Nifty Numbers

and connections with the

Common Core Standards

Standards for Mathematical Practice
Make sense of problems and persevere in solving them.
Reason abstractly and quantitatively.
Construct viable arguments and critique the reasoning of others.
Model with mathematics.
Use appropriate tools strategically.
Attend to precision.
Look for and make use of structure.
Look for and express regularity in repeated reasoning.

All of the *Nifty Numbers* activities were designed to promote critical thinking skills. The parent participation booklet offers some suggested higher-order thinking questions for parents to ask their children as they are involved in the activity. As parents work with their children and enter into deeper mathematical conversations, they will be addressing the *Standards for Mathematical Practice* and promoting greater learning and understanding.

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Common Core Standards	Dominoes	Growing Equations	Nimble Numbers	Pattern	Pattern Blocks	The Unknowns	What's My Rule?	Who Am I?
Grade K								
Counting and Cardinality								
Know number names and the count sequence.	•	•	•		•	•	•	•
Count to tell the number of objects.	•	•	•		•	•	•	•
Compare numbers.	•	•	•		•	•	•	•
Operations and Algebraic Thinking								
Understand addition/subtraction as putting together/taking apart.	•	•	•		•	•	•	•
Number and Operations in Base 10								
Work with numbers 11-19 to gain foundations for place value.	•	•	•		•	•	•	•
Measurement and Data								
Classify objects and count the number of objects in categories.			•					
Geometry								
Identify and describe shapes.					•			
Analyze, compare, create, and compare shapes.					•			

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Common Core Standards	Dominoes	Growing Equations	Nimble Numbers	Pattern	Pattern Blocks	The Unknowns	What's My Rule?	Who Am I?
Grade 1								
Operations and Algebraic Thinking								
Represent and solve problems involving addition and subtraction.	•	•	•		•	•	•	•
Understand and apply properties of operations and the relationship between addition and subtraction.	•	•			•	•		•
Add and subtract within 20.	•	•	•		•	•	•	•
Work with addition and subtraction equations.	•	•				•		•
Number and Operations in Base 10								
Extend the counting sequence.	•	•	•		•	•	•	•
Understand place value.		•				•	•	•
Use place value understanding and properties of operations to add and subtract.		•				•	•	•
Geometry								
Reason with shapes and their attributes.					•			

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Grade 2								
Operations and Algebraic Thinking								
Represent and solve problems involving addition and subtraction.	•	•	•	•	•	•	•	•
Add and subtract within 20.	•	•	•	•	•	•	•	•
Work with equal groups of objects to gain foundation for multiplication.		•		•	•	•	•	•
Number and Operations in Base 10								
Understand place value.		•	•	•			•	•
Use place value understanding and properties of operations to add and subtract.	•	•	•	•		•	•	•
Measurement								
Work with time and money.								•
Geometry								
Reason with shapes and their attributes.					•			

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Grade 3								
Operations and Algebraic Thinking								
Represent and solve problems involving multiplication and division.		•				•	•	•
Understand properties of multiplication and the relationship between multiplication and division.		•				•	•	•
Multiply and divide within 100.		•				•	•	•
Solve problems involving the four operations, and identify and explain patterns in arithmetic.	•	•	•	•	•	•	•	•
Number and Operations in Base 10								
Use place value understanding and properties of operations to perform multi-digit arithmetic.	•	•	•	•			•	•
Numbers and Operations - Fractions								
Develop and understanding of fractions as numbers.		•			•			
Geometry								
Reason with shapes and their attributes.					•			

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Grade 4								
Operations and Algebraic Thinking								
Use the four operations with whole numbers to solve problems.	•	•	•	•		•	•	•
Gain familiarity with factors and multiples.	•	•	•					•
Generate and analyze patterns.				•			•	
Number and Operations in Base 10								
Generalize place value understanding for multi-digit whole numbers.		•						•
Use place value understanding and properties of operations to perform multi-digit arithmetic.		•		•			•	•
Numbers and Operations - Fractions								
Extend understanding of fraction equivalence and ordering.		•			•			
Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers.		•			•			

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Grade 5								
Operations and Algebraic Thinking								
Write and interpret numerical expressions.	•	•	•		•	•	•	
Analyze patterns and relationships.	•	•	•	•	•	•	•	
Number and Operations in Base 10								
Understand the place value system.	•	•		•		•	•	
Perform operations with multi-digit whole numbers and with decimals to hundredths.		•		•			•	
Numbers and Operations - Fractions								
Use equivalent fractions as a strategy to add and subtract fractions.		•			•			
Apply and extend previous understanding of multiplication and division to multiply and divide fractions.		•			•			