25SCHOOLS

FREE LEARNING NOTES FOR ZAMBIA

GRADE 2 · TERM 2

Mathematics

Multiplication

Lesson notes for learners · Competence-Based Curriculum

INSIDE

1. Groups and arrays
2. Tables and three rules
3. Breaking a number into tens and ones
4. Number patterns
5. Check yourself

We multiply when we count groups of things, like 3 plates with 4 mangoes on each. In this note you will learn that multiplication is a short way to add equal groups. Use beads, blocks or beans to feel each group.

AFTER THESE NOTES YOU SHOULD BE ABLE TO

- Say that multiplication is repeated addition of equal groups
- Show multiplication with arrays
- Use the rules for order, one and zero
- Multiply a two-digit number by a single-digit number by breaking it into tens and ones

KEY WORDS

Multiplication	A short way of adding equal groups.
Array	Objects arranged in rows and columns.
Product	The answer when we multiply.
Multiples of 2	The numbers 2, 4, 6, 8 and so on.

1 Groups and arrays

Make 3 groups of 4 beads. Add them: 4 and 4 and 4 make 12. We can write this as 3 times 4 is 12. The sign for times is the cross sign.

Multiplication is a short way of adding equal groups.

Arrange beads in rows and columns. This is an array. 3 rows of 5 beads make 15 beads. So 3 times 5 is 15. Try 2 rows of 5 and 4 rows of 3.

Rows	Columns	Total
3	5	15
2	5	10
4	3	12

Figure 1. Arrays of beads

2 Tables and three rules

Multiplication tables help us count quickly, for example when counting money or objects. Say each table aloud and make it with beads.

Rule one: changing the order does not change the answer. 4 times 3 is 12 and 3 times 4 is 12.

Rule two: any number times 1 stays the same. Rule three: any number times 0 is 0. If you have no pencils, 0 times 5 is 0.

3 Breaking a number into tens and ones

To multiply 23 by 4, break 23 into 20 and 3. Multiply each part by 4. 20 times 4 is 80. 3 times 4 is 12. Add the parts: 80 and 12 make 92.

Try 34 times 5. Break 34 into 30 and 4. Multiply each part and add the answers.

This is faster than adding the same number again and again.

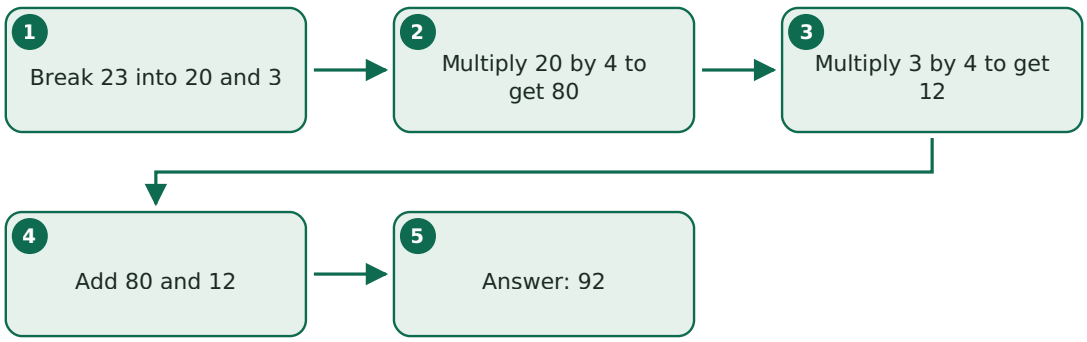


Figure 2. Steps for 23 times 4

4 Number patterns

Place 2 counters, then 4, then 6, then 8. Feel and count each group. The numbers grow by the same amount each time.

These numbers are multiples of 2. 2 times 1 is 2. 2 times 2 is 4. 2 times 3 is 6.

TRY THIS

Make 3 rows of 5 stones. Count them. Say the multiplication sentence. Then make 5 rows of 3 and see if the answer is the same.

REMEMBER

- Multiplication is repeated addition of equal groups
- An array shows rows and columns
- The order of numbers does not change the answer
- Any number times 1 stays the same and times 0 is 0
- Break a two-digit number into tens and ones to multiply

? Check yourself

1. What is 3 times 5.
2. What is any number times 0.
3. Is 4 times 3 the same as 3 times 4.
4. What are 2, 4, 6 and 8 called.
5. Mulenga puts 4 beads in each of 3 bags. His teacher asks how many beads there are in all. (a) How can we add this. (b) How do we write it as multiplication. (c) What is the total.
6. Chanda wants to find 23 times 4 using tens and ones. Her friend watches how she works. (a) How does she break 23. (b) What are the two products. (c) What is the answer.

ANSWERS

1. 15.
2. 0.
3. Yes, both are 12.
4. Multiples of 2.
5. (a) 4 and 4 and 4. (b) 3 times 4. (c) 12.
6. (a) 20 and 3. (b) 80 and 12. (c) 92.

Written by 25Schools to follow the Grade 2 Mathematics syllabus of the Zambian competence-based curriculum. Free for learners to read, download and share. More notes and quizzes at 25schools.com.