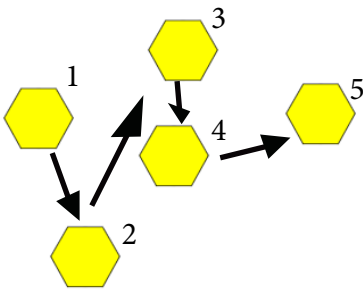It is important for children to count forward and backwards from a variety of starting points. This will help them to understand the size of the number in relation to other numbers.

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.
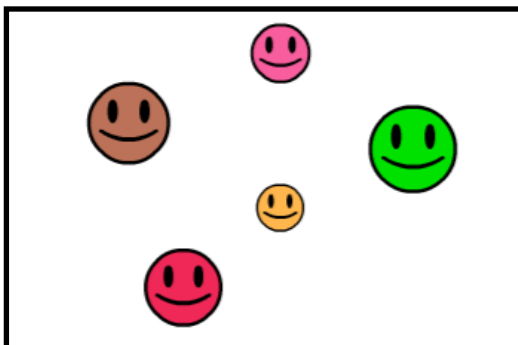
As you count forwards, the quantity increases.
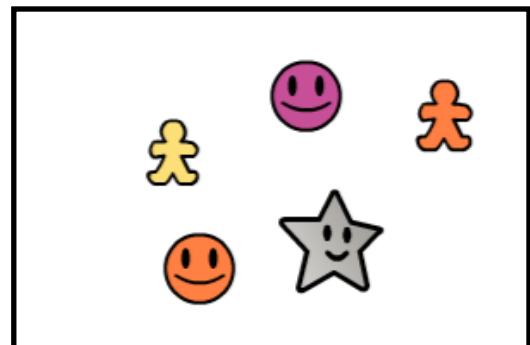
As you count backwards, the quantity decreases.

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

Helpful Information

Tips

- Don't rush these activities. It is important that children become comfortable and accurate using the counting sequence.
- Encourage your child to move the objects as they are being counted so your child learns to count each item only once.
- If your child confuses the counting order (e.g., 1, 3, 2), point to the items and model the correct counting order.
- Encourage your child to state what is being counted (e.g., 1, 2, 3 blocks, not just 1, 2, 3).
- Organized concrete and visual representations can help with understanding numbers and the relationships between numbers.

Mathematical Words/Symbols

Attribute – an aspect of an object that can be used to compare objects (e.g., colour, size, thickness, number of sides)

Set – a collection of objects or numbers

Materials
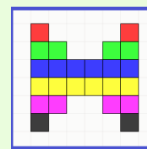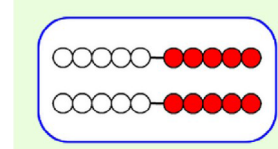
Activity 1 and 5:
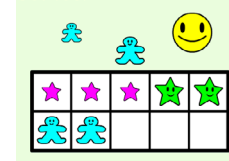- Colour Tiles

Activity 2:
- Rekenrek

Activity 3 and 4:
- Set

Colour Tiles

Rekenrek

Set Tool

Learning Tools and Games can be accessed at mathies.ca

Making Tile Sets

Set Up for the Activity:
- Open the Colour Tiles learning tool.
  - » Place 5 tiles of the same colour on the workspace.
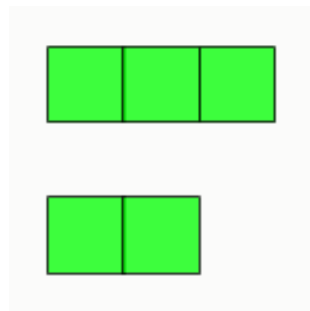
How to Do the Activity:
1. Ask your child to count the tiles on the workspace and tell you how many there are.
2. Have your child rearrange the tiles into two rows.
3. Have your child count the number of tiles in each row.
4. Ask your child to tell you how many tiles there are altogether.
5. Repeat steps 1 to 4 a few times.
6. Repeat activity using more than one colour of tiles.

Example:

Original Set:

Rearranged Set:

Your child may, point at each tile as they count.

Let's Talk About It

How do you know you counted your tiles correctly?
If you have zero tiles in a set, what would that look like?
Did your count change when the colour of the tiles changed?
What do you notice about the total number of tiles?

Counting To and From 5
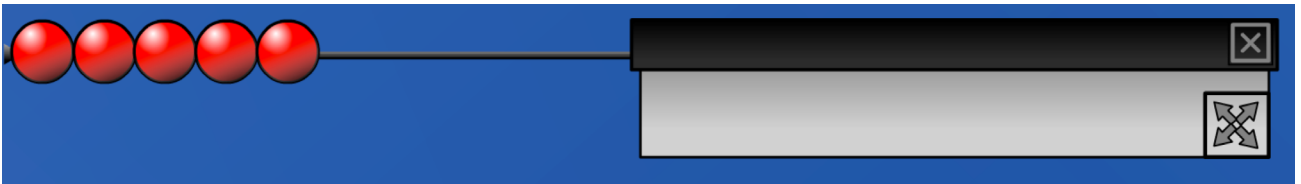
Count My Beads

Set Up for the Activity:
- Open the Rekenrek learning tool.
  - » Show two racks.
  - » On rack 1, place up to 5 beads close together. Hide the other beads on this rack using the shade feature of the tool.
  - » On rack 2, place the same number of beads as rack 1, but spread the beads apart. Hide the other beads from this rack using another shade.
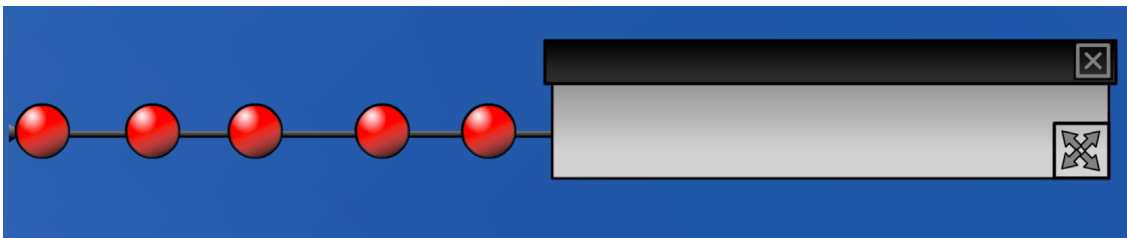
How to Do the Activity:
1. Ask your child which rack has more beads or if the two racks have the same amount.
2. Have your child count to confirm.
3. Repeat with other quantities of beads and with different spacing.

Example:

Count: 1,   2,   3,   4,   5   beads

Count: 1,   2,   3,   4,   5   beads

Your child may match the beads one by one from the two racks to show the total quantity is the same.

Let's Talk About It

How do you know each rack has the same number of beads?
Make another rack showing the same number of beads. Why don't they all look the same?

WINS

Count My Objects
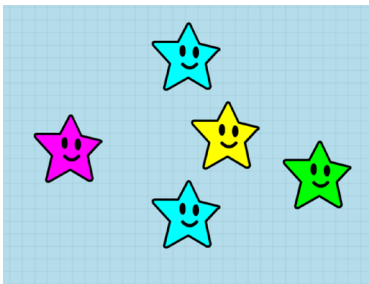
Activity 3

Set Up for the Activity:
- Open the Set learning tool.
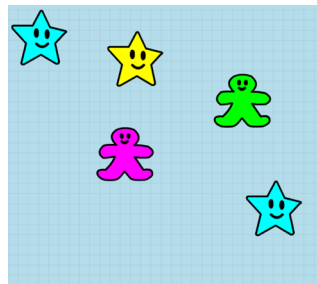 - » Use the Create mode and move 3 to 5 objects of the same shape onto the workspace.

How to Do the Activity:
1. Ask your child how many objects are on the workspace.
2. Use the shuffle icon [icon] to reorganize the objects on the workspace
3. Ask your child how many objects are on the workspace now.
4. Repeat several times, shuffling the objects and having your child count.
5. Select 1 or 2 of the objects on the workspace and use the attribute change tool [icon] to change the object to another shape.
6. Ask your child how many objects are on the workspace now. Also, ask how many of each type of object are shown. Shuffle the objects and repeat.
7. Select 1 or 2 of the objects on the workspace and use the attribute change tool to change the objects so there is at least one of each of the three objects in the set.
8. Ask your child how many objects are on the workspace now. Also, ask how many of each type of object is shown. Shuffle the objects and repeat.
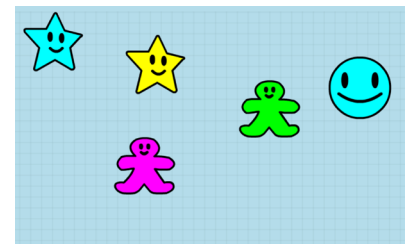9. Repeat activity as desired using other numbers of objects.

Example:

Count: 1, 2,3,4,5 stars

Count: 1, 2,3,4,5 objects
2 gingerbread and 3 stars

Count: 1,2 ,3,4,5 objects
2 stars, 1 circle, 2 gingerbread

Your child may sort the objects by attribute when counting.

Let's Talk About It
How do you know you counted all the objects?
How does touching or moving the objects help you count them?
Why does the number of objects stay the same when we shuffled the objects in the workspace?

Counting To and From 5
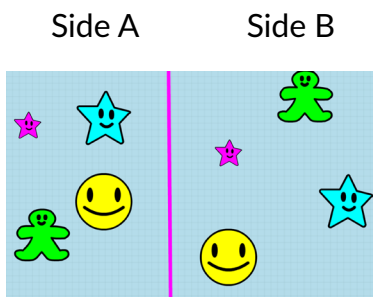
Copy Your Objects

Set Up for the Activity:
- Open the Set learning tool.
  - » Have the tool in the create mode.
  - » Use the annotation tool to draw a vertical line to separate the workspace into two, and label Side A, Side B.
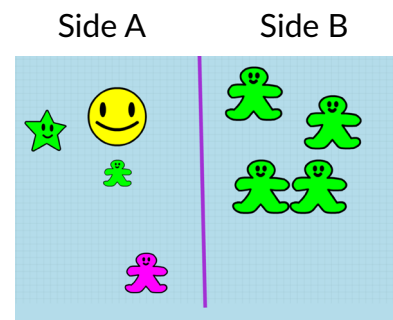
How to Do the Activity:
1. Ask your child to put 3, 4, or 5 objects on Side A of the workspace.
2. Tell your child that now you will put the same number of objects on Side B.
3. move identical objects onto Side B
4. have your child count the objects to confirm that both sets have the same number of objects
5. Repeat steps 1 and 2 a couple of times.
6. Now, repeat but this time when you place objects on Side B put one more or one fewer object than Side A. After your child checks the count for each side, work together to make the number of objects the same by adding or removing objects.
7. Repeat again, but this time when you place objects on Side B, place the same number of objects but ones that look different than the objects on Side A. Have your child count the objects to confirm the sets both have the same number of objects.
8. Repeat as desired.

Example:

Side A   Side B

4 identical objects on each side

Side A   Side B

4 objects on each side with different attributes

Your child may touch the objects while counting one by one.

Let's Talk About It

How do you know if the number of objects is the same on both sides?
How do you know if the number of objects is different on both sides?
Why do the two sides have the same number of objects even though they do not look the same?

WINS

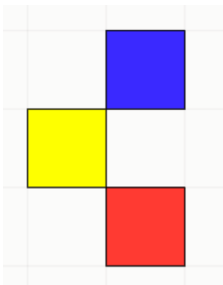## Count the Tiles Backwards

Activity 5

Set Up for the Activity:
- Open the Colour Tiles learning tool.
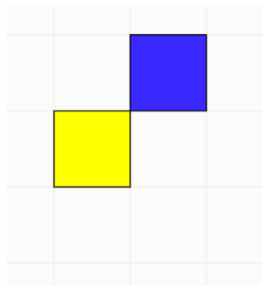- Place 2 to 5 tiles on the workspace.

How to Do the Activity:
1. Ask your child to count the tiles and tell you how many tiles you put on the workspace.
2. Then have your child to move the tiles to the recycling bin, one at a time. Begin by restating the total number of tiles on the workspace and then as your child places each tile in the bin say the number of remaining tiles. Together, count backwards to 0 tiles.
3. Now have your child place some tiles on the workspace and repeat the process together.
4. When your child is confident counting backwards, encourage independent counting.

Example:

| 3 tiles | 2 tiles | 1 tiles | 0 tiles |

Your child may recount the set each time to determine how many tiles are remaining.

Let's Talk About It

How do you know you counted the tiles correctly?
How can you check your count when you are counting backwards?