Counting Puppies

Learning Objective

Students will fluently identify how many more are needed to make a ten.
Students will regroup to make a ten.

Common Core Standard

CCSS.MATH.CONTENT.2.NBT.B.5
Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

Materials Needed

Puppies Ten Frames
Base ten blocks or other base ten manipulative
Tens/Ones mats
Word problems for Making Ten Fluently

Lesson

Introduction

- This is a review for students to practice making ten before moving on to adding and subtracting with regrouping.
- Show students a ten frame with dots. After a 1 to 2 second pause students should be able to say how many more dots are needed to make ten.
- Practicing this repeatedly will build fluency and help students understand the relationships between numbers that make ten.
- For a fun change of pace, try using the Puppies Ten Frames. To change it up you can also have students first say how many puppies they see and then how many more are needed to make 10.

Explicit Instruction

*Teacher tip: **Before** introducing a new manipulative for students to use in math class, allow them several days of free play with the manipulative. This gives students time to explore and be creative with the item so that they can listen and follow directions more effectively when it's time to use the materials for math instead of play.

- Pass out the base ten blocks and tens/ones mats so that each student has at least 20 ones cubes and 5 tens sticks.
- Ask students to look at the ten frame that has 9 puppies on it and make that number on their mat (Ss should place 9 ones cubes in the ones place). Then ask what would happen if we tried to put 3 more puppies on the ten frame.
- Have students place 3 more ones cubes in the ones place.
- Tell students to count how many cubes are in the ones place. When they count ten ask if they see a place for tens. Show students the tens sticks. They should have already had time to explore the tens sticks and see that they are made of ten ones cubes stuck together. Some students find it helpful to place ones cubes on top of the tens sticks to verify that they are really ten cubes long.
- Once students have counted 12 cubes in the ones place, have them trade out ten cubes for one tens stick. Then point out that a ten stick and two ones cubes makes 12 total, just like we started out with.
- *Students need a LOT of practice regrouping this way. Developing flexible thinking about how ten ones equal one ten is a challenging task for many children.*

Independent 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 Join: Result Unknown, Join: Change Unknown, Join: Start Unknown, 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, as do problems 4, 5 and 6.

Review and Closing
- Ask students to explain their thinking and show how they solved each problem.

References

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