Contents

Acknowledgments ix

Introduction xi

	Sample Activity Page xv
I	A MATHEMATICAL ENVIRONMENT 17
II	BEGINNING 21
	On the Dot 23
	Egg Carton Numbers 24
	Odd or Even 25
	Animal Crossing 26
	Number Guess 29
	Balloon Ride 30
	Target Addition 32
	Value of Words 33
	Bridges 34
	Guess and Group 36
	The Sum What Dice Game 37
	Paying the Price 38
	Tangrams 40
	One Hundred Cards 44
	Measure 15 46
	Nimble Calculator 47
	Shopping Spree 49
	Orderly Operations 50
III	WORD PROBLEMS AND LOGICAL REASONING 5
	Word Problems 52
	Logical Reasoning 55
	Sorting and Classifying 58
	Venn Diagrams 59
	Two-Dimensional Nim 61
	Rainbow Logic 62
	Pico, Fermi, Bagels 64
	Ten Card Arrangement 66
	Tax Collector 67
	Save Twenty 70

IV MEASUREMENT 73

Metric System Information 76

Units of Measurement 78

Graph Paper 79

Comparing and Ordering 83

Toothpick Units 84

Perfect People 85

The Magnified Inch 86

Activities with Area 87

Capacity and Volume 91

Lid Ratios 97

Making Balance Scales 98

Weight Activities 101

Temperature 103

V NUMBERS AND OPERATIONS 105

Learning the Basic Facts 108

Double Digit 111

Dollar Digit 112

Reverse Double Digit 113

How Close Can You Get 114

Number Line Rectangles 115

Making a Fraction Kit 120

Fraction Kit Games 124

Judy's Fractions 125

Place the Digits 126

Find the Digits 127

Three Bean Salads 134

Gorp 136

VI PROBABILITY AND STATISTICS 139

Graphing 142

Graphing Information 145

The Means Justify the End 147

How Long is a Name 148

Fair Spinners I 150

Fair Spinners II 152

Making Spinners 154

Rolling Records—Step I 156

Rolling Records—Step II 157

Rolling Records—Step III 158

Raindrops 160

Random Walk I 163

Random Walk II 164

VII TIME AND MONEY 167

Time Activities 170

Making a Calendar 174

Calendar Patterns 175

Money Activities 177

VIII GEOMETRY AND SPATIAL THINKING 181

Simple Symmetries 184

Create a Puzzle 187

Pentasquare Activities 188

Cut-a-Card 190

Coordinates I 192

Coordinates II 194

Coordinate Tic Tac Toe 196

Hurkle 198

IX PATTERNS AND NUMBER CHARTS 201

Cover Patterns 206

Before or After 208

More or Less 209

Hundred Chart Operations 210

Hundred Chart Design 212

Palindromes 214

Multiplication Designs 217

X ESTIMATION, CALCULATORS, AND MICROCOMPUTERS 221

Everyday Estimation 227

Quick Questions 229

Key Calculator Experiences 233

Calculator Paths 235

Aunt Bebe's Costly Calculations Contest 240

Tic Tac Toe—Rounding in a Row 243

The Lost Rules 247

The Lost Number 249

Pseudo Monopoly 251

A Word about Microcomputers 255

XI CAREERS 259

A Working Day 261 Career Story Cards 262 Useful Math Skills 271 Where Are the Jobs? 274 Notes from an Engineering Aide 276

Appendix A—Organizing a FAMILY MATH Class 279

Appendix B—Mathematics Generally Covered at Various Grade Levels 297

Resource List For Parents and Teachers 311

Addresses of Publishers 314

Index 315

MUNUS.