

3rd Grade Math Lesson: Multiply by 8

Objective:

- Students will learn how to multiply numbers by 8 using strategies such as skip counting, repeated addition, and multiplication facts. By the end of the lesson, students will be able to solve multiplication problems involving 8 and apply these skills to real-world situations.

1. Introduction to Multiplying by 8

- **Discussion:**
 - Begin by asking students, "What does multiplying by 8 mean?" Encourage students to share their thoughts on multiplication and how they might solve multiplication problems involving 8.
- **Explain:**
 - Multiplication is repeated addition. For example, 8×3 means adding 8 three times: $8 + 8 + 8 = 24$.
 - Skip counting is a useful strategy for multiplying by 8: 8, 16, 24, 32, etc.

2. Skip Counting by 8

- **Activity:**
 - Practice skip counting by 8 as a class. Write the numbers on the board as students say them: 8, 16, 24, 32, 40, 48, 56, 64, 72, 80.

Tip: Make skip counting fun by incorporating movements like clapping or jumping as students count.

3. Multiplying by 8 Using Repeated Addition

- **Explain:**
 - Demonstrate how multiplying by 8 can be shown as repeated addition:

Example 1:

- $8 \times 2 = 8 + 8 = 16$

Example 2:

- $8 \times 4 = 8 + 8 + 8 + 8 = 32$

- **Activity:**
 - Provide students with problems like:
 - $8 \times 3 = \underline{\hspace{2cm}}$
 - $8 \times 5 = \underline{\hspace{2cm}}$
 - Have them use repeated addition to find the answer.

4. Multiplication Facts for 8

- **Introduce and practice:**

- Teach students the multiplication table for 8:

| 8×1 | 8 | | 8×2 | 16 | | 8×3 | 24 | | 8×4 | 32 | | 8×5 | 40 | | 8×6 | 48 | | 8×7 | 56 | | 8×8 | 64 |
| 8×9 | 72 | | 8×10 | 80 |

- **Activity:**

- Practice these facts using flashcards or worksheets.

5. Real-World Application of Multiplying by 8

- **Discuss:**

- Explore real-world examples where multiplying by 8 is useful:
 - Counting legs of animals (e.g., 8 legs on a spider)
 - Multiplying groups of 8 items

- **Example Problem 1:**

- A spider has 8 legs. How many legs do 5 spiders have?
- Solution: $8 \times 5 = 40$ legs.

- **Example Problem 2:**

- There are 8 apples in each bag. How many apples are in 4 bags?
- Solution: $8 \times 4 = 32$ apples.

6. Guided Practice

- **Solve together:**

- Solve multiplication problems like these as a class:
 - $8 \times 3 = \underline{\hspace{2cm}}$
 - $8 \times 6 = \underline{\hspace{2cm}}$
 - $8 \times 7 = \underline{\hspace{2cm}}$

- **Use visuals:**

- Use arrays or draw pictures to help students visualize multiplying by 8.

7. Independent Practice

- **Worksheet:**

- Provide students with problems to solve on their own, such as:
 1. $8 \times 4 = \underline{\hspace{2cm}}$
 2. $8 \times 6 = \underline{\hspace{2cm}}$
 3. $8 \times 9 = \underline{\hspace{2cm}}$

8. Multiplication Games

- **Game 1:**

- Play "Multiplication Bingo" using products of 8. Call out problems like 8×5 , and students mark the answer on their cards.

- **Game 2:**

- Have a timed quiz or flashcard game where students race to answer multiplication problems involving 8.

9. Conclusion

- **Recap:**
 - Ask students to share what they learned about multiplying by 8.
 - Review key multiplication facts for 8.
- **Exit Ticket:**
 - Before students leave, have them solve a problem such as:
 - $8 \times 7 = \underline{\hspace{2cm}}$
 - $8 \times 9 = \underline{\hspace{2cm}}$