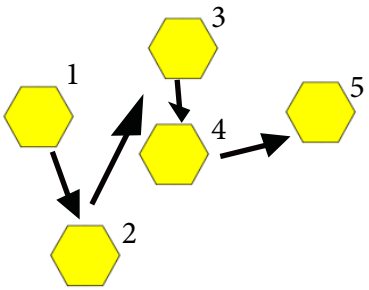
Counting Backwards From 20

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.



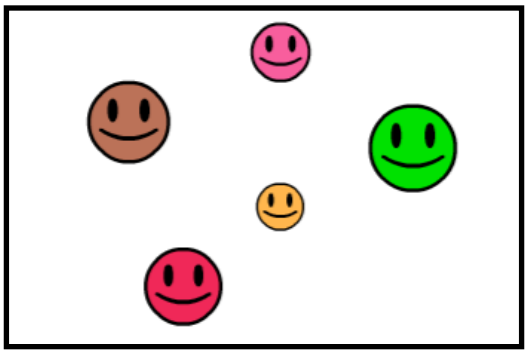
"There are five pattern blocks in this set."

As you count forwards, the quantity increases.

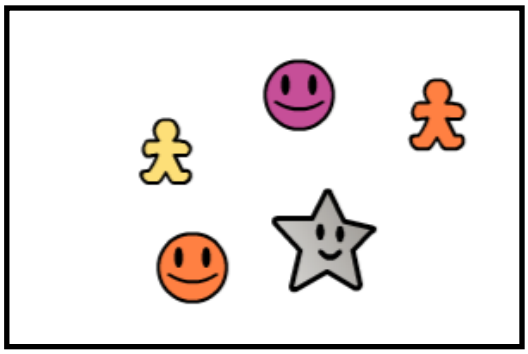
As you count backwards, the quantity decreases.

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

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

Counting Backwards From 20

Helpful Information

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.
- Organized concrete and visual representations can help with understanding numbers,
  - » for example, image of two dice totalling 10 and a tally of 10.
  - » With this visual, you can see organized representations of 5. These help your child begin to visualize quantities.
  - » You can track a count with the use of tallies.

Mathematical Words/Symbols

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).

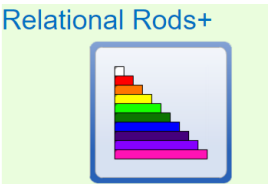
Materials

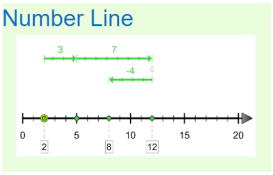
Activity 1:
- Relational Rods

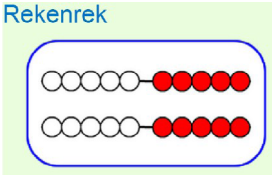
Activity 2:
- Number Line

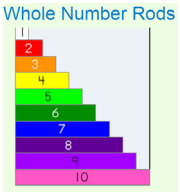
Activity 3:
- Whole Number Rods

Activity 4:
- Rekenrek









Counting Backwards From 20

Counting Trains

Activity 1

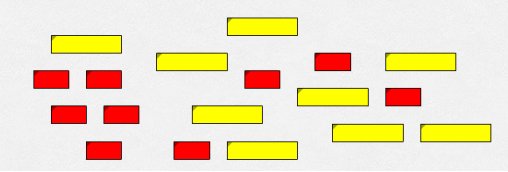
Set Up for the Activity:

- Open the Relational Rods learning tool.
  - » Using the two different small rods, scatter up to 20 rods in the middle of the workspace.
  - » You may wish to use the paint palette to adjust the colours of the small rods. In particular, change the smallest rod so it is not white.

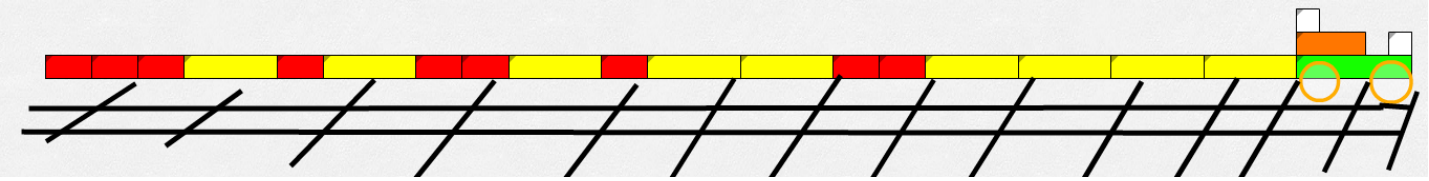
How to Do the Activity:

1. Tell your child that the rods are train cars in a railway yard. Your child's job is to move the rods together and make a train.
2. Tell your child that the first step is to make a train track using the annotation tool. Have your child draw a train track across the workspace.
3. Then have your child move the train cars to the track and put them together to make a train.
4. Ask your child how many cars are in the train.
5. Select the train and drive it near the recycling bin. Then select one car at a time and have your child count backwards as each car goes into recycling.
6. Repeat with a new collection of train cars (rods).
7. Your child may also wish to use rods from the rod tower to make an engine.

Example:



18 train cars



Counting Backwards: 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0

Let's Talk About It

How do you know you counted all the train cars?
How can you check if we are counting backwards correctly?
How many lines are on your railway track? How did you count them?

Counting Backwards From 20

Lining Up Dots

Activity 2

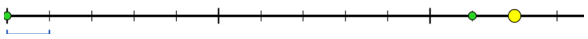
Set Up for the Activity:

- Open the Number Line learning tool.
  - » Select 0-20.
  - » Use the number line style selector to change the number line style to a number ribbon.
  - » Use the label selector to the remove number line numbers.
  - » Click one hash mark on the number line to place a point (dot) at that mark.

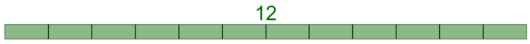
How to Do the Activity:

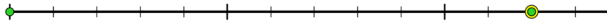
1. Ask your child to count the number of spaces between the hash marks on the number line from 0 (the left end) up to your point.
2. Have your child use a number ribbon to draw a ribbon from 0 to your point.
3. Ask your child to count the spaces on the ribbon. Point out that the number above the ribbon matches both counts.
4. Have your child push the number ribbon back towards the left while counting backwards. Pause at the end of each section to allow time to match the counts to the ribbon length.

Example:

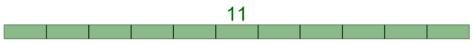


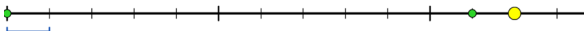
Count: 1,2,3,4,5,6,7,8,9,10,11,12 spaces



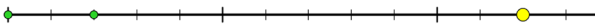


Count: 1,2,3,4,5,6,7,8,9,10,11,12 spaces on the ribbon





Count: 12, 11



Count: 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2

Your child may touch each space as it is counted.

Let's Talk About It

How do you know you counted all the spaces?
What does the green dot mean?
If you move the number ribbon back towards the yellow dot, what will happen? Let's check.
Why did that happen?

Counting Backwards From 20

Counting Rods Backwards by 2s

Activity 3

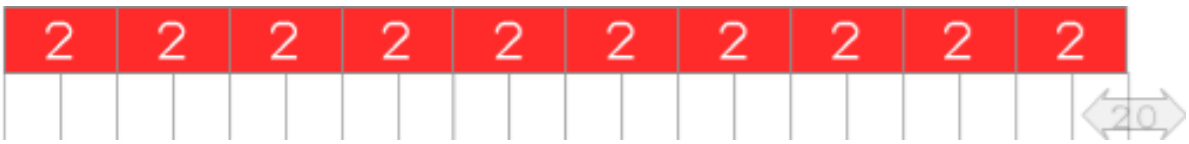
Set Up for the Activity:

- Open the Whole Number Rods learning tool.
- Shuffle one set of number cards 2 to 10 and place them face down in a pile.

How to Do the Activity:

1. Place ten of the 2-rods end to end to form a train just above the unit train at the bottom of the Whole Number Rods workspace.
2. Have your child count by twos to determine the value or length of the train.
3. Have your child pick a card from the pile. The number on the card represents the number of 2-rods to be removed from the train.
4. As your child removes the 2-rods, have your child count backwards from the value of the train by twos.
5. As your child counts out loud record what is said.
6. Share this record with your child. Have your child check the count using the unit train feature at the bottom of the workspace.
7. Change the starting number of 2-rods and repeat the activity as desired.

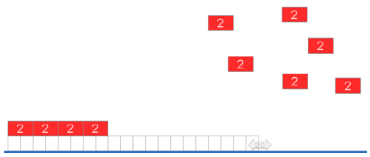
Example:



Count: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20
The train has a value of 20

6 Six 2-rods to be removed from the train

Your child may check the count by counting on from the final count to the original value of the train.



Count: 20, 18, 16, 14, 12, 10, 8
The train now has a value of 8.

Let's Talk About It

Why is counting backwards a good skill to have?
Is it hard or easy to count backwards by twos? Why? How can you get better at it?
How can you be sure you have counted all the parts of your train?

Counting Beads Backwards by 2s

Activity 4

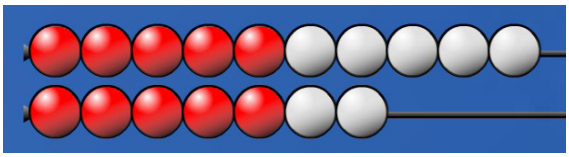
Set Up for the Activity:

- Open the Rekenrek learning tool.
  - » Show two racks of beads.
- Shuffle two sets of number cards 4 to 10 and place them face down in a pile.

How to Do the Activity:

1. Place 12 to 20 beads on the left side of the Rekenrek rack.
2. Ask your child how many beads are shown.
3. Have your child pick a card from the pile.
4. Have your child count backwards by two out loud removing the number of sets of two beads shown by the card. Record what is said.
5. Share your record with your child. Have your child check the count.
6. Repeat activity as desired.

Example:

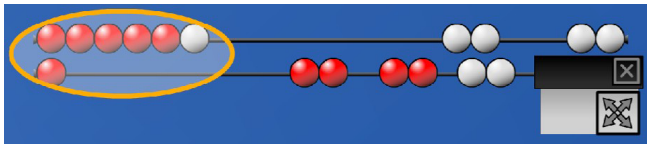


17 beads

5

Five sets of 2 beads to be removed

Your child may check the count by starting with seven and count up by 2s five times to get back to the original number



Count: 17, 15, 13, 11, 9, 7

Let's Talk About It

When would you count backwards by twos? How does it help?
How do you know you moved enough sets of two beads?

Counting Backwards From 20

Skip Counting Colour Tiles Backwards

Activity 5

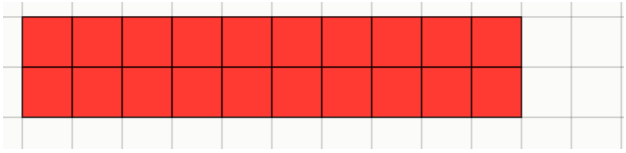
Set Up for the Activity:

- Open the Colour Tiles learning tool.
  - » Select Original Six.
  - » Place 10 to 20 of the same colour tiles on the workspace.

How to Do the Activity:

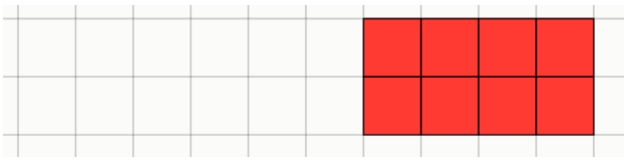
1. Ask your child to count the tiles. Check the total using the counter icon 
2. Tell your child that the task is to skip count backwards by 2's six times from the starting number.
3. Have your child change 6 pairs of tiles to a different colour.
   - » Select the pair of squares (tap both to highlight them)
   - » Use the colour palette icon  and select a new colour
   - » Be sure to unselect the pair of tiles before changing the next pair.
4. Ask your child to remove each pair of tiles and place them in the recycling bin. As they remove each pair have your child count backwards by twos.
5. When your child has finished counting backwards, confirm the final count with the total given by the counter icon.
6. Repeat activity with different starting number of tiles and varying the number of skips.

Example:



Count: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20
There are 20 tiles.

6 pairs of tiles with a different colour.



Count Backwards 6 times from 20: 18, 16, 14, 12, 10, 8 tiles

Your child may check the count by counting on from the final count to the original value of the tiles.

Let's Talk About It

Why is counting backwards a good skill to have?
Is it hard or easy to count backwards by twos? Why? How can you get better at it?
How many tiles did you put in the recycling bin?