

Core Content

Cluster Title: Use place value understanding and properties of operations to add and subtract.
Standard : 6. Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), 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 and explain the reasoning used.
MASTERY Patterns of Reasoning:
Conceptual: Understand that tens place can be decreased by units of ten. Understand that the difference can be checked by using the inverse relationship between addition and subtraction.
Procedural: Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 Demonstrate taking tens away from a number using manipulatives. Use paper and pencil using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction to solve a subtraction problem. Journal to explain the process of taking tens away.
Representational: Demonstrate with pictures how to subtract ten and explain their reasoning.

Supports for Teachers

Critical Background Knowledge

Conceptual:

- Understand how many tens are in a number and the value of that number.
- Understand basic subtraction concepts and basic facts.
- Understand the format of subtraction in vertical and horizontal position.

Procedural:

- Recognize and count numbers to 100.
- Answer specific subtraction problems within 10.

Representational:

- Represent subtraction problems within 10 with manipulatives
- Represent a number with objects.

Academic Vocabulary and Notation	
Counting Back, Difference, Equation, Making Tens, Multiple of Tens, Subtract	
Instructional Strategies Used	Resources Used
<p>Play bingo with a card labeled with 10, 20, 30, 40, 50, 60, 70, 80, 90 as answers; some will be repeated. Orally and/or visually give the students subtraction problems and they cover the answer. Eg. $90-40=50$, $10-10=0$, $60-30=30$. Variation to game: Ask students to use the inverse relationship with addition and subtraction to solve problems. Eg. $90- \underline{\quad} = 50$, $60- \underline{\quad} = 40$</p> <p>Play race to 0 with a hundreds chart. Start at 100 and roll a number cube. Take away that many tens. The student that lands exactly on 0 first wins the game. Play repeated.</p>	<p>Online games and printable pages http://maths.primarytopics.co.uk/calculating/mental/year3/pages/55subm10.htm</p> <p>Online game for student practice http://www.ixl.com/math/grade-2/subtract-two-digits-multiples-of-10</p> <p>http://www.sheppardsoftware.com/mathgames/fruitshoot/fruitshoot_subtraction.htm</p>
Assessment Tasks Used	
<p>Skill-based Task: Students will demonstrate subtracting tens from multiples of ten using manipulatives and on paper. Numbers can be given orally or in written form.</p>	<p>Problem Task: Sarah’s mom bought 8 boxes of Capri Suns with ten in each box. At Sarah’s party friends drank 30 drinks. How do you know how many drinks Sarah has left?</p> <p>Jake’s class had 30 tadpoles in a tank. 10 turned into frogs. How many frogs are in the tank? How many tadpoles are in the tank? Explain your reasoning for solving the problem. Write an equation to show how you solved the problem.</p>