

# Favourite Math Lessons

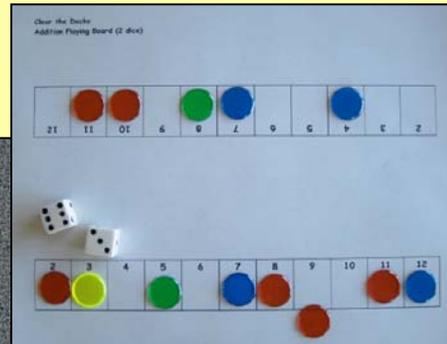
by Linda Picciotto and Debbie Marchand

**Subtraction Bowling**

# of pins to start		# of pins bowled down	=	# of pins left standing
3	-	3	=	0
3	-	3	=	0
4	-	4	=	0
5	-	3	=	2
5	-		=	



Clear the Deck  
Addition Playing Board (2 dice)



Name \_\_\_\_\_ Date \_\_\_\_\_

**What's in the Bag?**

Recording and Predicting Worksheet

Colours we saw:

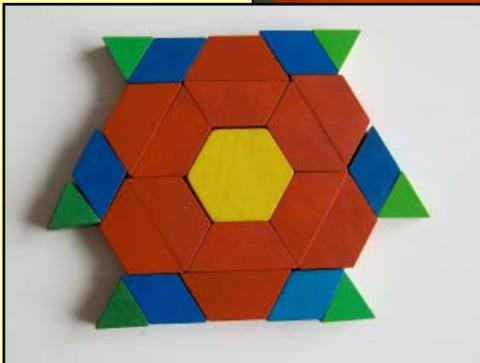


My prediction for the six colours in the bag:

<input type="checkbox"/>					
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Colours actually in the bag:

<input type="checkbox"/>					
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**Creating Addition Equations**

Name Shaye Date 

5	+	2	=	7
<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>

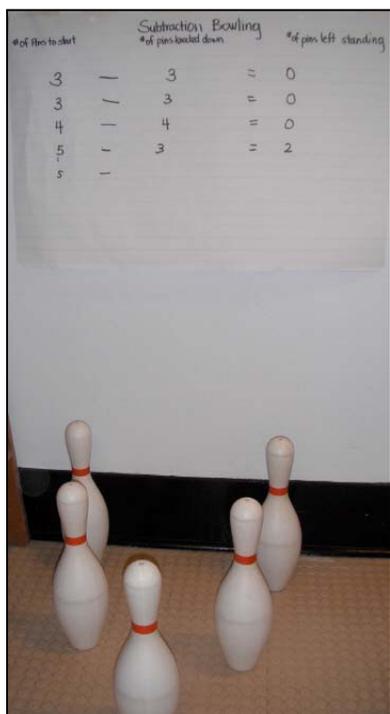
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## Subtraction Bowling

I often found that teaching subtraction in a way that all children could understand it was difficult. When I tried using **Subtraction Bowling**, I was amazed that the children seemed to be so interested in playing the game that learning how to do subtraction became easier for them. Here's how we played it...



### Materials Needed

a set of 10 plastic bowling pins or 10 empty 2 litre cardboard beverage cartons, a small size gym ball, and a chalkboard or chart paper for printing out the equations

### Instructions

1. Find an area in the classroom or the gym where you can set up the bowling game. All the students should be able to see the game when it's being played.
2. Set up the number of bowling pins you wish to use so that it is possible for them all to be hit with one gym ball. With young children, I start with only 3 pins and gradually add more as they develop a greater understanding of the game.
3. Students take turns being the bowler while you record the equations on the chalkboard or chart paper.

(What's in the Bag, page 2)

It's a good idea to prepare more than one bag before the lesson, since you will be using more than one and you don't want the students to see what you are putting into the bag.

In my class, I ask students to sit in a large circle on the rug. Each has a recording sheet and 6 crayons, coloured pencils, or felt pens in the 6 colours.

### The Activity



Tell the students that they are going to pass the bag around the circle. When it is a student's turn, he or she shakes up the cubes in the bag and then opens it carefully without looking inside. The student then selects a cube and holds it up for all to see while announcing the colour clearly. She then puts it back into the bag and closes it up. All students record in the top part of their worksheets the colour just seen by using the felt marker or pencil crayon that corresponds to the colour announced. I don't show them how to organize the

recording of colours since they each will have their own style and will learn to be more efficient once they see the object of the recording. It is interesting to see the variety of recording methods students use. Some make marks without much care, some line up the colour marks neatly in lines, some draw squares or dots, and so forth.

## The Interviews

Give each student an interview paper. There will be some duplication, but it doesn't matter because students will be asking different classmates, so the totals will not be the same. If you have a class set of clipboards, that works well. Students feel very grownup and official as they go about their interviewing! Ask them to use a pencil instead of a pen so the ink won't go through the paper and mistakes can be corrected easily.

Students circulate around the room, asking 12 different classmates the question on their sheets. When they approach someone, they write the student's name in the appropriate space, or ask the student to write his own name. Then they ask the question and record the response.



Interviewer: "Would you rather go biking, hiking, or swimming?"

Responder: "Swimming!"

Interviewer: "All right, I'll put you down for swimming" [prints Lucas's name in the left column, places an x in the "swimming" column, draws dashes in the biking and hiking columns in that row, and then approaches another student]