

Supplies

Sheet of craft paper or poster board divided into two columns and four rows. Small counters such as beans or buttons. Plastic lids.

The Activity

The student will make groups of 5 by filling up the rows in the right-hand column. When they reach 4 and there is no more room for the 5th counter, all 5 counters will be placed in a lid and the lid will be “carried” to the left-hand column. The student will then make the next group of 5, by counting: “1 lid plus 1, 1 lid plus 2,” until the next lid can be filled. When 4 lids are filled, the student will start counting backward by emptying out the lids and putting the counters back on the rows on the right side. Counting down goes: 2 lids and 4, 2 lids and 3, and so on.

Variations

- Use (play) pennies and nickels. Five pennies can be exchanged for one nickel. Counting will be: 1 nickel and 1 penny, 1 nickel and 2 pennies, and so on.

Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the supplies by touching, holding, and talking about them. Then explain what you will do. Formulate a plan with the student.

Questions: What is the plan? What do you need to do first? Next?

Act:

The student will count out the counters and make groups of 5.

Questions: What do you need to do when you have 4 counters in the rows? Where does the 5th one go? When you have 2 lids and 4 counters, what comes next? When you count down by emptying the lids, where does the 1st bean go?

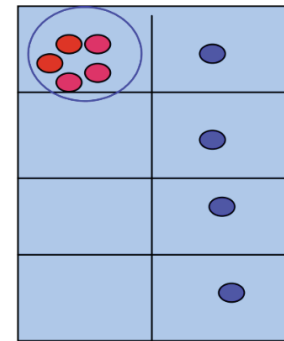
Reflect:

During and after the activity reflect on what the student is doing/has done.

Questions: What did you do? Where did you start putting the beans when you were emptying out the lids ?

Math Observation Checklist:

This activity will give insight into the student’s understanding of number order, ordinality, sequencing, position, conservation, attending to multiple pieces of information, and focusing on relevant details.



Supplies

Sheet of craft paper or poster board divided into two columns and nine rows with the numbers 1–9 written in the rows. Small counters such as beans or buttons. Plastic lids.

The Activity

The student will make groups of 10 by filling up the rows in the right-hand column. When they reach 9 and there is no more room for the 10th counter, all 10 counters will be placed in a lid and the lid will be “carried” to the left-hand column. The student will then make the next group of 10 by counting: “1 ten plus 1, 1 ten plus 2,” until the next lid can be filled. When 9 lids are filled, the student will start counting backward by emptying out the lids and putting the counters back on the rows on the right side. Counting down goes: 9 lids and 9, 9 lids and 8, and so on.

Variations

- Use interlocking cubes to make a group of 10. When 9 cubes have been placed in the right-hand column, the student will build a tower of 10 and carry it to the left-hand column.

Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the supplies by touching, holding, and talking about them. Then explain what you will do. Formulate a plan with the student.

Questions: What is the plan? What do you need to do first? Next?

Act:

The student will count out the counters and make groups of 10.

Questions: What do you need to do when you have 9 counters in the rows? Where does the 10th one go? When you have 2 tens and 4 counters, what is that called? What comes after 1 ten and 9?

Reflect:

During and after the activity reflect on what the student is doing/has done.

Questions: What did you do? Where did you start putting the beans when you were emptying out the lids? What happened after the right-hand column was full? What did you call the next number after the right-hand column was full?

Math Observation Checklist:

This activity will give insight into the student’s understanding of number order, transition to the next decade, ordinality, sequencing, position, conservation, attention to multiple pieces of information, and focus on relevant details.

	TENS	ONES
1		● 1
2		● 2
3		● 3
4		● 4
5		● 5
6		● 6
7		● 7
8		● 8
9		● 9



Supplies

Sheet of craft paper or poster board divided into two columns labeled "tens" and "ones." Small counters such as beans, macaroni, buttons, or small counting cubes. Plastic lids or small cups. Graph paper and markers.

The Activity

The student will estimate how many beans (or macaroni, buttons) are in a handful. They will then check the estimate by making groups of 10, counting out ten, and placing them in a cup. Each cup is then placed in the tens column. Both the estimate and the actual number are recorded and compared.

Variations

- Use interlocking cubes to make a group of 10. Have the student use both hands to take a handful to ensure they gather more than 10.
- Have the student calculate the difference between the estimated and actual number.

Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the supplies by touching, holding, and talking about them. Then explain what you will do. Formulate a plan with the student.

Questions: What is the plan? What do you need to do first? Next?

Act:

The student will estimate the handful and then count out the counters by making groups of 10.

Questions: How do you guess how many you have? Do you know the difference between guessing and estimating? Once you have guessed a few times, will it be easier to estimate? How come?

Reflect:

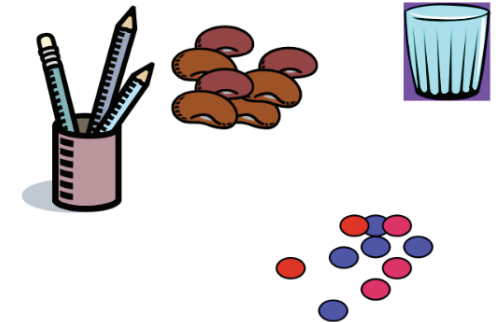
During and after the activity reflect on what the student is doing/has done.

Questions: What did you do? What was the largest handful you had? The smallest? How close were your estimates? Were your earlier or your later estimates closer to the actual number? How come?

Math Observation Checklist:

This activity will give insight into the student's understanding of number order, transition to the next decade, ordinality, attention to multiple pieces of information, and focus on relevant details.

TENS	ONES



Supplies

Sheet of craft paper or poster board divided into two columns labeled "tens" and "ones." Interlocking cubes, small counters, place value cards, plastic lids or small cups, graph paper, and markers.

The Activity

The student will "build" a number by making groups of 10 and ones with the interlocking cubes. The student then selects the place value card for the tens and the place value card for the ones and arranges them appropriately. See the example on the right side of this page.

Variations

- Have the student roll a number die twice. The first roll represents the tens, and the second roll represents the ones. Ask the student to choose the appropriate number value card.
- Have the student record the numbers on a sheet of paper.

Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the supplies by touching, holding, and talking about them. Then explain what you will do. Formulate a plan with the student.

Questions: What is the plan? What do you need to do first? Next?

Act:

The student will pick a teen number or count out a handful of counters, making groups of 10, and then construct the number with the place value cards.

Questions: How many tens are in your number? How many ones? Which number cards do you need? Where do you need to put the ones card? If you put the ones card next to the tens card, do you get the right number?

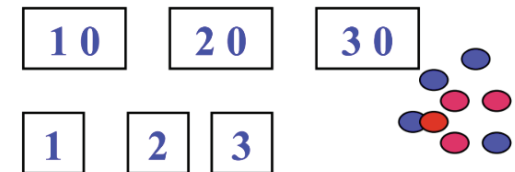
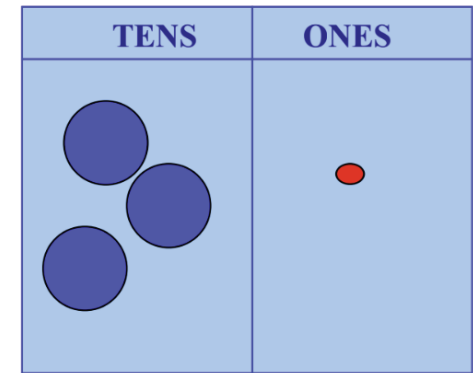
Reflect:

During and after the activity reflect on what the student is doing/has done.

Questions: What did you do? What was the largest number you had? The smallest? What would be the highest number you can make with these cards?

Math Observation Checklist:

This activity will give insight into the student's understanding of number order, transition to the next decade, ordinality, attention to multiple pieces of information, and focus on relevant details.



Student puts the 2 on top of the 0 to make 32

Supplies

Sheet of craft paper or poster board divided into two columns labeled "tens" and "ones." Interlocking cubes or small counters to represent ones and larger counters to represent tens. Pennies and dimes can also be used to represent the ones and the tens. Graph paper and markers.

The Activity

Lay out two different numbers on the mat, for instance, 38 and 24 (that is, 3 tens and 8 ones, and 2 tens and 4 ones). The student will compute $38 + 24$ by adding the 8 and the 4, then regrouping the resulting 12 as 10 and 2. Each step of the process will be recorded.

Variations

- Have the student roll a number die twice. The first roll represents the tens, and the second roll represents the ones.
- Have the student record the number sentences vertically on a sheet of graph paper, ensuring the columns align properly.

Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the supplies by touching, holding, and talking about them. Then explain what you will do. Formulate a plan with the student.

Questions: What is the plan? What do you need to do first? Next?

Act:

The student will pick two teen numbers, count out the counters for those numbers, and place them on the place value mat. Then they will add and regroup the resulting numbers.

Questions: How many tens are in your number? How many ones? Where do you always have to start when you add? What happens when the number in your ones column gets higher than 9?

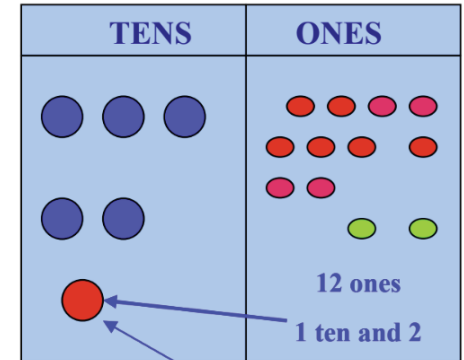
Reflect:

During and after the activity reflect on what the student is doing/has done.

Questions: What did you do? What was the largest number you could have in your ones column? What happened when it got larger than 9?

Math Observation Checklist:

This activity will give insight into the student's understanding of number order, transition to the next decade, ordinality, attention to multiple pieces of information, and focus on relevant details.



$$\begin{array}{r}
 1 \leftarrow 12 \\
 38 \\
 + 24 \\
 \hline
 62
 \end{array}$$