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## Provocation Card Set 1

## Teacher's Resource



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## Strand: Number

## Application: Counting

Students' earliest experiences with counting involve rote counting, but counting is much more than just being able to say the counting words in correct sequence. To count, students must keep track of what is to be counted and what has been counted, and they must know when to stop counting and identify how many. In Grade 1, students count forward and backward beyond 10 and skip count by 2 , by 5 , and by 10 . They develop skills in counting on and counting back from different starting points. Students benefit from using a variety of strategies and tools, such as concrete materials, 100 charts, and number lines, when counting.

## Application Item: Rote Counting Forward and Backward

## Principle: Stable Order

Students say the number words in the correct sequence through memorization. There may not be any sense of meaning or quantity associated with each number word. They may not recognize the numerals associated with the number words. Rote counting usually begins with counting forward by 1 and then learning to count backward by 1 .

## Application Item: Counting Principles

## Principle: 1-to-1 Correspondence

Students begin to develop a sense of how many when they count by saying a number word for each object in a set, recognizing that each object must be counted only once. To keep track of what has been counted and what still needs to be counted, they may touch each object or push each object aside as they are counting. They also demonstrate the principle of stable order by using the number names in the correct sequence.

## Principle: Cardinality

Cardinality is the knowledge that the number word said with the final object in a set indicates the quantity in the set. Students use the principles of stable order and 1 -to- 1 correspondence to demonstrate cardinality, because they must say the number words in the correct order and recognize when to stop the count.

## Principle: Order Irrelevance

Students understand that the total count for a set is the same regardless of the starting point for counting. For example, to count a line of objects, they need not count from left to right but can count from right to left or in any other order.

## Literacy and Numeracy Resources

| Number |  |  |
| :---: | :---: | :---: |
| Series | Title | Guided Reading Level |
| InfoRead Mathematics K | The Big Fish Is Coming! | C |
| InfoRead Mathematics 1 | Join Us | C |
| InfoRead Mathematics 1 | My Little House | C |
| InfoRead Mathematics 1 | Paper Chains to Ten | C |
| InfoRead Mathematics 1 | What Can I Buy? | C |
| InfoRead Mathematics 1 | Guess How Many Jellybeans | D |
| InfoRead Mathematics 1 | Look at All the Money! | D |
| InfoRead Mathematics 1 | The Jellybean Jar | D |
| InfoRead Mathematics 1 | My Take-Away Day | E |
| InfoRead Mathematics 1 | 10 Little Chickens | F |
| InfoRead Mathematics 1 | Birthday Candles | F |
| InfoRead Mathematics 1 | Ten Blue Things | F |
| InfoRead Mathematics 1 | The Bubble Booth | F |
| InfoRead Mathematics 1 | A Day at the Pond | H |
| InfoRead Mathematics 1 | Bouncy Balls | H |
| InfoRead Mathematics 1 | Tidy the Clown | H |
| InfoRead Mathematics 1 | I Made a Trail | 1 |
| InfoRead Mathematics 1 | Super Suzy | I |
| InfoRead Mathematics 1 | The Candy Store | I |
| PM Family | From One to Eight | E |
| PM Family | Making Party Hats | E |
| PM Family | Seven in a Line | E |
| PM Family | One More Frog | F |
| PM Family | Ten Frogs for the Pond | F |
| PM Family | The Take-Away Puppy | F |

## Manipulatives Glossary

Manipulative and description
Suggested uses

## 2-D shapes

Sets of circles, squares, triangles, rectangles, and other common 2-D shapes, made of various materials (e.g., paper, wood, plastic).


## 2-sided counters

Circular discs with red on one side and yellow on the other.


## 3-D objects

A set of 3-D geometric solids that usually includes a cone; a cube; a sphere; and a variety of cylinders, pyramids, and prisms.


## 5-frame

5 equal-size squares arranged in a 1-by-5 array. Each square is large enough to hold a counter.


## 10-frame

10 equal-size squares arranged in a 2-by-5 array. Each square is large enough to hold a counter.


- counting
- estimating quantities
- composing and decomposing numbers
- representing numbers
- adding
- subtracting
- organizing data
- patterning
- identifying and describing 3-D objects
- identifying 2-D shapes in 3-D objects
- comparing and sorting 3-D objects
- composing and decomposing 3-D objects
- recognizing and using positional language
- patterning
- sorting data
- skip counting
- counting
- composing and decomposing numbers
- estimating quantities
- adding
- subtracting
- skip counting
- counting
- composing and decomposing numbers
- estimating quantities
- adding
- subtracting


## Number Assessment Tool: Counting

Name: $\qquad$

| Concepts and skills | Does not yet <br> demonstrate <br> understanding | Demonstrates <br> understanding | Comments and next steps |
| :--- | :--- | :--- | :--- |
| Card 1 Counting to 20 |  |  |  |
| Card 2 Counting to 100 |  |  |  |
| Card 3 Using l-to-1 Correspondence, <br> Cardinality, and Number Magnitude |  |  |  |
| Card 4 Using Abstraction, Order <br> Irrelevance, and Conservation |  |  |  |
| Card 5 Counting Forward and <br> Backward to 20 |  |  |  |
| Card 6 Counting Forward and <br> Backward to 100 |  |  |  |
| Card 7 Skip Counting by 2 to 20 |  |  |  |
| Card 8 Skip Counting by 2 to 100 |  |  |  |
| Card 11 Ordinal Numbers to 31st 12 Estimating to 20 |  |  |  |
| Card 9 Skip Counting by 5 and by <br> 10 to 100 <br> 20 bk 2 and by 5 |  |  |  |

## My name is:

## BLM 11: Shape Puzzle 1

Use pattern blocks to cover the puzzle.


## BLM 21: How Likely Is It?

The bell will ring at school today.

You will meet an alien today.

You will ride the bus home from school today.

You will brush your teeth tonight.

You will watch TV tonight. It will snow today.

You will read a book before You will pet an animal today. bed tonight.

| You will go into Grade 7 next | You will eat a banana today. |
| :--- | :--- | :--- |

My name is:
BLM 22: 100 Chart

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

## BLM 24: Number Cards



## BLM 24: Number Cards (continued)



## BLM 25: Dot Cards



My name is:

BLM 29: Representing Numbers

My number is
Pictures

10-frames
Place-value mat


| Tens | Ones |
| :---: | :---: |
|  |  |
|  |  |



