Unit- Multiplication Tables

Grade 1

ABOUT THE UNIT

Through this unit, students understand the need and meaning of multiplication. They develop related vocabulary and learn different strategies to solve problems that involve adding a number repeatedly.

Within this unit, there are opportunities for students to construct the tables of 2, 3, 4, 5 and 10.

This unit takes approximately 21-23 periods.

WHERE THE UNIT FITS IN	VOCABULARY/SKILLS	RESOURCES
Previous Grade: Numbers till 50 and grouping them	In this unit, students will have opportunities to use: • Words such as groups, equal groups, times, threes, fours, skip counting, count on, etc.	Collected things from classroom like crayons and pencils
		Colour pencils
Next Grade: Tables till 10 and box-multiplication method	**Skills such as visualisation, representation, connection, reasoning and** Material Required:	**Ganitmala and number catchers of 2, 3, 4, 5 and 10**
		7 sets of number cards from 1 to 50
		100 kidney beans/ blocks for each student
		G1.Math.FA2.IB.Skip of 3
		G1.FA3.Math.Skip of 5.IB2

EXPECTATIONS

At the end of this unit

Most children will: Understand the meaning of repeated addition, 'times' and find out answers using counting and skipping on the number line

Be able to construct tables and try to remember them gradually

Some children will not have made so much progress and will: Need support in construction of tables and require lot more time in remembering them

Some children will have progressed further and will also: Be quick at construction of tables and will represent the concept of 'times' using various modes

MATH	G1	V2	Multiplication Tables	CHAKRA 1	MATH1211

BEGINNING DATE _____ COMPLETION DATE _____	PAGES FROM CURRICULUM BOOK: ESTIMATED # OF PERIODS: 5 ACTUAL # OF PERIODS: _____

LEARNING OBJECTIVES	EVIDENCES OF LEARNING
• Understanding the concept of multiplication	• Talking about the process of repeated addition • Using words 'times' in talking about multiplicative situations • Identifying equal groups

DO

I Explore, CB Page 5

Introduce the context for repeated addition with the help Sukoo, the monster and pictures on the interactive board.

Take students through the task of seeing pictures of things in equal groups and talk about them.

NOTES

Beans, blocks, Ganitmala, number tags, small sacks, beads

G2.FA2.Math.TAIL

IBs on repeated adding, skips of numbers

REFLECT

Ask:

1. What is Sukoo doing?
2. Is he making equal group of things or unequal groups?

THINK

I Observe, CB Page 6

Show pictures of things in equal groups on interactive board and ask them where they can see the groups of twos, threes, fours and fives. Then ask them to make equal groups of blocks in the class and talk about them in the vocabulary like how many equal groups and how many in each group...

Now ask them to note what they see in pictures given in **I Act,** Page 6

I Observe, Pg 7

Show pictures of bottles and introduce the meaning of 'times' for the situations where a number is getting added repeatedly. Introduce the symbol of 'times'.

Let them complete the task given in **I Act,** CB Page 7 after that.

Material Required: Collected things from classroom like crayons and pencils

PRACTICE

Let them draw pictures for the number statements given on Page 7.

NOTES

This task helps build representation skills.

Material Required: Colour pencils

ASSESS

OBSERVED EVIDENCES OF LEARNING

MATH	G1	V2	Multiplication Tables	CHAKRA 2	MATH1212

BEGINNING DATE _____ COMPLETION DATE _____	PAGES FROM CURRICULUM BOOK: ESTIMATED # OF PERIODS: 9 ACTUAL # OF PERIODS: _____
LEARNING OBJECTIVES	**EVIDENCES OF LEARNING**
To know different ways to find answers for situations involving repeated addition	• Students talk about'count all,''count on' and number line to find the answers • State the product with visual cues Recalling numbers in skips of 2, 3, 4 and 5while playing the game.

DO

Give a situation of repeated addition-

Seema has 3 groups of flowers. Each group has 4 flowers.

This is – 3 times 4 flowers

When we have equal groups, we are adding the same number.

How will we find the answer of this question?

Students will come up with the 'count-all strategy' on their own since they have been using it.

Share another strategy of 'count on' with the help of pictures and number line on TAIL. They are given in CB

Give an example and demonstrate these strategies to reach the answer.

Give examples from **I Act Page no 7** and let students skip the numbers on number line and reach the answers. Ask them to record their answers in CB.

Material Required: Ganitmala and number catchers for 2

REFLECT

What are the ways, Golu and Toro are using to find out the answer?

Which way do you like using?

THINK

All three ways can help us reach the answer. You can use any way you like to use.

If we need to know 5 times 4 we can quickly know this by using number line. We need to skip 4 numbers five times on number line. Let them do this in **I Act ,** CB Page 9.

APPLY

I Explore, CB Page 10

Let students see how number line helps us know the answer for adding a number many times. Let them record this in the CB. Introduce this as skip counting of 2.

I Play, CB Page 11

DO

Show them the interactive board presentation on adding 3 repeatedly and after that, ask them to understand the task given in **Practice at Home, CB** Page 11. They will do this task at home but they can ask questions and relate this task with the interactive board exercise.

TLM

G1.Math.FA2.IB.Skip of 3

PRACTICE

Begin the next day's class with **I Play**, Page 13: Count till 30. Wave your hands on the numbers to be skipped and jump on the numbers when they skip by 3.

APPLY

Skip by 4 on *Ganit mala* and count aloud. Tag the numbers on *Ganit mala* after doing this activity in the class. Once exploring the *Ganit mala* is done, let students work on **I Act** Pg 13

Material Required:

Ganit mala and number tags

Play on the Interactive board given for skip of 5. You can also play games that were played for skip by 2, 3 and 4 in the class. Ask students to write the skip of 5 in their notebook.

You can also count by 10. Display a number grid from 1 to 100 in the class and let students skip count by 10s. Let them note that in their notebooks.

Material Required: G1.FA3.Math.Skip of 5.IB2

I Play, CB Page 13- Take number cards from 1 to 50 in groups of 6 students each. Decide the number (2,3, 4 and 5) to be skipped by. Take turns picking up the numbers that will come next. The one who picks up the wrong card will be out of the team for that round. The ones who stay in the game till the end wins.

Ask students to record their scores in **I Act**, CB Page 13.

Material Required: 7 sets of number cards from 1 to 50

PRACTICE

Notebook Assignment-

Write the numbers from 1 to 50 in your notebook.

Ask students to choose any two colours and any two numbers, and then colour the numbers that come in the skip of those two numbers.

Get 100 beans in a box for the next task.

ASSESS

OBSERVED EVIDENCES OF LEARNING

MATH	G1	V2	Multiplication Tables	CHAKRA 3	MATH1213
BEGINNING DATE _____ COMPLETION DATE _____			PAGES FROM CURRICULUM BOOK: ESTIMATED # OF PERIODS: 7 ACTUAL # OF PERIODS: _____		
LEARNING OBJECTIVES			**EVIDENCES OF LEARNING**		
To understand what tables are To create tables and record them To remember them			Students paraphrase what 'times' is while grouping objects. They talk about what they get as products and note them systematically. They begin to recall tables gradually.		

DO

Share Toro's problem from the CB Page 83. Tell them, 'Rather than creating number line every time, we can learn these answer series and find the answer quickly.'

Let us do a task for this. Take out the beans and make groups of 2s as shown in CB Page 83.

Now count them and write how many they are in all.

Material Required: 100 kidney beans/ blocks for each student

REFLECT

1. What did you do?
2. What does this task show us?

THINK

This is a table of 2.

Tables are list of number sentences for numbers that we add repeatedly.

They tell us:

1. How many things are there in equal groups?
2. How many times do we have these groups?
3. How many things are there in all?

APPLY

I Act, CB Page 15, 16 and 17

Let's make the table of 3.

Take 3 beans repeatedly. Keep adding and write the answers in the CB.

Let them also observe the pattern in tables in the given number grids. It will help them remember the table.

Material Required: Beans- hundred with each child.

NOTES

Move around and help students group correctly. Keep asking them questions like, how many equal groups, how many in each group and how many in all. You can use *ganitmala* and number catchers for each table once students understand how to use them for skip counting.

APPLY

Let students make table of 4, 5, and 10 using blocks, *ganitmala* or number grid. You can give these tasks in pairs or small groups as well.

For table of 10 skip on *ganitmala*. Students will be able to pick this up fast. They can also see its quantity as well.

Ask students to remember the tables one by one rather than all at once. Give them at least a week to remember one table. Keep reciting them in the week they are remembering it. Keep the number grid displayed for students to use it as a visual aid for reciting the tables. They can write them in the notebook as well but stagger this work with the next concept because students need to keep revisiting tables.

NOTES

While students are remembering the tables, you can begin teaching the following concepts. The tables can be reciting in the beginning and at the end of the class daily