

Addition and Subtraction of Whole Numbers

Common Core Standard

2.NBT.B.5: Add and subtract within 100.

A. GRADE LEVEL: 2nd–3rd grade

B. SUBJECT: STEM/Math

C. DATE: [Insert Date]

D. DURATION: 3 days (45 minutes per session)

E. LESSON FOCUS: Addition and subtraction within 100 using real-world applications, such as managing personal expenses, budgeting, and shopping.

F. MATERIALS:

- Base-ten blocks
- Number lines
- Play money (bills and coins)
- Shopping list templates
- Worksheets with addition and subtraction problems
- Whiteboard and markers

G. LESSON OBJECTIVES:

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

1. Accurately solve addition and subtraction problems within 100.
2. Use strategies like place value, number lines, and regrouping to find solutions.
3. Apply their skills to real-world scenarios, such as budgeting and shopping.

H. PROCEDURES:

1. INTRODUCTION:

- Start with a discussion on why addition and subtraction are important in everyday life (e.g., managing money, tracking expenses).
- Use examples like counting the total cost of items in a store or figuring out how much money is left after buying something.
- Review key vocabulary: sum, difference, regrouping, and place value.

2. EXPERIMENT:

- **Day 1:** Introduce solving addition problems using base-ten blocks and number lines. Model how to regroup when the sum in the ones place exceeds 9.
- **Day 2:** Teach subtraction using base-ten blocks and number lines. Explain regrouping (borrowing) and practice with examples.
- **Day 3:** Apply addition and subtraction to real-world scenarios using play money and shopping lists. Have students "shop" from a provided list, calculate the total, and subtract their expenses from a set budget.

3. OBSERVATION:

- Observe students as they solve problems using different strategies.
- Check for understanding of regrouping during addition and subtraction exercises.
- Note how students apply their knowledge during the shopping activity.

4. GENERALIZATION:

- Discuss how addition and subtraction help us make better financial decisions, such as saving and budgeting.
- Emphasize that the skills learned can be used in other areas, such as measuring or planning events.

5. ASSESSMENT:

- Provide a worksheet with a mix of addition and subtraction problems for students to solve independently.
- Have students complete a short word problem activity where they calculate totals and change in a shopping scenario.
- Review answers as a class and address any misunderstandings.

Note 1: Safety

Ensure small materials, such as play money and base-ten blocks, are used responsibly and kept away from younger siblings. Supervise all activities to prevent misuse of materials.

Note 2: Accommodation for ELL/ESE Students

Use visual aids like number lines and place value charts to support understanding. Pair ELL students with peers for collaborative problem-solving. Provide step-by-step instructions and translated key vocabulary when necessary. Allow ESE students additional time to complete activities and offer manipulatives to help them visualize problems.