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ABSTRACT

This teachers' guide lists manipulative aids, audio-visual materials, and demonstration materials for use in the elementary school mathematics classroom. Organization of the guide follows that of the California Strands Report (1967-68), as represented by these nine strands of mathematical content: numbers and numerals, geometry, measurements, applications, statistics and probability, sets, functions and graphs, logic, and problem solving. Catalog numbers and addresses of suppliers for all equipment are included. (RS)

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FOUNTAIN VALLEY SCHOOL DISTRICT

Educational Services

Curriculum Bulletin
Mathematic #17

SUPPLEMENT TO DISTRICT MATH GUIDE
1970-71

Developed By:

Deloris Flint

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INTRODUCTION

The California State Board of Education adopted the new mathematics textbooks for kindergarten through the eight grade level. These books are consistent with the revised Strands Report (1967-68) of the statewide Mathematics Advisory Committee. This revised report reflects the current developments and trends in the field of mathematics education.

The materials in the state adopted basic series should not be thought of as the total mathematics program. Less than one-half of the allotted math period should be involved with the text, with the remainder of the period devoted to varied experiences. Sometimes students may need further experiences with manipulative aids, audio-visual materials and demonstration materials after working with a page in the text. A return to objects at this point is not always a regression, but can be a valuable repetition of the concrete-to-abstract sequence, returning to previous experiences for further interpretation and insight. This guide has been developed to support this aspect of the teaching-learning process. Suggested teaching aids which are available from the various publishing companies are listed, as well as multi-media materials in our Curriculum Material Center.

The guide of suggested teaching aids and multi-media materials has been listed according to the nine strands of mathematical concepts.

Symbols listed designate the Publisher's Catalog used as a basis for recommending the various commercial aids. A complete listing of suggested publisher's mailing address may be found in the Appendix.

(CP)	Creative Publications
(SC)	Stationers Corporation
(IPC)	Instructo Products Co.
(CCOA)	Cuisenaire Co. of America, Inc.
(HM)	Houghton-Mifflin

The prices quoted are from the Publisher's Catalogs at the time the guide was written and are therefore subject to change.

These aids and materials should be incorporated purposefully into the mathematics program, and be used horizontally to reinforce skill or vertically to introduce new skills. Although they are listed by the Strands, many aids may be interchanged.

It should be remembered that educational materials are aids and aids only; not ends in themselves. The teacher is the key to excellence in teaching.

STRAND I Numbers and Numerals
Number Sentences
Number Theory
Mathematic Operations

STRAND I

COMMERCIAL MATHEMATICAL AIDS

<u>Catalog Number</u>	<u>Description</u>	<u>Cost</u>	<u>Publisher</u>
MLM-3	Japanese Abacus Beautiful and sturdy abacus contains nine spindles. Made from colorful high quality plastic. Measures 2" x 4½". Illustrated booklet enclosed.	\$1.50	(CP)
MLM-4	Chinese Abacus Plastic abacus measures 5½" x 2½". Ideal for use on the overhead projector.	\$.25	(CP)
MLM-2	Multifactor Eighty-one plastic cubes depressed at the touch of a finger to reveal the product of one digit combination.	\$4.00	(CP)
CX-3E	Cuisenaire Classroom Kit Each kit contains 24 individual student sets of Cuisenaire colored rods in sturdy plastic containers which stack for easy storage. In each container are 72 rods in ten colors and ten sizes to exactly model the relationship of numbers to one another. The brightly colored rods are durable and non-toxic with one of the world's finest finishes for wooden games and toys. For convenience, each kit comes in a sturdy cardboard tray to fit on any classroom or learning center shelf.	\$59.50	(CCOA)
780 Pupil's	Number Line (K-3) Each student has his own plastic-coated for repeated use with wax crayon. Numerals from 0-25.	\$1.00 per doz.	(SC)
780 T	Teacher's Number Line (K-5) Large black numerals from 20 to 100 and red line-dot pattern are printed on 12 4" x 36".	\$1.00	(SC)
977	Flannel Board Sturdy wood frame with beige flannel. 28" x 40".	\$10.00	(SC)

MATHEMATICAL AIDS

<u>MATHEMATICAL AID</u>	<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>
Numeral Number Counting Beads	5 x 5	M-3
Toss and Add	Egg Carton	M-6
Addition Facts - Snail	Circle	M-8
Math Mix W/D	1" x 1" Cubes	M-9
Fact Finder		M-13
Perception Numerals	9" Numbers with Perception Dots	M-16
Place Value Chart	19 x 13	M-17
Pegboard - Numeral and Golf Tee Matching		M-19
Division - 1 thru 9	6 x 25	M-19
Four Equals Ten	16 Cards	M-20
Number Mobiles	12 x 9	M-21
Small Rolo (Addition Combinations to 10)	5 x 16	M-25
Concrete to Abstract Number Puzzles		M-26
Cuisenaire or Centimeter Rods		M-27
Tens	11½ x 8-¾	M-28
Visual Multiplication		M-30
Place Value Pegboard	12 x 12	M-33
One Hundred Board with Tags (Wood)	24 x 24	M-37
Numbers have many Names	Circle	M-43
Snap	2 x 3	M-44
Acetate Matrix	10 x 10	M-45
Freddie the Computer	19 x 26	M-46
Peanuts Figures - Addition		M-47
Number, Word, and Dot Jigsaw	12 x 4-¾	M-48
Abacus		M-49
Numeral Fun (Jigsaw 0-9)		M-50
Number Sequence	44 x 11	M-53
Acetate Matrix	14 x 14	M-56
Addition Wheel - Changeable Disks		M-58
Number, Perception Jigsaw Puzzle	7 x 26	M-59
Fill in Numbers (1-100)	8½ x 16	M-60
Addition Fact Wheel	5 Wheel	M-61
Pegboard Numerals 1-6	10 x 10 Pegboard	M-62
Grouping	19 x 14	M-64
Symbol Bingo	10 x 10	M-69
Symbol Flash Cards	3 x 5	M-70
Build a House		M-71
Multiplication Slide Scale	26 x 8	M-201
Multiplication Wheel	Circle	M-204
Napier Rods	¾ x ¾	M-206
Ratio Bingo		M-207
Six or One (1 Dice Set Multiplication Cards)	13 x 19	M-208
Hundred Board (Teas)	10½ x 10½	M-210
Place Value Abacus		M-211
Fraction Board (Wood)	12 x 9-¾	M-213

<u>MATHEMATICAL AID</u>	<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>
Multiplication Bingo	8 x 8	M-215
Number Line	24 x 5	M-218
Shake and Count - Addition, Subtraction, Multiplication	13 x 9	M-219
Upper Math Mix	Cylinder	M-220
Fraction Kit (Wood)	10 x 14	M-223
Fraction Concept Kit	9½ x 13	M-229
Multiplication Facts	Peanuts Figures	M-231
Short Way Home - Short Division	18½ x 18½	M-234
	2 Cars 7 Cards	
Multiplication and Division Wheel	5" Wheel	M-235
Base Checkers		M-236
Ratio Roundup		M-240
Bing Tac		M-242
Fact Board		M-243
Fraction Spin-Matho		M-244
A Game of Fractions		M-245

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMS		
Addition for beginners	K - 4	F 386
Big numbers little numbers	4 - 8	F 200
Discovering numerals	1 - 4	F 153
Division for beginners	K - 5	F 380
Doing and undoing in mathematics: inverses	1 - 6	F 198
Donald in Mathemagic Land (Disney)	5 - 8	F 2034
How little, how big	K - 4	F 314
Modern mathematics: number sentences	K - 4	F 103
Modern mathematics: numberline	K - 4	F 1088
More or less	1 - 6	F 199
Numbers	K - 4	F 393
Percent - why and how	4 - 8	F 376
Place value: ones, tens, hundreds	K - 4	F 108
Positive and negative numbers	6 - 8	F 1249
A positive look at negative numbers	4 - 8	F 14
Story of our number system	4 - 8	F 112
Subtraction for beginners	K - 4	F 375
Ten little Indians, (beginning subtraction concepts)	K - 4	F 372

FILMSTRIPS

Adding and Subtracting Decimals	4 - 8	FS 2964
Adding and Subtracting two-place numbers	K - 2	FS 1572
Adding Fractions	3 - 8	FS 2705
Adding Fractions	3 - 8	FS 2956
Adding with Fractions	3 - 8	FS 3108
Addition and Subtraction: Greater than, Less than, Equal	K - 4	FS 2227
Addition and subtraction: Two and Three place numbers	1 - 3	FS 2062
Addition and Subtraction Advances: Greater than less than Equal	1 - 4	FS 2231
Addition and Subtraction are related	1 - 6	FS 3110
Addition and Subtraction I (1-10)	1 - 3	FS 3347
Addition and Subtraction II (10 & more)	1 - 3	FS 3348
Addition and Subtraction Concepts	K - 2	FS 447
Addition and Subtraction Concepts	K - 2	FS 1628
Addition and Subtraction of Decimals	4 - 8	FS 1069
Addition and Subtraction of Decimals	4 - 8	FS 1399
Addition and Subtraction of Fractions	4 - 8	FS 1394
Addition and Subtraction of Fractions	4 - 8	FS 2018
Addition and Subtraction of Fractions	5 - 8	FS 1603

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS, continued		
Addition and Subtraction of Whole Numbers	5 - 8	FS 1596
Addition Equations 0 - 9	K - 4	FS 2222
Addition Equations 0 - 9	K - 4	FS 2223
Addition Equations 0 - 20	K - 4	FS 2228
Addition Equations 1 - 5	K - 4	FS 2217
Addition Equations 1 - 5	K - 4	FS 2218
Addition - Objects and Symbols	1 - 3	FS 1365
Addition of Fractions	4 - 8	FS 1078
Addition with Decimals	3 - 8	FS 3103
Advancing with Addition, Subtraction, Multiplication and Division	2 - 4	FS 1375
Arithmetical Concepts	K - 2	FS 443
Arithmetical Concepts	K - 2	FS 1625
Base Six - Addition, Subtraction, Multiplication	5 - 8	FS 2026
Binary (Base Two) Addition, Subtraction, Multiplication, Division	5 - 8	FS 2028
Changing Fractions to Decimals	4 - 8	FS 1071
Changing Fractions to Decimals	4 - 8	FS 1402
Changing the Grouping, Multiplication and Division	3 - 4	FS 821
Changing the Order: Addition and Subtraction	3 - 4	FS 818
Changing the Order: Multiplication and Division	3 - 4	FS 819
Changing the Grouping: Addition and Subtraction	3 - 4	FS 5820
Changing the Grouping: Multiplication and Division	3 - 4	FS 821
Closure, Commutative and Associative Properties, The	4 - 8	FS 1409
Column Addition	K - 2	FS 1569
Common Denominators	3 - 8	FS 295
Commutative Property of Multiplication	2 - 6	FS 2802
Comparing Decimals	4 - 8	FS 2963
Comparing Fractions	3 - 8	FS 2493
Computing Square Roots	7 - 8	FS 1915
Count to Find Out	K - 2	FS 1555
Counting Process, The	1 - 8	FS 1615
Counting Sets in Many Ways	1 - 3	FS 2860
Counting to 20 by 1's, 2's, and 5's	K - 2	FS 1566
Decimal Numerals	6 - 8	FS 1610
Decimal Numeration System	4 - 8	FS 2786
Decimals and Common Fractions	4 - 8	FS 2962

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS, continued		
Decimals in Division	4 - 8	FS 2800
Decimals in Multiplication	4 - 8	FS 2799
Different Differences (Fractions)	3 - 6	FS 2896
Different Names for Same Fractional Number	4 - 8	FS 1077
Distributive Property, The	3 - 4	FS 822
Distributive Property, The	4 - 8	FS 1410
Dividing Decimals	4 - 8	FS 2966
Dividing Fractions	3 - 8	FS 2709
Dividing Things into Parts	1 - 6	FS 991
Dividing Whole Numbers by Fractions	4 - 8	FS 1011
Dividing Decimals	4 - 8	FS 1013
Division Facts	2 - 4	FS 1378
Division Facts	2 - 4	FS 2040
Division Objects and Symbols	1 - 3	FS 1388
Division of Decimals	4 - 8	FS 1067
Division of Decimals	4 - 8	FS 1401
Division of Fractional Numbers	5 - 8	FS 2021
Division Equations 2 and 3	1 - 4	FS 2210
Division Equations 4 and 5	1 - 4	FS 2211
Division Equations 6 and 7	1 - 4	FS 2212
Division Equations 8 and 9	1 - 4	FS 2213
Division Equations 1 through 9	1 - 4	FS 2214
Division of Fractions	4 - 8	FS 1081
Division with Remainders	3 - 6	FS 1587
Equal Groups, 4 and 5	3 - 6	FS 1588
Equal Groups, 6 and 7	3 - 6	FS 1589
Equal Groups, 8 and 9	3 - 6	FS 1590
Equalities and Inequalities Equation	5 - 6	FS 836
Equations and Inequalities	5 - 6	FS 839
Equidecomposable Figures	2 - 5	FS 3385
Equivalence Relations Among Fractions	6 - 8	FS 1609
Equivalent Open Sentences	6 - 8	FS 1607
Experience With Comparisons	4 - 8	FS 1414
Experiences with Counting	2 - 4	FS 459
Experiences With Fractions	2 - 4	FS 457
Experiences With Numbers	2 - 4	FS 460
Exploring Numbers	2 - 4	FS 458
Exponents	3 - 8	FS 3346
Factors and Primes	4 - 6	FS 3364
Factors and Primes	3 - 8	FS 2706
Factors and Primes	4 - 6	FS 3359
Factors and Products	5 - 8	FS 1598

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS, continued		
Finding Simplest Fractional Names - Factoring	4 - 8	FS 1883
Finding Square Roots	5 - 8	FS 1619
Finite Arithmetics	6 - 8	FS 1007
Fraction Facts	3 - 6	FS 3892
Fraction Finding	3 - 6	FS 3899
Fraction Forms	3 - 6	FS 3894
Fraction Numerals: Concepts	4 - 8	FS 1393
Fraction Numerals: Concepts	4 - 8	FS 2017
Fractional Parts of Groups $1/2$, $1/3$, $1/4$	1 - 4	FS 2490
Fractional Parts of a Whole $1/2$, $1/3$, $1/4$	1 - 4	FS 2489
Fractional Parts of a Whole and Groups	3 - 8	FS 2491
Fractional Parts of a Whole and of Sets	2 - 8	FS 3115
Fractions	2 - 4	FS 1380
Fractions	2 - 4	FS 2042
Fractions in Decimal Notation	5 - 8	FS 1604
Fractions in Division	6 - 8	FS 1613
Fractions in Multiplication	6 - 8	FS 1612
Fractions of a Group	3 - 8	FS 2954
Frame Arithmetic	3 - 6	FS 3088
Fundamental Theorem of Arithmetic	4 - 8	FS 1882
Game of "How Many", The	2 - 4	FS 452
Greater Than, Less Than, Equal	1 - 4	FS 2216
Greatest Common Factor	4 - 8	FS 2788
History of Our Number System	1 - 6	FS 998
How Large is a Fraction	3 - 8	FS 2955
How Many in All - How Many Left	K - 2	FS 1563
Identity and Inverse Properties	4 - 8	FS 1411
Introduction: Division by Fractional Numbers	4 - 8	FS 1871
Introduction to Algebra	6 - 8	FS 1004
Introduction to Decimals	4 - 8	FS 2961
Introduction to Irrational Numbers	4 - 8	FS 2791
Introduction to Per Cent	4 - 8	FS 2798
Introduction to Percentage	5 - 8	FS 2967
Inverse Operations - Multiplication and Division	2 - 5	FS 3382
Investigation Closure - Addition and Substraction	2 - 5	FS 3384
Investigating Closure - Multiplication and Division	4 - 8	FS 3396
Investigating Fractional Numbers	4 - 8	FS 3397
Investigating Integers	4 - 8	FS 3394

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS, continued		
Investigating Negative Numbers	2 - 5	FS 3387
Language of Fractions	4 - 8	FS 1076
Learning About Equations	1 - 2	FS 830
Learning About Inequalities	1 - 2	FS 833
Least Common Multiples	4 - 8	FS 2797
Let's See How to Add By Endings	2 - 4	FS 1576
Let's See How to Divide	2 - 4	FS 1582
Let's See How to Multiply	2 - 4	FS 1581
Let's See How to Subtract By Endings	2 - 4	FS 1577
Linking Multiplication and Addition	2 - 6	FS 2805
Matching Numbers	K - 3	FS 2323
Matching Numbers	K - 3	FS 2496
Meaning and Reading of Decimals	4 - 8	FS 1068
Meaning and Reading of Decimals	4 - 8	FS 1398
Meaning and Understanding of Per Cent, Percentage	6 - 8	FS 2046
Meaning and Use of Fractions and Measures	3 - 6	FS 1592
Meaning of Decimals	4 - 8	FS 1010
Meaning of Fractions	3 - 8	FS 2708
Meaning of Fractions	4 - 6	FS 3357
Meaning of Numbers One Through Ten, The	K - 3	FS 2325
Meaning of Numbers One Through Ten, The	K - 3	FS 2498
Meaning of Numerals	2 - 6	FS 2865
Measures	5 - 8	FS 1601
Measures; Counting, Adding, Subtracting	2 - 4	FS 1370
Measures; Counting, Adding, Subtracting	1 - 3	FS 2060
Logarithms and Interpolation	7 - 8	FS 1953
Mixed Numbers	3 - 8	FS 2958
More Numbers and Numerals	1 - 2	FS 835
Multiplication and Division	1 - 3	FS 3352
Multiplication and Division are Related	2 - 6	FS 3112
Multiplication and Division of Whole Num- bers	5 - 8	FS 1597
Multiplication Equations 2 and 3	1 - 4	FS 2205
Multiplication Equations 4 and 5	1 - 4	FS 2206
Multiplication Equations 6 and 7	1 - 4	FS 2207
Multiplication Equations 8 and 9	1 - 4	FS 2208
Multiplication Equations 0 and 9	1 - 4	FS 2209
Multiplication - Objects and Symbols	1 - 3	FS 1387
Multiplication of Decimals	4 - 8	FS 1070
Multiplication of Decimals	4 - 8	FS 1400
Multiplication of Fractions	4 - 8	FS 1080

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS, continued		
Multiplication of Fractions	4 - 8	FS 1395
Multiplication of Fractions	4 - 8	FS 2016
Multiplication With Fractions	3 - 8	FS 3106
Multiplying and Dividing	1 - 3	FS 2064
Multiplying Decimals	4 - 8	FS 2965
Multiplying Fractions	3 - 8	FS 2710
Multiplying Fractions	3 - 8	FS 2960
Names for Large Numbers	6 - 8	FS 1611
Names for Numbers	3 - 8	FS 3096
Naming Numbers	5 - 6	FS 841
Negative Numbers	4 - 8	FS 1408
New Ideas in Addition and Subtraction	6 - 8	FS 1605
New Ideas in Multiplication and Division	6 - 8	FS 1606
New Phases of Addition and Subtraction	2 - 4	FS 1373
New Phases of Addition and Subtraction	1 - 3	FS 2063
Non-Decimal Numerals	4 - 8	FS 1616
Non-Unit Fractions of a Whole and Groups	3 - 8	FS 2492
Number Bases	3 - 8	FS 3345
Number Fields	6 - 8	FS 1773
Number Fields	6 - 8	FS 1869
Number Line, The	4 - 8	FS 1407
Number Line - Fractions	3 - 6	FS 1382
Number Line - Fractions	3 - 6	FS 2044
Number Line - Whole Numbers	2 - 4	FS 1381
Number Line - Whole Numbers	2 - 4	FS 2043
Number Patterns - Averages	3 - 8	FS 3105
Number Stories of 7 and 8	K - 2	FS 1567
Number Stories of 9 and 10	K - 2	FS 1568
Number Stories of 11 and 12	1 - 2	FS 1573
Number Stories of 13 to 18	1 - 2	FS 1574
Numeration - Base Six	5 - 8	FS 2025
Numeration - Base Ten	2 - 5	FS 1383
Numeration - Base Ten	2 - 5	FS 2045
Numeration - Binary (Base Two)	5 - 8	FS 2027
Numbers All Around Us	1 - 3	FS 979
Numbers and Numerals	1 - 2	FS 834
Numbers and Numerals	K - 2	FS 2853
Numbers, Numerals, and Operations	5 - 8	FS 1595
Numbers 1 to 5, The	K - 2	FS 1556
Numbers 6 to 10, The	K - 2	FS 1557
Numbers 11 to 19, The	K - 2	FS 1560
Numbers Through the Ages	3 - 8	FS 3343
Numeration: Base Five	4 - 8	FS 1397

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS, continued		
Numeration: Base Five	4 - 8	FS 2015
One Hand Arithmetic - Base Five	3 - 8	FS 3097
Open Sentences	4 - 8	FS 1406
Open Sentences	4 - 8	FS 2794
Operations With Decimals	7 - 8	FS 829
Origin and Meaning of Fractions	4 - 8	FS 1074
Our Number System	3 - 8	FS 3344
Patterns in Numbers	3 - 8	FS 3104
Percent	7 - 8	FS 824
Place for Hundreds, A	1 - 3	FS 2859
Place Value	3 - 8	FS 1803
Place Value	3 - 8	FS 3109
Place Value and Subtraction	2 - 6	FS 2803
Pleasing Products (Fractions)	3 - 6	FS 3897
Properties of Fractional Numbers	4 - 8	FS 3398
Properties of Integers	4 - 8	FS 3395
Properties of Multiplication: Fractional Numbers	4 - 8	FS 2795
Properties of Numbers: Addition and Subtraction	4 - 6	FS 3362
Properties of Numbers: Multiplication and Division	4 - 6	FS 3363
Putting Together and Taking Apart	K - 2	FS 2854
Quotient Quests (Fractions)	3 - 6	FS 3898
Rational Number System	4 - 8	FS 2789
Rational Numbers of Arithmetic	5 - 8	FS 1620
Reading and Writing Whole Numbers	1 - 3	FS 3351
Recording Division	3 - 6	FS 1593
Regrouping by Ones and Tens	2 - 4	FS 1579
Regrouping Tens and Hundreds	2 - 4	FS 1580
Renaming Numbers for Multiplication	2 - 8	FS 3114
Renaming Numbers for Subtraction	2 - 6	FS 3111
Seeing the Use of Fractions	2 - 4	FS 1575
Short Form of Division, The	4 - 8	FS 2796
Sign Language (+, -, and = signs to 6)	K - 2	FS 1565
Simple Addition Advanced	1 - 3	FS 1385
Simple Subtraction, Advanced	1 - 3	FS 1386
Some Sums (Fractions)	3 - 6	FS 3895
Speed-I-O Strip Series: Addition - 15 Easiest Combinations	K - 3	FS 2405
Speed-I-O Strip Series: Addition - 19 Zero Combinations	1 - 3	FS 2407
Speed-I-O Strip Series: Addition - 30 Easy Combinations	1 - 3	FS 2406

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS, continued		
Speed-I-O-Strip Series: Addition - 36 More Combinations	1 - 3	FS 2408
Speed-I-O-Strip Series: Division - Group I	3 - 8	FS 2401
Speed-I-O-Strip Series: Division - Group II	3 - 8	FS 2402
Speed-I-O-Strip Series: Division - Group III	3 - 8	FS 2403
Speed-I-O-Strip Series: Division - Group IV	3 - 8	FS 2404
Speed-I-O-Strip Series: Multiplication - Group I	1 - 3	FS 2413
Speed-I-O-Strip Series: Multiplication - Group II	1 - 3	FS 2414
Speed-I-O-Strip Series: Multiplication - Group III	1 - 3	FS 2415
Speed-I-O-Strip Series: Multiplication - Group IV	1 - 3	FS 2416
Speed-I-O-Strip Series: Subtraction - 15 Easiest Combinations	1 - 3	FS 2409
Speed-I-O-Strip Series: Subtraction - 19 Zero Combinations	1 - 3	FS 2411
Speed-I-O-Strip Series - Subtraction: 30 Easy Combinations	1 - 3	FS 2410
Speed-I-O-Strip Series - Subtraction: 36 More Combinations	1 - 3	FS 2412
Story of Numbers, The	K - 3	FS 2321
Story of Numbers, The	K - 3	FS 2494
Subtract to Find Out	K - 2	FS 1570
Subtracting Fractions	4 - 8	FS 2707
Subtraction and Division	4 - 8	FS 1412
Subtraction Equations 1 - 5	K - 4	FS 2219
Subtraction Equations 1 - 5	K - 4	FS 2220
Subtraction Equations 0 - 9	K - 4	FS 2224
Subtraction Equations 0 - 9	K - 4	FS 2225
Subtraction Equations 0 - 20	K - 4	FS 2229
Subtraction - Objects and Symbols	1 - 3	FS 1366
Subtraction of Fractions	4 - 8	FS 1079
Systems of Numeration	5 - 6	FS 837
Taking a Group Apart	K - 2	FS 1561
Talking About Numbers	3 - 6	FS 1585
Talking About Parts	3 - 6	FS 1586
Tests for Divisibility	4 - 8	FS 1617

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS, continued		
This is Algebra	4 - 8	FS 3087
True/False Statements and Open Sentences	5 - 6	FS 838
Two-Figure Divisors	4 - 8	FS 1014
Two Properties of Addition	2 - 6	FS 2804
Understanding Hundreds, Tens and Ones	K - 2	FS 1571
Understanding the Structure of Numbers	2 - 4	FS 1368
Understanding the Structure of Numbers	1 - 3	FS 2058
Understanding Time and Chronology	4 - 8	FS 1891
Understanding Whole-Number Operations	2 - 6	FS 2866
Uses of Fractions	4 - 8	FS 1075
Using and Understanding Two and Three-Place Numbers	2 - 4	FS 1369
Using and Understanding Two and Three-Place Numbers	1 - 3	FS 2059
Using Mixed Numbers	3 - 8	FS 2959
Using One to Rename - Fractions	3 - 8	FS 3107
Using Per Cent	4 - 8	FS 2790
Using Percentage	5 - 8	FS 2968
Using the Mathematics You Know	5 - 8	FS 1624
Using the Teen Facts	2 - 4	FS 1578
Using What You Have Learned	2 - 4	FS 1584
Vocabulary I (Review of Terms and Relative Size and Position)	K - 2	FS 1564
Ways of Looking at Percent	4 - 8	FS 3083
We Learn Numbers	K - 2	FS 444
We Learn Numbers	K - 2	FS 1626
We Learn Numbers	K - 2	FS 445
We Learn Numbers	K - 2	FS 1627
What are Numbers	1 - 3	FS 3350
What Do You Know	3 - 6	FS 1594
What is a Fraction	3 - 8	FS 2952
What One Half Means	K - 3	FS 2499
What Sign is Missing + and - equations 0-9	K - 4	FS 2226
What Sign is Missing + and - equations 0-20	K - 4	FS 2230
What Sign is Missing + and - evaluations 1-5	K - 4	FS 2221
What Sign is Missing	1 - 4	FS 2215
Work and Play With Numbers 5 and 6	K - 2	FS 448
Work and Play With Numbers 5 and 6	K - 2	FS 1629
Work and Play With Numbers 7 and 8	K - 2	FS 449
Work and Play With Numbers 7 and 8	K - 2	FS 1630

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS, continued		
Work and Play With Numbers 8 and 9	K - 2	FS 450
Work and Play With Numbers 8 and 9	K - 2	FS 1631
Work and Play With Numbers 9 and 10	K - 2	FS 451
Work and Play With Numbers 9 and 10	K - 2	FS 1632
Work and Play With Number 11	K - 2	FS 434
Work and Play With Number 11	K - 2	FS 1633
Work and Play With Numbers 12 and 13	K - 2	FS 435
Work and Play With Numbers 12 and 13	K - 2	FS 1634
Work and Play With Numbers 14 and 15	K - 2	FS 436
Work and Play With Numbers 14 and 15	K - 2	FS 1635
Work and Play With Numbers 16 and 17	K - 2	FS 437
Work and Play With Numbers 16 and 17	K - 2	FS 1636
Work and Play With Number 18	K - 2	FS 438
Work and Play With Number 18	K - 2	FS 1637
Work and Play With Number 19	K - 2	FS 439
Work and Play With Number 19	K - 2	FS 1638
Work and Play With Number 20	K - 2	FS 440
Work and Play With Number 20	K - 2	FS 1639
Work and Play With More Problems	K - 2	FS 442
Work and Play With More Problems	K - 2	FS 1641
Work and Play With Problems	K - 2	FS 441
Work and Play With Problems	K - 2	FS 1640
Working With Equal Groups	2 - 4	FS 1583
Working With Fractions	5 - 8	FS 1599
Working With Fractions	4 - 6	FS 3358
Writing Fractions	3 - 8	FS 2953
What One Half Means	K - 3	FS 2326
Zero and One	2 - 5	FS 3386
Zero and Multiplication	4 - 8	FS 1012
Zero - The Forgotten Number	5 - 8	FS 3900

RECORDS

Acting out the ABC's	R-LP-198
Best in Children's Literature: Numbers and Time	R-LP-389
Facts With Sums/Minuends 9-0 and Products/Dividends 0-20	R-LP-356
Facts With Sums/Minuends 11-18 and Products/Dividends 21-81	R-LP-357
Learning the ABC's and How to Count	R-LP-118
Math Made Meaningful - Volume I	R-LP-298
Math Made Meaningful - Volume II	R-LP-299

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
RECORDS, continued		
Math Made Meaningful - Volume III		R-LP-442
"Mr. Arithmetic" Number Fact Drill, Addition 1-20		R-45-7
"Mr. Arithmetic" Number Fact Drill, Multiplication		R-45-9
"Mr. Arithmetic" Number Fact Drill, Subtraction		R-45-8
"Mr. Arithmetic" Number Fact Drill, Fractions, Division		R-45-14
"Mr. Arithmetic" Number Fact Drill, Percentage		R-45-15
One to Ten and ABC		R-78-46
Rhythm Record		R-LP-128

TRANSPARENCIES		
Addition of Fractions		TR 199 (1)
Addition Table		TR 211 (1)
Associative Law (Grouping)	1 - 4	TR 231 (1)
Associative Property	1 - 3	TR 370 (1)
Binomial Squared		TR 276 (1)
Commutative Law	1 - 4	TR 232 (6)
Commutative Property	1 - 3	TR 369 (1)
Conversation Chart	4 - 8	TR 223 (1)
Counting by 1's, 2's, 5's, and 10's	K - 3	TR 367 (2)
Decimal Number Line (Addition and Subtraction)		TR 195 (1)
Decimal Number Line (Multiplication and Division)		TR 194 (1)
Equalities and Inequalities	1 - 3	TR 368 (3)
Fractional Number Line		TR 198 (1)
Fractions	1 - 3	TR 360 (3)
Introduction to Algebra		TR 341 (12)
Meaning of Per Cent	4 - 8	TR 422 (1)
Modern Base Ten Abacus		TR 196 (1)
Multiplication of Principles		TR 206 (1)
Number Bases	4 - 8	TR 359 (3)
Number Line		TR 213 (1)
Number Line (Multiplication Series)		TR 205 (1)
Number Line (Signed Numbers)	4 - 8	TR 219 (1)
Ordinals First to Fifth	K - 3	TR 365 (1)
Ordinals First to Tenth	K - 3	TR 366 (3)

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
TRANSPARENCIES, continued		
Place Value - Decimals	3 - 8	TR 357 (3)
Place Value - Whole Numbers	1 - 8	TR 356 (2)
Pre-Algebra Mathematics		TR 342 (12)
Sieve of Eratosthenes	4 - 8	TR 216 (4)
Squares and Square Roots of Numbers	5 - 8	TR 415 (3)
Subtraction of Fractions		TR 197 (1)
Subtraction		TR 210 (1)
Systems of Writing Numerals	4 - 8	TR 221 (2)
Skip Counting		TR 208 (1)
EXHIBITS		
Abacus		EX 39 (1)
Fraction - Decimal - Percent Practice Board	5 - 8	EX 90 (5)
Number Concept Frames		EX 74 (12)
Slide Rule		EX 73
Slide Rule	4 - 8	EX 103 (2)
Slide Rules (48")		EX 87
BOOKS		
Adding: A Poem; Rosetti, Christina		E
Arithmetic Can Be Fun; Leaf, Munro		511 Le
Arithmetic For Beginners; Lansdown, Brenda		511 La
Arithmetic For Billy Goats; Barr		510 Ba
Captain Murphy's Tugboats; Hall, William		E
Counting Lightly; Simon, Leonard		E
Delight In Number; Jacobs, Leland B.		E
Eleven and Three Are Poetry; Nohelty, Salley		808.1 No
Five is 5; Fehr, Howard, F.		
Four Threes Are 12; Wright, H.		E
From Zero To Infinity; Reid, Constance		511 Re
I Can Count; Memling, Carl		E
If You Can Count To 10 ...; Fehr, Howard F.		E
Instant Math; Cutler, Ann		510 Cu
Let's Imagine Numbers; Wolff, Janet		E
Mathematics Illustrated Dictionary; Bendick, Jeanne		510.3 Be
Mystery of the Farmer's Three Fives; Friskey, Margaret,		E

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
BOOKS, continued		
Numbers: A Book To Begin On; Waller, Leslie		511 Wa E
Number Men; True, Louise		E
Numberals, New Dresses For Old Numbers; Adler, Irving		511 Ad
One Boy Lives In My House; White, Florence		E
One, Two, Buckle My Shoe; Haley, Gail		E
One, Two, Three, Four; Considine, Kate		E
Poems For Counting; Quackenbush, Robert M.		808.1 Qu
Quick And Easy Math; Asimov, Isaac		510 As
Realm Of Numbers; Asimov, Isaac		510 As
Stretching Numbers; Simon, Leonard		E
True Book Of Numbers, The; Carona, Philip		511 Ca
Twenty White Horses; Grant, Eldon		511 Gr
Two Knots On A Counting Rope; Carpenters, Walter S.		E

STRAND 2 Geometry

STRAND 2

COMMERCIAL MATHEMATICAL AIDS

<u>Catalog Number</u>	<u>Description/ Grade Level</u>	<u>Cost</u>	<u>Publisher</u>
MGP-6	Impuzzables (3-8) Each different interlocking block puzzles. Each puzzle is a different color and a different degree of difficulty. Each has hundreds of solutions. Sold as a set of six.	\$6.00	Creative Publications
MGP-7	Soma Puzzle (2-8) 3-dimensional cube puzzle by Pict Hein of Denmark, who also wrote the delightful 54-page instructional booklet. The 7 SOMA pieces can be made into a cube in more than one million ways, as well as 37 other fascinating structures.	\$2.25	Creative Publications
MLM-1	Polyhedra Model Kit (4-8) Make your own polyhedra mobile using this kit which contains the 5 basic polyhedra models in six fluorescent colors. Punch out patterns are easily assembled in minutes. Also includes 5 pages of supplemental information.	\$3.00	Creative Publications
MLP-3	Madagascar Madness (3-8) A five piece geometric dissection puzzle in sturdy case. Has definite relationship to Pythagorean Theorem.	\$1.00	Creative Publications
MLP-5	Pentagram Puzzle (7-8) More than 1,000 different ways to make a 6" x 10" rectangle from 12 different pieces. Can be used to illustrate symmetry and other geometric concepts.	\$1.00	Creative Publications
794	Geometric Wire Forms and Patterns Five sturdy 8" wire forms; circle, square, rectangle, equilateral and right triangle. Also includes tough pressboard pattern; 6", 4" and 2" circles and squares with midpoints; 6" x 3", 4" x 2" rectangles with midpoints; 3 triangles and 1 quadrilateral. Directions included.	\$3.00	Stationers Corp.
1-14440	Kit of Geometric Shapes	\$1.35	Houghton Mifflin

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMS		
Angles and their measurement	6 - 8	F 106
Circles and points	4 - 8	F 1309
Geometry: curves and circles	1 - 6	F 203
Geometry: lines and shapes	1 - 6	F 201
Geometry: points, angles, lines and tigers	K - 4	F 102
Geometry: some quadrilaterals	4 - 8	F 1308
Introducing shapes, lines and angles	K - 4	F 122
Mathematics of the honeycomb	6 - 8	F 1210
The meaning of pi	6 - 8	F 269
Principles of scale drawing	6 - 8	F 268
Prisms: some properties	4 - 8	F 1306
Triangles: an introduction	1 - 6	F 202
Triangles: sides and angles	1 - 6	F 156
Triangles: types and uses	6 - 8	F 109
FILMSTRIPS		
Advancing in Geometry	4 - 8	FS 1390
Advancing in Geometry	4 - 8	FS 2013
Angles	6 - 8	FS 3243
Applying Geometric Logic	5 - 8	FS 2982
Arcs and Areas of Circles	6 - 8	FS 3251
Area	7 - 8	FS 825
Areas of Geometric Figures	4 - 8	FS 2793
Areas of Polygonal Regions	6 - 8	FS 3248
Areas of Triangular Regions	4 - 8	FS 2801
Basic Geometry and Perimeters	4 - 6	FS 3361
Bisecting Angles and Segments	5 - 8	FS 1623
Circles and Spheres	6 - 8	FS 3250
Circles I, Geometry	5 - 8	FS 2976
Classification of Triangles	4 - 8	FS 2792
Comparing Sizes	K - 3	FS 2322
Comparing Sizes	K - 3	FS 2495
Congruence	6 - 8	FS 3244
Congruent Figures	5 - 8	FS 1622
Construction With a Compass	7 - 8	FS 828
Coordinate Geometry	6 - 8	FS 3249
Distance and Betweenness	6 - 8	FS 3241
Experimenting With the Circle	5 - 8	FS 3085

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS, continued		
Geometric Logic: Deduction	5 - 8	FS 2983
Geometric Logic: Induction	5 - 8	FS 2984
Geometric Logic: Mistakes in Thinking	5 - 8	FS 2985
Geometry in Art	5 - 8	FS 2981
Geometry-Lines, Angles, Arcs, Measures	5 - 8	FS 2022
Geometry-Perimeters, Areas, Formulas	5 - 8	FS 2023
Geometry-Perimeters, Areas, Space Figures	4 - 8	FS 1391
Geometry-Perimeters, Areas, Space Figures	4 - 8	FS 2014
Geometry-Sets, Rays, Angles, Figures	3 - 6	FS 1379
Geometry-Sets, Rays, Angles, Figures	3 - 6	FS 2041
Geometry Vocabulary: Circles II	5 - 8	FS 2977
Geometry Vocabulary: Triangles	5 - 8	FS 2974
History of Area Measure	3 - 8	FS 1002
How We Think in Geometry: Points, Paths	1 - 8	FS 3113
Introduction to Plane Geometry	5 - 8	FS 2970
Lines and Angles I: Geometry	5 - 8	FS 2971
Lines and Angles II: Relationships - Geometry	5 - 8	FS 2972
Lines, Relationships: Geometry	5 - 8	FS 2973
Locus: Geometry	5 - 8	FS 2980
Parallelism	6 - 8	FS 3246
Perimeters and Areas	5 - 8	FS 1602
Plane Figures	7 - 8	FS 827
Points, Lines and Planes	6 - 8	FS 1786
Points, Lines and Planes	6 - 8	FS 3242
Polygons	6 - 8	FS 3247
Polygons: Geometry	5 - 8	FS 2975
Postulates and Lines: Geometry	5 - 8	FS 2978
Postulates: Triangles and Circles	5 - 8	FS 2979
Proof	6 - 8	FS 3245
Pythagorean Triples	5 - 8	FS 1618
Rectangular Prisms	5 - 8	FS 2852
Segments and Polygons	5 - 8	FS 1621
Shapes Around Us, The	K - 2	FS 2856
Shapes Inside and Out	1 - 3	FS 2862
Shapes, Parts of Shapes, Rays, and Angles	2 - 6	FS 2868
Space Geometry - Surfaces and Volumes of Space Figures	5 - 8	FS 2024
Special Right Triangles	7 - 8	FS 1914
Topology	5 - 8	FS 1807

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
TRANSPARENCIES		
Area of a Circle		TR 272 (1)
Calibrated Circle	4 - 8	TR 353 (1)
Circle, The	3 - 8	TR 225 (3)
Circumference - Pi		TR 271 (1)
Classification of Plane Figures	5 - 8	TR 413 (8)
Degree Measurement (The Circle)		TR 202 (1)
Geometric Solids	7 - 8	TR 414 (4)
Measurement: Plane Figures	4 - 8	TR 358 (3)
Measuring and Using the Circle		TR 78 (19)
Pascal's Triangle	4 - 8	TR 217 (1)
Plane and Solid Figures		TR 77 (21)
Plane Figures	4 - 8	TR 224 (2)
Pythagorean Theorem, The		TR 218 (4)
Pythagorean Theorem, The		TR 274 (1)
Regular Solids	4 - 8	TR 215 (3)
Simple Geometric Figures; Squares, Circles and Triangles		TR 209 (1)
Solid Figures		TR 200 (1)
Square, The	3 - 8	TR 226 (3)
Union, Intersection of Lines and Planes		TR 79 (20)
Value of Pi		TR 273 (1)
Visualizing Cross Sections - Plane and Cone		TR 188 (1)
Visualizing Cross Sections - Plane and Sphere	4 - 8	TR 220 (1)
Visualizing Cross Sections - Plane and Cube		TR 190 (1)
Visualizing Cross Sections - Plane and Cylinder		TR 187 (1)
EXHIBITS		
Circle Meter	5 - 8	EX 89 (8)
Geometric Wire Forms and Patterns		EX 77
Geometric Wood Forms		EX 76 (13)
BOOKS		
Adventures In Geometry; Ravielli, Anthony		513 Ra
Archimedes; Gardner, Martin		92 Ar
Archimedes And The Door of Science; Bendick, Jeanne		92 Ar
Fun With Figures; Freeman, Mae		513 Fr
Round Is A Pancake; Sullivan, Joan		E

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
BOOKS, continued		
Shapes; Benedick, Jeanne		513 Be
Take Shapes, Lines And Letters; Benedick, Jeanne		510 Be
This Is 4: The Idea Of A Number; Razell, Arthur		
What Shape Is It; Hatcher, Charles		513 Ha

STRAND 3 Measurements

STRAND 3

COMMERCIAL MATHEMATICAL AIDS

<u>Catalog Number</u>	<u>Description/ Grade Level</u>	<u>Cost</u>	<u>Publisher</u>
738	Meter Stick Accurately marked, printed 1 edge on both sides. 3/16" thick, 1-1/3" wide.	\$0.50	Stationers Corp.
756	One Square Yard (5-8) Nine 1-ft. sq. cards. When reversed cards show square yard divided into square inches.	\$1.10	Stationers Corp.
759	Thermometer (2-6) Centigrade and Fahrenheit scales provided on back. Large 7" x 22" with sliding ribbon.	\$0.90	Stationers Corp.
760	Dissectible Cubic Foot (5-10) Visually demonstrates concepts involving sur- face area, volume, and capacity. Made of card- board. Shipped flat. Easily set up.	\$4.00	Stationers Corp.
761	Cubic Foot (5-8) Graphically portrays the concept of cubic measure by actual comparison of cubic inch with cubic foot. Cardboard, shipped flat.	\$2.00	Stationers Corp.
763	Perimeter Area Board (5-8) A 10" x 20" cork board with 20 large pins and a 20-inch measuring tape. Pupils discover by the enclosed squares each surface has the same peri- meter but a different area.	\$3.00	Stationers Corp.
770	Cardboard Ruler (1-4) 12" ruler of green 6-ply board with different scale on each edge -- 1", 1/2", 1/4", and 1/8".	\$0.25	Stationers Corp.
770T	Demonstration Rulers (1-4) Set contains 2 one ft. sturdy cardboard rulers enlarged to 35 in. One ruler has 1" and 1/2" scales. The 2nd ruler has 1/4" and 1/8" scales.	\$2.00	Stationers Corp.
772	Playstore Scale (1-4) An accurate "playstore" scale with 4" platform. Dial graduated in 1/2 ozs. up to 5 lbs.	\$6.00	Stationers Corp.

STRAND 3

COMMERCIAL MATHEMATICAL AIDS (Continued)

<u>Catalog Number</u>	<u>Description/ Grade Level</u>	<u>Cost</u>	<u>Publisher</u>
773	Liquid Measure (3-5) Shows relationship of gill, pint, quart, and gallon. Made of tough plastic.	\$7.50	Stationers Corp.
774	Dry Measure (3-5) Demonstrates volume capacity of pint, quart, peck, bushel, Shipped flat.	\$3.50	Stationers Corp.
776	One Cubic Yard (5-8) Shows expansion involved in volume. Made of tough corrugated board. Quickly set up.	\$6.50	Stationers Corp.
777	Metric Place Value Chart (5-10) Demonstrates meaning of meter, liter and gram and relationship of decimal points.	\$2.50	Stationers Corp.

MATHEMATICAL AIDS

<u>MATHEMATICAL AID</u>	<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>
What Time Is It?	11 x 13	M-2
Primary Measurement Board W/D	13 x 9-1/2	M-10
Sliding Thermometer	4-1/2 x 19	M-11
Zipper Thermometer	7 x 16	M-39
Large Clock Face		M-54
Telling Time (Chart)	22 x 26	M-57 (c)
Individual Table Scale	Circle	M-202
Upper Measurement Board W/D	10 x 13	M-224

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMS		
Adventure in Science: The Size of Things	4 - 8	F 204
The Calendar: Our Record of Time	K - 3	F 1176
Comparing: Getting Ready to Measure	K - 4	F 328
Measurement	4 - 6	F 123
Measuring in Astronomy: How Big, How Far	6 - 8	F 1311
Measuring Units: An Introduction	K - 4	F 1307
Measuring with the Number Line	K - 4	F 325
The Metric System	6 - 8	F 182
Mystery of Time	6 - 8	F 2009
The Story of Measuring Time: Hours, Minutes, Seconds	4 - 8	F 107
Story of Weights and Measures	4 - 8	F 149
Time for Clocks	K - 3	F 1174
Time, Lines, and Events	4 - 8	F 1080
Volume and its Measurement	6 - 8	F 273
Weights and Measures	4 - 8	F 1021
FILMSTRIPS		
Advancing in Linear Measurements	4 - 8	FS 1072
Advancing in Linear Measurements	4 - 8	FS 1403
Advancing in Quantity Measurements	4 - 8	FS 1073
Advancing in Quantity Measurements	4 - 8	FS 1404
Busy Week - Calendar	1 - 2	FS 843
Calendar Tells When, The	3 - 6	FS 1266
Calendar, Time, Temperature, The	2 - 4	FS 1371
Calendar, Time, Temperature, The	1 - 3	FS 2061
Can You Make Change	3 - 6	FS 1265
Developing Units for Measurements	2 - 6	FS 2869
Experiences With Measurements	2 - 4	FS 453
Experiences With the Thermometer and With Money	2 - 4	FS 455
Experiences With Time	2 - 4	FS 456
History of Linear Measure	3 - 8	FS 1003
History of Our Calendar	3 - 8	FS 1001
History of Telling Time	3 - 8	FS 999
History of Weight and Volume Measures	3 - 8	FS 1000
Hour and Half Hour - Part 1 - How to Tell Time Series	1 - 3	FS 816
How a Day Passes - Calendar	1 - 2	FS 842
How Long is it	3 - 6	FS 1270

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS, continued		
How Much Does It Weigh	3 - 6	FS 1268
How Much Will It Hold	3 - 6	FS 1269
How We Tell Time	3 - 6	FS 1267
Introduction to Measurement	3 - 8	FS 3116
Introduction to Volume	4 - 8	FS 1884
Look at the Fourth Dimension, A	4 - 8	FS 3772
Making Change	1 - 4	FS 1015
Measuring Distance	5 - 8	FS 3509
Measuring How Long	K - 3	FS 2327
Measuring How Long	K - 3	FS 2500
Measuring How Long	K - 4	FS 1721
Measuring How Much	K - 3	FS 2328
Measuring How Much	K - 3	FS 2501
Measuring Temperature, The	4 - 8	FS 2751
Measuring the Earth's Size and Shape	6 - 8	FS 1782
Measuring Time	4 - 6	FS 2735
Measuring Time By the Sun and the Stars	5 - 8	FS 2512
Measuring Volume and Density	5 - 8	FS 3511
Measurement	K - 2	FS 2857
Measurement	4 - 6	FS 3354
Measurement How and Why	1 - 3	FS 2863
Measurement - Precision	3 - 8	FS 1790
Meter Stick and Balance	5 - 8	FS 3768
Metric System	5 - 8	FS 2851
Metric System, The	6 - 8	FS 2866
Metric System of Measuring, The	5 - 8	FS 3508
Minutes, The - Part 2 How to Tell Time Series	1 - 3	FS 817
Month - Calendar Series	1 - 3	FS 844
More Experiences With Measurements	2 - 4	FS 454
Pennies, Nickels, Dimes, and Quarters	1 - 3	FS 1361
Pennies, Nickels, Dimes, and Quarters	1 - 3	FS 2057
Sectors and Segments	7 - 8	FS 1954
Simple Measures	2 - 4	FS 1367
Story of Linear Measurement, The	3 - 8	FS 3340
Story of Money, The	3 - 8	FS 3342
Story of Time Measurement, The	3 - 8	FS 3341
Telling Time	1 - 2	FS 1360
Telling Time	1 - 2	FS 2056
Telling Time	4 - 6	FS 3355
Tic-Toc and Span Measurement	3 - 6	FS 3081
Time and Money	K - 2	FS 446

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS, continued		
Time and Money	K - 2	FS 1562
Time for Everything; How to Use Time	1 - 3	FS 980
Time Measurement - Calendar	1 - 4	FS 1389
Using Graphs	6 - 8	FS 1008
Using Mathematical Instruments	3 - 8	FS 1779
Using Measures	4 - 8	FS 1396
Using Measures	4 - 8	FS 2019
Using the Metric System	6 - 8	FS 1885
Volume	7 - 8	FS 826
Volumes of Solids	6 - 8	FS 3252
Weighing Things	3 - 6	FS 2345
Year - Calendar Series	1 - 3	FS 845
Measurements are for a Purpose (Sound F.S.)	5 - 8	FSS 61

STUDY PRINTS

Metric System of Measurement, The	SP 365 (1)
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RECORDS

Telling Time	2 - 4	R-LP-300
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TRANSPARENCIES

Calendar, The	K - 4	TR 229 (1)
Clock, The		TR 23 (1)
Clock, The	1 - 3	TR 228 (1)
Liquid Measure	2 - 5	TR 227 (2)
Measurement - Standard Units	4 - 8	TR 371 (4)
Metric System, The		TR 191 (1)
Tables of Measure		TR 189 (1)
Temperature (The Thermometer - C & F)		TR 193 (1)
Units of Time (Year, Month, Day)	3 - 5	TR 230 (1)

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
EXHIBITS		
Clocks		EX 75 (10)
Let's Tell Time	1 - 6	EX 86
Make Believe Ruler	3 - 8	EX 91 (1)
Metric Scale	5 - 8	EX 92 (1)
BOOKS		
Realm of Measure; Asimov, Isaac		510 As
What Size Is It?; Hatcher, Charles		511 Ha
Wing On A Flea; Emberley, Ed.		E

STRAND 4 Applications of Mathematics

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS		
Accelerated Motion Problems	7 - 8	FS 1787
Buying and Selling - Applications of Per Cent	6 - 8	FS 2047
Commission - Meaning and Application	6 - 8	FS 2048
Decimal Fractions and Reading Instruments	4 - 6	FS 3353
Federal Taxes	6 - 8	FS 2052
How a Computer Solves a Problem	7 - 8	FS 1955
Interest - Borrowing and Investing	6 - 8	FS 2049
Interpreting Biological Data	7 - 8	FS 1961
Introducing Economics: The Money We Earn	K - 3	FS 2253
Introducing Economics: What Our Taxes Do for Us	6 - 8	FS 2257
Many Birds With One Stone	6 - 8	FS 1614
Percent, Discount and Commission	6 - 8	FS 3871
Percentage and Using Money	4 - 6	FS 3356
State and Local Taxes	6 - 8	FS 2051
Stocks	6 - 8	FS 3872
BOOKS		
Computers At Your Service; Kohn, Bernice		510.78 Ko
Computers! From Sand Table to Electronic Brain; Vorwald, Alan		510.78 Vo
Elementary Mathematics Of The Aton; Adler, Irving		539 Ad
Giant Golden Book Of Mathematics; Adler, Irving		510 Ad
How and Why Wonder Book of Mathematics, The, Highland, Ester Harris		510 Hi
Fun With Mathematics; Meyer, Jerome		510 Me
Magic House Of Numbers; Adler, Irving		510 Ad
Mathematics; Bergamini, David		510 Be
Mathematics; Smith, David Eugene		510 Sm
Mathematics In Everyday Things; Vergara, Williams C.		510 Ve
Mathematics: The Story Of Numbers, Symbols, and Space; Adler, Irving		510 Ad
More New Ways In Math; Jonas, Arthur		510 Jo
More Numbers, Fun And Facts; Friend, J.		510 Fr
New Ways In Math; Jonas, Arthur		510 Jo
New World Of Computers, The; Lewis, Alfred		510.78

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
BOOKS, continued		
Numbers, Fun And Facts, Friend, J.		510 Fr
Numbers Old and New; Adler, Irving		511 Ad
Take A Number; Bendick, Jeanne		511 Be
Take A Number; O'Neill, Mary		510 On
Wonders Of Math; Feravalo, Rocco		510 Fe

STRAND 5 Statistics And Probability

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMS		
Probability: An Introduction	4 - 8	F 327
Estimating Answers, Interpreting Answers	5 - 8	FS 1600
Estimating in Decimals - Multiplication	4 - 8	FS 3102
Introduction to Probability	4 - 8	FS 1793
Probability and Insurance	6 - 8	FS 3870
Statistics	6 - 8	FS 3868
Statistics: Mean, Median, Mode	6 - 8	FS 1006
BOOKS		
Probability: The Science Of Chance; Razell, Arthur		519 Ra

STRAND 6 Sets

7

MATHEMATICAL AIDS

<u>MATHEMATICAL AID</u>	<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>
Number Recognition Charts (1-10) W/P	11 x 14	M-5
Perception Cards	12 x 6	M-23
Cuisenair or Centimeter Rods		M-27
Matching Numbers to Dots Wheel	Circle	M-29
Clock - Before and After		M-63
Attribute Blocks		M-73

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS		
Doing More Work With Sets	2 - 6	FS 2867
Extension of Set and Number Ideas, The	1 - 3	FS 2400
Grouping Numbers	K - 3	FS 2324
Grouping Numbers	K - 3	FS 2497
Groups of 2 to 10	K - 2	FS 1558
Inequalities - Sets and Numbers	1 - 3	FS 2397
Introduction to Sets	K - 3	FS 2391
Introductions to Sets	1 - 4	FS 1801
Language of Sets	4 - 8	FS 1405
Meeting Sets	K - 2	FS 2855
Multiplication Facts - Sets	2 - 4	FS 1377
Multiplication Facts - Sets	2 - 4	FS 2039
One-to-One Correspondence Between Sets	K - 3	FS 2392
Putting Groups Together (Sums to 6)	K - 2	FS 1559
Putting Sets to Work	1 - 3	FS 2861
Set Description and the Use of Braces	1 - 3	FS 2395
Sets and Numbers	1 - 2	FS 832
Sets and Numbers in Mathematical Sentences	1 - 3	FS 2396
Sets and Probability	6 - 8	FS 3869
Sets and Subsets	6 - 8	FS 1005
Sets by 1's, 2's, 5's, 10's	1 - 3	FS 1364
Sets by 2's, 3's, 4's, 5's	1 - 3	FS 1384
Sets 1 - 5	L - 2	FS 1357
Sets 1 - 5	1 - 2	FS 2053
Sets 5 - 9	1 - 2	FS 1358
Sets 5 - 9	1 - 2	FS 2054
Sets 9 - 12	1 - 2	FS 1359
Sets 9 - 12	1 - 2	FS 2055
Sets 11 - 15	1 - 3	FS 1362
Sets 16 - 20	1 - 3	FS 1363
Sets - Concepts, Symbols, Operation	3 - 6	FS 1376
Sets - Concepts, Symbols, Operation	3 - 6	FS 2038
Solution Sets	4 - 8	FS 2787
Union of Sets and Addition of Numbers	1 - 3	FS 2398

TRANSPARENCIES

Concept of Sets	K - 3	TR 362
Equivalent and Nonequivalent Sets	K - 3	TR 363
Equivalent Sets		TR 203 (1)
Equivalent Sets (Multiplication)		TR 207 (1)
Discovering Sets	K - 3	TR 361 (2)

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
TRANSPARENCIES, continued		
Non-Equivalent Sets	K - 4	TR 234 (1)
Properties of Sets		TR 214 (1)
Set, A	K - 4	TR 236 (1)
Sets and Subsets	1 - 4	TR 235 (3)
Venn Diagrams	1 - 4	TR 233 (1)
Zero and Empty Sets	K - 3	TR 364 (4)
BOOKS		
Counting Carnival; Ziner, Feenie		511 Z
Sets; Adler, Irving		512 A

STRAND 7 Functions and Graphs .

MATHEMATICAL AIDS

<u>MATHEMATICAL AID</u>	<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>
Function Machine		M-246

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMS		
Graphs: Understanding and Using Them	4 - 8	F 371
Introducing Graphs	4 - 8	F 1082
The Language of Graphs	4 - 8	F 1247
Ratio and Proportion in Mathematics	6 - 8	F 270
FILMSTRIPS		
Graph of the Cosine Function	7 - 8	FS 1913
Graphs	6 - 8	FS 3865
Graphs-Pictographs, Bar, Line, Number Pairs, Maps	4 - 8	FS 1392
Graphs-Pictographs, Bar, Line, Number Pairs, Maps	4 - 8	FS 2020
Order Properties	4 - 8	FS 1413
Order Relations Among Fractional Numbers	6 - 8	FS 1608
Ordering Sets and Ordering Numbers	K - 3	FS 2393
Scales, Scale Drawing, Maps, and Tables	4 - 6	FS 3360
Scientific Measurement	7 - 8	FS 812
TRANSPARENCIES		
Bar Graph, The (Average Life Span of Birds)		TR 204 (1)
Frequency Distribution Table and Line Graph		TR 192 (1)
Map Problems		TR 201 (1)
Graphing ($\frac{1}{4}$ " Coordinates)	4 - 8	TR 222 (1)
Grid Base	1 - 8	TR 355 (1)
Grid Base With Coordinates	1 - 8	TR 354 (1)

STRAND 8 Logical Thinking

MATHEMATICAL AIDS

<u>MATHEMATICAL AID</u>	<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>
Tower Game		M-217
Kalaha Board		M-221
Peg Exchange		M-222
Wooden Triangle Hi-Q (Pegs)		M-237

STRAND 9 Problem Solving

MULTI-MEDIA MATERIALS

TITLE	GRADE LEVEL	CATALOG NUMBER
<u>MATHEMATICS</u>		
FILMSTRIPS		
Introduction to Problem Solving	1 - 2	FS 831
Meeting Problems	K - 2	FS 2858
Problems in Percentage	5 - 8	FS 2969
Solving Problems	3 - 6	FS 1591
Solving Problems	1 - 3	FS 2864
Solving Problems	1 - 3	FS 3349
Solving Problems	3 - 4	FS 823
Solving Problems	5 - 6	FS 840
Solving Problems - Fractional Numbers	4 - 8	FS 3399
Solving Problems	6 - 8	FS 1009
Solving Problems - Multiplication and Division	2 - 5	FS 3383
Thinking About Problems	2 - 6	FS 2870
BOOKS		
The New Mathematics; Adler, Irving		510 Ad

APPENDIX

LIST OF SUGGESTED PUBLISHERS

CREATIVE PUBLICATIONS
P.O. Box 328
Palo Alto, California 94302

STATIONERS CORPORATION
525 South Spring St.
Los Angeles, California 90013

INSTRUCTO PRODUCTS CO.
1635 N. 55th St.
Philadelphia 31, Pennsylvania

CUISENAIRE CO. OF AMERICA, INC.
9 Elm Ave.
Mount Vernon, New York 10550

HOUGHTON-MIFFLIN CO.
777 California Ave.
Palo Alto, California 94304