Understanding Common Core State Standards and Practices for Mathematics

Developed by,
The Elementary Math Team, Darien Public Schools
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Good Morning,

Welcome! Our goal today is to provide an overview of the Common Core Standards and Practices for Mathematics to grow your understanding of the Common Core. Think about what you already know about the CCSS and be ready to apply it to solving a math problem.

Mathematically,

The Math Team

Problem Solving

Feeding Lizards and Frogs

The class has a lizard and a frog. The lizard eats the same number of insects each day. The frog also eats the same number of insects each day. On day one, the lizard eats fourteen insects and the frog eats ten insects. By day five, the lizard has eaten five times the number of insects he ate on day one. How many insects has the lizard eaten on day five? On what day will the frog have eaten the same number of insects the lizard ate on day five? Show all your mathematical thinking.

What is the Common Core?

A single set of **clear standards** and **practices** for mathematics

A tool to help teachers, students and parents set clear and realistic goals for success

The Common Core Standards and Practices...

Prepare students to succeed in college and the workforce

Ensure that every child—regardless of race, ethnicity or zip code—is held to the same high standards and learns the same material

Provide educators with a clear, focused roadmap for what to teach and when

What Parents Should Know

The Standards and Mathematical Practices

The Connecticut Core Standards
The "WHAT" we learn:
>   The concepts and skills we want the students to understand by the end of the school year.

The Standards of Mathematical Practice
The "HOW" we learn:
>   The practices are all about processes and proficiencies, and describe a variety of dispositions that we want for our students.

>   They are habits of mind that we develop in our students, which are woven into everyday instruction.

Key Shifts in Mathematics

Greater focus on fewer topics

Coherence-linking topics and thinking across grade levels

<u>Rigor</u>: Pursue conceptual understanding, procedural skills and fluency, and application with equal intensity
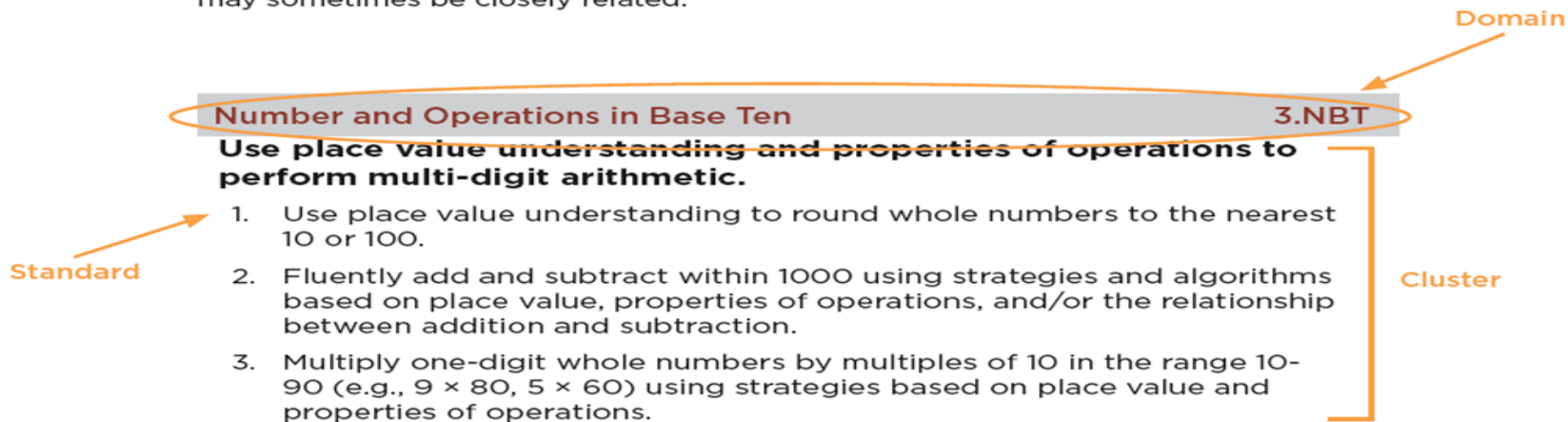
Mathematics Common Core Layout

How to read the grade level standards

Standards define what students should understand and be able to do.

Clusters are groups of related standards. Note that standards from different clusters may sometimes be closely related, because mathematics is a connected subject.

Domains are larger groups of related standards. Standards from different domains may sometimes be closely related.

Domain

Number and Operations in Base Ten	3.NBT

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

Standard

1. Use place value understanding to round whole numbers to the nearest 10 or 100.

2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

3. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.

Cluster

K–5 Content Standards by Domain

DOMAINS	Counting & Cardinality	Operations & Algebraic Thinking	Number & Operations in Base Ten	Measurement & Data	Geometry	Number & Operations: Fractions
K	X	X	X	X	X	
1		X	X	X	X	
2		X	X	X	X	
3		X	X	X	X	X
4		X	X	X	X	X
5		X	X	X	X	X

Content Priorities and Progression

K-2 Addition and subtraction concepts, skills and problem solving and place value

3-5 Multiplication and division of whole numbers and fractions- concepts, skills and problem solving

Progression~Operations and Algebraic Thinking

1.0A-Tamika caught 5 fish, Sari caught 4 fish, Sam caught 8 fish. Together how many fish did they catch? Explain your thinking to a friend.

2.0A-Nathan found 35 spider webs in his backyard. Justin found 14 more spider webs than Nathan in his backyard. How many spider webs did Justin find? How many spider webs do they have altogether? Show your thinking.

3.0A-Xavier had 4 times as many stamps in his collection as Shannon did. If they had 100 stamps altogether, how many more stamps did Xavier have than Shannon? How many stamps did Shannon have? How do you know?

Mathematical Practices
K-5

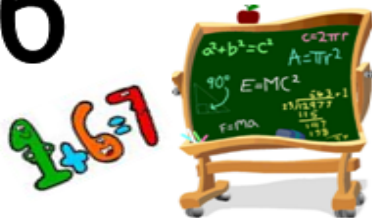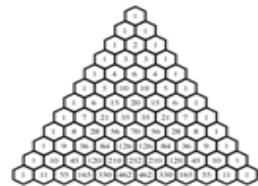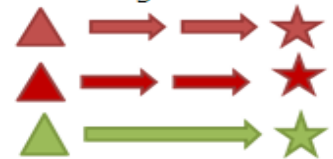|	
1 Make sense of problems and persevere in solving them.	**2** Reason abstractly and quantitatively.
3 Construct viable arguments and critique the reasoning of others.	**4** Model with mathematics.
5 Use appropriate tools strategically.	**6** Attend to precision.
7 Look for and make use of structure.	**8** Look for and express regularity in repeated reasoning.

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What practice(s) did you apply and how?

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Resources

Common Core State Standards Initiative

Parent Roadmaps

Next Steps

Future Workshops

    Welcome to Kindergarten-December 15th

    Understanding Math in Your Child's Classroom-January 12th

    Summer Fun with Mathematics- May 10th

Exit Slip

    Questions, Comments

Glad you were here...

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