

**COORDINATING NUMBER AND COMPUTATION CONCEPTS**  
**Reference List of Software Available in the LRC**

- 1) Edmark Corporation, & Harcourt Brace and Company. (1996). Mighty Math: Calculating Crew.  
CD-ROM. Redmond, WA: Edmark Corporation.  
Grades 3-6: Lesson Plans, Blackline Masters, Follow-up.  
Annotation: Students master topics including addition, subtraction, multiplication and division of whole numbers and decimals, number line concepts, 2D and 3D shapes and their properties, and money transactions. Two on-screen calculators display steps required to solve a problem. Adjust difficulty level, monitors student progress.  
Instructional Design: Guided Practice, Problem Solving.  
Platform: WIN/MAC
  
- 2) Edmark Corporation, & Harcourt Brace and Company. (1996). Mighty Math: Number Heroes.  
CD-ROM. Redmond, WA: Edmark Corporation.  
Grades 3-5: Lesson Plans, Blackline Masters, Follow-up.  
Annotation: Students master topics including fractions, 2D geometry, probability, shape and number patterns, addition, subtraction, multiplication, division, and decimals. Two on-screen calculators display steps required to solve a problem. Adjust difficulty level, monitors student progress.  
Instructional Design: Guided Practice, Problem Solving.  
Platform: WIN/MAC
  
- 3) Gameco Educational Software. (1999). Math Concepts in Motion: Basic Operations & Order of Operations. CD-ROM. Big Spring, TX: Gameco Educational Software.  
Grades 4-6: Lesson Plans, Blackline Masters, Assessment.  
Annotation: Addition, subtraction, multiplication, and division of five-digit numbers; decimals; order of operations. Program provides opportunities for student to develop an understanding of basic operations, see how operations are related, and to perform calculations using each operation. Available are tests and the capability to track student progress.  
Instructional Design: Interactive Tutorial.  
Platform: WIN/MAC
  
- 4) Gameco Educational Software. (1999). Math Concepts in Motion: Fraction Concepts. CD-ROM.  
Big Spring, TX: Gameco Educational Software.  
Grades 4-6: Lesson Plans, Blackline Masters, Assessment.  
Annotation: Equivalent fractions, basic operations with fractions, and simplifying and relating fractions to decimals. Students extend knowledge of basic operations and numeration and apply those concepts to working with fractions and decimals in a variety of formats. Students in their day-to-day living encounter the fractions illustrated in these lessons. Available are tests and the capability to track student progress.  
Instructional Design: Interactive Tutorial.  
Platform: WIN/MAC

- 5) Gameco Educational Software. (1999). Math Concepts in Motion: Number Sense. CD-ROM. Big Spring, TX: Gameco Educational Software.  
Grades 4-6: Lesson Plans, Blackline Masters, Assessment.  
Annotation: Students explore our number system as they investigate concepts such as rounding, place value, counting, order and comparison, and estimating. Available are tests and the capability to track student progress.  
Instructional Design: Interactive Tutorial.  
Platform: WIN/MAC
- 6) Knowledge Adventure. (1998). Math Blaster: Ages 9-12. CD-ROM. Torrance, CA: Knowledge Adventure.  
Grades 4-6  
Annotation: Five activities include adding, subtracting, and multiplying with 2 and 3 operands, estimating, using positive and negative numbers, adding fractions, spreadsheet problems, graphs, and logic. Ten difficulty levels and recording keeping system.  
Instructional Design: Educational Game, Drill and Practice.  
Platform: WIN/MAC
- 7) Learning Company. (1998). Cluefinders' Math. CD-ROM. Cambridge, MA: The Learning Co.  
Grades 3-6.  
Annotation: Students build mathematical knowledge by solving problems in real-life contexts, using multiple operations, fractions, decimals, graphs, tables, word problems, and logic as they collect information, deduce a suspect, and determine a missing object and its location.  
Instructional Design: Educational Game, Problem Solving  
Platform: WIN/MAC
- 8) MECC. (1996). Math Keys: Unlocking Fractions and Decimals. Disk. Minneapolis, MN: MECC.  
Grades 3-6: Lesson Plans, Blackline Masters, Follow-up, Student Activities.  
Annotation: Explores the concept of rational numbers (fractions, decimals, ratios and proportions) by using counters, bars, circles, decimal blocks, and other devices. Topics include exploring relationships between numerator and denominator, reducing fractions, adding, subtracting multiplying, and dividing fractions, division of decimals, and investigating relationships between ratios or percents, including proportions.  
Instructional Design: Creative Activity, Exploration, Tool, and Bilingual.  
Platform: WIN/MAC
- 9) MECC. (1995). Math Munchers Deluxe. CD-ROM. Minneapolis, MN: MECC.  
Grades 3-6  
Annotation: Students develop speed and accuracy while building skills in whole numbers, fractions, decimals and simple geometry.  
Instructional Design: Educational Game, Problem Solving  
Platform: WIN/MAC
- 10) Scholastic Software. (1990). Math Shop Spotlight: Fractions & Decimals I. Disk. New York, NY: Scholastic Software.  
Grades 4-8: Lesson Plans, Blackline Masters, Follow-up, Student Activities.

Annotation: Students are serve customers in six different shops. Each shop requires a different set of skills, and the calculations become more complex with each new customer. Concepts covered are adding and subtracting decimals, determining fractional parts, adding, subtracting, multiplying, and reducing fractions, converting decimals to fractions.

Instructional Design: Educational Game, Problem Solving

Platform: MAC

- 11) Sunburst Communications, Inc. (1997). Combining and Breaking Apart Numbers. CD-ROM. Pleasantville, NY: Sunburst Communications.

Grades 1-2: Lesson Plans, Blackline Masters, Journal, Follow-up.

Annotation: Students develop their understanding of number by combining numbers to form a larger group and breaking numbers into smaller groups.

Instructional Design: Exploration, Tutorial.

Platform: WIN/MAC

- 12) Sunburst Communications. (1998). Equivalent Fractions. CD-ROM. Pleasantville, NY: Sunburst Communications.

Grades 4-7: Lesson Plans, Blackline Masters, Journal, Follow-up.

Annotation: Students build on the concepts of fraction meaning and equivalence as they learn the operations of fractions. Students see the purpose of constructing same size parts when they add and subtract fractions. Use visual models to see how and when they multiply and divide fractions. Solve real-life challenges to develop skill with fraction operations.

Instructional Design: Exploration, Tutorial.

Platform: WIN/MAC

- 13) Sunburst Communications, Inc. (1995). Gears. Disk. Pleasantville, NY: Sunburst Communications.

Grades 6-adult: Lesson Plans, Blackline Masters, Follow-up.

Annotation: Problem Solving involving the multiplication and division of whole numbers and decimals. Three playing levels, record keeping.

Instructional Design: Problem Solving, Creativity.

Platform: MAC

- 14) Sunburst Communications. (1997). Grouping and Place Value. CD-ROM. Pleasantville, NY: Sunburst Communications.

Grades 1-3: Lesson Plans, Blackline Masters, Journal, Follow-up.

Annotation: Students develop understanding of our number system through a series of grouping experiences.

Instructional Design: Exploration, Tutorial.

Platform: WIN/MAC

- 15) Sunburst Communications. (1997). Number Meaning and Counting. CD-ROM. Pleasantville, NY: Sunburst Communications.

Grades K-1: Lesson Plans, Blackline Masters, Journal, Follow-up.

Annotation: Students develop understanding of our number meanings and uses

Instructional Design: Exploration, Tutorial.

Platform: WIN/MAC

- 16) Sunburst Communications. (1997). Puzzle Tanks. CD-ROM. Pleasantville, NY: Sunburst Communications.  
Grades 3-8.  
Annotation: Problem Solving program that uses logic puzzles involving liquid measurements. Includes addition, subtraction, multiplication, and division of whole numbers.  
Instructional Design: Problem Solving, Education Game.  
Platform: WIN/MAC
- 17) Sunburst Communications. (1998). Representing Fractions. CD-ROM. Pleasantville, NY: Sunburst Communications.  
Grades 2-4 Lesson Plans, Blackline Masters, Journal, Follow-up.  
Annotation: In this investigation, students work with one interpretation of a fraction – the relationship between parts and wholes – by working with symbolic and visual representations. To represent fractions visually, they use geometric regions such as squares and circles, distance or length, and sets of objects.  
Instructional Design: Exploration, Tutorial.  
Platform: WIN/MAC
- 18) Sunburst Communications. (1995). The Kings Rule. Disk. Pleasantville, NY: Sunburst Communications.  
Grades 4-12: Lesson Plan, Blackline Masters, Follow-up.  
Annotation: Students will recognize numerical patterns and relations; using addition, subtraction, multiplication, and division to solve number pattern problems. Students will form and test hypothesis, and develop and use different strategies with problem solving.  
Instructional Design: Problem Solving  
Platform: MAC
- 19) Sunburst Communications. (1991). What To Do With A Broken Calculator. Disk. Pleasantville, NY: Sunburst Communications.  
Grades 3-8.  
Annotation: Students are challenged to solve a variety of problems using a calculator that has one or more number and/or operation keys disabled. The objectives of the program are for students to gain an understanding of basic operations, understand place value, formulate rules for problem solving, and promote logical thinking.  
Instructional Design: Problem Solving  
Platform: MAC
- 20) Sunburst Technology. (2001). Concert Tour. CD-ROM. Pleasantville, NY: Sunburst Technology.  
Grades 7-10: Blackline Masters, Follow-up.  
Annotation: Concert Tour is a business simulation. In this simulation, students are challenged to manage a band for an entire year. Students analyze tables and graphs to set ticket prices, determine the band's touring schedule, and buy advertising for performances. The success of the student's business is based on the student's ability to make mathematically sound decisions.  
Instructional Design: Education Game, Problem Solving, Simulation.  
Platform: WIN/MAC

- 21) Sunburst Technology. (1996). Fraction Attraction. CD-ROM. Pleasantville, NY: Sunburst Communications.  
Grades 3-8: Blackline Masters, Follow-up.  
Annotation: Four amusement park games help students learn the concepts of: representing, ordering and finding equivalent fractions, percents, and decimals. Five levels of play and on-screen diagnostic help to assist student in correcting errors.  
Instructional Design: Education Game, Problem Solving, tutorial.  
Platform: WIN/MAC
- 22) Sunburst Technology. (1996). Hot Dog Stand: The Works. CD-ROM. Pleasantville, NY: Sunburst Communications.  
Grades 6-12: Lesson Plans, Blackline Masters.  
Annotation: Students manage their own business where they practice math, problem solving, and communication skills. Skills include arithmetic operations, estimation, data gathering, data analysis, interpreting graphs, recognizing patterns, working backwards.  
Instructional Design: Education Game, Problem Solving, Simulation.  
Platform: WIN/MAC
- 23) Sunburst Technology. (2001). Ten Tricky Tiles. CD-ROM. Pleasantville, NY: Sunburst Technology.  
Grades K - 3: Blackline Masters, Follow-up.  
Annotation: Students develop their arithmetic and logic skills with three levels of activities that involve solving sets of number sentences. In each activity, students use digits 0 through 9 exactly once to correctly complete a series of number sentences.  
Instructional Design: Problem Solving, Exploration.  
Platform: WIN/MAC
- 24) Sunburst Technology. (1999). Math Arena. CD-ROM. Pleasantville, NY: Sunburst Technology.  
Grades 4-7: Lesson Plans, Blackline Masters, Follow-up.  
Annotation: Through 20 challenging activities, students practice and improve their skills in visual thinking, numeration, operations, money sense, and geometry. Students compete individually, in small groups, or on teams in timed or un-timed trials.  
Instructional Design: Education Game, Problem Solving.  
Platform: WIN/MAC
- 25) Sunburst Technology. (1995, 1997). Number Sense & Problem Solving. CD-ROM. Pleasantville, NY: Sunburst Communications  
Grades 4-8: Lesson Plans, Blackline Masters, Follow-up.  
Annotation: Build number and operation skills with these three programs: How the West Was One + Three x Four, Divide and Conquer and Puzzle Tanks.  
Instructional Design: Education Games, Problem Solving.  
Platform: WIN/MAC
- 26) Sunburst Technology. (1998). Number Undercover. CD-ROM. Pleasantville, NY: Sunburst Communications  
Grades K-3: Lesson Plans, Blackline Masters, Follow-up.  
Annotation: Students solve The Case of the Missing numbers and develop skills in the areas of telling time, using measurement, counting and number sense, and money

skills. As students complete each activity, they collect a clue to eliminate a suspect in the case. Three levels of skill difficulty.

Instructional Design: Education Game, Problem Solving, Tutorial

Platform: WIN/MAC

- 27) Tom Snyder Productions. (1999). Prime Time Math: Cliffbound. CD-ROM. Watertown, MA: Tom Snyder Publications.

Grades 6-7: Lesson Plans, Blackline Masters, Follow-up.

Annotations: Two rock climbers get stranded on a cliff, and a rescue team lifts them to safety.

Covers Time, rate, distance, computing with fractions using unit, and equivalent ratios.

Instructional Design: Simulation, Problem Solving

Platform: WIN/MAC

- 28) Unicorn Software. (1984). Fraction Action. Disk. Las Vegas, NV: Unicorn Software. Grades 3-8.

Annotation: Students answer fraction problems to be able to try to escape the basement of a mad professor's mansion. If answers are incorrect, full detailed explanation are given to help solve the problems.

Instructional Design: Education Game, Tutorial

Platform: PC

- 29) Unicorn Software. (1988). Decimal Dungeon. Disk. Las Vegas, NV: Unicorn Software.

Grades 4-6

Annotation: Students answer decimal problems to be able to try to escape the caverns of the dungeon master's castle. If answers are incorrect, full detailed explanation are given to help solve the problems.

Instructional Design: Education Game, Tutorial

Platform: PC