MINISTRY
OF
EDUCATION, YOUTH & INFORMATION
Every Child Can Learn, Every Child Must Learn

NATIONAL MATHEMATICS PROGRAMME

Grade: 3

Topic: Multiplication

Sub-topic: Multiplication

Duration: 60 Minutes

Objective:
Multiply a 2 or 3 digit number by 0 to 5 with/without renaming the partial product of ones and tens.

Specific Objective: By the end of the lesson, students will be able to

Multiply a 2 or 3 digit number by 2, 3, and 4 without renaming

Skills and Attitude:

Multiplication facts
Creating alternate strategies for multiplication

Prior Knowledge:

Students should already know how to:

a) Carry out repeated addition
b) Multiply single digit numbers by single digit numbers
c) Identify the value of each digit up to 3 digit numbers

Instructional Materials: dice, score card, number cards, decomposition mat.

Learning outcomes:

Model Multiplications situations to determine accurate results
Use other strategies to aid multiplication

Engage

- **"Who is my parrie?"** Make sets of cards with different numbers which when paired will total 10. Issue cards randomly. Ask the children to find their "parrie". Children will explain to the group how they knew their partner was the right one. Have large number lines or 10 squares visible for children to check their answers.

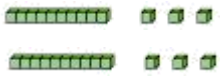
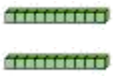
Explore

Give students cards with numbers from 0 to 13. Have them arrange the cards in pairs such that the total of each set of cards is 13. Place students in small groups and give them a Decomposition mat with a task like the one shown below

DECOMPOSITION MAT		
Side 1	Side 2	
13	10	3

Students will then be asked to double each number using counters in the space provided on the Decomposition mat.

Explain

DECOMPOSITION MAT		
Side1	Side 2	
Double 13 	Double 10 	Double 3
26	26	

Prompt them to state what they noticed about the products/sum on both sides of the mat. Have groups explore using different pairs. Have each group report on their findings.

Elaborate

As students work, have them represent their findings using multiplication number sentences.

For example

13 × 2 = 26	10 × 2 =20	3 × 2 = 6

After recording the multiplication number sentence have students work other numbers and record their findings.

Evaluate

- Give each group a score card and a pair of dice. (You determine how many students make up the groups).
- Have students roll the pair of dice and use the number on each die to form 2 digit numbers.

  (Increase by one die to facilitate when dealing with the 3 digit numbers). It is up to the player who rolls the dice to determine the number used.
- For the multiplier, allow each group to pick a face down card and use the number shown to be the multiplier. (**Do not replace the cards until all are used**)
- Each member of the group will show working of the problem on a separate sheet of paper. Ensure that each child writes his/her name on the paper.
- Answers will be recorded on a score card for each player.
- Each player will get his turn to roll the dice. The last player will end the round.
- Have an answer sheet for all possibilities for 2 and 3 digit numbers when multiplying by 2, 3 or 4.
- Collect score sheet and analyse.