Subtracting with Regrouping

Learning Objectives

Students will subtract with regrouping using models.

Grade Level

2nd Grade

Common Core Standard

CCSS.MATH.CONTENT.2.NBT.B.7
Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

Materials Needed

- Base ten blocks and/or straws and cups for creating groups of tens
- Place value mats

- Word Problems for Subtracting with Regrouping
- Exit Ticket

Lesson

Introduction

- Review tens and ones. Tell students that you will give them a number and you want them to tell you how many tens and ones are in that number. If it only has tens, they should say how many tens and zero ones or no ones.
- You can have students respond orally as a whole group, call on individual students, or have students whisper their answer to a table partner.
- Use the following numbers: 63, 70, 24, 90, 15, 36, 20, 81

Explicit Instruction/Teacher Modeling

- Tell students: Connor has 23 marbles. He gives 9 to Shelly. How many marbles does he have left?
- Ask students to show how many marbles Connor started with using tens sticks, ones cubes, and their place value mats.
- Then ask students to model Connor giving Shelly 9 marbles.
- When students are confounded because there aren't enough ones cubes to give away 9, ask them if Connor has more than 9 marbles. Does he have enough to give 9 to Shelly? Ask students where they could get more cubes from.
- Model how to "make a fair trade" by turning a tens stick into ten ones.
- Some students find it helpful initially to verify that ten ones equal a ten stick by lining up the ones cubes on top of a tens stick.
- Many students make errors in the regrouping with models by only taking 9 cubes since that's how many Connor needs to give to Shelly. One way to prevent this error is to have a designated space above the place value mat, on the table, where "fair trades" happen, so that students exchange a ten for ten ones before placing the ten ones in the ones place.

Independent Work/Group Work

- Students should use the base ten blocks to model the situations in the word problem sheet. The word problems on the sheet are examples of Separate: Result Unknown, Separate: Change Unknown, and Separate: Start Unknown from Van de Walle (see References). Problems 1, 2 and 3 increase in difficulty level.

Review and Closing

- Review the answers with students.
- Give exit ticket to assess student learning.
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References

Van de Walle, J., Karp, K., & Bay-Williams, J.M. (2013). *Elementary and Middle School Mathematics: Teaching Developmentally.* NY, NY: Pearson.