CPS Benchmark Assessment - Spring 2010 - Grade 4

This table is a resource created to expand students' understanding of the concepts covered by the CPS Benchmark Assessment. Benchmark questions and related concepts are listed in columns 1 and 2. Column 3 displays the state learning goal related to the concept. Column 4 displays the path students follow on http://countdown.luc.edu to access movies relevant to the concept covered by the question. Instructional movies can be viewed FREE of charge as many times as a student desires. (NCTM standards are in the left margin of the Countdown homepage → their subcategories are shown underneath → these link to lists of movie titles.)

Question #	Concept	State Learning Goal #	NCTM Standard → Category → Movie Title
1	Fraction visuals	6	• Number & Operations → Fractions → Fraction Visuals • Number & Operations → Fractions → Fraction Squares on the Computer* • Number & Operations → Fractions → Fraction Design: Explorations on the Computer • Number & Operations → Ratio → Writing Ratios: Intro* • Number & Operations → Ratio → Writing Ratios
2	Number patterns	8	• Algebra → Patterns → Number Sequence: Introduction* • Algebra → Patterns → Number Sequence: Visual* • Algebra → Patterns → Square Number Sequence* • Algebra → Patterns → Cube Number Sequence*
3	Perimeter	7	• Measurement → Area & Perimeter → Rectangle Riddles: Intro • Measurement → Area & Perimeter → Solving Rectangle Riddles • Measurement → Area & Perimeter → Formula: Area of a Rectangle: 1 • Measurement → Area & Perimeter → Formula: Area of a Rectangle: 2 • Measurement → Area & Perimeter → Formula: Area of a Rectangle: 3* • Extended Response → Measurement → Area of Parking Lot: Solution • Extended Response → Measurement → Area of Parking Lot: Explanation • Extended Response → Measurement → Schoolyard Area* • Extended Response → Measurement → Area & Perimeter: Computer Part 1 • Extended Response → Measurement → Area & Perimeter: Computer Part 2

4	Place value	6	• Number & Operations → Decimals → Place Value • Number & Operations → Whole Numbers → Whole Number Place Value on the Computer • Number & Operations → Decimals → Place Value: Part 1 • Number & Operations → Decimals → Place Value: Part 2 • Number & Operations → Decimals → Place Value: Part 3 • Number & Operations → Decimals → Place Value: Part 4
5	Probability	10	• Data Analysis & Probability → Probability → Probability Intro* • Data Analysis & Probability → Probability → Probability Formula* • Data Analysis & Probability → Probability → Probability Word Problems* • Data Analysis & Probability → Probability → Probability Using Gumballs • Data Analysis & Probability → Probability → Probability Using Pictures*
6	Bar graph	10	• Data Analysis & Probability → Graphs → Graph Basics • Data Analysis & Probability → Graphs → Pictogram, Bar & Line* • Data Analysis & Probability → Graphs → Bar Graph on the Computer • Data Analysis & Probability → Graphs → Bar Graph Word Problem • Data Analysis & Probability → Graphs → Bar Graph Word Problem on the Computer
7	Time	7	• No movies available
8	Simple word problems	6	• Number & Operations → Whole Numbers → Computation Vocabulary • Number & Operations → Whole Numbers → Word Problems & Comparisons
9	Graph	10	• Data Analysis & Probability → Graphs → Graph Basics • Data Analysis & Probability → Graphs → Pictogram, Bar & Line* • Algebra → Algebra 1 → Reading the Ten-Meter Race Graphs • Connections →Test Prep → Sample Problem - Analyzing Line Graph Data
10	Perpendicular lines	9	• Geometry → Lines & Angles → Classifying Lines • Geometry → Lines & Angles → Using Line Notation
11	Even and odd multiples	6	*No movies available at this time.*
12	Word problems	8	• Algebra → Equations & Graphing → Coin Riddles: Guess & Check • Number & Operations → Whole Numbers → Sample Four Step Problem

13	Place value	6	• Number & Operations → Whole Numbers → Whole Number Place Value on the Computer • Number & Operations → Decimals → Place Value: Part 1
14	Measurement	7	• Measurement → Metric and Customary Units → Optical Illusions: Centimeters
15	Simple word problems	6	• Number & Operations → Whole Numbers → Computation Vocabulary • Number & Operations → Whole Numbers → Word Problems & Comparisons
16	Number patterns	8	• Number & Operations → Whole Numbers → Working with Patterns*
17	Fraction visuals	6	• Number & Operations → Fractions → Fraction Visuals • Number & Operations → Fractions → Fraction Squares on the Computer* • Number & Operations → Fractions → Fraction Design: Explorations on the Computer
18	Classify angles	9	• Geometry → Lines & Angles → Classifying Angles • Measurement → Circles & Angles → Exploring Angles Using a Clock*
19	Algebraic expressions	8	• Algebra → Variables → Countdown Challenge: The Language of Algebra* • Algebra → Variables → Translating English to Algebra. • Number & Operations → Whole Numbers → Order of Operations*
20	Polygons	9	• Geometry → Two Dimensional Shapes → Polygons*
21	Place value	6	• Number & Operations → Whole Numbers → Whole Number Place Value on the Computer • Number & Operations → Decimals → Place Value: Part 1
22	Estimation	6	• Number & Operations → Whole Numbers → Rounding* • Number & Operations → Whole Numbers → Computation Vocabulary* • Number & Operations → Whole Numbers → Word Problems & Comparisons
23	Basic equation	8	• Algebra → Equations & Graphing → Equation Basics • Algebra → Equations & Graphing → Using the Addition Property of Equality
24	Tables	10	• Connections → Test Preparation → Sample Problem- Interpreting Data
25	Classify angles	9	• Geometry → Lines & Angles → Classifying Angles • Measurement → Circles & Angles → Exploring Angles Using a Clock*
26	Distributive Property	8	• Algebra → Variables → Variables: Distributive Property • Algebra → Variables → Variables: Distributive Property on the Computer

27	Properties of division	6	*No movies available at this time.*
28	Angles	9	• Geometry → Two Dimensional Shapes → Concept Development Rectangles • Geometry → Lines & Angles → Classifying Angles
29	Estimation	6	• Number & Operations → Whole Numbers → Rounding* • Number & Operations → Whole Numbers → Computation Vocabulary* • Number & Operations → Whole Numbers → Word Problems & Comparisons
30	Compare decimals	6	• Number & Operations → Decimals → Ordering Decimals • Number & Operations → Decimals → Ordering Decimals on the Computer • Number & Operations → Decimals → Comparing Decimals • Number & Operations → Decimals → Decimal Practice • Number & Operations → Decimals → Decimal Card Game
31	Multiplication	7	• Measurement → Area & Perimeter → Area of a Rectangle: Part 1 • Measurement → Area & Perimeter → Area of a Rectangle: Part 2 • Measurement → Area & Perimeter → Area of a Rectangle: Part 3 • Measurement → Area & Perimeter → Rectangle Riddles: Intro • Measurement → Area & Perimeter → Solving Rectangle Riddles
32	Bar graphs	10	• Data Analysis & Probability → Graphs → Graph Basics • Data Analysis & Probability → Graphs → Pictogram, Bar & Line* • Data Analysis & Probability → Graphs → Bar Graph on the Computer • Data Analysis & Probability → Graphs → Bar Graph Word Problem • Data Analysis & Probability → Graphs → Bar Graph Word Problem on the Computer
33	Simple word problems	6	• Number & Operations → Whole Numbers → Computation Vocabulary • Number & Operations → Whole Numbers → Word Problems & Comparisons • Extended Response → Number & Operations → School Supplies Solution: Part 1 • Extended Response → Number & Operations → School Supplies Solution: Part 2
34	Polygons to pyramids	9	• Geometry →Three Dimensional Shapes → Polyhedra Nets 1 • Geometry → Three Dimensional Shapes → Polyhedra Nets 2 • Geometry → Three Dimensional Shapes → Polyhedra Nets on the Computer 1 • Geometry → Three Dimensional Shapes → Polyhedra Nets on the Computer 2

35	Simple word problems	6	• Number & Operations → Whole Numbers → Computation Vocabulary • Number & Operations → Whole Numbers → Word Problems &Comparisons
36	Basic equation	8	• Algebra → Equations & Graphing → Equation Basics • Algebra → Equations & Graphing → Using the Addition Property of Equality • Algebra → Equations & Graphing → Intro to Truth Tables: Primary Grades* • Algebra → Equations & Graphing → Intro to Truth Tables & Graphing*
37	Fraction visuals	6	• Number & Operations → Fractions → Fraction Visuals • Number & Operations → Fractions → Fraction Squares on the Computer* • Number & Operations → Fractions → Fraction Design: Explorations on the Computer • Number & Operations → Fractions → Comparing Equal Fractions • Number & Operations → Fractions → Using an Equal Fraction Chart
38	Measurement	7	• Measurement → Area & Perimeter → Area and Perimeter • Measurement → Area & Perimeter → Rectangle Riddles: Intro • Measurement → Area & Perimeter → Solving Rectangle Riddles
39	Tables	10	• Connections → Test Preparation → Sample Problem- Interpreting Data
40	Fraction visuals	6	• Number & Operations → Fractions → Fraction Visuals • Number & Operations → Fractions → Fraction Squares on the Computer* • Number & Operations → Fractions → Fraction Design: Explorations on the Computer • Number & Operations → Ratio → Writing Ratios: Intro* • Number & Operations → Ratio → Writing Ratios
41	Probability	10	• Data Analysis & Probability → Probability → Probability Intro* • Data Analysis & Probability → Probability → Probability Formula* • Data Analysis & Probability → Probability → Probability Word Problems* • Data Analysis & Probability → Probability → Probability Using Gumballs • Number & Operations → Ratio → Writing Ratios • Number & Operations → Fractions → Comparing Equal Fractions
42	Multiplication	6	*No movies available at this time*
43	Repeated addition	6	• Number & Operations → Whole Numbers → Multiply by 10, 100, 1000*

44	Simple word problems	6	• Number & Operations → Whole Numbers → Computation Vocabulary • Number & Operations → Whole Numbers → Word Problems & Comparisons • Extended Response → Number & Operations → School Supplies Solution: Part 1 • Extended Response → Number & Operations → School Supplies Solution: Part 2
45	Simple word problems	6	• Number & Operations → Whole Numbers → Computation Vocabulary* • Number & Operations → Whole Numbers → Word Problems &Comparisons*