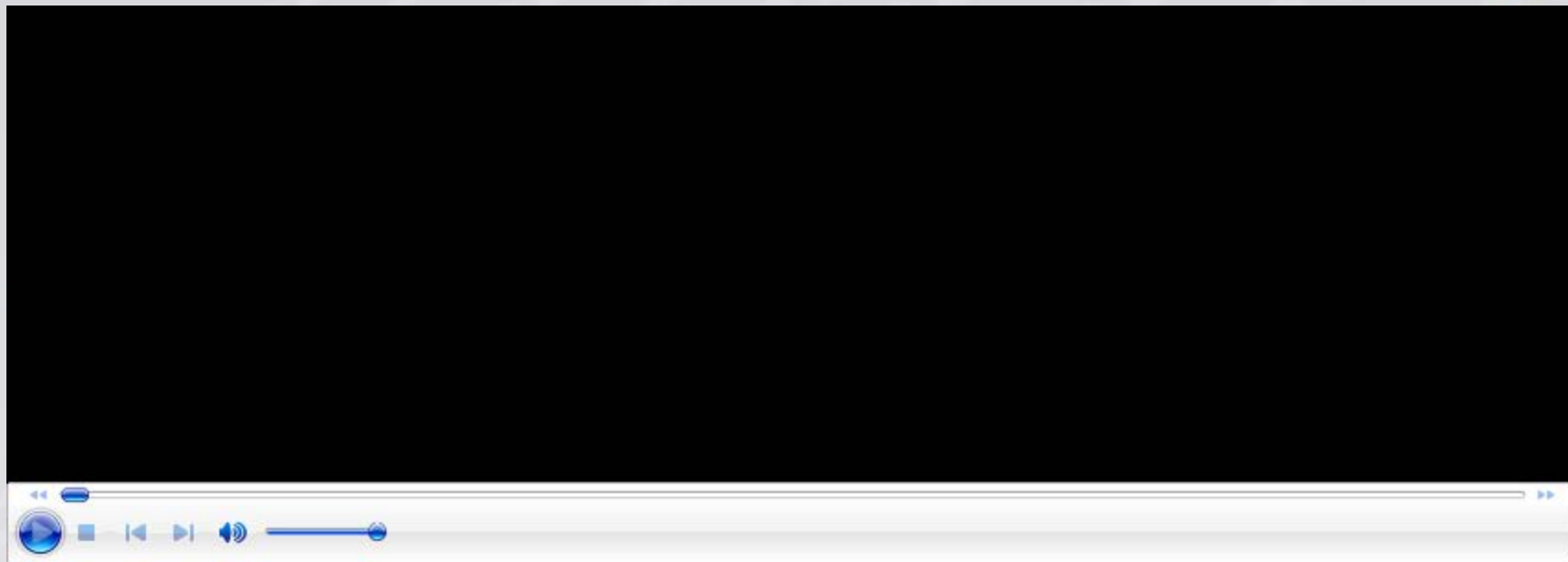
What does it mean to apply mathematics in Third Grade ?

- Attendance
- Lunch count
- Science, Social Studies, ELA
- Counting, measuring, sorting, classifying, describing everything!
- Contextualizing math



**Dr. John D. Barge, State School Superintendent**  
*"Making Education Work for All Georgians"*

# What does this mean in terms of assessment?



From *Number Talks, Grades K–5*. © 2010 by Sherry Parrish. Used with permission. All rights reserved.

[www.mathsolutions.com](http://www.mathsolutions.com)



**Dr. John D. Barge, State School Superintendent**  
*"Making Education Work for All Georgians"*

Focus  
Coherence  
Fluency  
Deep Understanding  
Applications  
**Balanced Approach**



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Balanced Approach



The student...

- practices mathematics skills to achieve fluency.
- practices math concepts to ensure application in novel situations.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Balanced Approach



The teacher...

- finds the balance between understanding and practice.
- normalizes the productive struggle.
- ritualizes skills practice.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*



# What does balance mean in Third Grade ?



Ms. Guy's Puppy Problem

Ms. Guy has a very energetic puppy. The puppy loves to play outdoors, so Ms. Guy decided to build a pen to allow her pet to be outside while she is at school. She just happens to have 50 feet of fencing in her basement that she can use for the pen.

What are some of the ways she can set up the pen that uses all the fencing?

What are the dimensions of the rectangular pen with the most space available for the puppy to play?

*Used with permission of  
Exemplars.com  
(Thanks, Ross!)*



*Dr. John D. Barge, State School Superintendent  
"Making Education Work for All Georgians"*

# How could we launch this task?



- Diagnostic- look for potential misconceptions
- Cubes, color tiles, bead bars, counters
- Grid paper, rulers



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

Focus  
Coherence  
Fluency  
Deep Understanding  
Applications  
Balanced Approach



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# CCGPS Suggestions:



1. Read the CCGPS. The Teaching Guide for next year, curriculum maps and the standards can be found in Learning Village, on the math program page, and on [Georgiastandards.org](http://Georgiastandards.org).
2. View the Fall 2011 Grade Level Webinars if you haven't already seen them. (available on GSO)
3. Review this broadcast with your team to identify key areas of focus.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# CCGPS Suggestions:



4. Participate in the unit-by-unit webinars beginning in May.

**Third Grade Unit 1- 3:15, May 8, 2012.**

5. Structure time for grade level/content areas to use framework units as a guide for planning.
6. Plan to get together with your colleagues at the end of each CCGPS unit to analyze student work samples and compare how student learning and performance look.



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*



# Third Grade Support:

## Now-

- Fall 2011 Grade Level Webinars
- Teaching Guide
- Curriculum map
- Standards document

## Coming soon-

- Frameworks units- posting in April, 2012
- Unit-by-unit webinars:

**Third Grade Unit 1, 3:15 pm, May 8, 2012**



*Dr. John D. Barge, State School Superintendent*  
*"Making Education Work for All Georgians"*

# Takeaways?

## 3 Things-

1. What's new?
2. What's different?
3. What resources and support are available for CCGPS mathematics?



# Food for Thought



“The resources we need in order to grow as teachers are abundant within the community of colleagues. Good talk about good teaching is what we need...”

Parker Palmer  
*Courage to Teach*



**Dr. John D. Barge, State School Superintendent**  
*“Making Education Work for All Georgians”*





**THANK YOU**

**Turtle Gunn Toms**  
[tgunn@doe.k12.ga.us](mailto:tgunn@doe.k12.ga.us)



**Dr. John D. Barge, State School Superintendent**  
*"Making Education Work for All Georgians"*

Thank you for participating in this CCGPS Professional Learning Session. We value your feedback. Please go to the following website, take the anonymous feedback survey, and complete the participation log to receive a certificate of participation:



<http://survey.sedl.org/efm/wsb.dll/s/1g10a>

If you have questions, feel free to contact any of the English/Language Arts or Mathematics staff at the following email addresses:

Sandi Woodall, Georgia Mathematics Coordinator  
[swoodall@doe.k12.ga.us](mailto:swoodall@doe.k12.ga.us)

James Pratt, Secondary Mathematics  
[jpratt@doe.k12.ga.us](mailto:jpratt@doe.k12.ga.us)

Brooke Kline, Secondary Mathematics  
[bkline@doe.k12.ga.us](mailto:bkline@doe.k12.ga.us)

Turtle Gunn Toms, Elementary Mathematics  
[tgunn@doe.k12.ga.us](mailto:tgunn@doe.k12.ga.us)

Kim Jeffcoat, Georgia ELA Coordinator  
[kjeffcoat@doe.k12.ga.us](mailto:kjeffcoat@doe.k12.ga.us)

Susan Jacobs, Secondary ELA  
[sjacobs@doe.k12.ga.us](mailto:sjacobs@doe.k12.ga.us)

Sallie Mills, Elementary ELA  
[smills@doe.k12.ga.us](mailto:smills@doe.k12.ga.us)

Andria Bunner, Elementary ELA  
[abunner@doe.k12.ga.us](mailto:abunner@doe.k12.ga.us)



**Dr. John D. Barge, State School Superintendent**  
*"Making Education Work for All Georgians"*