

GUIDE TO BLACK- LINE MASTERS

All blackline masters (bound separately) are to be photocopied.

Worksheets: Blackline Masters 1–61

The corner containing the worksheet number should be cut off the master before the master is copied to eliminate any possible perceptual confusion for the children.

The smiling face at the top of some of the worksheets help the children position the page correctly: When the face is looking at the child the page is right side up.

The chart on pages 387–396 is a guide for teachers to refer to as they prepare Worksheets 1–61. The instructions explain any special steps that are necessary. The text references refer to each page in the text where that worksheet may be used.

Observation Sheets: Black- line Masters I–IX

The Observation Sheets are informal record-keeping devices used to observe children's progress during certain key lessons. These pages should be duplicated and then each copy used to record observations of about six children at a time. By focusing attention on a small group of children the teacher is able to observe many details of individual children's progress which otherwise may be overlooked.

The names of the children being observed are written on the slanted lines at the top of the Observation Sheets. Once the observation is made, the information may be saved on these sheets, transferred to individual children's records, or used for reference in recording progress on the Assessment of Skills.

Assessment of Skills: Blackline Masters A1–A16

by Kathy Richardson and Mary Baratta-Lorton

The Assessment of Skills is useful when a more formal and more inclusive record-keeping device than the Observation Sheets is needed.

The goal of the Observations Sheets and the Assessment of Skills is the same: to point out items or children that need closer observation and thereby focus the teacher's attention on those items and children. The end result is always to give the classroom teacher greater knowledge of the developmental levels of the children in his or her care. Filling in the sheets is a by-product of this goal, not the goal itself.

The Assessment of Skills should in no way be thought of as ends in themselves or as the curriculum of MATHEMATICS *THEIR WAY*. They are merely an organizational tool which the teacher uses to record observations of individual children's growth and development in mathematics.

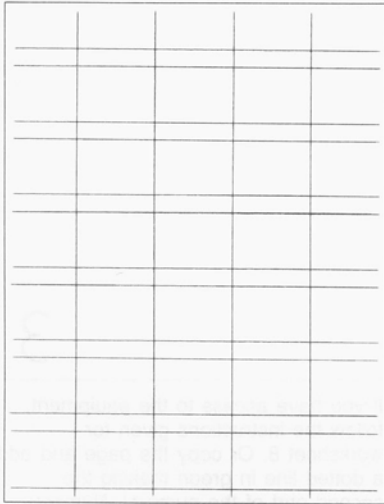
A Xerox copy of the Assessment pages (Masters A1–A16) will enable you to retain the original for making additional copies in future years. Some teachers tape the pages together to make one continuous chart to post on a wall; others punch holes in the pages and put them in a binder. When you have made a copy of Master A1, write the names of the children in your class in the spaces provided along the left side. Look at each sheet and determine for yourself the items you wish to assess. The first step is to fill in the information you remember from previously observing your children at work. The purpose of this is to focus your attention on how much you already know about each child. Those items you are unsure of should now be observed and this additional information added to the Assessment Sheets.

Some teachers find it helpful to type an additional list of names on a piece of tagboard exactly corresponding to the spacing on Master A1, which the teacher uses on subsequent pages as a help in finding the appropriate place to record each child's information.

A child who is unsuccessful with an experience assessed on the sheets does not need to work on that same activity over and over. She or he needs an opportunity to see the concept represented in a variety of experiences and situations. This variety will help the transfer of knowledge and skill into usage and understanding in the child's life. This is the level the Assessment of Skills emphasizes.

Worksheet Chart

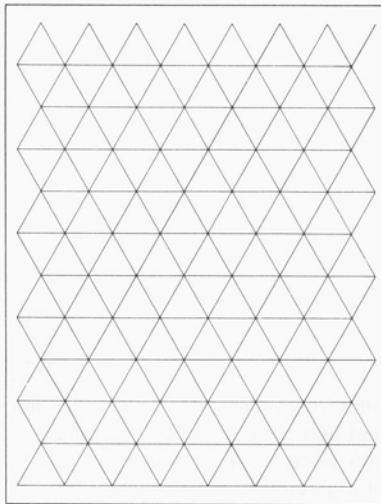
1
Composite sheet for
Photocopied Pictures



Mount a picture of each child in class on this sheet and have the children write their name under their picture. See p. 365

Page: 35, 38, 40, 78, 87, 122, 148, 152, 156, 162, 219, 228, 332, 342, 358

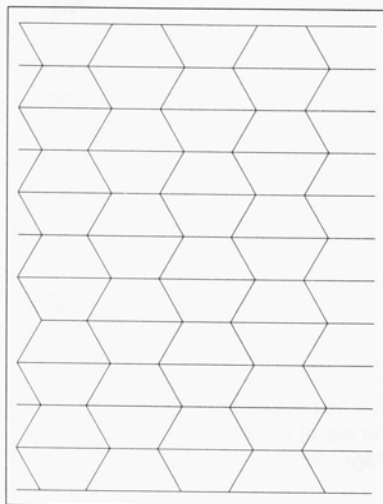
2
Pattern Block Green
Triangle Shape



Run off on green construction paper. Give each child 2-3 rows at a time to cut out.

Page: 13, 38, 177, 349

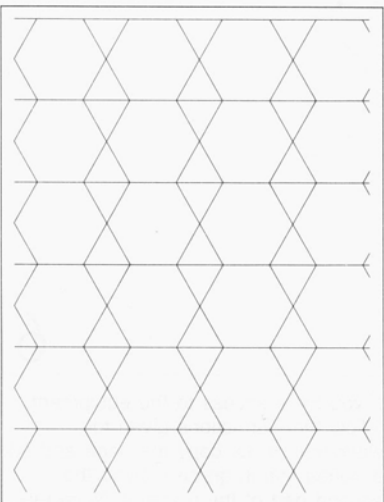
3
Pattern Block Red Trapezoid
Shape



Run off on red construction paper. Give each child 2-3 rows at a time to cut out.

Page: 13, 38, 177, 349

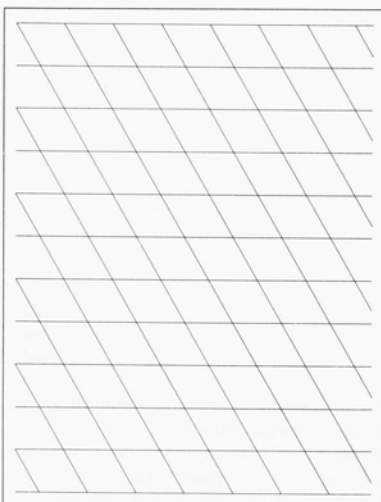
4
Pattern Block Yellow
Hexagon Shape



Run off on yellow construction paper. Give each child 2-3 rows at a time to cut out.

Page: 13, 38, 177, 349

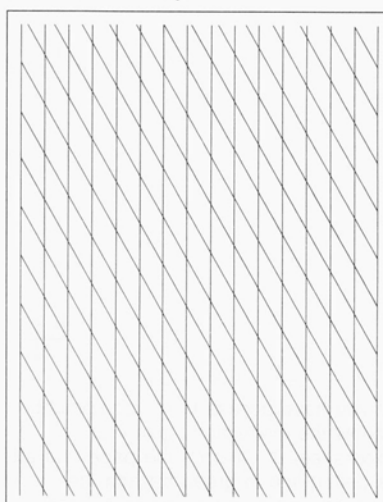
5
Pattern Block Blue Diamond
Shape



Run off on blue construction paper. Give each child 2-3 rows at a time to cut out.

Page: 13, 38, 177, 349

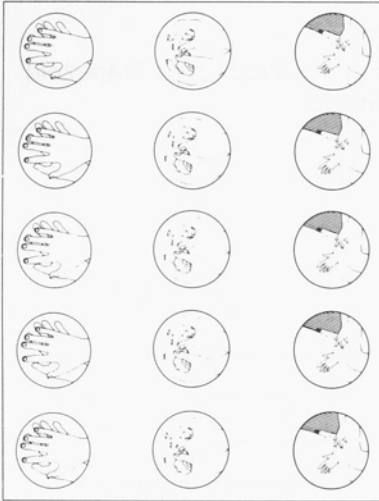
6
Pattern Block Thin
Diamond Shape



Run off on manilla drawing paper. Give each child 2-3 rows at a time to cut out.

Page: 13, 38, 177, 349

7
Unifix Snap and Clap
Pattern Pictures



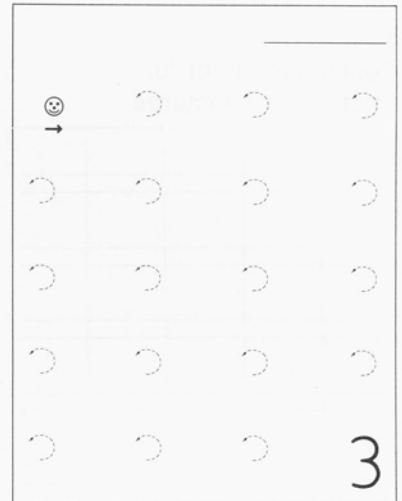
Cut apart and paste down to make a variety of patterns.
Page: 33

8
Writing Paper (Number 2)



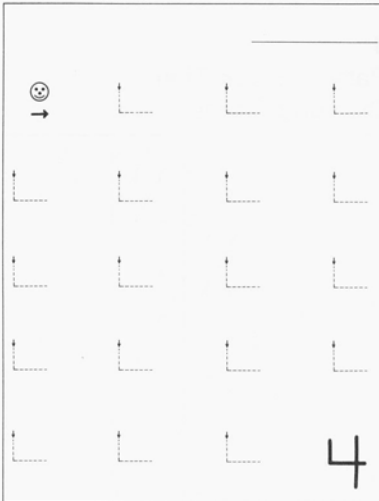
After Thermofaxing (which copies the first part of the number with purple ink) place the master directly on top of a green duplicator master and trace a dotted line making the second part of the numeral (not shown).
Page: 51

9
Writing Paper (Number 3)



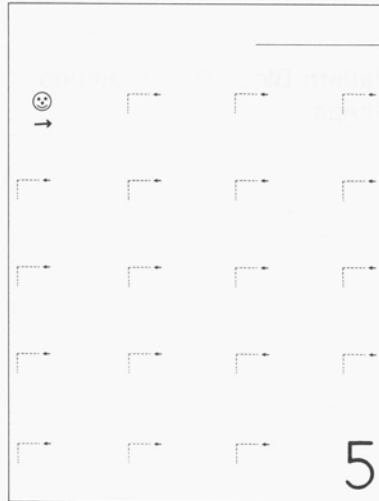
If you have access to the equipment, follow the instructions given for worksheet 8. Or copy the page and add a dotted line in green making the second part of the numeral. Numeral writing paper in color is available from the Center for Innovation in Education.
Page: 51

10
Writing Paper (Number 4)



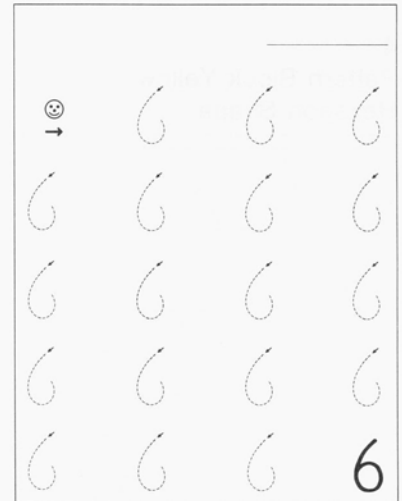
If you have access to the equipment, follow the instructions given for worksheet 8. Or copy the page and add a dotted line in green making the second part of the numeral. Numeral writing paper in color is available from the Center for Innovation in Education.
Page: 51

11
Writing Paper (Number 5)



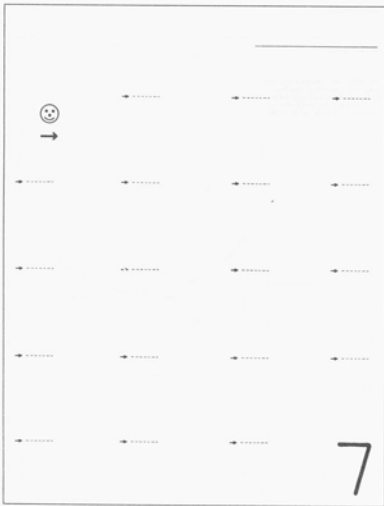
If you have access to the equipment, follow the instructions given for worksheet 8. Or copy the page and add a dotted line in green making the second part of the numeral. Numeral writing paper in color is available from the Center for Innovation in Education.
Page: 51

12
Writing Paper (Number 6)



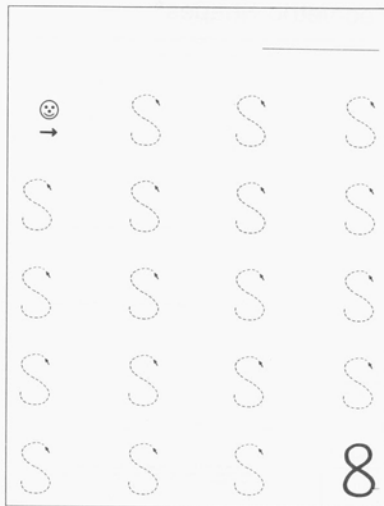
If you have access to the equipment, follow the instructions given for worksheet 8. Or copy the page and add a dotted line in green making the second part of the numeral. Numeral writing paper in color is available from the Center for Innovation in Education.
Page: 51

13
Writing Paper (Number 7)



If you have access to the equipment, follow the instructions given for worksheet 8. Or copy the page and add a dotted line in green making the second part of the numeral. Numeral writing paper in color is available from the Center for Innovation in Education. Page: 51

14
Writing Paper (Number 8)



If you have access to the equipment, follow the instructions given for worksheet 8. Or copy the page and add a dotted line in green making the second part of the numeral. Numeral writing paper in color is available from the Center for Innovation in Education. Page: 51

15
Writing Paper (Number 9)



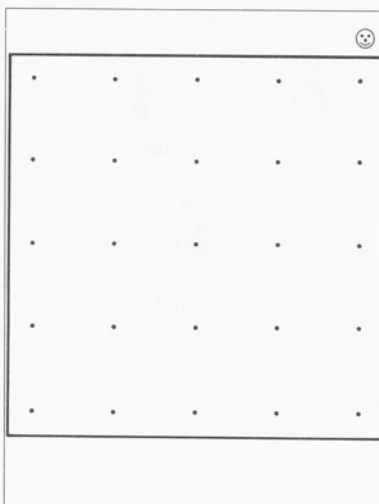
If you have access to the equipment, follow the instructions given for worksheet 8. Or copy the page and add a dotted line in green making the second part of the numeral. Numeral writing paper in color is available from the Center for Innovation in Education. Page: 51

16
Writing Paper (Numbers 2-9)



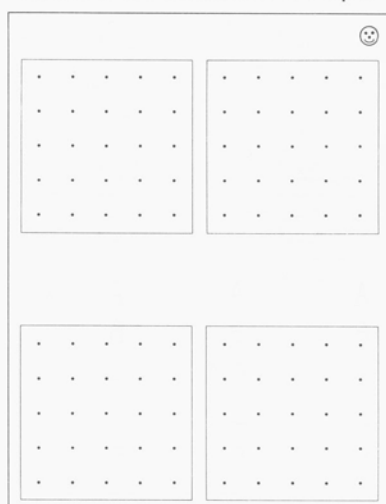
If you have access to the equipment, follow the instructions given for worksheet 8. Or copy the page and add a dotted line in green making the second part of the numeral. Numeral writing paper in color is available from the Center for Innovation in Education. Page: 51

17
Large Geoboard Dot Paper



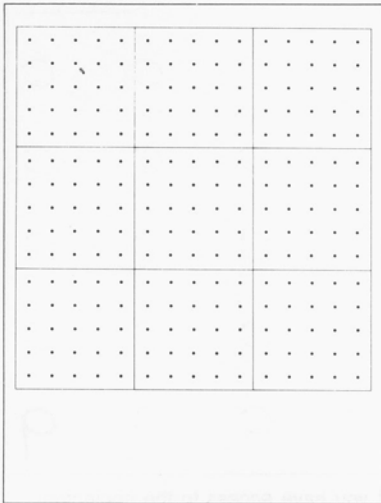
Use as the initial experience for the child making records of geoboard designs. Page: 13, 36, 37, 47, 81, 82, 177

18
Medium Geoboard Dot Paper



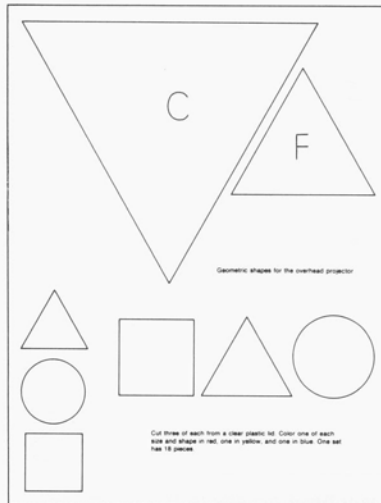
Use to provide additional challenge when the child is successful copying geoboard designs on the large geoboard dot paper. Page: 13, 81, 82, 351

19
Small Geoboard Dot Paper

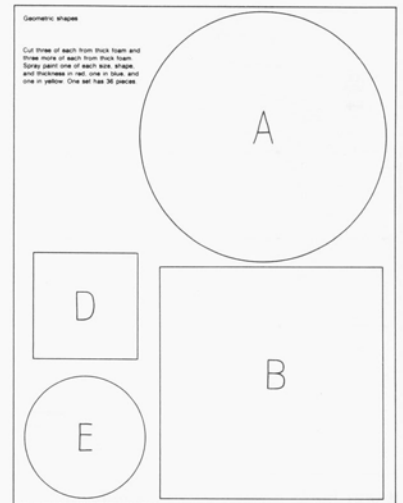


Use to provide additional challenge when the child is successful copying geoboard designs on the medium geoboard dot paper.
Page: 13, 81, 82, 351

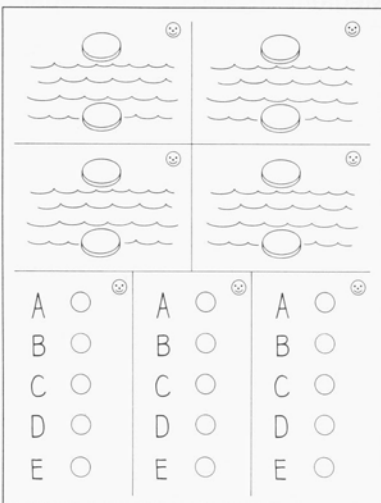
20-21
Pattern for Making Geometric Shapes*



See appendix, p. 361.
Page: 59, 70, 76

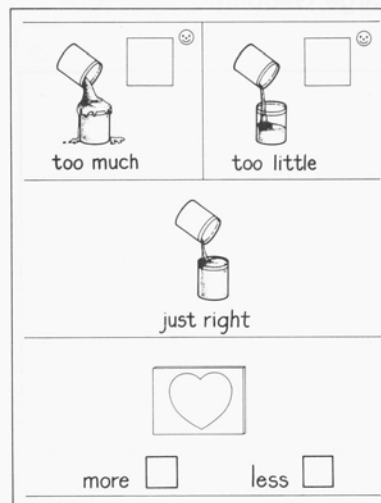


22
Water Timer/Measuring Strings Records



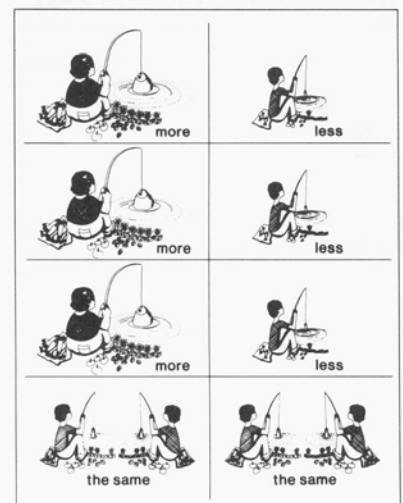
Cut records apart on the paper cutter and place in small boxes.
Page: 123/135

23
Measuring with Jars/The Hole in the Box Records



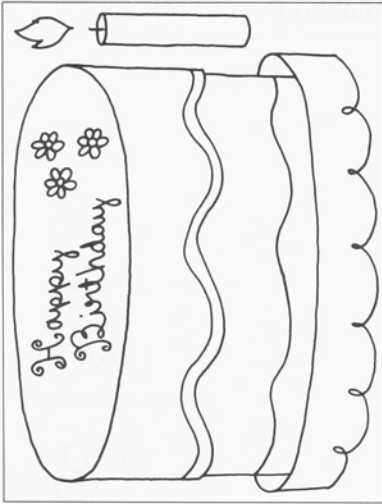
Cut records apart on the paper cutter and place in small boxes. The child records the letters labeling the jars used for measuring on the recording sheet.
Page: 131, 239/129

24
More-Less-Same Pictures



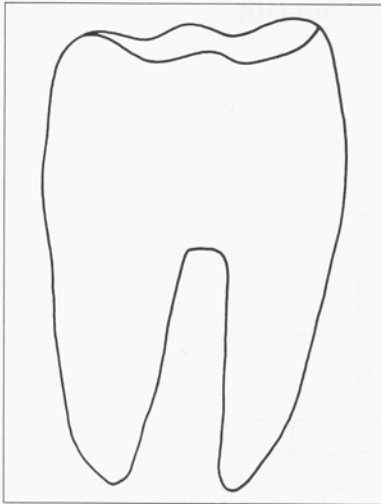
Use for making more-less spinners,* and more-less-same cards (run off on tagboard).
Page: 116, 118, 127

25
Birthday Graph Picture



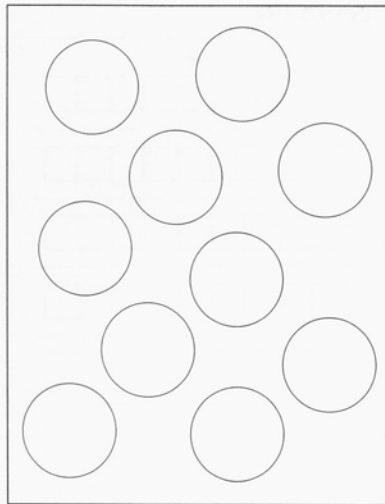
Run off 12 copies on construction paper. Decorate with crayons and write the name of each month. Cover with clear contact paper.
 Page: 156

26
Tooth Graph Picture



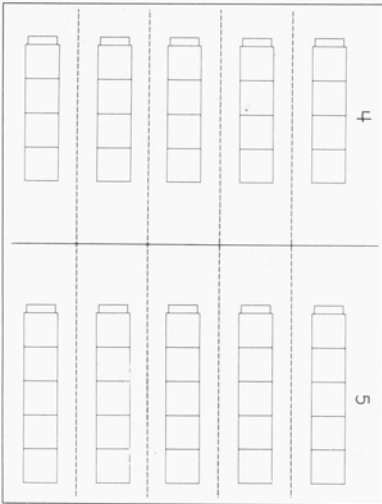
Run off 12 copies on construction paper. Write the name of each month. Cover with clear contact paper.
 Page: 156

27
Jewel Number Station Record



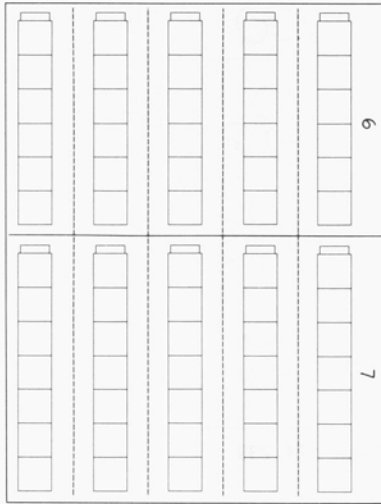
Page: 178, 239

28
Unifix Number Station Record (4-5)



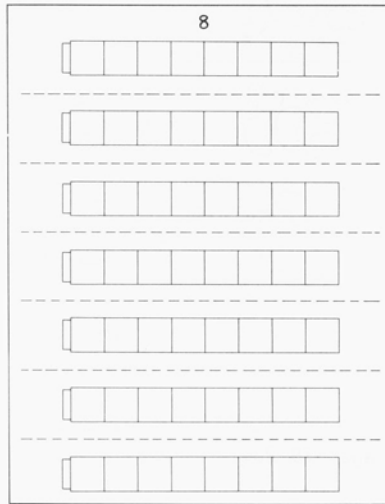
Page: 178, 239

29
Unifix Number Station Record (6-7)



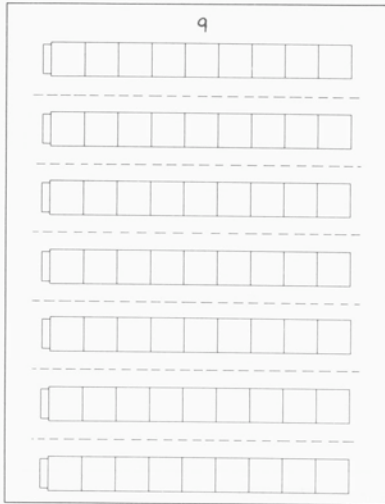
Page: 178, 239

30
Unifix Number Station Record (8)



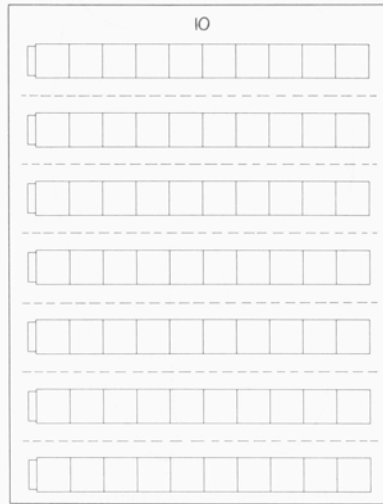
Page: 178, 239

31
Unifix Number Station
Record (9)



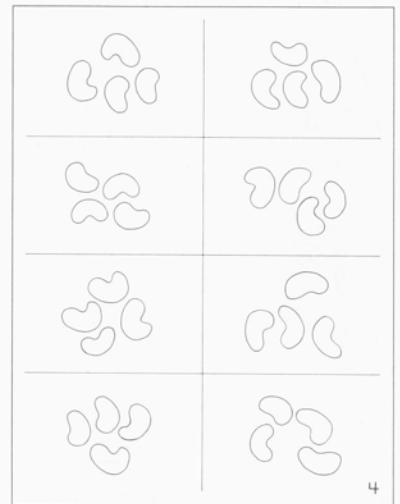
Page: 178, 239

32
Unifix Number Station
Record (10)



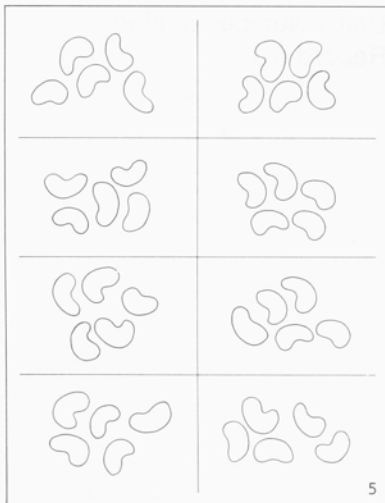
Page: 178, 239

33
Two-Sided Bean Number
Station Record (4)



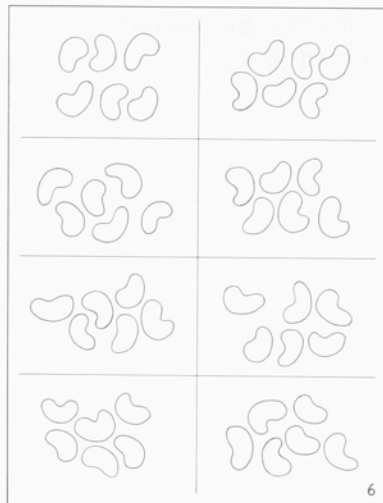
Page: 178, 239

34
Two-Sided Bean Number
Station Record (5)



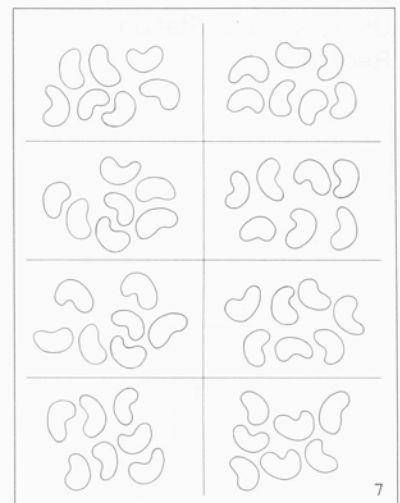
Page: 178, 239

35
Two-Sided Bean Number
Station Record (6)



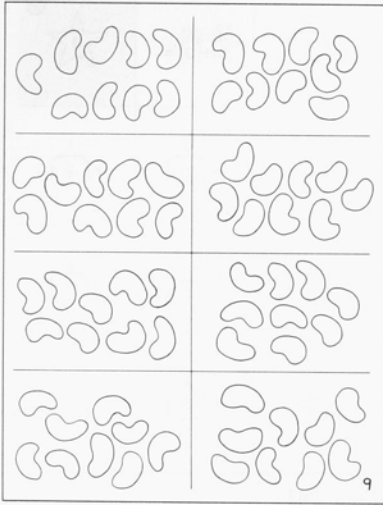
Page: 178, 239

36 (37 not shown)
Two-Sided Bean Number
Station Record (7)



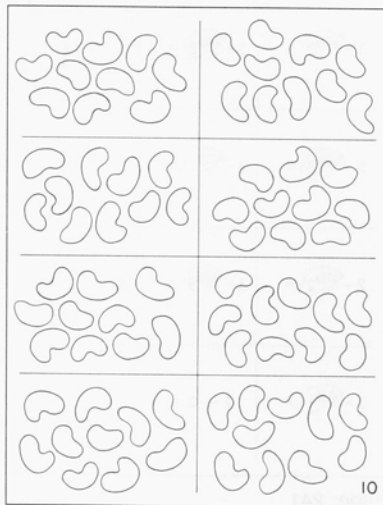
Page: 178, 239

38
Two-Sided Bean Number
Station Record (9)



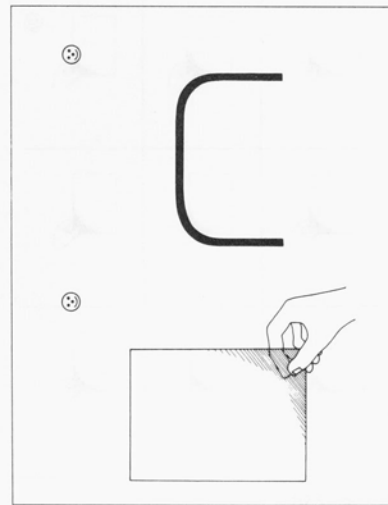
Page: 178, 239

39
Two-Sided Bean Number
Station Record (10)



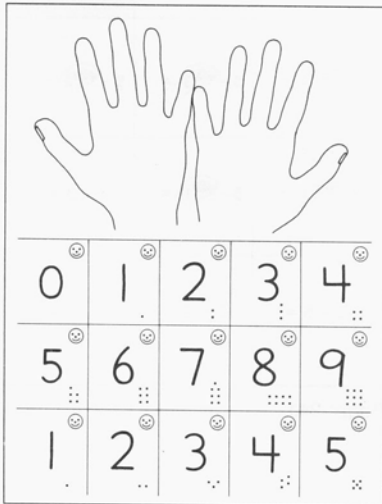
Page: 178, 239

40
Peek Through the Wall/Lift
the Bowl Connecting Level
Gameboards



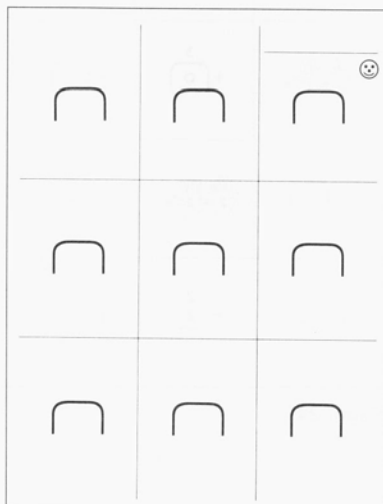
Run off on tagboard, cut apart.
Page: 221, 222

41
The Hand Game Connecting
Level Gameboard with
Numerals



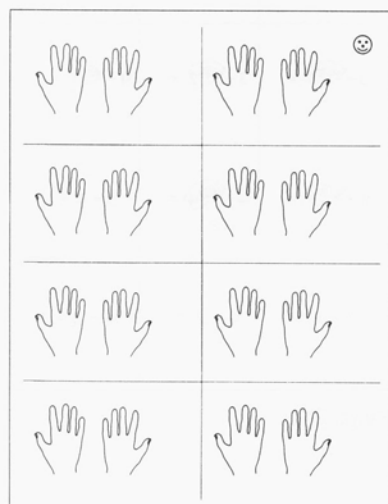
Run off on tagboard. Cut numbers
apart. (A double set of the numerals
1-5 are included to make problems
such as 3+3, 5+5, etc.)
Page: 222

42
Lift the Bowl Symbolic Level
Worksheet



Page: 237

43
The Hand Game Symbolic
Level Worksheet



Page: 237

44
Peek Through the Wall
Symbolic Level Worksheet

Page: 238

45
Subtraction Problems (0-3)

$3 - \text{[hand with 0]} =$	$3 - \text{[hand with 2]} =$	
$3 - \text{[hand with 3]} =$	$2 - \text{[hand with 1]} =$	$2 - \text{[hand with 0]} =$
$2 - \text{[hand with 2]} =$	$3 - \text{[hand with 3]} =$	$3 - \text{[hand with 2]} =$
$3 - \text{[hand with 1]} =$	$2 - 0 =$	$3 - 3 =$

Page: 241

46
Addition Problems (0-3)

$2 + \text{[hand with 1]} =$	$\text{[hand with 3]} + \text{[hand with 0]} =$	
$\text{[hand with 2]} + \text{[hand with 0]} =$	$3 + \text{[hand with 0]} =$	$1 + \text{[hand with 2]} =$
$1 + \text{[hand with 1]} =$	$\text{[hand with 2]} + \text{[hand with 1]} =$	$2 + \text{[hand with 0]} =$
$\text{[hand with 1]} + \text{[hand with 2]} =$	$2 + \text{[hand with 0]} =$	$3 + 0 =$

Page: 241

47
Subtraction Problems (0-4)

$4 - \text{[hand with 2]} =$	$4 - \text{[hand with 1]} =$	
$3 - \text{[hand with 3]} =$	$3 - \text{[hand with 2]} =$	$4 - \text{[hand with 1]} =$
$4 - \text{[hand with 3]} =$	$4 - \text{[hand with 4]} =$	$3 - 0 =$
$3 - 1 =$	$4 - 2 =$	$4 - 3 =$

Page: 241

48
Addition Problems (0-4)

$2 + \text{[hand with 2]} =$	$\text{[hand with 1]} + \text{[hand with 3]} =$	
$\text{[hand with 2]} + \text{[hand with 1]} =$	$3 + \text{[hand with 0]} =$	$3 + \text{[hand with 1]} =$
$1 + \text{[hand with 3]} =$	$\text{[hand with 2]} + \text{[hand with 2]} =$	$1 + \text{[hand with 2]} =$
$3 + 1 =$	$2 + \text{[hand with 2]} =$	$1 + 1 =$

Page: 241

49
Subtraction Problems (0-5)

$5 - \text{[hand with 4]} =$	$4 - \text{[hand with 1]} =$	
$4 - \text{[hand with 0]} =$	$5 - \text{[hand with 3]} =$	$5 - \text{[hand with 2]} =$
$3 - \text{[hand with 1]} =$	$5 - \text{[hand with 1]} =$	$4 - 3 =$
$5 - 5 =$	$5 - 3 =$	$5 - 4 =$

Page: 241

50
Addition Problems (0-5)

$\begin{array}{r} + \\ \hline 3 \\ \hline 2 \end{array}$		★ 5 ☺
$\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ 2 + 3 = \end{array}$	$\begin{array}{r} + \\ \hline 1 \\ \hline 4 \end{array}$	$\begin{array}{r} + \\ \hline 3 \\ \hline 1 \end{array}$
$\begin{array}{r} + \\ \hline 4 \\ \hline 1 \end{array}$	$\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ 2 + 3 = \end{array}$	$\begin{array}{r} + \\ \hline 3 \\ \hline 2 \end{array}$
$5 + 0 =$	$\begin{array}{r} 0 \\ + \\ \hline 5 \end{array}$	$1 + 4 =$

Page: 241

51
Addition and Subtraction Problems A (0-6)

$6 - \begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ 5 \end{array} =$	$5 - \begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ 3 \end{array} =$	★ 6 ☺
$\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ 3 + 3 = \end{array}$	$6 - \begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ 3 \end{array} =$	$\begin{array}{r} + \\ \hline 4 \\ \hline 2 \end{array}$
$5 - \begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ 4 \end{array} =$	$\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ 2 + 3 = \end{array}$	$3 - 1 =$
$6 + 0 =$	$6 - 2 =$	$6 - 4 =$

Page: 241

52
Addition and Subtraction Problems B (0-6)

$\begin{array}{r} + \\ \hline 3 \\ \hline 3 \end{array}$	$6 - \begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ 6 \end{array} =$	★ 6 ☺
$\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ 2 + 4 = \end{array}$	$\begin{array}{r} + \\ \hline 4 \\ \hline 2 \end{array}$	$\begin{array}{r} 0 \\ + \\ \hline 6 \end{array}$
$\begin{array}{r} + \\ \hline 5 \\ \hline 1 \end{array}$	$6 - \begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ 3 \end{array} =$	$4 - 0 =$
$6 - 1 =$	$\begin{array}{r} 2 \\ + \\ \hline 4 \end{array}$	$1 + 5 =$

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53
Master Worksheet for
Creating Additional Addition
and Subtraction Problems

$-\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ \end{array} =$	$-\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ \end{array} =$	★ ☺
$\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ + \end{array} =$	$-\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ \end{array} =$	$\begin{array}{r} + \\ \hline \end{array}$
$-\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ \end{array} =$	$\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ + \end{array} =$	$-\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ \end{array} =$
$\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ + \end{array} =$	$-\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ \end{array} =$	$\begin{array}{r} + \\ \hline \end{array}$
$\begin{array}{r} + \\ \hline \end{array}$	$\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ + \end{array} =$	$-\begin{array}{r} \downarrow \downarrow \downarrow \downarrow \\ \end{array} =$

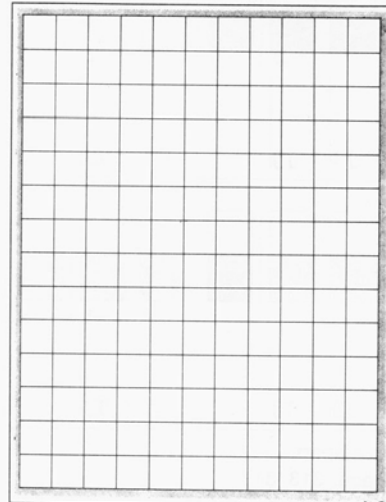
Page: 241

54
Names/Numbered Squares
Recording Sheet

$\begin{array}{ c c } \hline - \\ \hline \end{array}$	$\begin{array}{ c c } \hline - \\ \hline \end{array}$	$\begin{array}{ c c } \hline - \\ \hline \end{array}$	★ ☺
$\begin{array}{ c c } \hline - \\ \hline \end{array}$	$\begin{array}{ c c } \hline - \\ \hline \end{array}$	$\begin{array}{ c c } \hline - \\ \hline \end{array}$	$\begin{array}{ c c } \hline - \\ \hline \end{array}$
$\begin{array}{ c c } \hline - \\ \hline \end{array}$	$\begin{array}{ c c } \hline - \\ \hline \end{array}$	$\begin{array}{ c c } \hline - \\ \hline \end{array}$	$\begin{array}{ c c } \hline - \\ \hline \end{array}$
$\begin{array}{ c c } \hline - \\ \hline \end{array}$	$\begin{array}{ c c } \hline - \\ \hline \end{array}$	$\begin{array}{ c c } \hline - \\ \hline \end{array}$	$\begin{array}{ c c } \hline - \\ \hline \end{array}$

Page: 243/270

55
Surrounding Patterns
Recording Sheet



Have the children tape two
worksheets together.
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56
Large 0-99 Matrix

00	01	02	03	04	05	06	07	08	09
10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99

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57
Small 0-99 Matrices

00	01	02	03	04	05	06	07	08	09
10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99

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58
Agree-Disagree Record

☺	
☹	
I agree ☺	I disagree ☹
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

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59
Determining Prices/The Store Records

☺		☺	
☺		☺	

Cut apart.
Page: 313/317

60
Place Value Strips

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Cut apart. Keep the strips with faces and zeros at the top separated from the blank strips.
Page: 300, 304, 314

61
Unifix Stacks/Geoboard Designs Records

☺		☺	

Cut apart.
Page: 316/320