DynaMath

OPERATIONS
Turkey Day
History

DECIMAL
ROUNDING
Lemur
Haven

Taylor
Takes a
Stand

Taylor Swift
leads the charge
for fair payment
for online music

Name:

DynaMath® Meets
Common Core State Standards

DynaMath features motivating, skill-building activities that show students timely real-world applications of 3rd- through 6th-grade math curricula and the Common Core State Standards for Mathematics. Subscriptions come with a Teacher's Guide, which includes a chart describing how each article correlates with the standards, additional reproducible activities, and an answer key. Also included are digital editions of each issue for use with whiteboards, LCD projectors, classroom computers, iPads® and other computer tablets.

The chart below specifically outlines how *DynaMath* meets the following Common Core State Standards for Mathematics, grades 3 to 6:

- Operations and Algebraic Thinking
  (standards 3.OA, 4.OA, and 5.OA)
- Number and Operations in Base 10
  (standards 3.NBT, 4.NBT, and 5.NBT)
- Number and Operations—Fractions
  (standards 3.NF, 4.NF, and 5.NF)

- Measurement and Data
  (standards 3.MD, 4.MD, and 5.MD)
- Geometry
  (standards 3.G, 4.G, 5.G, and 6.G)

Content Standards for Math	DynaMath
Operations and Algebraic Thinking	
3.OA Represent and solve problems involving multiplication and division.	• Numbers in the News word problems in both the print and online editions give students the opportunity to interpret whole number products and quotients in different real-world contexts. • Articles featuring problem-solving lessons highlight different ways products and quotients can be interpreted and help students develop strategies for making connections between real-world contexts and computation. • Consumer math, career features, and other articles provide additional practice for students to recognize and use multiplication and division of whole numbers in real-world contexts.
3.OA Understand properties of multiplication and the relationship between multiplication and division.	• Students use properties of multiplication to solve number puzzles and multistep word problems. • Activities in the magazine and at its website highlight when students might think of division as unknown-factor problems.
3.OA Multiply and divide within 100.	• Articles featuring problem-solving lessons give students practice multiplying and dividing within 100.

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Content Standards for Math	DynaMath
Operations and Algebraic Thinking	
3.OA Solve problems involving the four operations, and identify and explain patterns in arithmetic.	• Questions in articles that include problem-solving lessons and other real-world applications of math give students practice solving word problems using all four operations. • Explicit articles addressing estimation help students develop familiarity with using estimation to assess reasonableness of answers. • Students solve problems involving generating and identifying arithmetic patterns.
4.OA Use the four operations with whole numbers to solve problems.	• Numbers in the News word problems give students the opportunity to interpret whole number products and quotients in different contexts, including multiplicative comparison problems. • Articles featuring problem-solving lessons highlight different ways all four operations can be interpreted and help students develop strategies for making connections between real-world contexts and computation. • Questions in articles that include problem-solving lessons and other real-world applications of math provide additional practice for students to recognize and use the four operations for whole numbers in real-world contexts.
4.OA Gain familiarity with factors and multiples.	• Feature articles explicitly address finding factors (including greatest common factor) and identifying multiples (including least common multiple).
4.OA Generate and analyze patterns.	• Students solve problems involving generating and identifying patterns, including using function tables.
5.OA Write and interpret numerical expressions.	• Students write numerical expressions with guidance for activities found at the magazine's website. • Students have opportunities to practice writing and evaluating numerical expressions (including those involving parentheses or brackets).
5.OA Analyze patterns and relationships.	• Students generate and analyze two related numerical patterns using function tables. • Articles and puzzles support students in looking at patterns in problems involving rate and other linear relationships.

Content Standards for Math	DynaMath
Number and Operations in Base 10	
3.NBT Use place value understanding and properties of operations to perform multidigit arithmetic.	• Rounding and estimating sums and differences are covered explicitly in articles. • Use of rounding techniques is encouraged as students check over their work. • Addition and subtraction of whole numbers up to 1,000 appears throughout.
4.NBT Generalize place value understanding for multidigit whole numbers.	• Students use concepts of place value to solve problems adding, subtracting, multiplying, and dividing numbers that are multiples of powers of 10 in articles and reproducible activities found at the magazine's website. • Students read and write multidigit whole numbers in various forms (numeral, names, expanded form) for different types of problems. • Rounding and estimation are covered explicitly in articles.
4.NBT Use place value understanding and properties of operations to perform multidigit arithmetic.	• Problems involving addition and subtraction of multidigit whole numbers give students ample practice using the standard algorithms. • Problems involving multiplication and division of whole numbers (including products/quotients of numbers with up to four digits by numbers with up to two digits) give students practice using different strategies and opportunities to explain their calculations.
5.NBT Understand the place value system.	• Students develop understanding of place value, solving problems with numbers that are multiples of powers of 10 and numbers with decimals in recurring features such as consumer math activities. • Articles focus explicitly on rounding and comparing decimals.
5.NBT Perform operations with multidigit whole numbers and with decimals to 100ths.	• Students practice all four operations with decimals up to the 100ths place often in articles that include problem-solving lessons and other real-world applications of math. • Students have many opportunities to practice multiplication and division of multidigit numbers using the standard algorithm and other strategies.

Content Standards for Math	DynaMath
Number and Operations—Fractions	
3.NF Develop understanding of fractions as numbers.	• Introductory fraction activities in the magazine and online help students develop understanding of fractions as equal parts of wholes and as equally partitioned intervals on a number line between 0 and 1.
4.NF Extend understanding of fraction equivalence and ordering.	• Activities found at the magazine's website help students understand equivalent fractions and ordering fractions.
4.NF Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	• Articles focused on fraction operations in real-world contexts promote student understanding of adding and subtracting fractions with like denominators and multiplying a fraction by a whole number. • Students practice writing equivalent mixed numbers and improper fractions by doing a variety of problems with fractions.
4.NF Understand decimal notation for fractions, and compare decimal fractions.	• Students are asked to write equivalent fractions and decimals and compare decimals.
5.NF Use equivalent fractions as a strategy to add and subtract fractions.	• Students practice solving word problems involving the addition and subtraction of fractions with unlike denominators in contexts such as comparing two equal-sized trays of food cut into different numbers of equal pieces.
5.NF Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	• Activities focused on fraction operations provide students with sensible contexts for fraction multiplication and division, supporting their understanding of computations with fractions.
Measurement and Data	
3.MD Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	• Problems involving estimating, adding, subtracting, multiplying, and dividing time intervals, masses, and volumes appear throughout the magazine.
3.MD Represent and interpret data.	• Students are asked to interpret and solve problems using tables, bar graphs, pictographs, line graphs, and circle graphs.

Content Standards for Math	DynaMath
Measurement and Data	
3.MD Geometric measurement: Understand concepts of area and relate area to multiplication and to addition.	• Solving area problems using meaningful contexts and representational strategies supports students' understanding of area as the sum of square units and as the product of side lengths. • Reproducible activities at the magazine's website use visual models to increase conceptual understanding of area.
3.MD Geometric measurement: Recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	• Students solve problems finding perimeters and producing rectangles with a given perimeter.
4.MD Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	• Various feature articles and Numbers in the News puzzles ask students to convert measures within the same system of units. • Students solve problems involving measures of distance, volumes, masses, money, and intervals of time, using all four operations in targeted articles. • Students find area and perimeter within real-world contexts in features such as math-in-careers activities and related reproducibles.
4.MD Represent and interpret data.	• Students are asked to interpret and solve problems using charts and graphical representation.
4.MD Geometric measurement: Understand concepts of angle and measure angles.	• Problems involving estimating angle measures and classifying angles promote student understanding of angles and angle measure.
5.MD Convert like measurement units within a given measurement system.	• Various activities involving real-world contexts ask students to convert measures within the same system.
5.MD Represent and interpret data.	• Students are asked to complete or make a variety of types of graphs given a set of data. • Certain activities require students to collect and graph data sets.
5.MD Geometric measurement: Understand concepts of volume and relate volume to multiplication and to addition.	• Students are given meaningful contexts and representational support for finding volume. • Students practice decomposing shapes to find volume. • Students find the volume of right rectangular prisms by adding cubic units and by multiplying edge lengths.

Content Standards for Math	DynaMath
### Geometry	
3.G Reason with shapes and their attributes.	• Students identify and categorize shapes by sides, edges, vertices, and arcs.
4.G Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	• In articles such as those featuring consumer math issues, students are asked to identify lines and angles on the plane and as parts of two-dimensional objects.
5.G Graph points on the coordinate plane to solve real-world and mathematical problems.	• In select activities, students must graph points and equations in the first quadrant of the coordinate plane using ordered pairs of coordinates.
5.G Classify two-dimensional figures into categories based on their properties.	• Students identify and categorize shapes based on attributes and properties, including sides, angles, edges, and vertices.