

### CPS Benchmark Assessment - Spring 2010 - Grade 5

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	Number use and representation	6	<ul style="list-style-type: none"> <li>• Number &amp; Operations → Whole Numbers → Creating Large Numbers: Computer</li> <li>• Number &amp; Operations → Decimals → Place Value: Part 1</li> <li>• Number &amp; Operations → Decimals → Place Value with Exponents</li> </ul>
2	Polygons	9	<ul style="list-style-type: none"> <li>• Geometry → Two Dimensional Shapes → Polygons*</li> </ul>
3	Place value	6	<ul style="list-style-type: none"> <li>• Number &amp; Operations → Whole Numbers → Creating Large Numbers: Computer</li> <li>• Number &amp; Operations → Decimals → Place Value: Part 1</li> <li>• Number &amp; Operations → Decimals → Place Value with Exponents</li> </ul>
4	Factors	6	<ul style="list-style-type: none"> <li>• Numbers &amp; Operations → Whole Numbers → Table of Factors</li> <li>• Numbers &amp; Operations → Whole Numbers → Finding Factors of 126</li> </ul>
5	Pictographs	10	<ul style="list-style-type: none"> <li>• Data Analysis &amp; Probability → Graphs → Pictogram on the Computer</li> <li>• Data Analysis &amp; Probability → Graphs → Bar Graph on the Computer</li> <li>• Data Analysis &amp; Probability → Graphs → Line Graph on the Computer</li> </ul>
6	Time	7	<ul style="list-style-type: none"> <li>• Number &amp; Operations → Decimals → Subtracting Decimals &amp; Non-Decimals</li> </ul>
7	Percent/ Fraction Equivalence	6	<ul style="list-style-type: none"> <li>• Number &amp; Operations → Proportion &amp; Percent → Countdown Activity: Equivalence of Fractions, Decimals &amp; Percent</li> <li>• Number &amp; Operations → Proportion &amp; Percent → Fractions, Decimals &amp; Percents on the Computer: Part 1</li> <li>• Number &amp; Operations → Proportion &amp; Percent → Fractions, Decimals &amp; Percents on the Computer: Part 2</li> <li>• Number &amp; Operations → Proportion &amp; Percent → Fractions, Decimals, Percents Pictures on the Computer</li> </ul>
8	Equations	8	<ul style="list-style-type: none"> <li>• Algebra → Equations &amp; Graphing → Equation Basics</li> <li>• Algebra → Equations &amp; Graphing → Addition Property of Equality</li> <li>• Algebra → Variables → Variables Defined</li> </ul>

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<b>9</b>	Coordinating geometry	8	<ul style="list-style-type: none"> <li>• Algebra → Coordinate Geometry → Intro to the Coordinate Plane*</li> <li>• Algebra → Coordinate Geometry → Coordinate Plane Practice</li> </ul>
<b>10</b>	Simple word problems	6	<ul style="list-style-type: none"> <li>• Number &amp; Operations → Whole Numbers → Computation Vocabulary*</li> <li>• Number &amp; Operations → Whole Numbers → Word Problems &amp; Comparisons*</li> </ul>
<b>11</b>	Number Patterns	8	<ul style="list-style-type: none"> <li>• Algebra → Patterns → Number Sequence: Introduction*</li> <li>• Algebra → Patterns → Number Sequence: Visual*</li> <li>• Algebra → Patterns → Square Number Sequence*</li> <li>• Algebra → Patterns → Cube Number Sequence*</li> </ul>
<b>12</b>	Number Patterns	8	<ul style="list-style-type: none"> <li>• Algebra → Patterns → Number Sequence: Introduction*</li> <li>• Algebra → Patterns → Number Sequence: Visual*</li> <li>• Algebra → Patterns → Square Number Sequence*</li> <li>• Algebra → Patterns → Cube Number Sequence*</li> </ul>
<b>13</b>	Mean, Median, Mode	10	<ul style="list-style-type: none"> <li>• Data Analysis &amp; Probability → Statistics → Vocabulary Mean*</li> <li>• Data Analysis &amp; Probability → Statistics → Mean*</li> <li>• Data Analysis &amp; Probability → Statistics → Mean: Part 2</li> <li>• Data Analysis &amp; Probability → Statistics → A Mean Card Game</li> <li>• Data Analysis &amp; Probability → Statistics → A Mean Word Problem*</li> <li>• Data Analysis &amp; Probability → Statistics → Vocabulary Median</li> <li>• Data Analysis &amp; Probability → Statistics → Median</li> <li>• Data Analysis &amp; Probability → Statistics → Median: Part 2</li> <li>• Data Analysis &amp; Probability → Statistics → Vocabulary Mode</li> <li>• Data Analysis &amp; Probability → Statistics → Mode</li> <li>• Data Analysis &amp; Probability → Statistics → Mode: Part 2</li> </ul>
<b>14</b>	Mixed number conversion	6	<ul style="list-style-type: none"> <li>• Number &amp; Operations → Fractions → Conversion Rules: Improper Fractions &amp; Mixed Numbers</li> <li>• Number &amp; Operations → Fractions → Converting Improper Fractions to Mixed Numbers</li> <li>• Number &amp; Operations → Fractions → Converting Mixed Numbers to Improper Fractions</li> <li>• Number &amp; Operations → Whole Numbers → Word Problems &amp; Comparisons*</li> </ul>

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<b>15</b>	Line Graph	8	<ul style="list-style-type: none"> <li>Algebra → Equations &amp; Graphing → Introduction to the Truth Tables &amp; Graphing</li> <li>Algebra → Equations &amp; Graphing → Using <math>mx+b</math>: Runner 1</li> <li>Algebra → Equations &amp; Graphing → Using <math>mx+b</math>: Runner 2</li> </ul>
<b>16</b>	Place Value	6	<ul style="list-style-type: none"> <li>Number &amp; Operations → Whole Numbers → Creating Large Numbers: Computer</li> <li>Number &amp; Operations → Decimals → Place Value: Part 1</li> <li>Number &amp; Operations → Decimals → Place Value with Exponents</li> </ul>
<b>17</b>	Volume	7	<ul style="list-style-type: none"> <li>Measurement → Solids → Volume &amp; Surface Area: Part 1*</li> <li>Measurement → Solids → Volume &amp; Surface Area: Part 2 *</li> <li>Measurement → Solids → Volume: Part 1</li> </ul>
<b>18</b>	Probability	10	<ul style="list-style-type: none"> <li>Data Analysis &amp; Probability → Probability → Probability Formula*</li> <li><a href="#">Data Analysis &amp; Probability → Probability → Probability Word Problems*</a></li> <li><a href="#">Number &amp; Operations → Fractions → Fraction Visuals</a></li> <li>Number &amp; Operations → Ratio → Writing Ratios</li> <li><a href="#">Data Analysis &amp; Probability → Probability → Probability Using Pictures*</a></li> <li><a href="#">Number &amp; Operations → Fractions → Using an Equivalent Fraction Chart</a></li> <li><a href="#">Number &amp; Operations → Fractions → Comparing Equal Fractions</a></li> </ul>
<b>19</b>	Percent	6	<ul style="list-style-type: none"> <li>Number &amp; Operations → Proportion &amp; Percent → Countdown Activity: Equivalence of Fractions, Decimals &amp; Percent</li> <li>Number &amp; Operations → Proportion &amp; Percent → Percent Using Cubes</li> <li>Number &amp; Operations → Ratio → Writing Ratios</li> <li>Number &amp; Operations → Ratio → Solving Ratio Problem</li> <li>Number &amp; Operations → Ratio → Population Growth Using Ratio</li> </ul>
<b>20</b>	Time	7	<ul style="list-style-type: none"> <li>Measurement → Time → Age in Minutes on the Computer</li> </ul>
<b>21</b>	Reading tables	10	<ul style="list-style-type: none"> <li>Connections → Test Preparation → Interpreting Data</li> </ul>
<b>22</b>	Angles of a triangle	9	<ul style="list-style-type: none"> <li>Geometry → Two-Dimensional Shapes → Isosceles Right Triangle*</li> <li>Geometry → Sum of Interior Angles: Triangle Part 1</li> <li>Geometry → Sum of Interior Angles: Triangle Part 2</li> </ul>
<b>23</b>	Simple Word Problems	6	<ul style="list-style-type: none"> <li>Number &amp; Operations → Whole Numbers → Computation Vocabulary*</li> <li>Number &amp; Operations → Whole Numbers → Word Problems &amp; Comparisons*</li> </ul>
<b>24</b>	Coordinate Plane	9	<ul style="list-style-type: none"> <li>Algebra → Coordinate Geometry → Intro to the Coordinate Plane*</li> </ul>

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25	Perimeter	7	<ul style="list-style-type: none"> <li>• <a href="#">Measurement → Area &amp; Perimeter → Countdown Activity: Area &amp; Perimeter</a></li> <li>• <a href="#">Measurement → Area &amp; Perimeter → Rectangle Riddles: Intro</a></li> <li>• <a href="#">Extended Response → Measurement → Schoolyard Perimeter: Solution*</a></li> <li>• <a href="#">Extended Response → Measurement → Schoolyard Perimeter: Explanation*</a></li> <li>• <a href="#">Extended Response → Measurement → Schoolyard Area*</a></li> <li>• Extended Response → Measurement → Countdown Activity: Using Area &amp; Perimeter</li> <li>• <a href="#">Extended Response → Measurement → Area &amp; Perimeter: Computer Part 1</a></li> <li>• <a href="#">Extended Response → Measurement → Area &amp; Perimeter: Computer Part 2</a></li> <li>• <a href="#">Extended Response → Measurement → Area &amp; Perimeter: Solution</a></li> <li>• <a href="#">Extended Response → Measurement → Area &amp; Perimeter: Explanation</a></li> </ul>
26	Equivalent Fractions	6	<ul style="list-style-type: none"> <li>• Number &amp; Operations → Fractions → Fraction Visuals</li> <li>• Number &amp; Operations → Fractions → Fraction Squares on the Computer*</li> <li>• Number &amp; Operations → Fractions → Fraction Design: Explorations on the Computer</li> <li>• <a href="#">Number &amp; Operations → Fractions → Using an Equivalent Fraction Chart</a></li> <li>• <a href="#">Number &amp; Operations → Fractions → Comparing Equal Fractions</a></li> </ul>
27	Ratio	6	<ul style="list-style-type: none"> <li>• Number &amp; Operations → Ratio → Writing Ratios: Intro*</li> <li>• Number &amp; Operations → Ratio → Writing Ratios</li> </ul>
28	Transformations	9	<ul style="list-style-type: none"> <li>• Geometry → Congruence &amp; Similarity → Transformations: Part 1</li> <li>• Geometry → Congruence &amp; Similarity → Transformations: Part 2</li> <li>• <a href="#">Geometry → Congruence &amp; Similarity → Transformations on the Computer: Part 1</a></li> <li>• <a href="#">Geometry → Congruence &amp; Similarity → Transformations on the Computer: Part 2</a></li> <li>• <a href="#">Geometry → Congruence &amp; Similarity → Transformations on the Computer: Part 3</a></li> <li>• <a href="#">Geometry → Congruence &amp; Similarity → Intro to Quilt Patterns on the Computer</a></li> <li>• <a href="#">Geometry → Congruence &amp; Similarity → Creating Quilt Patterns on the Computer</a></li> </ul>

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<b>29</b>	Graphs	10	<ul style="list-style-type: none"> <li>• Data Analysis &amp; Probability → Graphs → Pictogram on the Computer</li> <li>• Data Analysis &amp; Probability → Graphs → Bar Graph on the Computer</li> <li>• Data Analysis &amp; Probability → Graphs → Line Graph on the Computer</li> </ul>
<b>30</b>	Area	7	<ul style="list-style-type: none"> <li>• <a href="#">Extended Response → Measurement → Area of Parking Lot: Solution</a></li> <li>• <a href="#">Extended Response → Measurement → Area of Parking Lot: Explanation</a></li> <li>• <a href="#">Extended Response → Measurement → Schoolyard Area*</a></li> <li>• <a href="#">Extended Response → Measurement → Area &amp; Perimeter: Computer Part 1</a></li> <li>• <a href="#">Extended Response → Measurement → Area &amp; Perimeter: Computer Part 2</a></li> <li>• <a href="#">Extended Response → Measurement → Ad Space: Solution Part 1</a></li> <li>• <a href="#">Extended Response → Measurement → Ad Space: Solution Part 2</a></li> <li>• <a href="#">Extended Response → Measurement → Ad Space: Solution Part 3</a></li> <li>• <a href="#">Extended Response → Measurement → Ad Space Computer: Part 1</a></li> <li>• <a href="#">Extended Response → Measurement → Ad Space Computer: Part 2</a></li> <li>• <a href="#">Extended Response → Measurement → Ad Space Computer: Part 3</a></li> </ul>
<b>31</b>	Adding Fractions & Subtracting Fractions	6	<ul style="list-style-type: none"> <li>• Number &amp; Operations → Fractions → Adding &amp; Subtracting Fractions: Part 1*</li> <li>• Number &amp; Operations → Fractions → Adding &amp; Subtracting Fractions: Part 2</li> <li>• Number &amp; Operations → Fractions → Countdown Challenge: Adding &amp; Subtracting Fractions*</li> <li>• Number &amp; Operations → Fractions → Fraction Computation: Part 1*</li> <li>• Number &amp; Operations → Fractions → Fraction Computation: Part 2*</li> <li>• Number &amp; Operations → Fractions → Adding Fractions with Different Denominators*</li> <li>•</li> </ul>
<b>32</b>	Point on a number line	6	<ul style="list-style-type: none"> <li>• Numbers &amp; Operations → Integers → Integers and the Number Line Part 2</li> <li>• Number &amp; Operations → Decimals → Ordering Decimals</li> </ul>
<b>33</b>	Problem solving	8	<ul style="list-style-type: none"> <li>• <a href="#">Algebra → Variables → Color Tile Riddles: Part 1*</a></li> <li>• <a href="#">Algebra → Variables → Color Tile Riddles: Part 2*</a></li> <li>• <a href="#">Algebra → Variables → Color Tile Riddles Computer: Part 1</a></li> <li>• <a href="#">Algebra → Variables → Color Tile Riddles Computer: Part 2</a></li> <li>• <a href="#">Algebra → Games &amp; Puzzles → Guess &amp; Check*</a></li> <li>• <a href="#">Algebra → Games &amp; Puzzles → Coin Riddles: Guess &amp; Check</a></li> </ul>
<b>34</b>	Reading tables	10	<ul style="list-style-type: none"> <li>• Connections → Test Preparation → Interpreting Data</li> </ul>

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<b>35</b>	Two step word problems	6	<ul style="list-style-type: none"> <li>• <a href="#">Number &amp; Operations à Whole Numbers à Computation Vocabulary*</a></li> <li>• <a href="#">Number &amp; Operations à Whole Numbers à Word Problems &amp; Comparisons*</a></li> <li>• <a href="#">Number &amp; Operations → Whole Numbers → Sample Three Step Problem</a></li> </ul>
<b>36</b>	Comparing Decimals	6	<ul style="list-style-type: none"> <li>• Number &amp; Operations → Decimals → Comparing Decimals</li> <li>• <a href="#">Number &amp; Operations → Decimals → Ordering Decimals</a></li> <li>• <a href="#">Number &amp; Operations → Decimals → Ordering Decimals on the Computer</a></li> <li>• <a href="#">Number &amp; Operations → Decimals → Decimal Practice</a></li> <li>• <a href="#">Number &amp; Operations → Decimals → Decimal Card Game</a></li> </ul>
<b>37</b>	Radius & Diameter	9	<ul style="list-style-type: none"> <li>• Geometry → Two-Dimensional Shapes → Defining a Circle</li> <li>• Geometry → Two-Dimensional Shapes → Circle Vocabulary*</li> <li>• <a href="#">Measurement → Circles &amp; Angles → Illustrating Circle Vocabulary</a></li> <li>• <a href="#">Measurement → Circles &amp; Angles → Diameter on the Computer</a></li> </ul>
<b>38</b>	Algebraic expressions	8	<ul style="list-style-type: none"> <li>• Algebra → Variables → Countdown Challenge: The Language of Algebra*</li> <li>• Algebra → Variables → Translating English to Algebra</li> </ul>
<b>39</b>	Adding & subtracting fractions	6	<ul style="list-style-type: none"> <li>• Geometry → Congruence &amp; Similarity → Similar Figures: Concept Development</li> <li>• Geometry → Congruence &amp; Similarity → Similar Figures: Explanation</li> <li>• Geometry → Congruence &amp; Similarity → Similar Figures: Illustrated</li> <li>• Geometry → Congruence &amp; Similarity → Similar Figures: Proof</li> <li>• <a href="#">Extended Response → Geometry → Similar Figures: Proportions*</a></li> </ul>
<b>40</b>	Commutative Property	8	<ul style="list-style-type: none"> <li>• Algebra → Variables → Variables: Properties</li> </ul>
<b>41</b>	Place value decimals	6	<ul style="list-style-type: none"> <li>• Number &amp; Operations → Whole Numbers → Creating Large Numbers: Computer</li> <li>• Number &amp; Operations → Decimals → Place Value: Part 1</li> <li>• Number &amp; Operations → Decimals → Place Value with Exponents</li> </ul>
<b>42</b>	Ratio	6	<ul style="list-style-type: none"> <li>• Number &amp; Operations → Ratio → Writing Ratios: Intro*</li> <li>• Number &amp; Operations → Ratio → Writing Ratios</li> <li>• Number &amp; Operations → Ratio → Solving Ratio Problem</li> <li>• Number &amp; Operations → Ratio → Population Growth Using Ratio</li> </ul>
<b>43</b>	Coordinate Plane	8	<ul style="list-style-type: none"> <li>• Algebra → Coordinate Geometry → Intro to the Coordinate Plane*</li> </ul>

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<b>44</b>	Reducing fractions	6	<ul style="list-style-type: none"><li>• Numbers &amp; Operations → Fractions → Using an Equivalent Fraction Chart</li></ul>
<b>45</b>	Fraction visuals, Decimals	6	<ul style="list-style-type: none"><li>• <a href="#">Number &amp; Operations → Decimals → Place Value</a></li></ul>