Differentiated Activities by Cognitive Levels

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Counting Stations

Possibilities

- 1) Containers filled with small objects and scraps of paper to write the numbers on. As students begin to work with teen numbers and groups of ten, cups can be used for students to count out the groups of ten.
- 2) Apple tree and red pom pom apples. Students can roll a traditional die, ten-sided die, or add the numbers on two die together and count out that many apples. As students begin to work with teen numbers and groups of ten, they can use cups to represent buckets filled with ten apples.
- 3) Watermelon and black pom pom seeds. Numbers can be written on the watermelon slices. As students work with teen numbers and groups of ten, they can use cups to hold ten seeds.





Differentiated Board Games

1) Students, who are counting by ones, use the game board with one dot in each space. They use a number cube to determine the number of spaces to move.

2) Students who are skip counting by tens, use the groups of ten board. This allows students the option to check their numbers by counting the dots. They use the multiples of ten cube (10, 20, etc.).

3) Students who are beginning to use tens language use the board with the number ten in each space. They use a tens cube (3 tens, 4 tens, etc.) When they move on the board, they should count each space as "one ten, two tens, etc." to maintain the tens language.



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•••••	Racing	••••	
••••	Rumble	••••	
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••••	Start		



10	10	10	10	10	10					Finish	10	
10					10						10	
10	Racing										10	
10		Rur	nbl	e	10							
10					10	10	10	10			10	
10								10			10	
10	Start							10	10	10	10	





Collect and Count to 100

Directions

- Partner one rolls the dice and counts out that many connecting cubes and places them on the place value mat. (When a quantity over ten is reached, the child connects ten cubes into a ten-train and puts them on the tens side of the mat.) Using the math talk card, the student states how many groups of ten and leftover ones have been collected in all.
- 2) Partner two takes his or her turn.
- 3) Play continues until someone has placed 100 (or 50) cubes on his or her place value mat.

To differentiate the talk cards:

- 1) Students say, "I got _____ more. That's _____ groups of ten and _____ more, or _____ altogether.
- Students say, "I got _____ more. That's _____(multiples of ten language thirty, forty) and _____ more, or _____ altogether.
- 3) Students say, "I got ____ more. That's ____ tens and ____ more, or ____ altogether.

Collect and Count to 100

tens	ones

or







or altogether. 2 That's -groups of ten and - more, or altogether. Collect and Count to 100 Materials • numbered dice (10r2 depending on the needs of the students · 100 connecting cubes for each player · place value mats

Source: Debbie Diller, Math Work Stations

Make a Hundred

Directions

- 1) This is played the same as Collect and Count to 100, except base-ten manipulatives are used.
- 2) Partner one rolls the dice and counts out that many one-cubes. (When a quantity over ten is reached, the child trades the 10 one-cubes for a ten-rod.) Using the math talk card, the student states how many groups of ten and leftover ones have been collected in all.
- 3) Partner two takes his or her turn.
- 4) Play continues until someone is able to trade 10 ten-rods for a hundreds-flat.

Variation: Once students are ready to move to non-representational models, this can be played using pennies, dimes, and a dollar bill or coin.

Students can play Make a Thousand. Use multiples of ten or tens language dice and a thousands cube.

Make a Hundred

tens	ones





I got ____ and ___ or ____ altogether. I got - more. That's - groups of ten and _ more, or ____ altogether. Make a Flat Materials: • numbered dice (1 or 2 depending on the needs of the students) · base ten blocks · place value mats

Make a Thousand

thousands	hundreds	tens	ones	





Make the Biggest Number Or Make the Smallest Number

Directions

To play with two-digit numbers, use two sets of 0 - 9 cards. To play with three-digit numbers, use three sets of 0 - 9 cards.

- 1) Both players turn over two cards at a time and try to make the biggest number. (For three-digit numbers, they will turn over three cards.)
- 2) The player who makes the biggest number keeps all of the cards. The player with the most cards wins.

Variations: Students can make the smallest number.

Students can model the numbers using cups and pom-poms, bean stick, and eventually base-ten blocks.







Number Cards



Two-Digit Mental Math

Directions

- 1) Partners choose a story problem to solve using mental math strategies.
- 2) On the think sheet, each partner writes his or her thinking about how to solve the problem in the think bubble. They write the equation on the line.
- 3) The students check the answer with a calculator.
- 4) Partners compare their strategies with each other, and if the answer was incorrect, they discuss why and what they would do differently next time.

Two-Digit Mental Math

Level 1

Peter used 30 blocks to build his tower, and Pam used 20 blocks to build her tower. How many blocks did they use in all?

Level 2 Susan has 41 stickers in her book. Mary has 50 stickers in hers. How many stickers are in the girls' books in all?

> Tommy read to page 56 in his book. There are 13 pages left in the book. How many pages are in the book?

Level 4

Level 3

Sam spent 46 dollars at the food store on Monday and 26 dollars at the food store on Tuesday. How much did he spend in all?



Battle

Who has More? Or Who has Less?

Directions

- 1) Shuffle the cards and deal them out to each player.
- 2) Both players turn their top card over. The player with the larger number takes both cards and puts them face-down at the bottom of his pile.
- 3) In the event of a tie, the players have a "war." Each player places three cards face down in the middle of the table and then turns a fourth card face up. The player with the larger card wins the battle and takes the ten cards and puts them face-down at the bottom of his pile.
- 4) Play continues until one of the players wins all of the cards or time is up.

Variation: The winner with the lesser number wins the cards.



BATTLE

