

1st Grade Standards & Benchmarks

First Grade Number & Operations

Number & Operations – Standard 1: Understands and applies concepts of number and operations

Power Benchmark 1: Understands numbers, ways of representing numbers, relationships among numbers, and number systems

Grade Level Benchmark	Vocabulary	Skills
<p>a: Counts, demonstrates and recognizes “how many” in sets of objects ITBS*</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Numbers to 100 <input type="checkbox"/> Count <input type="checkbox"/> Set <input type="checkbox"/> More <input type="checkbox"/> Fewer <input type="checkbox"/> How many <input type="checkbox"/> Backward <input type="checkbox"/> Forward <input type="checkbox"/> Same <input type="checkbox"/> Different <input type="checkbox"/> Count on 	<ul style="list-style-type: none"> <input type="checkbox"/> Counts forward from 31 6.5 (ITBS) <input type="checkbox"/> Counts with understanding to 10 or more 1.1 <input type="checkbox"/> <u>Recognizes “how many” in sets of objects</u> 1.2, 1.3 (ITBS) <input type="checkbox"/> Counts with understanding to at least 20 1.2 (ITBS) <input type="checkbox"/> Counts on from 5 1.6 <input type="checkbox"/> Counts on from 5 or 10 to determine an amount shown with coins 3.5
<p>b: Illustrates using multiple models to develop understandings of place value and the base-ten number system to include <u>counting and writing to 100</u> ITBS*</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Tens <input type="checkbox"/> Ones <input type="checkbox"/> Tens digit <input type="checkbox"/> Ones digit <input type="checkbox"/> Digit place value <input type="checkbox"/> Numbers to 100 	<ul style="list-style-type: none"> <input type="checkbox"/> Reads and writes numbers to 100 in symbols and words 8.13 (ITBS) <input type="checkbox"/> Uses place value to compare, order, and sequence numbers to 100 6.10 <input type="checkbox"/> Uses whole number place value to three-digit numbers (calendar time) ITBS * <input type="checkbox"/> Represents a teen number as a group of ten and “leftover” ones 4.1 <input type="checkbox"/> Identifies number patterns related to place value 4.13 <input type="checkbox"/> Uses place value to help find 1 more/less or 10 more/less than a number 4.13 <input type="checkbox"/> Identifies patterns in a sequence of number sentences 4.14 <input type="checkbox"/> Represents a multiple of 10 as groups of 10 6.2 <input type="checkbox"/> Represents a two-digit number as tens and ones (concrete/pictorial models) 6.4, 6.5, 6.6, 6.7 <input type="checkbox"/> Models and writes the number that is 1 or 10 more or less than a given two-digit number 6.10 <input type="checkbox"/> Counts on by tens and by ones from a two-digit number 8.12, 8.13

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Number & Operations – Standard 1: Understands and applies concepts of number and operations			
Power Benchmark 1: Understands numbers, ways of representing numbers, relationships among numbers, and number systems			
Grade Level Benchmark	Vocabulary	Skills	
c: Identifies the relative position and magnitude of whole numbers and of ordinal and cardinal numbers and their connections ITBS**	<input type="checkbox"/> Greater <input type="checkbox"/> More <input type="checkbox"/> Less <input type="checkbox"/> 1st to 12th <input type="checkbox"/> Fewer <input type="checkbox"/> Compare <input type="checkbox"/> One-digit number <input type="checkbox"/> Two-digit number <input type="checkbox"/> Most <input type="checkbox"/> Least <input type="checkbox"/> Greatest <input type="checkbox"/> Order <input type="checkbox"/> Skip count <input type="checkbox"/> Count <input type="checkbox"/> Count back <input type="checkbox"/> Odd <input type="checkbox"/> Even <input type="checkbox"/> Money <input type="checkbox"/> Coins <input type="checkbox"/> Penny <input type="checkbox"/> Cents <input type="checkbox"/> Nickel <input type="checkbox"/> Exchange <input type="checkbox"/> Value <input type="checkbox"/> Trade <input type="checkbox"/> Worth <input type="checkbox"/> Amount <input type="checkbox"/> Lesser	<input type="checkbox"/> Compares & orders numbers 1.1, 1.8, 1.9 (ITBS) <input type="checkbox"/> Relates the number five to nearby numbers 1.6 <input type="checkbox"/> Identifies the greatest and least number (up to 20) 1.1, 1.8, 4.3, 4.4, 8.14, 10.13, 12.6 (ITBS) <input type="checkbox"/> Arranges three numbers in order (up to 20) 1.9, 4.4 <input type="checkbox"/> Relates the number 5 and 10 to nearby numbers, 1.6, 2.5 <input type="checkbox"/> Counts on or back by ones or twos, starting from any number to 20 4.10, 4.11, 4.12 (ITBS) <input type="checkbox"/> Classifies numbers as odd or even, 4.10 <input type="checkbox"/> Reads, interprets and writes ordinal numbers (to twelfth/12th) 6.1 (ITBS) <input type="checkbox"/> Compares two numbers (up to 99) and say which is greater 8.14 <input type="checkbox"/> Arranges three numbers (up to 99) in order from least to greatest 8.15 <input type="checkbox"/> Compares and orders two-digit numbers or amounts. 10.13, 12.6 <input type="checkbox"/> Writes the number that is 1 or 10 more or less than a given two-digit number. 10.14 <input type="checkbox"/> Develops understanding of relative position of numbers. 10.15 <input type="checkbox"/> Counts on and back by fives, starting from a multiple of 5 or any number less than 10 11.1 <input type="checkbox"/> Counts by twos or threes to at least 30 11.2 <input type="checkbox"/> Counts by twos, fives or tens 12.8 <input type="checkbox"/> Recognizes & writes money amounts 3.3, 3.4, 10.11, 10.12 ITBS * <input type="checkbox"/> Identifies pennies, nickels, dimes, quarters, and one-dollar bills 3.3, 3.4, 10.11, 10.12 (ITBS) <input type="checkbox"/> Counts pennies and nickels to ten cents (ITBS) <input type="checkbox"/> Uses dimes and pennies to show amounts to 99 cents 8.12 <input type="checkbox"/> Uses coins to represent two-digit amounts in different ways. 10.12, 12.5 <input type="checkbox"/> Trades 5 pennies for a nickel, and vice versa, and show amounts to 10¢ in different ways 3.3 <input type="checkbox"/> Trades 10 pennies for a dime, and vice versa, and show amount to 20¢ in different ways 3.4 <input type="checkbox"/> Uses pennies, nickels, and/or dimes to show amounts equivalent to one quarter. 10.11 <input type="checkbox"/> Compares amounts to a quarter. 10.11	

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Number & Operations – Standard 1: Understands and applies concepts of number and operations			
Power Benchmark 1: Understands numbers, ways of representing numbers, relationships among numbers, and number systems			
Grade Level Benchmark	Vocabulary	Skills	
d: Develops a sense of whole numbers and represent and use them in flexible ways, including relating, composing and decomposing numbers B.3.29	<input type="checkbox"/> Part <input type="checkbox"/> Total <input type="checkbox"/> Altogether <input type="checkbox"/> In all <input type="checkbox"/> Break apart <input type="checkbox"/> Combination	<input type="checkbox"/> Decomposes numbers by “breaking “ them into two parts 1.13, 1.14, 1.15, 5.4, 6.3 <input type="checkbox"/> Models and solves addition problems (using concrete objects) 2.3	
e: <u>Connects number words and numerals to the quantities they represent up to twenty</u>	<input type="checkbox"/> Number names to twenty <input type="checkbox"/> Numeral <input type="checkbox"/> Number word <input type="checkbox"/> Count <input type="checkbox"/> Digit	<input type="checkbox"/> Reads and write numerals to 10 and 20 and connect them to the quantities they represent 1.4, 1.5, 4.1 <input type="checkbox"/> Begin to read number words to ten and twenty 1.4, 4.2 <input type="checkbox"/> Reads and writes number words and the numerals for multiples of 10 (to 90) 6.2, 6.3 <input type="checkbox"/> Interprets number words or numeral as tens and ones, and vice versa 6.4, 6.7, 6.9 <input type="checkbox"/> Matches two-digit number words (oral/written) and numerals 6.8 <input type="checkbox"/> Reads a number word and write the numeral 6.8, 6.9 <input type="checkbox"/> Recognizes multiples of 2, 5 and 10 12.8 <input type="checkbox"/> Recognizes multiples of 4 <input type="checkbox"/> Reads and writes two-digit numerals 6.5, 6.6, 8.13, 8.14, 8.15	

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Number & Operations – Standard 1: Understands and applies concepts of number and operations			
Power Benchmark 1: Understands numbers, ways of representing numbers, relationships among numbers, and number systems			
Grade Level Benchmark	Vocabulary	Skills	
f: Represents commonly used fractions ITBS*	<input type="checkbox"/> Fraction <input type="checkbox"/> Half <input type="checkbox"/> Third <input type="checkbox"/> Fourth <input type="checkbox"/> Sharing <input type="checkbox"/> Equal <input type="checkbox"/> Region <input type="checkbox"/> Collection <input type="checkbox"/> Penny <input type="checkbox"/> Nickel <input type="checkbox"/> Dime <input type="checkbox"/> Quarter <input type="checkbox"/> One-dollar bill <input type="checkbox"/> Dollar sign <input type="checkbox"/> Cent sign	<input type="checkbox"/> Relates fractional drawings of objects to story situations 11.8-11.11 (ITBS) <input type="checkbox"/> Finds half of a collection or region 11.8 - 11.11 <input type="checkbox"/> Relates fractions to sharing 11.11 <input type="checkbox"/> Identifies fraction concepts 11.8 - 11.11 ITBS * <input type="checkbox"/> Finds one-half of a set or group 11.8 <input type="checkbox"/> Exhibits the relationship between doubling and halving 11.8, 11.11 <input type="checkbox"/> Identifies, describes, models, and relates the fractions one-half and one-fourth 11.9, 11.10 <input type="checkbox"/> Relates the fractions one-half and one-fourth 11.9 <input type="checkbox"/> Finds one-half of a length or an amount of liquid 11.10 <input type="checkbox"/> Identifies, describe, and model the fraction one-half 11.10 <input type="checkbox"/> Given one-half of a set or a regions, find the whole 11.11	
Power Benchmark 2: Understands meanings of operations and how they relate to one another			
a: Exhibits various meanings of addition and subtraction of whole numbers and the relationship between the two operations	<input type="checkbox"/> Inverse <input type="checkbox"/> Operation <input type="checkbox"/> Zero <input type="checkbox"/> Facts <input type="checkbox"/> Join <input type="checkbox"/> Combine <input type="checkbox"/> Altogether <input type="checkbox"/> Sum <input type="checkbox"/> Add <input type="checkbox"/> Plus <input type="checkbox"/> In all <input type="checkbox"/> Total <input type="checkbox"/> Addition sign (+) <input type="checkbox"/> Subtraction sign (-)	<input type="checkbox"/> Links addition to subtraction <input type="checkbox"/> Applies the properties of addition and subtraction <input type="checkbox"/> Uses, and begin to read and write, language related to addition 2.1 <input type="checkbox"/> Uses and interprets the + sign 2.2 <input type="checkbox"/> Uses and interprets the - sign 2.4 <input type="checkbox"/> Uses and interprets the = sign 2.12 <input type="checkbox"/> Writes number sentences to model situations that involve addition 5.1, 5.4, 5.10 <input type="checkbox"/> Counts on 1, 2, or 3 to add (using objects; totals less than 20) 5.3 <input type="checkbox"/> Uses and interprets vertical recording of addition or subtraction 5.6, 8.9	

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Number & Operations – Standard 1: Understands and applies concepts of number and operations			
Power Benchmark 2: Understands meanings of operations and how they relate to one another			
Grade Level Benchmark	Vocabulary	Skills	
b: Illustrates various meanings of addition and subtraction of whole numbers and the relationship between the two operations - continued	<input type="checkbox"/> Equal sign (=)	<input type="checkbox"/> Writes number sentences to model situations that involve addition or subtraction 5.7- 5.11 <input type="checkbox"/> Uses and interprets the – sign 5.8, 5.9 <input type="checkbox"/> Adds or subtracts 1, 2, or 3 10.4 <input type="checkbox"/> Writes related addition and subtraction facts 5.13, 12.3 <input type="checkbox"/> Shows the relationship between addition and subtraction 12.4	
c: Models the effects of adding and subtracting whole numbers	<input type="checkbox"/> Addition <input type="checkbox"/> Total <input type="checkbox"/> Altogether <input type="checkbox"/> Sum <input type="checkbox"/> In all <input type="checkbox"/> Number sentence <input type="checkbox"/> Subtraction <input type="checkbox"/> Take away <input type="checkbox"/> Left <input type="checkbox"/> Left over <input type="checkbox"/> How many left <input type="checkbox"/> Minus <input type="checkbox"/> Subtraction sentence	<input type="checkbox"/> Models & solves addition & subtraction problems, (using pictures or objects) 2.9 - 2.11, 2.13, 2.14 <input type="checkbox"/> Begins to understand the relationship between addition and subtraction 2.15 <input type="checkbox"/> Shows the relationship between addition and subtraction 5.11, 5.13, 5.14, 10.4, 10.5, 10.6 <input type="checkbox"/> Writes related subtraction facts to model situations that show two parts 5.12 <input type="checkbox"/> Writes a family of facts to model situations that show two parts 5.13, 8.1, 12.4 <input type="checkbox"/> Writes related addition sentences 8.2 <input type="checkbox"/> Creates and solves addition or subtraction problems that involve finding a difference 10.7, 10.8, 10.9	
d: Demonstrates situations that require multiplication and division (equal groups, equal sharing)	<input type="checkbox"/> Equal size <input type="checkbox"/> Equal groups <input type="checkbox"/> Share <input type="checkbox"/> Equal <input type="checkbox"/> Shared by	<input type="checkbox"/> Reads, retells and acts out stories involving equal groups and sharing 11.5 - 11.8 <input type="checkbox"/> Constructs groups of equal size and combine to find the total 11.3 <input type="checkbox"/> Shares a collection to form equal groups 11.6 <input type="checkbox"/> Applies the properties of multiplication and division 11.3 - 1.8 <input type="checkbox"/> Describes equal groups 11.3, 11.4 <input type="checkbox"/> Writes addition sentences to record equal groups 11.4 <input type="checkbox"/> Creates, models, and solves division problems that involve sharing 11.5, 11.6 <input type="checkbox"/> Creates, models, and solves division problems that involve making groups of a given size 11.7	

1st Grade Standards & Benchmarks

Number & Operations – Standard 1: Understands and applies concepts of number and operations			
Power Benchmark 3: Computes fluently and makes reasonable estimates			
Grade Level Benchmark	Vocabulary	Skills	
<p>a: Develops and uses strategies for whole number computations with a focus on addition and subtraction ITBS*</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Sum <input type="checkbox"/> Difference <input type="checkbox"/> Count on <input type="checkbox"/> Count back <input type="checkbox"/> Double <input type="checkbox"/> Near ten <input type="checkbox"/> Patterns <input type="checkbox"/> Next number <input type="checkbox"/> One more....two more <input type="checkbox"/> Jump one <input type="checkbox"/> Turnaround <input type="checkbox"/> Turnaround fact <input type="checkbox"/> Make ten <input type="checkbox"/> Increase <input type="checkbox"/> Decrease 	<ul style="list-style-type: none"> <input type="checkbox"/> Writes number sentences for addition and subtraction 2.2 - 2.4, 2.11 - 2.15, 5.8, 5.9 <input type="checkbox"/> Adds and subtracts whole numbers 2.5, 2.8, 2.10, 2.12 ITBS * <input type="checkbox"/> Counts on 1, 2, or 3 (using objects & pictures) 2.5, 2.6, 2.7, 2.8 <input type="checkbox"/> Adds two amounts, each less than 10¢ <input type="checkbox"/> Doubles numbers from 1 to 10 and write related addition sentences 4.15 <input type="checkbox"/> Uses the “turnaround” idea (commutative property to figure out related addition facts) 5.2, 5.3, 5.5 <input type="checkbox"/> Adds three or more numbers 5.5 <input type="checkbox"/> Doubles numbers from 1 to 10, and use known doubles to double other numbers 8.2 <input type="checkbox"/> Uses a known double to add numbers that differ by one 8.3 <input type="checkbox"/> Uses a known double to add numbers that differ by two 8.4 <input type="checkbox"/> Solves addition problems that involve a double or a near double fact 8.5 <input type="checkbox"/> Writes related addition and subtraction number sentences 8.7 <input type="checkbox"/> Counts back or on 1, 2, or 3 to subtract 8.10, 8.11 <input type="checkbox"/> Adjusts numbers in a given addition fact to create new facts 10.2 <input type="checkbox"/> Uses the “make ten” addition strategy (when one addend is a little less than 10) 10.3, 10.6 <input type="checkbox"/> Develops and use strategies for addition 12.2 <input type="checkbox"/> Adds two multiples of 10 12.9 <input type="checkbox"/> Subtracts a multiple of ten from another multiple of ten 12.10 <input type="checkbox"/> Adds a multiple of ten and another two-digit number 12.11 	

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Number & Operations – Standard 1: Understands and applies concepts of number and operations			
Power Benchmark 3: Computes fluently and makes reasonable estimates			
Grade Level Benchmark	Vocabulary	Skills	
a: Develops and uses strategies for whole number computations with a focus on addition and subtraction ITBS* - continued		<input type="checkbox"/> Subtracts a multiple of ten from another two-digit number 12.12, 12.13 <input type="checkbox"/> Solves problems involving subtraction 12.14 <input type="checkbox"/> Adds two-digit numbers (no regrouping) 12.14 <input type="checkbox"/> Subtracts two-digit numbers (no regrouping) 12.15	
b: Develops fluency with basic number combinations for addition and subtraction	<input type="checkbox"/> Mentally add <input type="checkbox"/> Mentally subtract	<input type="checkbox"/> Subtracts two-digit numbers (no regrouping) 12.2 <input type="checkbox"/> Develops fluency with basic addition facts (to 9+9) 12.2	
c: <u>Uses a variety of methods and tools to compute, including objects, mental computation, estimation, paper and pencil and calculators to solve problems</u> ITBS*	<input type="checkbox"/> Act it out <input type="checkbox"/> Make or use a model <input type="checkbox"/> Find or use a pattern <input type="checkbox"/> Draw a picture <input type="checkbox"/> Guess and check <input type="checkbox"/> Make a chart, table, graph, or organized list <input type="checkbox"/> Use logical reasoning <input type="checkbox"/> Extra information <input type="checkbox"/> Story problem <input type="checkbox"/> Problem <input type="checkbox"/> Solve <input type="checkbox"/> Decision <input type="checkbox"/> Justify <input type="checkbox"/> Explain <input type="checkbox"/> Calculator <input type="checkbox"/> Closer to <input type="checkbox"/> Between	<input type="checkbox"/> Chooses an appropriate strategy 12.2 (ITBS) <input type="checkbox"/> Solves addition and subtraction story problems 5.14, 12.9-12.12, 12.14, 12.15 (ITBS) <input type="checkbox"/> Uses part-part total to solve addition and subtraction problems 1.13 - 1.15 <input type="checkbox"/> Reads, represents and creates number stories for addition, subtraction and missing addends 5.7, 5.8, 5.10, 5.11, 5.14 <input type="checkbox"/> Uses estimation strategies - Focus Lessons (ITBS) * <input type="checkbox"/> Finds numbers that are between two others 1.9 (ITBS) <input type="checkbox"/> Applies problem solving strategies – All topics ITBS *** 1.15 <input type="checkbox"/> Solves problems involving money 3.7, 8.8, 10.9, 10.10, 10.12, 12.1, 12.9, 12.10, 12.11, 12.12, 12.15 <input type="checkbox"/> Creates, models and solves addition or subtraction problems 5.7, 5.10 5.14 <input type="checkbox"/> Rounds numbers to the nearest multiple of ten. 10.15	

1st Grade Standards & Benchmarks

First Grade Algebra

Algebra – Standard 2: Understands and applies concepts of algebra and functions

Power Benchmark 1: Understand patterns, relations and functions

Grade Level Benchmark	Vocabulary	Skills
<p>a: <u>Sorts, classifies, and orders objects by more than one attribute</u></p>	<ul style="list-style-type: none"> <input type="checkbox"/> Sort <input type="checkbox"/> Attribute <input type="checkbox"/> Color <input type="checkbox"/> Size <input type="checkbox"/> Thickness <input type="checkbox"/> Shape <input type="checkbox"/> 2-D shape <input type="checkbox"/> Color <input type="checkbox"/> Even <input type="checkbox"/> Odd 	<ul style="list-style-type: none"> <input type="checkbox"/> Sorts and classifies objects according to their attributes 1.7 <input type="checkbox"/> Classifies numbers as even or odd 4.10
<p>b: <u>Recognizes, describes, and extends patterns and translates from one representation to another</u></p>	<ul style="list-style-type: none"> <input type="checkbox"/> Pattern <input type="checkbox"/> Repeat <input type="checkbox"/> Names of shapes <input type="checkbox"/> Part that repeats <input type="checkbox"/> Part <input type="checkbox"/> Grow <input type="checkbox"/> Number pattern 	<ul style="list-style-type: none"> <input type="checkbox"/> Recognizes and describes, copies and extends repeating patterns 1.10, 1.11, 4.5 <input type="checkbox"/> Recognizes and describes number patterns 2.9 <input type="checkbox"/> Identifies patterns in a sequence of number sentences. 4.14, 10.1 <input type="checkbox"/> Translates patterns from one representation to another 4.6 <input type="checkbox"/> Recognizes, describes, extends and creates patterns that repeat or grow 4.7, 4.8, 4.9 <input type="checkbox"/> Uses numbers to describe a pattern that repeats or grow 4.8, 4.9
<p>c: <u>Analyzes how both repeating and growing patterns are generated</u></p>	<ul style="list-style-type: none"> <input type="checkbox"/> Numeric patterns <input type="checkbox"/> Skip counting <input type="checkbox"/> Pattern <input type="checkbox"/> Repeating Pattern <input type="checkbox"/> Continue <input type="checkbox"/> Extend <input type="checkbox"/> Grow <input type="checkbox"/> Bigger <input type="checkbox"/> Increase <input type="checkbox"/> Change <input type="checkbox"/> Difference <input type="checkbox"/> Attribute 	<ul style="list-style-type: none"> <input type="checkbox"/> Analyzes a repeating pattern and identify the part that repeats 1.11, 4.5, 4.6, 4.7

1st Grade Standards & Benchmarks

Algebra – Standard 2: Understands and applies concepts of algebra and functions		
Power Benchmark 2: Represents and analyzes mathematical situations and structures using algebraic symbols		
Grade Level Benchmark	Vocabulary	Skills
a: Illustrates general principles and properties of operations using specific numbers (commutative)	<input type="checkbox"/> Quantity <input type="checkbox"/> Equality	<input type="checkbox"/> Creates addition stories 5.10 <input type="checkbox"/> Uses turnaround to figure out related addition facts 5.2, 5.5 <input type="checkbox"/> Write a “fact family” of related addition and subtraction facts 5.13 <input type="checkbox"/> Writes number sentences 8.1 <input type="checkbox"/> Uses double + 1 and the turn around strategy 8.3 <input type="checkbox"/> Uses double + 2 and the turn around strategy 8.4
b: Uses concrete, pictorial, and verbal representations to develop an understanding of invented and conventional symbolic notations	<input type="checkbox"/> All together <input type="checkbox"/> Total <input type="checkbox"/> Join <input type="checkbox"/> Combine <input type="checkbox"/> Put with <input type="checkbox"/> Add <input type="checkbox"/> Plus <input type="checkbox"/> Equals <input type="checkbox"/> Minus <input type="checkbox"/> Take away	<input type="checkbox"/> Begin to read and write language to addition and subtraction 2.1, 2.12 <input type="checkbox"/> Introduces plus sign 2.2 <input type="checkbox"/> Model and solve addition problems using concrete objects 2.3 <input type="checkbox"/> Model and solve subtraction objects and pictures 2.10, 2.11, 2.13, 5.7 <input type="checkbox"/> Use and interpret the “-“ (minus) sign 5.8
Power Benchmark 3: Uses mathematical models to represent and understand quantitative relationships		
a: Models situations that involve the addition and subtraction of whole numbers using objects, pictures and symbols ITBS ***	<input type="checkbox"/> Number sentence <input type="checkbox"/> Equal <input type="checkbox"/> Minus missing number	<input type="checkbox"/> Writes a number sentence with three addends to represent a story or drawing 5.5 <input type="checkbox"/> Models and solves addition problems 2.9 <input type="checkbox"/> Models and solves “missing addend” problems and writes related addition or subtraction sentences 8.6, 8.7, 10.5, 10.6, 12.3

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Algebra – Standard 2: Understands and applies concepts of algebra and functions			
Power Benchmark 4: Analyzes changes in a variety of situations			
Grade Level Benchmark	Vocabulary	Skills	
a: Describes qualitative change, such as a student’s growing taller	<input type="checkbox"/> Alike <input type="checkbox"/> Not alike <input type="checkbox"/> Belong <input type="checkbox"/> Group <input type="checkbox"/> Sort <input type="checkbox"/> Amount	<input type="checkbox"/> Represents and analyzes data in a tally chart 1.7 <input type="checkbox"/> Counts number of letters in name/longer & shorter 1.1	
b: Describes quantitative change, such as a student’s growing two inches in one year	<input type="checkbox"/> Taller-than <input type="checkbox"/> Shorter-than <input type="checkbox"/> Deeper <input type="checkbox"/> Thicker <input type="checkbox"/> Wider	<input type="checkbox"/> Deeper or deepest, etc. from a group 7.7 (ITBS) <input type="checkbox"/> Measures length with multiple copies of the same standard unit laid end to end 9.8	
First Grade Geometry			
Geometry – Standard 3: Understands and applies concepts of geometry			
Power Benchmark 1: Analyzes characteristics and properties of two- and three-dimensional geometric shapes and develops mathematical arguments about geometric relationships			
a: <u>Recognizes, names, builds, draws, compares and sorts two- and three-dimensional shapes</u> ITBS *	<input type="checkbox"/> Shape <input type="checkbox"/> Circle <input type="checkbox"/> Diamond <input type="checkbox"/> Square <input type="checkbox"/> Triangle <input type="checkbox"/> Rectangle <input type="checkbox"/> Sphere <input type="checkbox"/> Cube <input type="checkbox"/> Pyramid <input type="checkbox"/> Rectangular prism <input type="checkbox"/> Cone <input type="checkbox"/> Cylinder <input type="checkbox"/> Boxes <input type="checkbox"/> 3 dimensional <input type="checkbox"/> 2 dimensional	<input type="checkbox"/> Recognizes and names 2-D shapes. 7.1 <input type="checkbox"/> Recognizes and names 3-D shapes 7.2, 7.3 <input type="checkbox"/> Describes, compares and sorts 2-D shapes 9.1, 9.2	
Geometry – Standard 3: Understands and applies concepts of geometry			
Power Benchmark 1: Analyzes characteristics and properties of two- and three-dimensional geometric shapes and develops mathematical arguments about geometric relationships			
Grade Level Benchmark	Vocabulary	Skills	

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<p>b: Describes attributes and parts of two- and three-dimensional shapes ITBS *</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Compare <input type="checkbox"/> Alike <input type="checkbox"/> Same <input type="checkbox"/> Different <input type="checkbox"/> Face <input type="checkbox"/> Edge <input type="checkbox"/> Vertex <input type="checkbox"/> Corner <input type="checkbox"/> 3 dimensional <input type="checkbox"/> 2 dimensional 	<ul style="list-style-type: none"> <input type="checkbox"/> Describes attributes and parts of 2-D shapes. 7.1 <input type="checkbox"/> Describes attributes and parts of 3-D shapes. 7.2, 7.3 <input type="checkbox"/> Describes, names, and compares the attributes of 2-D shapes. 9.1, 9.2 	
<p>c: Investigates and predicts the results of putting together and taking apart two dimensional shapes ITBS***</p>		<ul style="list-style-type: none"> <input type="checkbox"/> Investigates the results of putting together 2-D shapes. 9.4 <input type="checkbox"/> Investigates and predicts the results of taking apart and putting together 2-D shapes. 9.5 	
<p>Power Benchmark 2: Specifies locations and describes spatial relationships using coordinate geometry and other representational systems</p>			
<p>a: Describes, names , interprets, and applies ideas about relative positions in space</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Above <input type="checkbox"/> Below <input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> In front of <input type="checkbox"/> Behind <input type="checkbox"/> Inside <input type="checkbox"/> Near <input type="checkbox"/> Far 	<ul style="list-style-type: none"> <input type="checkbox"/> Describes, names and interprets direction and distance in navigating space 9.3 	
<p>b: Describes, names, interprets and applies ideas about direction and distance in navigating space</p>		<ul style="list-style-type: none"> <input type="checkbox"/> Describes, names, and interprets direction and distance in navigating space 9.3 <input type="checkbox"/> Applies ideas about direction and distance 9.3 <input type="checkbox"/> Introduces coordinate systems (optional) 	

1st Grade Standards & Benchmarks

Geometry – Standard 3: Understands and applies concepts of geometry		
Power Benchmark 3: Applies transformations and uses symmetry to analyze mathematical situations		
Grade Level Benchmark	Vocabulary	Skills
a: Recognizes and applies slides, flips and turns	<input type="checkbox"/> Symmetry <input type="checkbox"/> Square <input type="checkbox"/> Rectangle <input type="checkbox"/> Triangle <input type="checkbox"/> Circle <input type="checkbox"/> Congruent	<input type="checkbox"/> Focus lessons
b: Recognizes and creates shapes that have symmetry		<input type="checkbox"/> Recognizes and creates shapes that have symmetry. 9.6, 9.7 <input type="checkbox"/> Identifies the line of symmetry. 9.6
Power Benchmark 4: Uses visualization, spatial reasoning, and geometric modeling to solve problems		
a: Creates mental images of geometric shapes using spatial memory and spatial visualization ITBS***	<input type="checkbox"/> Above <input type="checkbox"/> Below <input type="checkbox"/> Between <input type="checkbox"/> Next to <input type="checkbox"/> In front of <input type="checkbox"/> Behind	<input type="checkbox"/> Describes complex shapes in terms of common shapes that make them up (ITBS) <input type="checkbox"/> Completes a pattern made of geometric shapes (ITBS) <input type="checkbox"/> Visualizes parts of a whole complex shape (ITBS)
b: Recognizes and represents shapes from different perspectives		<input type="checkbox"/> Recognizes and names 2-D faces of 3-D shapes. 7.3
c: Recognizes geometric shapes and structures in the environment and specify their location		<input type="checkbox"/> Describes attributes and parts of 2-D shapes 7.1, 7.2 <input type="checkbox"/> Assessed through performance task -

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First Grade Measurement		
Measurement – Standard 4: Understands and applies concepts of measurement		
Power Benchmark 1: Understands measurable attributes of objects and the units, systems, and processes of measurement		
Grade Level Benchmark	Vocabulary	Skills
a: Recognizes the attributes of length, volume, weight, area, and time	<input type="checkbox"/> Clock <input type="checkbox"/> Clock face <input type="checkbox"/> Long hand <input type="checkbox"/> Short hand <input type="checkbox"/> Minute hand <input type="checkbox"/> Hour hand <input type="checkbox"/> O'clock <input type="checkbox"/> Hour <input type="checkbox"/> Time <input type="checkbox"/> Minute	<input type="checkbox"/> Begins to read on-the-hour times. 1.12 <input type="checkbox"/> Reads and shows on-the-hour times on an analog clock 3.1, 3.2 <input type="checkbox"/> Gives the time one hour before or after an on-the-hour time. 3.1, 3.2 <input type="checkbox"/> Reads and shows on-the-hour and half-hour times on an analog and digital clock 11.13, 11.14, 11.15 <input type="checkbox"/> Chooses the unit of time that is shortest 11.13, 11.14, 11.15, (ITBS)
b: Compares and orders objects according to their measurable attributes ITBS **	<input type="checkbox"/> Weight <input type="checkbox"/> Balance scale <input type="checkbox"/> Ruler <input type="checkbox"/> Length <input type="checkbox"/> Longer than <input type="checkbox"/> Shorter than <input type="checkbox"/> More time <input type="checkbox"/> Less time <input type="checkbox"/> Capacity <input type="checkbox"/> More than <input type="checkbox"/> Less than <input type="checkbox"/> Same as <input type="checkbox"/> Temperature <input type="checkbox"/> Hotter <input type="checkbox"/> Colder <input type="checkbox"/> Warmer <input type="checkbox"/> Area <input type="checkbox"/> Larger <input type="checkbox"/> Smaller <input type="checkbox"/> Perimeter <input type="checkbox"/> Width	<input type="checkbox"/> Compares and orders objects according to length or weight 7.5, 7.8, 7.9, 7.10, 9.9 (ITBS) <input type="checkbox"/> Compares capacity using non-standard forms of measurement 7.5, 7.7 (ITBS) <input type="checkbox"/> Covers regions with copies of 2-D shapes 3.9 <input type="checkbox"/> Compares and orders containers according to their capacity. 7.5 <input type="checkbox"/> Investigates the relationship between the size of a unit of capacity and number of units required. 7.7 <input type="checkbox"/> Compares and orders objects according to their weight. 7.8 <input type="checkbox"/> Solves problems involving capacity or weight 7.6, 7.7, 7.10

1st Grade Standards & Benchmarks

Measurement – Standard 4: Understands and applies concepts of measurement			
Power Benchmark 1: Understands measurable attributes of objects and the units, systems, and processes of measurement			
Grade Level Benchmark	Vocabulary	Skills	
c: Identifies how to measure using nonstandard and standard units	<input type="checkbox"/> Identify <input type="checkbox"/> Attribute <input type="checkbox"/> Measure <input type="checkbox"/> Compare <input type="checkbox"/> Unit <input type="checkbox"/> Object <input type="checkbox"/> Dozen	<input type="checkbox"/> Uses nonstandard units to measure capacity. 7.5 <input type="checkbox"/> Uses standard units to measure capacity 7.6	
d: Selects an appropriate unit and tool for the attribute being measured		<input type="checkbox"/> Focus Lessons	
Power Benchmark 2: Applies appropriate techniques, tools and formulas to determine measurements			
a: Measures with multiple copies of units of the same size	<input type="checkbox"/> Hour hand <input type="checkbox"/> Minute hand <input type="checkbox"/> Second hand <input type="checkbox"/> First <input type="checkbox"/> Next <input type="checkbox"/> Last <input type="checkbox"/> Days of the week <input type="checkbox"/> Months of the year <input type="checkbox"/> Morning <input type="checkbox"/> Afternoon <input type="checkbox"/> Evening <input type="checkbox"/> This morning <input type="checkbox"/> Yesterday morning <input type="checkbox"/> Just after noon	<input type="checkbox"/> Arranges events in logical order 3.1 <input type="checkbox"/> Reads time to the hour, half hour and quarter hour 3.1, 3.2, 11.13, 11.14, 11.15 (ITBS) <input type="checkbox"/> Measures length with multiple copies of the same nonstandard unit lay end to end. 3.8, 3.9, 3.10, 9.8	
b: Uses repetition of a single unit to measure something larger than the unit ITBS*		<input type="checkbox"/> Uses repetition of a single unit to measure length. 9.9	

1st Grade Standards & Benchmarks

Measurement – Standard 4: Understands and applies concepts of measurement			
Power Benchmark 2: Applies appropriate techniques, tools and formulas to determine measurements			
Grade Level Benchmark	Vocabulary	Skills	
c: Uses tools to measure ITBS *	<input type="checkbox"/> Ruler <input type="checkbox"/> Scale <input type="checkbox"/> Temperature <input type="checkbox"/> Fahrenheit <input type="checkbox"/> Thermometer <input type="checkbox"/> Inch <input type="checkbox"/> Feet <input type="checkbox"/> Yard <input type="checkbox"/> Centimeter <input type="checkbox"/> Meter <input type="checkbox"/> Pound <input type="checkbox"/> Cup <input type="checkbox"/> Quart <input type="checkbox"/> Gallon	<input type="checkbox"/> Recognizes a stop watch for measuring time for demonstration purposes (ITBS) <input type="checkbox"/> Recognizes hours on a clock face 3.1, 3.2 (ITBS) <input type="checkbox"/> Recognizes the minutes before or after the hour on a digital clock 11.14 (ITBS) <input type="checkbox"/> Constructs and uses a measuring tool such as a block ruler 9.10 <input type="checkbox"/> Uses tools to measure length. 3.9, 9.10 <input type="checkbox"/> Uses a standard measuring cup to measure capacity. 7.6 <input type="checkbox"/> Uses a pan balance to measure weight in nonstandard units. 7.8, 7.9	
d: Develops common referents for measures to make comparisons and estimates ITBS*	<input type="checkbox"/> Estimate <input type="checkbox"/> Approximate size <input type="checkbox"/> Standard unit <input type="checkbox"/> Reasonable estimate	<input type="checkbox"/> Estimates weight using a benchmark 7.5, 7.7 (ITBS)	
First Grade Data Analysis and Probability			
Data Analysis & Probability – Standard 5: Understands and applies concepts of data analysis and probability			
Power Benchmark 1: Formulates questions that can be addressed with data and collects, organizes, and displays relevant data to answer them			
a: Gathers data to answer questions	<input type="checkbox"/> Graph <input type="checkbox"/> Chart <input type="checkbox"/> Sort <input type="checkbox"/> Classify	<input type="checkbox"/> Sorts objects according to their categories and displays that information on a chart 7.4 <input type="checkbox"/> Gathers data and represents it in a graph 3.6 <input type="checkbox"/> Collects, records, interprets, and analyzes data. 7.9	
b: Sorts and classifies objects according to their attributes and organizes data about the objects	<input type="checkbox"/> Sort <input type="checkbox"/> Classify	<input type="checkbox"/> Sorts and classifies objects according to their attributes 1.7 <input type="checkbox"/> Class Graph Club activity (clickers used by students -	

1st Grade Standards & Benchmarks

Data Analysis & Probability – Standard 5: Understands and applies concepts of data analysis and probability			
Power Benchmark 1: Formulates questions that can be addressed with data & collects, organizes, and displays relevant data to answer them			
Grade Level Benchmark	Vocabulary	Skills	
c: Represents data using concrete objects, pictures and graphs	<input type="checkbox"/> Data <input type="checkbox"/> Bar graph <input type="checkbox"/> Tally chart <input type="checkbox"/> Tally mark <input type="checkbox"/> Tally <input type="checkbox"/> Table <input type="checkbox"/> Chart <input type="checkbox"/> Graph	<input type="checkbox"/> Uses data collection tools such as tally marks, counters, or real objects 1.7, 2.6, 7.9, 7.10 <input type="checkbox"/> Represents and analyzes data in a tally chart 1.7 <input type="checkbox"/> Represents data in a simple graph 1.15 <input type="checkbox"/> Analyzes, displays and organizes data in a tally chart 1.7, 2.6	
Power Benchmark 2: Selects and uses appropriate statistical methods to analyze data			
a: Describes parts of the data and the set of data as a whole to determine what the data show	<input type="checkbox"/> Tally <input type="checkbox"/> Tally marks <input type="checkbox"/> Graph <input type="checkbox"/> Spins <input type="checkbox"/> Fewest <input type="checkbox"/> Greatest <input type="checkbox"/> Most	<input type="checkbox"/> Analyzes and interprets data in a graph, and solve related problems 3.6, 3.8, 5.15, 12.7 <input type="checkbox"/> Analyzes and interprets data in a tally chart 3.10 <input type="checkbox"/> Interprets and analyzes data in a bar graph 7.10 <input type="checkbox"/> Compares data in a graph 10.8	
Power Benchmark 3: Develops and evaluates inferences and predictions that are based on data			
a: Discusses events related to students' experiences as likely or unlikely	<input type="checkbox"/> Chart <input type="checkbox"/> Pictograph <input type="checkbox"/> Legend/key <input type="checkbox"/> Taller <input type="checkbox"/> Longer <input type="checkbox"/> Shorter	<input type="checkbox"/> Interprets two dimensional graphs in horizontal and vertical form 1.1, 1.15 <input type="checkbox"/> Reads and interprets information from graphs or charts 11.12	
Power Benchmark 4: Understands and applies concepts of probability			
a: Identifies events that are more likely to occur than others	<input type="checkbox"/> Spinner <input type="checkbox"/> Dice <input type="checkbox"/> Likelihood <input type="checkbox"/> Chance	<input type="checkbox"/> Answers questions about the likelihood of events 11.2 <input type="checkbox"/> Identifies events that are more likely to occur than others 11.12 <input type="checkbox"/> Analyzes, interprets, and compares data in a tally chart and a bar graph 5.15 <input type="checkbox"/> Discusses whether events are likely or unlikely 11.12	