

We have designed each "White Paper" to explore a fundamental educational principle and key issues engaging the education community we serve. It is our goal to partner with our readers as they meet the challenges they face.



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## Elementary Math Education & Castle Learning Online

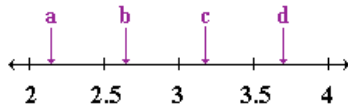
Curriculum that engages students is a key to solving the nation's **mathematics education** problem. A report issued in August 2004 from Washington University, detailed how the United States lags behind other developed nations in **mathematics education**. The report makes reference to Dr. Jere Confrey, education professor, recommendation "that school districts select and implement a solid curriculum with interesting, compelling and rigorous mathematics and then carefully monitor and evaluate students' progress while using that curriculum." The report declares that parents, teachers and school boards "need to demand that school administrators systematically collect and evaluate data on curriculum use and to share those results with them."

Castle Learning Online has proven to be the perfect tool for **elementary math educators**. Here is what they expect to see on [www.CastleLearning.com](http://www.CastleLearning.com). Elementary teachers and their students have access to a complete range of units and standards that improve their skill levels in some of the most difficult areas:

Units		Sample Sections (Unit 1)	
<ul style="list-style-type: none"><li>Working with Whole Numbers &gt;</li><li>Working with Decimals</li><li>Working with Fractions</li><li>Working with Ratios and Percents</li><li>Analyzing Data</li><li>Algebra: Equations and Functions</li></ul>	<ul style="list-style-type: none"><li>Graphing: Working with Coordinates</li><li>Geometry: Patterns</li><li>Geometry: Measurements</li><li>Probability</li><li>Problem Solving</li><li>Number Systems</li></ul>	<ul style="list-style-type: none"><li>Working with Whole Numbers (Sections) – tied to State Standards</li><li>Place Value</li><li>Estimating with Whole Numbers</li><li>Addition of Whole Numbers</li><li>Subtraction of Whole Numbers</li><li>Multiplication of Whole Numbers</li></ul>	<ul style="list-style-type: none"><li>Division of Whole Numbers</li><li>Comparing and Ordering Whole Numbers</li><li>Properties of Numbers</li><li>Analyzing Number Patterns</li><li>Representations of Numbers</li></ul>

Elementary students can answer **PROBLEMS** like these (with hints, reasons and defined vocabulary):

On the number line below, which letter could refer to the number 3.2? Answer: **C**



Sasha's second place time in the potato sack race was 39.8 seconds. The person that beat her was 3.9 seconds faster. What was the winner's time? Answer: **35.9** seconds

Write the number for nine thousand, six.

Answer: **9,006**

Finally, elementary students can improve and challenge their comprehension levels through the **MATH SKILLS** component which offers an infinite number of questions, simply by

- selecting a Difficulty Level; ex. Basic, Intermediate or Advanced
- selecting a Unit; ex. Working with Decimals
- selecting a Skill; ex. Place Value

We at *Castle Learning Online* consider it a true measure of success that we regularly receive reports like that of the 4<sup>th</sup> grade teacher who remarked that her students' "math has improved in the problem solving areas and, as a result, their awareness of social studies and science 'concepts' seems stronger." With *Castle Learning Online*, teachers easily generate a unique set of Assessment Reports tailored to one or all students. This allows educators to consistently and frequently monitor class and individual progress, determine each student's weaknesses and strengths, and modify lessons and assignments to review the math concepts that best meet needs of *all* students.