

## 1 Show me

A simple game, but children love it!

The teacher holds up the demonstration bead string showing a chosen number.

Using their individual bead strings children might:

- Copy the number
- Show 1 more than
- Show 1 less than
- Show 5 more/less than etc.



## 2 Counting songs and rhymes

Why not get children to join in with favourite rhymes or songs they love and count up or down with their bead strings at the same time?

E.g. '5 little monkeys', '10 Green bottles', '1, 2, 3-4-5 once I caught a fish alive' etc.



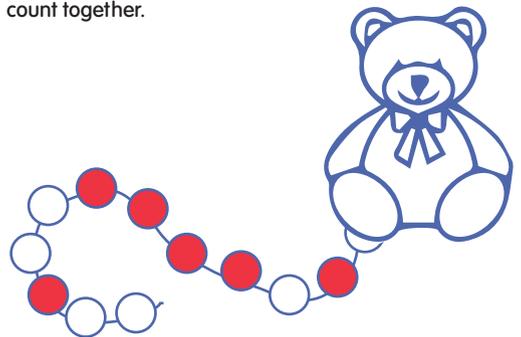
## 3 How many beads long?

- Use the bead string as a non-standard measure.
- How long is a... pencil/ your foot/ your friend's arm, a book, etc.



## 5 Guestimate

Hide part of the bead string behind a cuddly toy or in a bag. Children have to guess how many jumbled-up beads they can see. Straighten out the string and count together.



## 4 Counting on from...

This can be a difficult concept for some children, but the bead string is a great way to demonstrate it.

Choose any number as a starting point and show it on the string (e.g. 4), then count on from there.



# 25 Bead Strings Activities

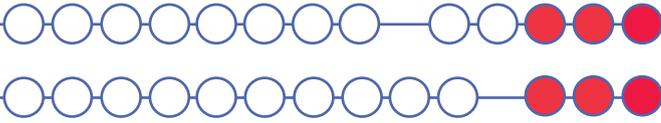


## 6 Addition

- Write an addition sum, then demonstrate it using bead strings. (They are especially helpful to show how to use number bonds to aid mental calculation strategies.)

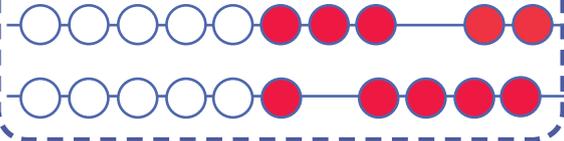
For example:  $8 + 5$

- Using a 100 string, count out 8 beads and pull them across. Then pull 5 more, but keep them separate. Children will clearly see that 2 of the beads can be pulled to the left to make 10 and that there are 3 left. 10 and 3 more is 13.



## 7 Bonds to 10

- Bead strings show bonds to 10 very clearly; especially on the strings grouped in 5s.
- Ask children to find and show all the ways to make 10.



## 8 Subtraction

- Bead strings are great to demonstrate 'taking-away' as children are physically pulling the beads to one side.

E.g.  $23 - 5$



## 9 Skip counting

- Get children to skip count in 2s, 5s and 10s, pulling the beads across as they do. Count both forwards and backwards.



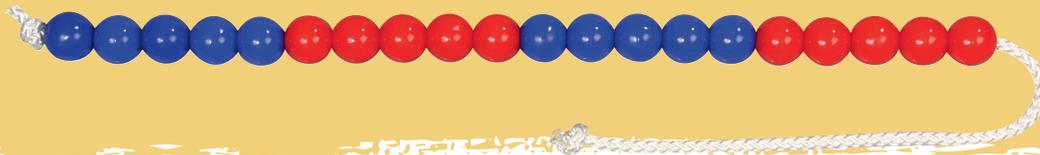
## 10 Round-up

- Bead strings are a great visual way to demonstrate rounding up or down to the nearest 10.
- Show children a number on your bead string and ask them to show you that number on theirs, but rounded to the nearest 10.
- Or ask children to show you any number, e.g. 22 and then ask them to round it up or down.
- The difficulty with the number 5 will be clear. This little rhyme might help!

"4 or less - let it rest,

5 or more, let it soar!"





## 11 Race to the end of the String

Play in pairs or in two teams. (A and B)

- Each team has their own bead string.
- The object of the game is to pull all the beads from one side to the other.
- Team A throws a dice and pulls that many beads to one side.
- Team B then takes a turn.
- The first team to get to pull all the beads across wins.

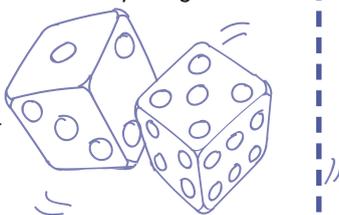
"How many beads have you pulled over now?"

"How many beads are left?"

- Decide together whether they must finish by rolling the exact number needed or not!

- Make it trickier by changing the rules:

- If you throw an even number - you add.
- If you throw an odd number - you subtract!



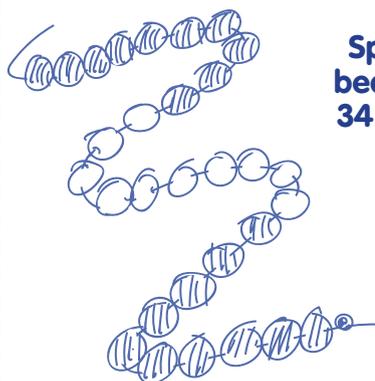
## 12 Complements

- Depending on the bead strings you have, it is easy to see and find the complements of any numbers up to 100.

E.g. 34 and 66



Split 100 beads into 34 and 66



## 13 Repeated addition/multiplication

- Group the beads into the number you want to use, e.g. 2.

"Can you show me 6 lots of 2?"



- Children could write the sum both as a repeated addition -  $2+2+2+2+2+2$  and as a multiplication - 6 lots of 2, i.e.  $6 \times 2$

## 14 Take one number

- Children to take one number (they might pull one out of a hat) and find as many ways to make that number as possible using the bead string to help them.
- They should record their findings.

E.g. 16

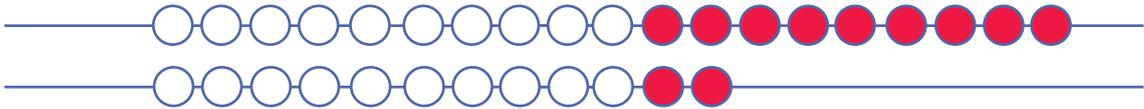


# 25 Bead Strings Activities



## 15 Finding the difference

- The 'difference between' two numbers is a difficult concept but it can be clearly shown using bead strings.
- Show two numbers using the beads, e.g. 12 and 19. Put one of top of the other. How many more than 12 is 19?



- Can children find other pairs of numbers with the same difference?

## 16 Division by grouping

- Demonstrate how to divide by grouping.  
E.g.  $15 \div 3$
- Children count out 15 beads then group them into 3s
- Count up the groups and write the answer  $15 \div 3 = 5$



- Children can use the beads to work out other examples.

## 17 Remainders

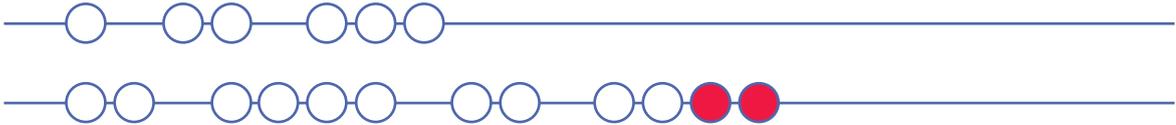
- Once children have practised grouping using factors of the dividends, try other numbers that are not factors and will leave a remainder.  
E.g.  $17 \div 4$



Work on the times-tables children are more familiar with. They might use the beads as a 'check' or confirmation of their thought process.

## 18 Follow the leader

- Demonstrate a repeating pattern, show it to the group and ask them to copy and continue.



Ask children to make their own patterns for a partner to follow.

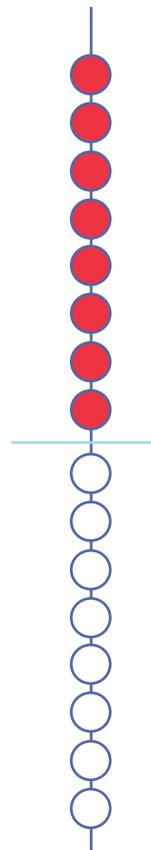
## 19 Are you listening carefully?

- Whilst holding their bead strings, tell children a story. Every time they hear a number, they must pull that number of beads to one side.
- Count up at the end. What is the total everybody should have?
- You might make the story a little more complex so that children have to take numbers away too!



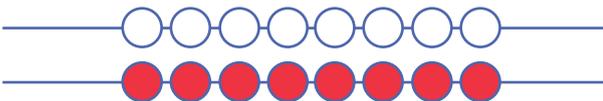
## 21 Vertical

- Use the bead strings vertically to demonstrate negative numbers. Add a line where you would like the zero to be.



## 20 Doubling-up

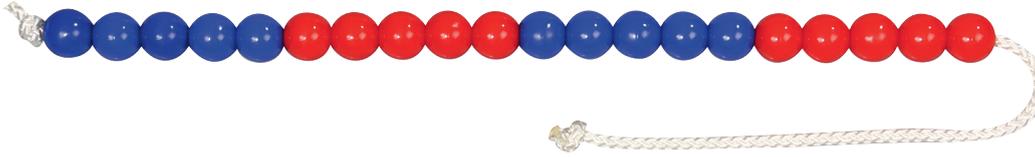
- Doubling numbers can be a difficult concept. Demonstrate doubles by holding two ends together with the same number showing.



(If circumstances allow) Before the lesson, write some numbers on individual pieces of paper and put them in a bag. There should be two of each number and exactly enough for ask each child to have one piece of paper.

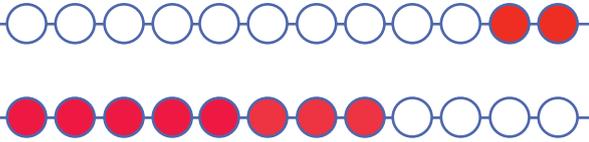
- Ask each child to choose piece of paper from the bag and, without showing anyone, make that number on their bead string.
- On a signal and without talking, children must walk around to find their bead string 'double' and stand with them. They must say their number and its double.
- As a further challenge, the whole group could make a line in chronological order.

# 25 Bead Strings Activities



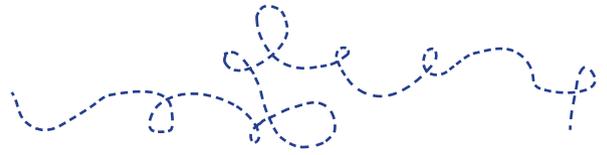
## 22 Halving

- Demonstrate the difficult concept of halving and show that when two groups are halved, they are an exact match. Pull the number of beads across that will be halved, e.g. 24, then divide them halfway. Show them one line on top of the other to be sure they are the same.



## 23 Percentages

- 100 bead strings are a very good representation of percentages and the fact that they mean an amount 'out of 100'.
- What does 35% look like?



## 24 Tug of war – a game for two players

- Separate the beads of any one bead string into two halves.



- Each player sits at opposite ends of the string and takes turns to throw a dice.
- The first player pulls the number shown on the dice from their partner's beads to their own side. The second player then throws a dice and does the same.
- The first player to pull all beads to their side is the winner.

## 25 Money

Children will enjoy the idea of the 100 bead string representing £1.

"How many pennies are in the whole £1?"

"Show me 59p" etc.

Display a few items with prices.

E.g.

Book – 50p

Ball – 16p

Game – 62p

Yo-yo – 45p

Use the bead string to work out which items they could buy with £1 and how much change they would have!

