

Multiplying by 8

1. Introduction to Multiplying by 8

- **Start with a Simple Question:**
 - "If we have 8 groups of something, how do we find out how many we have in total?"
- **Explain the Concept:**
 - **Multiplication is Repeated Addition:**
 - When we multiply by 8, we're adding the same number (8) over and over.
 - For example, 3×8 means we are adding 8 three times: $8 + 8 + 8$.

2. Visualize Multiplying by 8

- **Use Objects:**
 - **Example:** If you have 8 baskets, and each basket has 5 apples, how many apples are there in all?
 - **Demonstrate with Counters or Blocks:**
 - Group the counters into sets of 8.
 - Count the total number of counters.
- **Draw a Picture:**
 - Draw 8 groups of something (like stars or apples) and count them to find the total.

3. Skip Counting by 8

- **Practice Skip Counting Together:**
 - **Count by 8s:**
 - Start at 8 and count up by 8: 8, 16, 24, 32, 40, 48, 56, 64, 72, 80.
 - **Engage the Class:** Ask students to join in or use a rhythm to make it fun.
- **Use a Number Line:**
 - Draw a number line and mark the multiples of 8 to visualize the skip counting.

4. Learn the Multiplication Facts for 8

- **Multiplication Table for 8:**
 - Show the multiplication facts for 8:
 - $8 \times 1 = 8$
 - $8 \times 2 = 16$
 - $8 \times 3 = 24$
 - $8 \times 4 = 32$
 - $8 \times 5 = 40$
 - $8 \times 6 = 48$
 - $8 \times 7 = 56$
 - $8 \times 8 = 64$
 - $8 \times 9 = 72$
 - $8 \times 10 = 80$

5. Real-World Examples

- **Example Problem 1:**
 - **Problem:** You have 8 bags of marbles, and each bag has 6 marbles. How many marbles do you have in total?
 - **Solution:** $8 \times 6 = 48$ marbles.
- **Example Problem 2:**
 - **Problem:** There are 8 pages in each book. If you have 9 books, how many pages are there in total?
 - **Solution:** $8 \times 9 = 72$ pages.
- **Show Visuals:** Draw or use objects to represent the problem.

6. Practice Problems

- **Solve Together:**
 - **Examples:**
 - $8 \times 2 = \underline{\hspace{2cm}}$
 - $8 \times 4 = \underline{\hspace{2cm}}$
 - $8 \times 7 = \underline{\hspace{2cm}}$
- **Hands-On Activity:**
 - Use counters or blocks to solve multiplication problems by grouping and counting.

7. Review and Conclusion

- **Recap:**
 - Summarize how multiplying by 8 means adding 8 several times and how we use patterns to solve these problems.
- **Exit Ticket:**
 - Have students solve one final problem like:
 - $8 \times 5 = \underline{\hspace{2cm}}$