

# Adding 2-Digit Numbers

## Grade 2 Math



### Learning Objectives

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

- Students will be able to add two-digit numbers using mental math and basic arithmetic operations.
- Students will be able to understand place value and regrouping in two-digit addition.
- Students will be able to use **verbal reasoning skills** to solve word problems that involve adding two-digit numbers.
- Students will be able to use **quantitative reasoning skills** to solve problems related to adding two-digit numbers.
- Students will be able to use **nonverbal reasoning skills** to use visual models and manipulatives to represent two-digit numbers and solve addition problems.

### Materials Needed

- Whiteboard and markers or scrap paper and pencil
- Place value blocks, base ten blocks
- Worksheets and/or practice two-digit addition problems



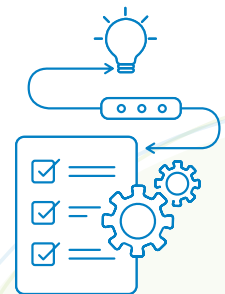
### Procedure

#### Introduction

1. Engage students by asking them to share what they know about adding numbers.
2. Introduce the concept of adding two-digit numbers by showing an example on the whiteboard (e.g.,  $23 + 15 = 38$ ).
3. Ask students to explain in their own words what they think is happening in the example.

#### Teaching

4. Model how to add two-digit numbers using manipulatives, such as base-10 blocks.
5. Guide students in practicing adding two-digit numbers using manipulatives.
6. Demonstrate how to record the addition problem vertically on the whiteboard and how to carry over when necessary.
7. Have students practice adding two-digit numbers on the whiteboard with you.



## Guided Practice

8. Provide students with practice addition problems with two-digit numbers.
9. Review the steps for adding two-digit numbers on the whiteboard before students begin working.
10. Students break off into groups of three or four.
11. Give each group a worksheet (or display on screen for the whole class) with two-digit addition problems.
12. Students work together to solve the problems and discuss the reasoning behind their solutions.
13. Use this opportunity to differentiate instruction based on how students learn best:
  - a. **Verbal:** Visit each group and pose questions to encourage them to communicate and collaborate effectively.
  - b. **Nonverbal:** Students can work individually using manipulatives to solve two-digit addition problems. Circulate through the room to support students, answer questions, and assess students' understanding.
  - c. **Quantitative:** Students can work with pencil and paper or dry erase boards to create their own two-digit addition problems. Then students can exchange with a partner and solve each others' problems.

## Independent Practice

14. Provide students with word problems related to adding two-digit numbers.
15. Demonstrate how to read and interpret the word problem and how to write an addition problem based on the information given.
16. Have students work independently to solve the word problems. Encourage the use of visual models and manipulatives to support their practice.
17. Students can pair up or form small groups to discuss their work and compare answers.

## Closure

18. Ask students to share one thing they learned about adding two-digit numbers today.
19. Review the steps for adding two-digit numbers.
20. To shore up mastery, give students an at-bat by employing their cognitive strength:
  - a. **Verbal:** Have students solve two-digit addition problems and then share how they solved the problem with a partner or small group.
  - b. **Quantitative:** Have students create their own two-digit addition problems and solve them.
  - c. **Nonverbal:** Have students use manipulatives or pencil and paper to create visual models to solve two-digit additions.



## Assessment

Observation of student participation and understanding during guided and independent practice  
Review of completed worksheets and word problems

- **Verbal and Quantitative:** Assess the students' verbal and quantitative reasoning skills by observing their participation in the group discussion and their ability to solve word problems related to adding two-digit numbers.
- **Nonverbal:** Assess the students' nonverbal reasoning skills by evaluating how well they understand and apply visual models and manipulatives to represent two-digit numbers and solve addition problems.

## Extension Activity

- Play math games that involve adding two-digit numbers.
- Have students create their own two-digit addition problems and challenge their classmates to solve them.
- Use manipulatives and visual models to represent larger numbers and continue to practice adding larger numbers.

