Multiplication Designs

Vhy

practice recognition of multiplication facts and to see connecons between numbers and their multiples

Recognizing multiples quickly is important in addition and subtraction, reducing fractions, and long division, as well as in algebra.

How

Pick a number from 2 to 12 and write it on top of your multiplication chart.

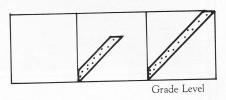
Above your multiplication table, write all of the multiples of the number you chose. Continue your list until you get to 144, or as close as you can.

For each multiple, find all the places it occurs on the table; color in those squares on your chart (see example below).

Compare your design with one someone did for another number —or choose a different number from 2 to 12 and make a new design.

Discuss the patterns made by different numbers. Why do 8 and 9 have more complex patterns than 7?

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					(8)					
8	16	24	5 5	32	40	48	5	66	4.	72 0	90	
18	96	109	1 1.	12	120	1	28	136	5 /	44	′	
X	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	14	9	10	11	12
2	2	4	6	1/4	10	12	14	14	18	20	22	PH
3	3	6	9	12	15	18	21	14	27	30	33	36
4	4	14.	12	14	20	14.	28	13/	36	1/4	44	///
5	5	10	15	20	25	30	35	14	45	50	55	60
6	6	12	18	1/4	30	36	42	14	54	60	66	Pf
7	7	14	21	28	35	42	49	14	63	70	77	84
8	(4)	14	14	14	14	14	Ff	14	ff	180	18	189
9	9	18	27	36	45	54	63	H	81	90	99	10
10	10	20	30	14	50	60	70	14	90	100	110	M
11	11	22	33	44	55	66	77	14	99	110	121	13
12	12	1/1/	36	1/4	60	the	84	14	108	1/1/2	132	14



TOOLS

Several multiplication tables Crayons or marking pens

MULTIPLICATION DESIGNS

X	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144