

Contents

5	Principles of Quality, Student-Centered Instruction
7	Overview
8	Math Facts are Necessary
9	Strategies for Teaching Multiplication and Division Facts
12	The Student Math Fact Notebook
13	Readiness Skills for Multidigit Number Processing
20	Order Of Fact Family Instruction
22	Facts That I Know Motivational Poster
23	Whole-to Part $2\times$ Multiplication
28	Finger Stamping $2\times$ Facts
37	Part-to Whole Practice for $2\times$ Facts
43	Standardized Methodology to Introduce the Pattern-Based Fact Families
44	0 - 100 Chart
53	Define Length, Width, and Area Using Multimodal Cues
58	Multiplication Grid Area Model
64	Use Semantic Associations to Teach Fact-Based Word Problems
72	Solving Word Problems Involving Multiplication and Division Facts
79	Rehearsal Techniques and Activities to Teach Fact Families
80	Use Gross Motor Kinesthetic Practice to Drive Integrated Fact Production
86	Dry Erase Flash Card Fact Production Template
93	Accuracy Benchmark Pretests and Fluency Assessment Worksheets
100	Baseball Fact Game
104	The $5\times$ Fact Family
110	Introduction to the $5\times$ Whole-to-Part Multiplication Facts
143	The $10\times$ Fact Family
174	The $1\times$ and $0\times$ Families
180	Introduction to Multidigit Multiplication
223	The $9\times$ Fact Family
257	The $3\times$ Fact Family
283	The $6\times$ Fact Family
302	The Perfect Squares
311	The $4\times$ Fact Family
331	The $7\times$ Fact Family
339	Ladder Charts: A Function of the Distributive Property and the Fibonacci Sequence
353	The $8\times$ Fact Family
363	The $11x$ and $12x$ Facts
366	Appendix 1, Templates for Multidigit Multiplication
377	Appendix 2, Multiplication Grid (12×12)
378	Appendix 3, Instructional Video References with QR Codes
379	References