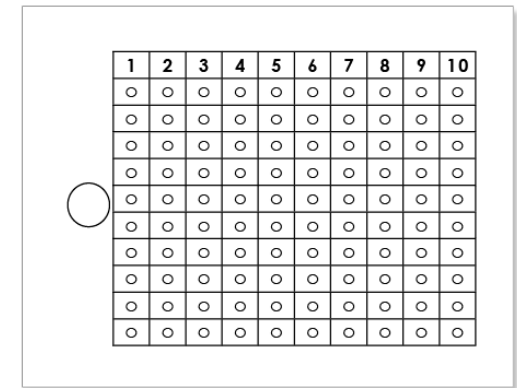


Making your Multiplication Bead Board

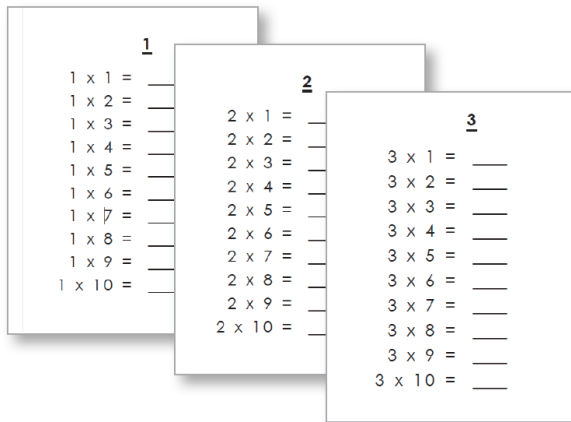
Bead Board Paper: Print several copies of page 3 on plain paper. Cut each page in quarters to make four boards per page (4.25" W x 5.5" H). Place them in a neat stack or in a tray on the child's work shelf.

Making the Equation Slips: The equation slips are also 4.25" W x 5.5" H. Print these on plain paper and cut the pages into quarters. Print several copies of each slip to encourage repetition. Use the scrap (blank pages) to encourage the children to write their own equations or as title pages for the booklets they will make from their completed work (see Lesson Plan for details). Place these in an orderly fashion on the child's work shelf.



Control Chart: Cut off the left 0.5" margin of the second page of the control chart. Line the second page up with the first page and glue together so that there is one large page with all equations in one grid. You might wish to glue this large board onto a foam board backing to add stability.

Read our lesson plan on the next page for detailed instructions on using these materials. Enjoy!



1 x 1 = 1	2 x 1 = 2	3 x 1 = 3	4 x 1 = 4	5 x 1 = 5	6 x 1 = 6	7 x 1 = 7	8 x 1 = 8	9 x 1 = 9	10 x 1 = 10
1 x 2 = 2	2 x 2 = 4	3 x 2 = 6	4 x 2 = 8	5 x 2 = 10	6 x 2 = 12	7 x 2 = 14	8 x 2 = 16	9 x 2 = 18	10 x 2 = 20
1 x 3 = 3	2 x 3 = 6	3 x 3 = 9	4 x 3 = 12	5 x 3 = 15	6 x 3 = 18	7 x 3 = 21	8 x 3 = 24	9 x 3 = 27	10 x 3 = 30
1 x 4 = 4	2 x 4 = 8	3 x 4 = 12	4 x 4 = 16	5 x 4 = 20	6 x 4 = 24	7 x 4 = 28	8 x 4 = 32	9 x 4 = 36	10 x 4 = 40
1 x 5 = 5	2 x 5 = 10	3 x 5 = 15	4 x 5 = 20	5 x 5 = 25	6 x 5 = 30	7 x 5 = 35	8 x 5 = 40	9 x 5 = 45	10 x 5 = 50
1 x 6 = 6	2 x 6 = 12	3 x 6 = 18	4 x 6 = 24	5 x 6 = 30	6 x 6 = 36	7 x 6 = 42	8 x 6 = 48	9 x 6 = 54	10 x 6 = 60
1 x 7 = 7	2 x 7 = 14	3 x 7 = 21	4 x 7 = 28	5 x 7 = 35	6 x 7 = 42	7 x 7 = 49	8 x 7 = 56	9 x 7 = 63	10 x 7 = 70
1 x 8 = 8	2 x 8 = 16	3 x 8 = 24	4 x 8 = 32	5 x 8 = 40	6 x 8 = 48	7 x 8 = 56	8 x 8 = 64	9 x 8 = 72	10 x 8 = 80
1 x 9 = 9	2 x 9 = 18	3 x 9 = 27	4 x 9 = 36	5 x 9 = 45	6 x 9 = 54	7 x 9 = 63	8 x 9 = 72	9 x 9 = 81	10 x 9 = 90
1 x 10 = 10	2 x 10 = 20	3 x 10 = 30	4 x 10 = 40	5 x 10 = 50	6 x 10 = 60	7 x 10 = 70	8 x 10 = 80	9 x 10 = 90	10 x 10 = 100

Multiplication Bead Board Lesson Plan

Purpose: The purpose of this material is to help the child memorize the multiplication tables. It is meant to be introduced after the child has had a lot of experience using concrete multiplication manipulatives including the golden beads, stamp game, and multiplication bead box.

Presentation:

1. Invite a child to do the work with you. Bring one Multiplication Board paper, one equation slip for the 5 table, one red pencil, and one standard handwriting pencil to a table. Say, "I'll have a turn and then you can have a turn."
2. Take out the number 5 equation slip and place it to the right of your bead board paper.
3. Use the red pencil to write the number 5 in the circle on the left center of the board paper.
4. Say, "We have the number 5. Let's take it one time." Using the red pencil, circle the number 1 on the top of the board paper. Color in 5 red circles down the 1 column.
5. Ask, "How many red circles do we have? Let's write it down." Write down the answer on the equation slip using the regular pencil.
6. Say, "Now let's take it 2 times." Use the red pencil to draw a line through the number one on top of the bead paper and circle the number 2. Fill in 5 circles beneath the number two on the board paper.
7. Ask, "How many do we have? Let's write down the answer." Write the answer on your equation slip.
8. Invite the child to step in and continue until all the 5 tables are done.
9. When the child is done, say, "Wow! You've done a lot of work. Let me show you how you can check to see if the answers are correct." Bring the child with you and show him where the multiplication control chart #1 is. Bring it back to the table.
10. Take the slip and review each equation, have the child say the words and show him how to find the answers on the chart.
11. Encourage the child to decorate his/her work. If they have completed many equation slips, they may wish to turn them into a lovely little booklet.
12. Clean up carefully together so that the work is ready for the next use.

	1	2	3	4	5	6	7	8	9	10
•	○	○	○	○	○	○	○	○	○	○
•	○	○	○	○	○	○	○	○	○	○
•	○	○	○	○	○	○	○	○	○	○
•	○	○	○	○	○	○	○	○	○	○
•	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○

5

5 x 1 = 5

5 x 2 = _____

5 x 3 = _____

5 x 4 = _____

5 x 5 = _____

5 x 6 = _____

5 x 7 = _____

5 x 8 = _____

5 x 9 = _____

5 x 10 = _____

Activity 1:

Once the child has completed a few number tables, invite them to create their own equation. Write it across the top of the board paper and solve as in the presentation. Guide them to use the control chart to check their work independently. Then, encourage them to bind their completed board papers into a book. Guide them to add a title page and embellishments so that they make something lovely.

$5 \times 1 = 5$

	1	2	3	4	5	6	7	8	9	10
•	○	○	○	○	○	○	○	○	○	○
•	○	○	○	○	○	○	○	○	○	○
•	○	○	○	○	○	○	○	○	○	○
•	○	○	○	○	○	○	○	○	○	○
•	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○

1

$$\begin{aligned} 1 \times 1 &= \underline{\quad} \\ 1 \times 2 &= \underline{\quad} \\ 1 \times 3 &= \underline{\quad} \\ 1 \times 4 &= \underline{\quad} \\ 1 \times 5 &= \underline{\quad} \\ 1 \times 6 &= \underline{\quad} \\ 1 \times 7 &= \underline{\quad} \\ 1 \times 8 &= \underline{\quad} \\ 1 \times 9 &= \underline{\quad} \\ 1 \times 10 &= \underline{\quad} \end{aligned}$$

2

$$\begin{aligned} 2 \times 1 &= \underline{\quad} \\ 2 \times 2 &= \underline{\quad} \\ 2 \times 3 &= \underline{\quad} \\ 2 \times 4 &= \underline{\quad} \\ 2 \times 5 &= \underline{\quad} \\ 2 \times 6 &= \underline{\quad} \\ 2 \times 7 &= \underline{\quad} \\ 2 \times 8 &= \underline{\quad} \\ 2 \times 9 &= \underline{\quad} \\ 2 \times 10 &= \underline{\quad} \end{aligned}$$

3

$$\begin{aligned} 3 \times 1 &= \underline{\quad} \\ 3 \times 2 &= \underline{\quad} \\ 3 \times 3 &= \underline{\quad} \\ 3 \times 4 &= \underline{\quad} \\ 3 \times 5 &= \underline{\quad} \\ 3 \times 6 &= \underline{\quad} \\ 3 \times 7 &= \underline{\quad} \\ 3 \times 8 &= \underline{\quad} \\ 3 \times 9 &= \underline{\quad} \\ 3 \times 10 &= \underline{\quad} \end{aligned}$$

4

$$\begin{aligned} 4 \times 1 &= \underline{\quad} \\ 4 \times 2 &= \underline{\quad} \\ 4 \times 3 &= \underline{\quad} \\ 4 \times 4 &= \underline{\quad} \\ 4 \times 5 &= \underline{\quad} \\ 4 \times 6 &= \underline{\quad} \\ 4 \times 7 &= \underline{\quad} \\ 4 \times 8 &= \underline{\quad} \\ 4 \times 9 &= \underline{\quad} \\ 4 \times 10 &= \underline{\quad} \end{aligned}$$

5

$$\begin{aligned} 5 \times 1 &= \underline{\quad} \\ 5 \times 2 &= \underline{\quad} \\ 5 \times 3 &= \underline{\quad} \\ 5 \times 4 &= \underline{\quad} \\ 5 \times 5 &= \underline{\quad} \\ 5 \times 6 &= \underline{\quad} \\ 5 \times 7 &= \underline{\quad} \\ 5 \times 8 &= \underline{\quad} \\ 5 \times 9 &= \underline{\quad} \\ 5 \times 10 &= \underline{\quad} \end{aligned}$$

6

$$\begin{aligned} 6 \times 1 &= \underline{\quad} \\ 6 \times 2 &= \underline{\quad} \\ 6 \times 3 &= \underline{\quad} \\ 6 \times 4 &= \underline{\quad} \\ 6 \times 5 &= \underline{\quad} \\ 6 \times 6 &= \underline{\quad} \\ 6 \times 7 &= \underline{\quad} \\ 6 \times 8 &= \underline{\quad} \\ 6 \times 9 &= \underline{\quad} \\ 6 \times 10 &= \underline{\quad} \end{aligned}$$

7

$$\begin{aligned} 7 \times 1 &= \underline{\quad} \\ 7 \times 2 &= \underline{\quad} \\ 7 \times 3 &= \underline{\quad} \\ 7 \times 4 &= \underline{\quad} \\ 7 \times 5 &= \underline{\quad} \\ 7 \times 6 &= \underline{\quad} \\ 7 \times 7 &= \underline{\quad} \\ 7 \times 8 &= \underline{\quad} \\ 7 \times 9 &= \underline{\quad} \\ 7 \times 10 &= \underline{\quad} \end{aligned}$$

8

$$\begin{aligned} 8 \times 1 &= \underline{\quad} \\ 8 \times 2 &= \underline{\quad} \\ 8 \times 3 &= \underline{\quad} \\ 8 \times 4 &= \underline{\quad} \\ 8 \times 5 &= \underline{\quad} \\ 8 \times 6 &= \underline{\quad} \\ 8 \times 7 &= \underline{\quad} \\ 8 \times 8 &= \underline{\quad} \\ 8 \times 9 &= \underline{\quad} \\ 8 \times 10 &= \underline{\quad} \end{aligned}$$

9

$$9 \times 1 = \underline{\quad}$$

$$9 \times 2 = \underline{\quad}$$

$$9 \times 3 = \underline{\quad}$$

$$9 \times 4 = \underline{\quad}$$

$$9 \times 5 = \underline{\quad}$$

$$9 \times 6 = \underline{\quad}$$

$$9 \times 7 = \underline{\quad}$$

$$9 \times 8 = \underline{\quad}$$

$$9 \times 9 = \underline{\quad}$$

$$9 \times 10 = \underline{\quad}$$

10

$$10 \times 1 = \underline{\quad}$$

$$10 \times 2 = \underline{\quad}$$

$$10 \times 3 = \underline{\quad}$$

$$10 \times 4 = \underline{\quad}$$

$$10 \times 5 = \underline{\quad}$$

$$10 \times 6 = \underline{\quad}$$

$$10 \times 7 = \underline{\quad}$$

$$10 \times 8 = \underline{\quad}$$

$$10 \times 9 = \underline{\quad}$$

$$10 \times 10 = \underline{\quad}$$

$1 \times 1 = 1$	$2 \times 1 = 2$	$3 \times 1 = 3$	$4 \times 1 = 4$	$5 \times 1 = 5$
$1 \times 2 = 2$	$2 \times 2 = 4$	$3 \times 2 = 6$	$4 \times 2 = 8$	$5 \times 2 = 10$
$1 \times 3 = 3$	$2 \times 3 = 6$	$3 \times 3 = 9$	$4 \times 3 = 12$	$5 \times 3 = 15$
$1 \times 4 = 4$	$2 \times 4 = 8$	$3 \times 4 = 12$	$4 \times 4 = 16$	$5 \times 4 = 20$
$1 \times 5 = 5$	$2 \times 5 = 10$	$3 \times 5 = 15$	$4 \times 5 = 20$	$5 \times 5 = 25$
$1 \times 6 = 6$	$2 \times 6 = 12$	$3 \times 6 = 18$	$4 \times 6 = 24$	$5 \times 6 = 30$
$1 \times 7 = 7$	$2 \times 7 = 14$	$3 \times 7 = 21$	$4 \times 7 = 28$	$5 \times 7 = 35$
$1 \times 8 = 8$	$2 \times 8 = 16$	$3 \times 8 = 24$	$4 \times 8 = 32$	$5 \times 8 = 40$
$1 \times 9 = 9$	$2 \times 9 = 18$	$3 \times 9 = 27$	$4 \times 9 = 36$	$5 \times 9 = 45$
$1 \times 10 = 10$	$2 \times 10 = 20$	$3 \times 10 = 30$	$4 \times 10 = 40$	$5 \times 10 = 50$

$6 \times 1 = 6$	$7 \times 1 = 7$	$8 \times 1 = 8$	$9 \times 1 = 9$	$10 \times 1 = 10$
$6 \times 2 = 12$	$7 \times 2 = 14$	$8 \times 2 = 16$	$9 \times 2 = 18$	$10 \times 2 = 20$
$6 \times 3 = 18$	$7 \times 3 = 21$	$8 \times 3 = 24$	$9 \times 3 = 27$	$10 \times 3 = 30$
$6 \times 4 = 24$	$7 \times 4 = 28$	$8 \times 4 = 32$	$9 \times 4 = 36$	$10 \times 4 = 40$
$6 \times 5 = 30$	$7 \times 5 = 35$	$8 \times 5 = 40$	$9 \times 5 = 45$	$10 \times 5 = 50$
$6 \times 6 = 36$	$7 \times 6 = 42$	$8 \times 6 = 48$	$9 \times 6 = 54$	$10 \times 6 = 60$
$6 \times 7 = 42$	$7 \times 7 = 49$	$8 \times 7 = 56$	$9 \times 7 = 63$	$10 \times 7 = 70$
$6 \times 8 = 48$	$7 \times 8 = 56$	$8 \times 8 = 64$	$9 \times 8 = 72$	$10 \times 8 = 80$
$6 \times 9 = 54$	$7 \times 9 = 63$	$8 \times 9 = 72$	$9 \times 9 = 81$	$10 \times 9 = 90$
$6 \times 10 = 60$	$7 \times 10 = 70$	$8 \times 10 = 80$	$9 \times 10 = 90$	$10 \times 10 = 100$