## How to Use MATHEMATICS THEIR WAY at Various Grade Levels

All teachers, whether working with preschool or second graders, can follow the sequence outlined in this book. Obviously, kindergarteners will not go as far or as quickly through the sequence as will first or second graders. Each teacher must use hisorher professional judgment as to the appropriateness of various activities and concepts, but the following chart outlines roughly how to implement the program at various grade levels.

SKILLS AND CONCEPTS	KINDERGARTEN	NO. OF WEEKS	FIRST GRADE	NO. OF WEEKS	SECOND GRADE	NO. OF WEEKS
Free Exploration and Counting	Sept. Oct.	5	Sept.	2-4	Sept.	3
Pattern One	Oct.	4	Sept. Oct.	3-4	Sept. Oct.	2–3
Sorting and Classifying	Nov.	4	Oct. Nov.	3-4	Oct.	3
Comparing	Nov. Dec.	3-4	Nov. Dec.	2–3	Nov.	2
Number	Jan, Feb., Mar., Apr., May	4-5 months	Dec., Jan., Feb., Mar.	3 months	Nov., Dec., Jan.	2-3 months
Place Value			Mar., Apr., May	3 months	Feb., Mar., Apr., May	3-4 months
Pattern Two	Mar., Apr., May	3 months	Mar., Apr., May	3 months	Mar., Apr., May	3 months

All teachers, regardless of the ages of the children they work with, should be familiar with the informal assessment devices on pages 92, 100, 113 and 187. These assessments, along with the observation sheets (Worksheets I–IX) the assessment of skills (Worksheets A1–A16) and the Guide to Facilitate Classroom Planning (pp. 367–384) will guide the teacher further in planning an appropriate program.

The following sequence of lessons provides a model from which teachers can get ideas for planning for the children in their own classrooms. This chart is not a substitute for individual teacher's planning, and is unworkable as is, in your classroom. It will be useful to you as an idea source. This is definitely not intended as a schedule telling you what your class should be doing at any point. As each teacher uses this chart, sheorhe will evolve a slightly different series of lesson plans, using some parts exactly as they are, some parts not at all, and modifying still other parts. This model is designed only for a "theoretical class' which, in reality, simply does not exist. By focusing on your unique classroom situation, your personal needs as a teacher, and your children's unique needs as learners, you will evolve a similar series of lessons to fit your unique situation. Only you can do this. No outside "expert," no administrator, no early childhood supervisor, no math resource teacher can do it. You are the only one who really knows your children. You are the most valuable person in that classroom for you are the one who is responsible for the classroom experiences your children have.

If you have not already done so, read through the entire book so you have a general idea of the development of the concepts. Then read through Chapter One (Free Exploration) carefully. When you finish, read through the parts of this sequence that deal with free exploration activities. Now it's time to plan for your class. Get your lesson plan book, a calendar with large spaces, or duplicate a chart of your daily schedule.

Plan for one week at a time and each day re-think what you have planned for the next day. Rewrite your sequence of lessons whenever you need to.

Use your professional judgment and trust your intuition. If you

feel you need to move more quickly, do so. If you feel you need to move more slowly, do that. <u>Always remember</u>: our focus is the children. Our goal is to meet those children's needs. The focus is <u>never</u> on "getting through" these lessons or keeping to the sequence in spite of children's needs.

The activities are listed in three columns: Total group activities, Stations (small group activities), and Another period during the day. For best results set up a break between the total group activities and the stations (small group activities). This might be the time your children do language arts or science or have PE. The third-column activities can be several hours after the stations period, perhaps just after lunch. A \* before an activity indicates a new activity.

As you complete a section, you may want to keep track of what you've done on the chart. The small boxes are included for this purpose. (Check the boxes with a soft-leaded pencil so you can erase them at the end of the year. Some teachers prefer to Xerox these pages and cross out the activities.) As you get further into the sequence you may find yourself at different column levels, and this checking system will help you keep track of where you are.

TOTAL GROUP ACTIVITIES	STATIONS (SMALL GROUP ACTIVITIES)	ANOTHER PERIOD DURING THE DAY
	Reread Chapter 1 (Free Exploration).	•••••
1 Discuss using materials responsibly: establish ground rules (p. 5) Role play putting materials away Introduce Unifix cubes	Half the class at each: *Unifix cubes books, clay, or drawing (Switch groups)	*Rhythmic clapping (p. 21) (Practice for five minutes several different times a day.)
2 Review ground rules (p. 5) Introduce a few junk boxes.	<sup>1</sup> ⁄₃ of the class at each: *junk boxes Unifix cubes books, clay, or drawing (Rotate groups)	*Explain birthday, tooth, and days of school graph. (p. 156) Collect data daily (Record on your lesson plan)
3 Review ground rules Introduce pattern blocks	<sup>1</sup> / <sub>4</sub> of the class at each: *Pattern blocks junk boxes Unifix cubes books, clay, or drawing (Children change groups at will)	Rhythmic clapping (p. 21) *Begin temperature, weather and date graphs. (p. 155–157) Collect data daily (Record on your lesson plan)
	From now on do not expect children to same amount of time working with all have the freedom to change stations a stations in greater or less depth depen relationship between that particular ch Set aside 30–35 minutes for station ac where sheorhe wants to go. Since the each station, it is not important which child will gain insight into the concept period of days children will have the o Whether or not a child makes use of th choice.	o rotate to each station or to spend the the materials or activities. Children who t will have an opportunity to explore ding on the unique dynamics of the ild and that particular material. tivities and allow each child to select general concept is being worked on at material (or station) a child selects. The wherever sheorhe goes. Over a <u>pportunity</u> to explore at each station. hat opportunity is hisorher personal
4 Rhythmic clapping (p. 21) Introduce a few more junk boxes	Children change at will: pattern blocks junk boxes (at two stations) Unifix cubes books, clay, or drawing	*Dot chart (p. 23) *Start sweet potato, weigh animal, begin water evaporation ex- periment. (p. 155–157.) Collect data weekly (Record on your lesson plan)
5 Rhythmic clapping (p. 21) Review ground rules Introduce the rest of the junk boxes	Children change at will: pattern blocks *junk boxes (at two stations)	Take pictures of the children. Have pictures developed and then Xeroxed.

	Unifix cubes books, clay, or drawing	
6		
Rhythmic clapping (p. 21)	Children change at will: pattern blocks junk boxes (at two stations) Unifix cubes books, clay, or drawing	Dot chart (p. 23)
7		
Dot chart (p. 23) Rhythmic clapping (p. 21) Review ground rules (p. 5) Introduce geoboards (Discuss geoband care)	Children change at will: *geoboards pattern blocks junk boxes (at two stations) Unifix cubes books, clay, or drawing	Ask the children to draw a picture of a person standing up or sitting down for people row pattern activities.
8	anargy in the olgowoor of the brind	
Count 1-3-1 (Snap and Clap, p. 108)	Children change at will: geoboards pattern blocks junk boxes Unifix cubes books, clay, or drawing	*People row patterns (p. 29) (Half the class as the audience and half the class as "line participants.")
straducts in the least start starts and	sold of all the second bits with all the second	
	daily writing practice with the "Learning	during math) have the children begin g to write numerals'' sequence
People row patients (b. 25)	daily writing practice with the "Learnin described on pages 43–51. Continue da numerals with ease and skill.	during math) have the children begin g to write numerals'' sequence hily until the children can write the
9 Count 1-3-1 (Stand Up, Sit Down p. 109) Introduce tiles	daily writing practice with the "Learnin described on pages 43–51. Continue da numerals with ease and skill. Children change at will: *tiles junk boxes reproducing designs (p. 12) geoboards Unifix cubes pattern blocks	People row patterns (p. 29) (Half the class as the audience and half as "line participants.")
9 Count 1-3-1 (Stand Up, Sit Down p. 109) Introduce tiles	daily writing practice with the "Learnin described on pages 43–51. Continue da numerals with ease and skill. Children change at will: *tiles junk boxes reproducing designs (p. 12) geoboards Unifix cubes pattern blocks	People row patterns (p. 29) (Half the class as the audience and half as "line participants.")
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9 Count 1-3-1 (Stand Up, Sit Down p. 109) Introduce tiles	daily writing practice with the "Learnin described on pages 43–51. Continue da numerals with ease and skill. Children change at will: *tiles junk boxes reproducing designs (p. 12) geoboards Unifix cubes pattern blocks Tiles Junk boxes Reproducing designs (p. 12): geoboards Unifix cubes pattern blocks	Dot chart (p. 23) (During free time, allow the children to cut pattern block walls.)
9 Count 1-3-1 (Stand Up, Sit Down p. 109) Introduce tiles	daily writing practice with the "Learnin described on pages 43–51. Continue da numerals with ease and skill.         Children change at will:         *tiles         junk boxes         reproducing designs (p. 12)         geoboards         Unifix cubes         pattern blocks	Dot chart (p. 23)         (During free time, allow the children begin g to write numerals'' sequence aily until the children can write the         People row patterns can write the         People row patterns (p. 29)         (Half the class as the audience and half as "line participants.")         Dot chart (p. 23)         (During free time, allow the children to cut pattern block shapes out of colored construction paper. These will be needed in a few days for pattern block walls.)         People row patterns (p. 29)

	Switch groups and teach the second half of the class how to do Unifix patterns.	
12 Count: 1-4-1 (Stand Up, Sit Down, p. 109). Rhythmic clapping (p. 21) Unifix patterns (p. 26) (total group)	Tiles Junk boxes Reproducing designs (p. 12); geoboards Unifix cubes pattern blocks	
	The series of activities which follows inv garten children will want to continue fre weeks before moving into the pattern ac dren may or may not be ready to move upon the amount of free exploration the are familiar with these materials and are designs are probably ready to move on. energy in the classroom at this point. Ch activities no longer appear as eager for did earlier. Children who have had limits who have not had an enriched environm opportunity to continue free exploration You may want to increase the amount of perhaps adding a second period later in these free exploration experiences in gr Move on to the following pattern activities are ready. Reread Chapter 2 Pattern I (p. 18).	olves the concept of pattern. Kinder- e exploration for two to six more stivities. First and second grade chil- into pattern at this time, depending y have had previously. Children who e eagerly copying one another's You should sense a change in hildren who are ready for pattern free exploration experience as they ed contact with these materials, or nent to interact with at home, need a activities for another week or two. of time children spend exploring, the day in order to give children reater depth. es only when you feel your students
13 Count 1-4-1 (Take over) Rhythmic clapping (p. 21) Unifix patterns (p. 21)	*Dot patterns (p. 35) Tiles Junk boxes (free exploration) Reproducing designs (p. 12): geoboards Unifix cubes pattern blocks	People row patterns (p. 29)
		Γ
14		[
14 Count 1-4-1 (Stand Up, Sit Down, p. 109)	*Unifix snap and clap patterns (p. 33) *Geoboard-Unifix patterns (p. 33) Dot patterns (p. 35) Reproducing designs (p. 12): geoboards pattern blocks	Dot Chart (p. 23)
14 Count 1-4-1 (Stand Up, Sit Down, p. 109)	*Unifix snap and clap patterns (p. 33) *Geoboard-Unifix patterns (p. 33) Dot patterns (p. 35) Reproducing designs (p. 12): geoboards pattern blocks	Dot Chart (p. 23)

16		
Count 1-5-1 (Take Over, p. 110) Rhythmic clapping (p. 21) Dot chart (p. 23)	Geoboard sequences, p. 37 Unifix snap and clap patterns (p. 33) Geoboard-Unifix patterns (p. 36) Dot patterns (p. 35) Pattern block walls, p. 38 (Children create and record)	
17		
Count 1-5-1 (Snap and Clap, p. 108) Rhythmic clapping (p. 21) Dot chart (p. 33)	Geoboard sequences (p. 37) Unifix snap and clap patterns (p. 33) Geoboard-Unifix patterns (p. 36) Dot patterns (p. 35) Pattern block walls, p. 38 (Children create and record)	
	there designed	
	Begin working on counting activities. Co propriate and at a time other than the to Kindergarten teachers will need to spen while first and second grade teachers n need this work. Give those children lack rather than substituting counting work fo children will drop hopelessly behind the Reread Chapter 4 Counting (p. 88). (Red	ontinue daily for as long as is ap- ime devoted to math stations. d several weeks on these activities hay have only a few children who king counting skills additional time for the stations work. Otherwise these rest of the class.
18 Count 1-5-1 (Stand Up, Sit Down, p. 109) People row patterns (p. 29)	Geoboard sequences (p. 37) Unifix snap and clap patterns (p. 33) Geoboard-Unifix patterns (p. 36) Dot patterns (p. 35) Pattern block walls, p. 38 (Children build from student- generated designs) *Junk pattern cards, p. 40 (Teacher helps the children copy their designs)	Begin Working on Inside, Outside, p. 111.
19		
Count 1-5-1 (Take Over, p. 110) Rhythmic clapping, p. 21	Geoboard sequences (p. 37) Unifix snap and clap patterns (p. 33) Geoboard-Unifix patterns (p. 36) Dot patterns (p. 35) Pattern block walls (p. 38) Junk pattern cards, p. 40 (Teacher helps the children copy their designs)	Dot chart (p. 23) Inside, Outside (p. 111)
<b>20</b> Count 1-5-1 (Snap and Clap, p. 108) People row patterns (p. 29)	Geoboard sequences (p. 37) Unifix snap and clap patterns (p. 33) Geoboard-Unifix patterns (p. 36) Dot patterns (p. 35) Pattern block walls (p. 38) Junk pattern cards, p. 40 (Teacher helps the children copy	Inside, Outside (p. 111)
	their designs)	

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21		
Count 1-5-1 (Stand Up, Sit Down, p. 109)	Geoboard sequences (p. 37) Unifix snap and clap patterns (p. 33) Geoboard-Unifix patterns (p. 36) Dot patterns (p. 35) Pattern block walls (p. 38) Junk pattern cards, p. 40 (Teacher helps the children copy their designs)	*Sorting on the overhead (p. 59)
22	Geoboat biodoe0	1 100 F
Count 1-5-1 (Take Over, p. 110) Sorting on the overhead (p. 59)	Geoboard sequences (p. 37) Unifix snap and clap patterns (p. 33) Geoboard-Unifix patterns (p. 36) Dot patterns (p. 35) Pattern block walls (p. 38) Junk pattern cards, p. 40 (Teacher helps the children copy their designs)	Geoboard paths (p. 81) Inside, Outside (p. 111)
23	propriate and state	
Count 1-5-1 (Inside, Outside, p. 111) Sorting on the overhead (p. 59)	*Mirrors (p. 10) *Food coloring (p. 83) *Macaroni necklaces (p. 42) *Border patterns (p. 41) *The Jars (p. 8) *Weighing common objects (p. 9)	*People sorting (p. 61)
24	· · · · · · · · · · · · · · · · · · ·	
Count 1-5-1 (Snap and Clap) Sorting on the overhead	Mirrors (p. 10) Food coloring (p. 83) Macaroni necklaces (p. 42) Border patterns (p. 41) The Jars (p. 8) Weighing common objects (p. 9)	Teacher asseses language develo ment of each student for junk box sorting. (p. 64-65)
25	Addo realizadore e la selectionada o	
Count 1-5-1 (Stand Up, Sit Down) People sorting	Mirrors (p. 10) Food coloring (p. 83) Macaroni necklaces (p. 42) Border patterns (p. 41) The Jars (p. 8) Weighing common objects (p. 9)	Sorting on the overhead (p. 59) Allow the whole class to analyze the border patterns which children have been making at t stations. The class should label the patterns with ABC and sort them by pattern.
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	The series of activities which follows in sifying various materials. As the teache on sorting junk, the rest of the class co exploration activities. Begin this next se are able to work independently at the p	volves children sorting and clas- r works with a small group of childre ontinues work with pattern and free eries of activities when your children pattern stations.
	Reread Chapter 3 (Sorting and Classify	ring, p. 56).
	*****	<b>*****************</b>
26 Count: 1-6-1 (Take Over, p. 110) Sorting on the overhead (p. 59)	Group A: junk box sorting (p. 64) Rest of the class:	Geoboard Arrow Game (p. 82)

application and extension of free exploration or pattern	
	(61 for a literation of the literation
******	•••••
Reread Chapter 6 (Graphing).	••••••
Group B: junk box sorting (p. 64) Rest of the class: selects independent activities from application and extension of free exploration or pattern.	Read Chapter 6 on Graphing. *Real graph (2) Soles of shoes: bumpy or smooth
Mail Beg Diass.	
Group C: junk box sorting (p. 64) Rest of the class: selects independent activities from application and extension of free exploration or pattern.	Real graph (2) Select a cube from two colors.
(Tentor groups)	
Group D: junk box sorting (p. 64) Rest of the class: selects independent activities from application and extension of free exploration or pattern.	Real graph (2) Wearing a sweater, not wearing a sweater (line up chairs).
Group E: junk box sorting (p. 64) Rest of the class: selects independent activities from application and extension of free exploration or pattern.	Real graph (2) Lunches: Sack lunch or lunch pail.
From now on select one game each da and backward. (Either Snap and Clap, S Inside, Outside.) Reread Chapter 5 (Comparing, p. 116).	y to use to practice counting forward Stand Up, Sit Down, Take Over, or
The Arran of The	
Half the class: compares with the more, less, and same cards, (Worksheet 24) using Unifix cubes, water, junk, weights, and ribbon or string. (p. 116) Half the class:	Half the class sorts junk independently. Half the class looks at books or draws and paints. (Switch groups)
of free exploration and pattern. DO NOT switch groups until tomorrow.	
	application and extension of free         exploration or pattern.         Reread Chapter 6 (Graphing).         Group B: junk box sorting (p. 64)         Rest of the class:         selects independent activities from         application and extension of free         exploration or pattern.         Group C: junk box sorting (p. 64)         Rest of the class:         selects independent activities from         application and extension of free         exploration or pattern.         Group D: junk box sorting (p. 64)         Rest of the class:         selects independent activities from         application and extension of free         exploration or pattern.         Group D: junk box sorting (p. 64)         Rest of the class:         selects independent activities from         application and extension of free         exploration or pattern.         Group E: junk box sorting (p. 64)         Rest of the class:         selects independent activities from         application and extension of free         exploration or pattern.         Group E: junk box sorting (p. 64)         Rest of the class:         selects independent activities from         application and extension of free

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32	statistical environmental in the new solitage	
Count 1-6-1 *Begin height record. (p. 119) Add to this record daily until everyone in class has been measured.	(Switch groups from yesterday)	Sorting walk (p. 72) (diagonal line)
	***************	
	You may want to spend several days all and explore comparing before going on as you need before progressing.	lowing your class to sort independently in this sequence. Spend as much time
33 Count 1-6-1 Geoboard sorting game (p. 80) (triangles)	Half the class: sorts junk independently or compares with the more, less, and same cards. Half the class: learns to play the *Handfuls Game. (p. 125) (Switch groups)	Real graph (2) Pencils: With erasers and without erasers. Sorting walk (p. 72) (vertical and horizontal lines)
34		
Count 1-7-1 *Duration (p. 124)	Half the class: learns to play *Stack, Tell, Spin and Win (p. 126) Half the class: works at the pattern stations or with sorting. (Switch groups)	Real graph (2) Penny shake: Heads or tails.
35		
Count 1-7-1 *Descriptions (p. 74) Rhythmic clapping (p. 21)	Handfuls (p. 125) Stack, Tell, Spin and Win (p. 126) *Water Timer (p. 123) *Measuring Strings (p. 135) The Jars (p. 131) Mirrors (p. 10)	Real graph (2) Candy: coconut or honey.
36		
Count 1-7-1 *Intervals of time (p. 133)	Handfuls (p. 125) Stack, Tell, Spin and Win (p. 126) Water Timer (p. 123) Measuring Strings (p. 135) The Jars (p. 131) Mirrors (p. 10)	Sorting walk (circles) (p. 72)
27		
Count 1-7-1 People sorting (p. 61)	Handfuls (p. 125) Stack, Tell, Spin and Win (p. 126) Water Timer (p. 125) Measuring Strings (p. 135) The Jars (p. 131) Mirrors (p. 10) *Mark the Scoops (p. 136)	Sorting walk (rectangles) (p. 72)

38	in a second production of the second s	
Count 1-7-1 Intervals of time (p. 133)	Handfuls (p. 125) Stack, Tell, Spin and Win (p. 126) Water Timer (p. 125) Measuring Strings (p. 135) The Jars (p. 131) Mirrors (p. 10) Mark the Second (p. 126)	Real graph (2) Boys and girls (compare half the class at a time, divided randomly into two groups).
	Mark the Scoops (p. 136)	
39	and the second	
Count 1-7-1 Intervals of time (p. 133)	Handfuls (p. 125) Stack, Tell, Spin and Win (p. 126) Water Timer (p. 125) Measuring Strings (p. 135) The Jars (p. 131) Mirrors (p. 10) Mark the Scoops (p. 136) *Weighing and Comparing (p. 132)	Real graph (2) After making butter by shaking whipping cream in baby food jars, the children select white or wheat bread to spread their butter on.
Restances and recorded and rest		
	The series of activities which follows in the comparing activities until you feel y	volve the concept of number. Continue our children are ready to go on.
	Read the section on the Three Games Concept Level p. 180–187).	in Chapter 7 (Number at the
	**************	*****
40	enne and an	
Count 1-7-1 Name hops (for 10 children) (p. 78)	Half the class: works on independent activities Half the class: learns to play the Three Games. (p. 180) (DO NOT switch groups until tomorrow)	Real graph (2) Crackers: Ritz or saltine.
41		
Count 1-7-1	Switch groups from yesterday.	Sorting walk (green objects) (p. 72)
Name nops (for 10 children) (p. 78)		
42		
Count 1-7-1 Name hops (for 10 more children) (p. 78)	Half the class: plays the Three Games (p. 180) Half the class: independent activities (Switch groups)	Sorting walk (black objects) (p. 72)
	****	*****
	Repeat this lesson (half the class at a t half the class working on some other a the Three Games and can play them in	ime playing the Three Games and ctivity) until your class understands dependently with four objects.
	Now you are ready to individualize the each child's level of skill and make a c of dots on hisorher card indicates to th is to play the games.	Three Games. (See page 186.) Assess ard for each child so that the number at child the level at which sheorhe
	Make a map of the classroom and on it children are to set up the materials nee	t indicate the three areas where the aded for the Three Games. Set aside

a 15 minute period just after a recess when the children can play the games each day. On Monday, Tuesday, and Wednesday have the children play the Three Games at the concept level (p. 180-185) using the number which is appropriate for five minutes per game (a total of 15 minutes). Thursday the children should play the game at the connecting level (p. 221-222) with a partner (again, 5 minutes per game for a total of 15 minutes). On Friday you will need a 30 minute period. At this time the children should work on the symbolic level of subtraction cards (p. 238). Children will work on the symbolic level of the Three Games (p. 237-238) during the regular math stations time period, spending ten minutes per game and having free choice of any math activity when they finish.

## Weekly Schedule for the Three Games

M T W	ТН	F
15 minutes Concept level (Play in small groups for 15 minutes per game)	15 minutes Connecting level (Play in pairs for 15 minutes per game)	30 minutes Symbolic level of subtraction cards (Work alone)

Later in the day on Friday give the children the appropriate level "test ditto" (Worksheets 45-53) or assess their level using the number assessment (page 187).

Each number the child works on should be taken through the concept, connecting, and symbolic levels before the child is allowed to advance to a new number.

Repeat this weekly sequence for the Three Games until the children master the facts through ten. This will take several months and you can expect a child to explore a given number for about two weeks before sheorhe will demonstrate real mastery.

The following related activities in number (the number stations and games which extend the child's understanding of number) form a parallel to the Three Games and contribute greatly to the child's full understanding of the relationships and combinations of various quantities. These activities form the bulk of the program while the child is engaged in exploring the concept of number. The understanding developed by the Three Games contributes to these activities and in turn the insight gained from these activities contribute to the child's growth with the Three Games.

As soon as the Three Games are individualized and you have established a time period (after a recess if possible) when the children can work on these games each day, begin the following series of activities during the free math stations time period you now have. (Record on your lesson plan.)

\*

Reread Chapter 7 (Number at the Concept Level, p. 164).

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43	1000 C	
Count 1-7-1 Descriptions (p. 74) Intervals of time (p. 133)	Half the class: explores *toothpick designs with four. (p. 168) Half the class: works at an independent activity (Switch groups)	Real graph (3) Colored cubes: red, green, blue The Three Games
44		
Count 1-8-1 *Read my mind (p. 70)	Half the class: explores toothpick designs and then *pattern block designs with four. (p. 170) Half the class: works at an independent activity. (Switch groups)	Real graph (3) Did you bring a coat, sweater, or nothing extra for warmth today? (put on chairs)

Count 1-8-1 Geoboard sorting game (p. 80) (trees)	The number stations: exploring patterns of three and four toothpicks (p. 168) pattern blocks (p. 170) *wooden cubes (p. 173) (½ of the class at each; rotate groups)	Real graph (3) Nuts: almonds, walnuts, pecans
40		
46 Count 1-8-1 Body measurements (p. 120)	The number stations: exploring patterns of three and four toothpicks (p. 168) pattern blocks (p. 170) wooden cubes (p. 173) *tiles (p. 149) (¼ of the class at each; rotate groups)	Real graph (3) Lunch: bag, lunch pail, or money
47		
Count 1-8-1 Dot chart (p. 23) Geoboard sorting game (p. 80) (faces)	The number stations: exploring patterns of three and four toothpicks (p. 168) pattern blocks (p. 170) wooden cubes (p. 173) tiles (p. 169) *two-sided beans (p. 174) ( $V_5$ of the class at each; rotate groups)	Real graph (3) Write your name with a crayon, pencil, or pen
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	•••••	••••••
	(From now on children select where the A maximum of six should be allowed at station that does not already have six c	ey want to explore and change at will. each station. A child may join any hildren working there.)
48	(From now on children select where the A maximum of six should be allowed at station that does not already have six c	ey want to explore and change at will. each station. A child may join any hildren working there.)
<b>48</b> Count 1-8-1 Teeter totter (p. 122)	(From now on children select where the A maximum of six should be allowed at station that does not already have six co exploring patterns of three and four toothpicks (p. 168) pattern blocks (p. 170) wooden cubes (p. 170) tiles (p. 169) two-sided beans (p. 174) *Unifix cubes (p. 172)	ey want to explore and change at will. each station. A child may join any hildren working there.) Real graph (3) Shoes: black, brown, other
<b>48</b> Count 1-8-1 Teeter totter (p. 122)	(From now on children select where the A maximum of six should be allowed at station that does not already have six co	ey want to explore and change at will. each station. A child may join any hildren working there.) Real graph (3) Shoes: black, brown, other
48 Count 1-8-1 Teeter totter (p. 122) 49 Count 1-8-1 People sorting (p. 61) Intervals of time (p. 133)	(From now on children select where the A maximum of six should be allowed at station that does not already have six co	Areal graph (3) Real graph (3) Real graph (3) Real graph (3) Real graph (3)

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Count 1-8-1 Body measurements (p. 120)	Recording patterns of: three and four toothpicks (p. 168) pattern blocks (p. 170) wooden cubes (p. 173) tiles (p. 169) two-sided beans (p. 174) Unifix cubes (p. 172) (Change at will)	Real graph (3) Shoes: ties, plain, buckles
		Г
 51		
Count 1-8-1 Duration (p. 124)	Recording patterns of: three and four toothpicks (p. 168) pattern blocks (p. 170) wooden cubes (p. 173) tiles (p. 169) two-sided beans (p. 174) Unifix cubes (p. 172) (Change at will)	Real graph (3) Colored cubes: red, green, blue
	*****	******
	the Three Games. Children can work si exploring completely different numbers, the number of dots that indicates hisori The following two week schedule enabl wide variety of ways. With this schedule	de by side with other children who a for each child has the card with her appropriate level. es a child to explore number in a
	to explore at the number stations for two for two days to extend hisorher concep	e each child will have the opportunit to days and to work on other activiti t of number
Week 1:	to explore at the number stations for tw for two days to extend hisorher concep	e each child will have the opportunity o days and to work on other activitie t of number.
Week 1: M and W	to explore at the number stations for tw for two days to extend hisorher concep	e each child will have the opportunity to days and to work on other activitie t of number.
Week 1: M and W Half the class: explores their number at the number stations (p. 168) independently for 30–35 minutes (no recording). Half the class: explores other extending number (p. 179) activities with the teacher for 30–35 minutes. (DO NOT switch groups until tomorrow.)	T and TH Switch groups from yesterday.	F Everyone works on other activities Children work on other activities F Everyone works on the symbolic level (p. 236) of the Three Gam Children work in pairs recording combinations at the three statio (approximately ten minutes per game). When finished children have free choice of math activities.
Week 1: M and W Half the class: explores their number at the number stations (p. 168) independently for 30–35 minutes (no recording). Half the class: explores other extending number (p. 179) activities with the teacher for 30–35 minutes. (DO NOT switch groups until tomorrow.) Week 2:	T and TH Switch groups from yesterday.	F Everyone works on other activities (p) 236) of the Symbolic level (p. 236) of the Three Gam Children work in pairs recording combinations at the three statio (approximately ten minutes per game). When finished children have free choice of math activities.
Week 1: M and W Half the class: explores their number at the number stations (p. 168) independently for 30–35 minutes (no recording). Half the class: explores other extending number (p. 179) activities with the teacher for 30–35 minutes. (DO NOT switch groups until tomorrow.) Week 2: M and W Half the class: records their explorations at the number stations, (p. 168) explores other extending number (p. 179) activities with the teacher for 30–35 minutes. (DO NOT switch groups until tomorrow.)	T and TH Switch groups from yesterday.	F Everyone works on the symbolic (approximately ten minutes per game). F Everyone works on the symbolic level (p. 236) of the Three Gam Children work in pairs recording combinations at the three statio (approximately ten minutes per game). When finished children have free choice of math activities. F Everyone works on the symbolic level (p. 237–238) of the Three Games. Children work in pairs recording combinations at the three stations (approximately te minutes per game). When finished children have free choice of math activities.
Week 1: M and W Half the class: explores their number at the number stations (p. 168) independently for 30–35 minutes (no recording). Half the class: explores other extending number (p. 179) activities with the teacher for 30–35 minutes. (DO NOT switch groups until tomorrow.) Week 2: M and W Half the class: records their explorations at the number stations, (p. 168) explores other extending number (p. 179) activities with the teacher for 30–35 minutes. (DO NOT switch groups until tomorrow.)	T and TH Switch groups from yesterday.	F Everyone works on the symbolic (approximately ten minutes per game). F Everyone works on the symbolic level (p. 236) of the Three Gam Children work in pairs recording combinations at the three statio (approximately ten minutes per game). When finished children have free choice of math activities. F Everyone works on the symbolic level (p. 237–238) of the Three Games. Children work in pairs recording combinations at the three stations (approximately te minutes per game). When finished children have free choice of math activities.

ින්තාවයි. මැත්තාවය (සිටියා කරා පත්තර පත්තාව ඉමක් මං මෙම ප්රානාව ඉත්තාවම	Say it Fast (p. 196) (DO NOT switch groups until tomorrow)			
12 Conservation and the Conservation of Conser				00020
53 Count 1-8-1 People sorting (p. 61)	Switch groups from yesterday.		Real graph: Picture graph (2) Real flowers: draw a picture of kind you choose.	f the
54				
Count 1-9-1 People sorting (p. 61)	Half the class: number stations (p. 168) Half the class: the Whale Game (p. 188) Subtraction cards (p. 193) Say it Fast (p. 196) (DO NOT switch groups until tomorrow)		*Body measurements (p. 120) Sorting walk (metal) (p. 72)	
	Part of a role of a			
55				
Count 1-9-1 Word problems with children and props (p. 204)	Switch groups from yesterday.		Picture graph (2) Boy or girl? (paste down Xeroxed pictures)	
56				
Count 1-9-1 Word problems with children and props (p. 204)	Symbolic level of the Three Games (p. 237) (Children work in pairs recordir combinations at the three sta When finished they have free choice of math activities.)	ig tions.	Picture graph (2) Handedness: right or left?	
57			00.000 (000) 000 (000) (000) 	10.000
Count 1-9-1 Word problems with children and props (p. 204)	Half the class: number stations (p. 168) Half the class: Listen and Count (p. 190) Subtraction cards (p. 193) Concentration (p. 191) (DO NOT switch groups until tomorrow)		*A bag from home (p. 226) Sorting walk (wood) (p. 72)	
58				
Count 1-9-1 Word problems with children and props (p. 204)	Switch groups from yesterday.		A bag from home Picture graph (2) Eyes: brown or other	
50			는 1 같다. - 프라이트 등 프랑스럽 - 사람은 것 같아요.	
Count 1-9-1 Body measurement (p. 120)	Half the class: number stations (p. 168) Half the class: Listen and Count (p. 188) Subtraction cards (p. 193)		A bag from home (p. 226) Picture graph (3) Buy, bring, go home for lunch	
	DO NOT switch groups until			

60	Say IF Filler [p. 1967	
Count 1-9-1 Intervals of time (p. 133) Descriptions (p. 74)	Switch groups from yesterday.	A bag from home (p. 226) Picture graph (3)
		strawberry
61 Count 1-9-1 People row patterns (p. 29) Intervals of time (p. 133)	Symbolic level of the Three Games (p. 237–238) (Children work in pairs recording combinations at the three stations. When finished they have free choice of math activities.)	A bag from home (p. 226) Picture graph (3) Transportation to school today: walk, bus, car
60		
Count 1-9-1 Word problems with children and props (p. 204)	Half the class: number stations (p. 168) Half the class: Word problems (p. 204) Presto Change-O (p. 197) Say it Fast (p. 196) (DO NOT switch groups until tomorrow)	Capture (p. 195) Picture graph (3) Candy: Did you eat a red, yellow, or orange life saver?
area pictures		California and product (p. 204)
63		
Count 1-9-1 Duration (p. 124)	Switch groups from yesterday.	Number books (p. 219) Real graph (4) Shoes: brown, black, two-tone,
<u> </u>		
Count 1-10-1 Word problems with children and props (p. 204)	Half the class: number stations (p. 168) Half the class: Word problems (p. 204) Subtraction cards (p. 193) Whale Game (p. 188) (DO NOT switch groups until tomorrow)	Interpreting symbols (p. 217)
65	Lista Frederica del Carlo de Lista - 1 Compositorio de Lista - 1	
Count 1-10-1 Read my mind (p. 70)	Switch groups from yesterday.	Interpreting symbols (p. 217) Real graph (4) Crackers: four kinds
Count 1-10-1 Body measurement (p. 120)	Symbolic level of the Three Games (p. 237–238) (Children work in pairs recording combinations at the three stations. When finished they have free choice of math activities.)	Number books (p. 219) Sorting walk (p. 72) (things that move)
67		
Count 1-10-1 Body measurement (p. 120)	Half the class: number stations (p. 168)	Interpreting symbols (p. 217) Real graph (4)

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	Half the class: the Cave Game (p. 192) Word problems (p. 204) My Turn-Your Turn (p. 231) (DO NOT switch groups until tomorrow)	Crayons: choose one color from these four and draw something.
68 Count 1-10-1 Word problems with children and props (p. 204)	Switch groups from yesterday.	Number books (p. 219) Real graph (4) Fruit: Did you bring an apple, an orange, a banana or grapes?
(a.) 	Read Chapter 8 (Number at the Connect (Number at the Symbolic Level, p. 234).	ting Level, p. 214) and Chapter 9
69 Count 1-10-1 Body measurement (p. 120)	Half the class: number stations (p. 168) Half the class: Say it Fast (p. 196) Donut Game (p. 224) (with equations) Subtraction cards (193) (DO NOT switch groups until tomorrow)	Interpreting symbols Picture graph (4) What do you like best: hot dogs, hamburger, tuna fish, or spaghetti?
70 Count 1-10-1 Duration (p. 124)	Switch groups from yesterday.	Interpreting symbols (p. 217) Grow and shrink balloon game (p. 229)
71 Count 1-10-1 Interpreting symbols (p. 217) Read my mind (p. 70)	Symbolic level of the Three Games (p. 237) (Children work in pairs recording combinations at the three stations. When finished they have free choice of math activities.)	Teacher records crazy mixed up number strips (p. 228)
72 Count 1-10-1 Sorting on the overhead (p. 59)	Half the class: number stations (p. 168) Half the class: Subtraction race (p. 227) Number Squares (p. 243) Number sequences (p. 248) (DO NOT switch groups until tomorrow)	Capture (p. 195)
73 Count 1-10-1 People sorting (p. 61)	Switch groups from yesterday.	Teacher records crazy mixed up number strips (p. 228) Sorting walk (groups of three) (p. 72)

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	Had the classe	
74 onintemos went bos	Half the class;	Real graph: Picture graph (4)
Count by tens to 50 Descriptions (p. 74)	Addition with unifix cubes (p. 228) (DO NOT switch groups until	Nuts: almonds, peanuts, walnuts, pecans (Eat, draw a picture of what you ate, and label your drawing.)
	tomorrow)	
75		
Count by tens to 50 Duration (p. 124)	Switch groups from yesterday.	Real graph (4) Money: choose a penny, nickel, dime or quarter.
76	Olymbac at the Symposic Lays	
Count 1-11-1 Count by tens to 50 Rhythmic clapping (p. 21)	Symbolic level of the Three Games (p. 237) (Children work in pairs recording combinations at the three stations. When finished they have free choice of math activities.)	Picture graph (4) TV: What do you like to watch best Zoom, Star Trek, Electric Company, or Mickey Mouse Club
77	and a second sec	
Count by tens to 100 People row patterns (p. 29) Matrix patterns (p. 258)	Half the class: number stations (p. 168) Half the class: Magic box (p. 248) Say it Fast (symbolic level) (DO NOT switch groups until tomorrow)	Picture graph (4) Sports: Do you like baseball, football, basketball or hockey best?
78		
Count 1-12-1 Count by tens to 100 Duration (p. 124)	Switch groups from yesterday.	Grow and Shrink Balloon Game (p. 229) Picture graph (4) How do you feel today: happy, mad. sad
79		
Count 1-13-1 Count by tens to 100 Interpreting symbols (p. 217)	Half the class: number stations (p. 168) Half the class: Listen and Count (p. 190) Subtraction Race (p. 227) Presto-Change-O (p. 197) (DO NOT switch groups until tomorrow)	Real graph: Symbolic graph (2) Shoes: one or two-tone shoes
80 Count by tens to 100 Matrix patterns (p. 258)	Switch groups from yesterday.	Sorting walk (groups of four) (p. 72)
Count 1-14-1 Count by tens to 100	Symbolic level of the Three Games (p. 237)	Capture (p. 195) Symbolic graph (2)

Rhythmic clapping (p. 21)	(Children work in pairs recording combinations at the three stations. When finished they have free choice of math activities.)	Are you a boy or a girl?
	(Reread Chapter 11, Place Value p. 274 ten children who are ready to begin pla and teach them the Place Value Counti at the number stations and plays game. The Donut Game, Subtraction Cards, T Unifix cubes (one child plays ''teacher''	4.) When you have a group of about the value activities, take them aside ng Game. The rest of the class works is independently like Listen and Count, he Magic Box, and Addition with ).
	As other groups of children complete w mastery of the combinations through te Game to them. At this point your first g looking for patterns at the symbolic leve to Pattern II activities such as tile patter column, and diagonal patterns.	rork at the number stations (showing n), introduce the Place Value Counting roup should be working independently el. This group can also be introduced rns, surrounding patterns, and row,
	The place value activities (Chapter 11) your children are demonstrating skill in and are ready for additional work, they series of activities.	will take about two months. When finding patterns at the symbolic level will be ready to begin the following
	From now on the children will only grou	up by tens.
82 Count by twos to 10 Clothing patterns (p. 257)	Introduce base ten Unifix patterns (p. 314)	Symbolic graph (2) Do you like your name?
	Work on base ten Unifix patterns for se explore these patterns independently. O unifix patterns save their records from to stop working at the same time.) The patterns, sheorhe begins recording whe	veral days until the children can Children working on the base ten day to day. (This enables everyone next time the child works on these ere sheorhe left off the previous time.
83 Count by twos to ten	Half the class:	Symbolic graph (2)
Count by tens to 100 Peas in the pod (p. 311)	base ten Unifix patterns (p. 314) Half the class: *measuring (p. 307) (Switch groups)	Are you saving money at home?
84		
Count by twos to ten Count by tens to 100 Estimating and checking (p. 308)	<ul> <li>⅓ the class:</li> <li>base ten Unifix patterns (p. 314)</li> <li>⅓ the class:</li> <li>measuring (p. 307)</li> <li>⅓ the class:</li> <li>*counting jars (p. 310)</li> <li>(Switch groups)</li> </ul>	Symbolic graph (3) Clothing: Are you wearing a skirt, dress or pants?
85		
Count by twos to 20 Estimating and checking (p. 308)	Base ten Unifix patterns (p. 314) Measuring (p. 307) Counting jars (p. 310)	Symbolic graph (3) Names: Whom do you vote for to be kickball captain?

