**Mathematical Ideas**

It is important for children to count forward and backwards from a variety of starting points. This will help them to understand the size of the number in relation to other numbers.

When counting, the number words are always said in the same order.
   One, two, three, four,...   not four, two, one, three

Counting can begin with any item in a set. Each item must be counted only once (one to one correspondence). The quantity will always be the same for that set.
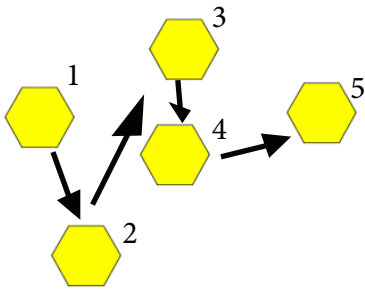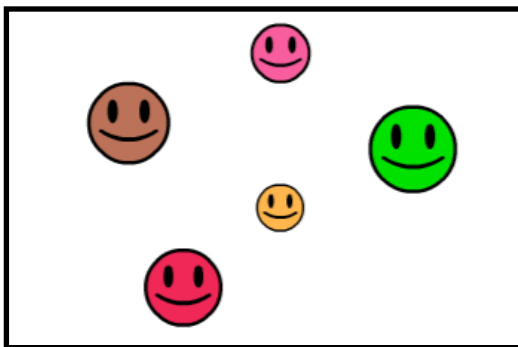
As you count forwards, the quantity increases.
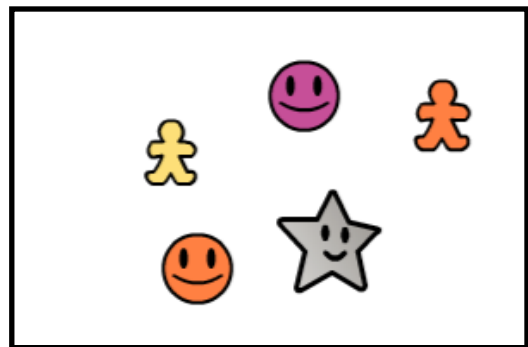
As you count backwards, the quantity decreases.

The last counting word tells us how many are in the set.

"There are five pattern blocks in this set."

Quantity is related to 'how many' rather than size, shape, or position. The quantity of a set stays the same even if the appearance of the set changes.

Set of 5 Objects

Set of 5 Objects

WINS

Tips

- Learning tools are used to explore mathematical ideas and are a way for children to share their thinking. Encourage your child to take the time to use the learning tools in each activity.
- Children are encouraged to move or touch the items while counting so they learn to count each item only once.
- Encourage your child to state what is being counted (e.g., 10, 20, 30 rods, not just 10, 20, 30)
- Tallies can help with tracking the count. Tally marks are set in groups of 5.

  This tally count is 12.

- Organizing objects into groups of 2s, 5s, and 10s allows your child to count more efficiently.

Mathematical Words/Symbols

Counting on – is counting up from a numeric amount that you are given. For example, if you have 3 coins and you would like to count on another 4 coins, you can count "three, four, five, six, seven." When people count on they usually say the number they are counting from and then the other numbers.
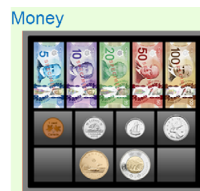
Digits – are the numerals 0 to 9 that form numbers. For example, the digits 2 and 7 can form the two-digit numbers 27 and 72.

Skip counting – usually means counting forwards or backwards by numbers other than 1, such as by twos (2, 4, 6, 8); by fives (20, 15, 10, 5); or by tens (40, 50, 60, 70).
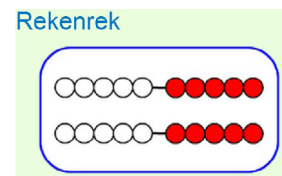
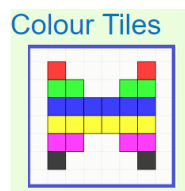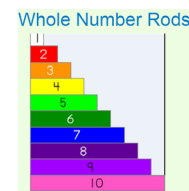### Materials

Activity 1 and 2:
- Money

Activity 3:
- Rekenrek

Activity 4:
- Colour Tiles

Activity 5:
- Whole Number Rods

Money

Rekenrek

Colour Tiles

Whole Number Rods

Learning Tools and Games can be accessed at mathies.ca
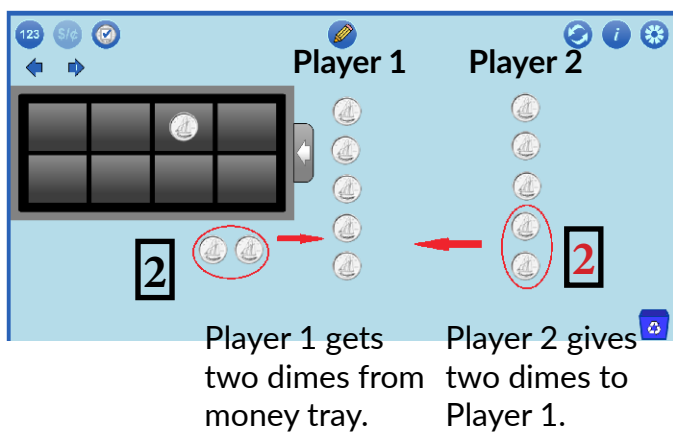
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Skip Counting by 10s using Money

Set Up for the Game:
- Open the Money learning tool.
  - » Customize the money tray to only show dimes.
- Shuffle together two sets of red number cards and two sets of black number cards 1 to 7 (total of 28 number cards) and place them face down in a pile.

How to Play the Game:
1. Ask your child to count out 50 cents in dimes from the money tray to give each player at the start.
2. Decide who goes first.
3. For each round, players take turns picking a card from the deck.
   - » If the card is black, the player gets that many dimes from the money tray.
   - » If the card is red, the player gives that many dimes to the other player. If the player does not have enough dimes, all the dimes are given and the turn is ended.
4. Play for 5 rounds.
5. Have your child count out loud the number of cents each player has at the end of the game. The player with the most cents wins.

Example:

After 5 rounds.

Player 1 gets two dimes from money tray.   Player 2 gives two dimes to Player 1.

Count: *10, 20, 30, 40, 50, 60, 70, 80, 90 cents*

Count: *10, 20, 30, 40, 50, 60, 70 cents*

Player 1 wins the game.

Let's Talk About It

How can you be sure you have counted your dimes correctly?
When do you count by tens?
Can we play this game with nickels? How would it work?
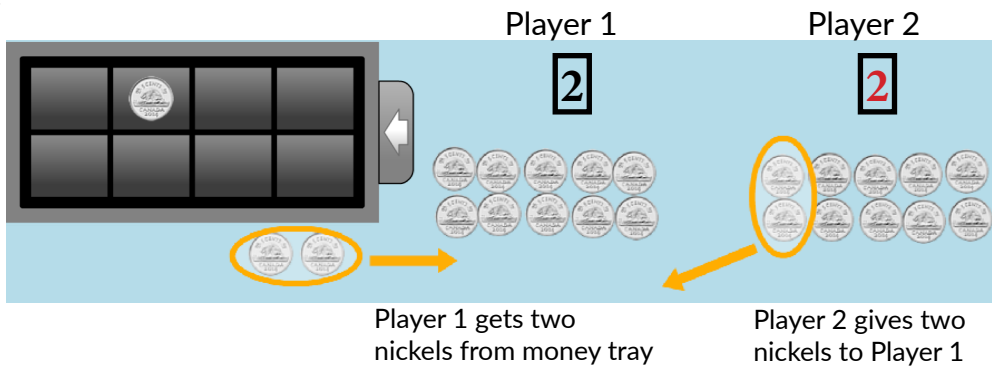
WINS

Skip Counting by 5s using Money

Set Up for the Game:
- Open the Money learning tool.
  - » Customize the money tray to only show nickels.
- Shuffle together two sets of red number cards and two sets of black number cards 1 to 7 (total of 28 number cards) and place them face down in a pile.
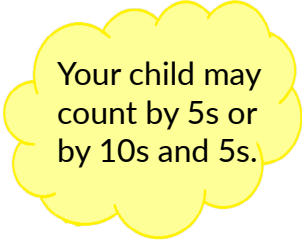
How to Play the Game:
1. Ask your child to count out 50 cents in nickels from the money tray to give each player at the start.
2. Decide who goes first.
3. For each round, players take turns picking a card from the deck.
   - » If the card is black, the player gets that many nickels from the money tray.
   - » If the card is red, the player gives that many nickels to the other player. If the player does not have enough nickels, all the nickels are given and the turn is ended.
4. Play for 5 rounds.
5. Have your child count out loud the number of cents each player has at the end of the game. The player with the most cents wins.

Example:

Player 1   Player 2

Player 1 gets two
nickels from money tray

Player 2 gives two
nickels to Player 1

After 5 rounds

Player 1   Player 2

95 cents   *85 cents*

Player 1 wins the game.

Your child may count by 5s or by 10s and 5s.

Let's Talk About It

How can you be sure you have counted your nickels correctly?
When do you count by fives?
Can we play this game with dimes or quarters? How would it work?

## Skip Counting By 2s, 5s, and 10s on the Rekenrek

Set Up for the Activity:
- Open the Rekenrek learning tool.
  - » Show ten racks.
    - ◊ Racks 1 to 5, ten beads on the left
    - ◊ Rack 6, five beads on the left or all on the right
    - ◊ Racks 7, 8, 9, and 10, ten beads on the right
- Shuffle one set of black number cards 5 to 10 and place them face down in a pile.
- Shuffle one set of red number cards 15 to 25 and place them face down in a pile.
- Shuffle one set of green number cards 2 to 5 and place them face down in a pile.

How to Do the Activity:
1. Ask your child how many beads are shown on the left side of top six racks.
2. Have your child pick a black number card from the pile. The number on the card represents the number of sets of 5 beads.
3. Have your child slide five beads at a time from right to left on the racks until the number of sets of 5 indicated by the card has been moved.
4. Have your child count out loud by fives from the original amount of beads to determine the total number of beads now shown. Record what is said.
5. Share this record with your child. Have your child check the count.
6. Repeat the activity using the red number cards. The number on the red card represents the number of sets of 2 beads.
7. Repeat the activity using the green number cards. The number on the green card represents the number of sets of 10 beads.
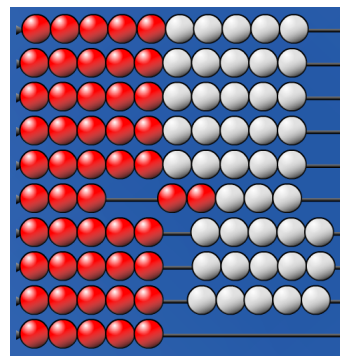
Example:

7

7 sets of 5 beads added on

Your child may check the count, by making groups of 10 and then count by 10s.
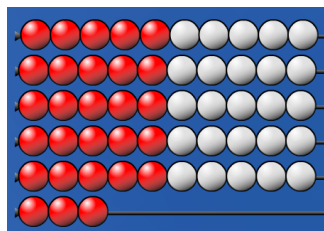
53 beads on the left side of the top three racks

Count from 53: 58, 63, 68, 73, 78, 83, 88 beads

Let's Talk About It

Why do we sometimes count by fives?
How can you keep track of how many sets of five beads you moved?
Does it help to make groups of ten or five? Why or why not?

WINS

Skip Counting by 2s, 5s, and 10s using Colour Tiles

Activity 4

Set Up for the Game:
- Open the Colour Tiles learning tool.
  - » Put 50 colour tiles, all the same colour, onto the workspace.
- Shuffle one set of red number cards 15 to 25 and place them face down in a pile.
- Shuffle one set of black number cards 5 to 10 and place them face down in a pile.
- Shuffle one set of green number cards 2 to 5 and place them face down in a pile.

How to Play the Game:
1. Ask your child to count how many colour tiles are on the workspace.
2. Have your child pick a red card. The number on the red card represents the number of sets of 2 colour tiles.
3. Have your child use a different colour, and place the number of sets of 2 tiles onto the workspace.
4. Ask your child to skip count by twos from the original amount of tiles to determine the total number of tiles in the workspace.
5. Ask your child to check their final count to see if it is the total number of tiles in the workspace.
6. Repeat the activity using the black number cards. The number on the black card represents the number of sets of 5 colour tiles.
7. Repeat the activity using the green number cards. The number on the green card represents the number of sets of 10 colour tiles.

Example:

50 colour tiles to start with

| 15 | Fifteen sets of 2 colour tiles |

Your child may check the final count by making rows of 10 colour tiles and then count by 10s.
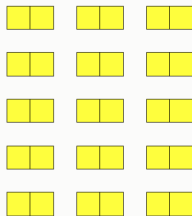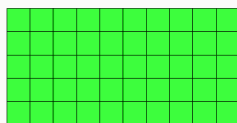
Count from 50: 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80

Let's Talk About It
If there are four more sets of two tiles in the workspace, what would be the final count?
If there are three less sets of two tiles in the workspace, what would be the final count?

WINS

Skip Counting by 2s, 5s, and 10s Using Whole Number Rods

Activity 5

Set Up for the Activity:
- Open the Whole Number Rods learning tool.
  - » Place between ten and twenty 2-rods end to end to form trains in the workspace.
- Shuffle two sets of number cards 2 to 6 and place them face down in a pile.

How to Do the Activity:
1. Show your child the trains and ask the combined value of the trains.
2. Have your child pick a card. The number on the card represents the number of 2-rods needed to create a new train.
3. Have your child create the new train.
4. Ask your child to count out loud to determine the combined value of all the trains. Encourage your child to count on from the initial value of the trains determined in step #2. Record what is said.
5. Share your record with your child. Have your child check the count.
6. Repeat the activity starting with ten to fourteen 5-rods. The number card now represents the number of 5-rods.
7. Repeat the activity starting with five 10-rods. The number card now represents the number of 10-rods.

Example:

Starting with seventeen 5-rods.
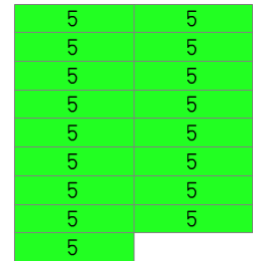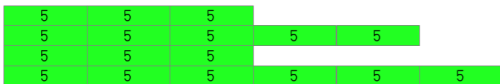
Your child may rearrange rods into 10s to determine the value of all the trains.

The value of all the trains is 85.

6 Six 5-rods to create the new train

Count: *85, 90, 95, 100, 105, 110, 115*
The new value of the trains is 115 units.

Let's Talk About It

If you have four more 5-rods, what would be the final count?If
If you have three fewer 5-rods, what would be the final count?