

Students will be able to construct the multiplication table of 9

40- 50 min

PRE REQUISITES:

G3.26 Know multiplication as repeated addition

TLM



Nine paper cups
Around 90 kidney beans/
marbles

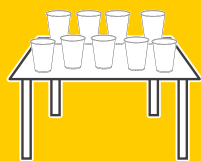
MISCONCEPTIONS

None

KEY VOCABULARY

None

PLAY



9 empty glasses



$9 \times 1 = 9$

Multiplication facts of 9

Keep the nine paper cups on the table. Put one Kidney beans in each cup

QUESTION
How many beans are there in all the cups together?

Put one more bean in each cup. Tell the students that there are now 9 cups of 2 beans each

Ask anyone student to make a number sentence to represent the distribution

QUESTION
How many beans are there in all the cups now?

Put one more bean in each cup & ask another student to make a number sentence to represent the distribution

Repeat till you have put 10 beans in each cup

PROCESS

Table	Sum
$1 \times 9 = 9$	$0 + 9 = 9$
$2 \times 9 = 18$	$1 + 8 = 9$
$3 \times 9 = 27$	$2 + 7 = 9$
$4 \times 9 = 36$	$3 + 6 = 9$
$5 \times 9 = 45$	$4 + 5 = 9$
$6 \times 9 = 54$	$5 + 4 = 9$
$7 \times 9 = 63$	$6 + 3 = 9$
$8 \times 9 = 72$	$7 + 2 = 9$
$9 \times 9 = 81$	$8 + 1 = 9$
$10 \times 9 = 90$	$9 + 0 = 9$

Multiplication table for 9

Write the multiplication table for 9 on the blackboard

Point to the first digits of all no.s & tell the no.s increase from 1 to 9 as one moves down the multiplication table

Point to second digit of all the no.s & tell the no.s decrease from 9 to 1 as one moves down the multiplication table

Tell that the multiplication table for 9 is unique. No other multiplication table shows this pattern

Add the two digits of all the numbers & tell the students that the sum of the digits in always equal to 9

Explain that these characteristics of the multiplication table for 9 can help construct the table quickly

This process also helps to check if a number belongs to the table or not

PRACTICE

9×1	09
9×2	18
9×3	27
9×4	36

Write the question on the blackboard & ask the students to solve

Help the students solve question 3 from the worksheet. Ask the students to complete the table for 9

9×1	09
9×2	18
9×3	27
9×4	36
9×5	45
9×6	54
9×7	63
9×8	72
9×9	81
9×10	90

Help the students solve question 4 from the worksheet. Ask the students to fill in the blanks

- $4 \times 9 = \underline{\quad}$
- $\underline{\quad} \times 9 = 81$
- $2 \times 9 = \underline{\quad}$
- $\underline{\quad} \times 9 = \underline{\quad}$

QUESTION
Would you find number 78 in the table for 9? How do you know?



- ① SOLVED EXAMPLE : Color the numbers where the sum of both the digits is 9:

Use these numbers in order to write the table of 9 in the space below:

9	18	27							
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1	2	3	4	5	6	7	8	9	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	100

- ② Complete the table for 9

9 x 1	=	0__
9 x 2	=	1__
9 x 3	=	2__
9 x 4	=	3__
9 x 5	=	4__
9 x 6	=	5__
9 x 7	=	6__
9 x 8	=	7__
9 x 9	=	8__
9 x 10	=	9__

- ③ Circle the errors & correct them:

S.No.	Multiplication	Product
1	2 x 9 =	81
2	9 x 9 =	18
3	4 x 9 =	27
4	6 x 9 =	45
5	5 x 9 =	63

- ④ Fill in the blanks

- a. 4 x 9 = ____
- b. ____ x 9 = 81
- c. 2 x 9 = ____
- d. ____ x 9 = 27

- ⑤ Match the following:

9 x 3	63
9 x 7	36
9 x 4	27
9 x 10	54
9 x 6	90



Akbar gives one gold coin to each of his Navaratnas on the first day of the month. Next day he gives two coins to each, then 3 coins the next day.

How many coins will each navaratna have by the 9th day. Is it the same as 9 x 9?