

Numicon Games

Getting to know the shapes and their order

ACTIVITY - COVER THE BOARD (Numicon)

1. Work in pairs to cover the board with no gaps
2. Race to cover the board first
3. Now have to make sure you use one of every shape

ACTIVITY - SHAPE LOTTO (Numicon)

Take one Numicon base board per pair.

Select 4 Numicon shapes from a set of 1-10 shapes and place one in each corner of the base board.

Place a set of 1-10 shapes in the feely bag.

Take turns to select a shape from the feely bag. If a matching shape is drawn, cover the matching shape on your base board. If it is not a matching shape, replace in the bag.

The winners are the first pair to match all their shapes.

Things to notice:

- How the children are matching the shapes? Colour, shape, trial and error etc

ACTIVITY - REMEMBER THE PATTERN (Both)

Resources: number image cards and matching number image resources.

Place the picture cards face down on the table in front of you.

Take it in turns to choose a card. Study the picture and then place face down in front of you.

Use visual memory to recreate number pattern from the pegs.

Key points: trying to develop children's visual memory of the shapes. Could use other counting objects instead of pegs. Also, could use numicon shapes instead of picture cards.

ACTIVITY - BEFORE AND AFTER (Both)

Resources: 1-10 number shapes arranged randomly on table.

Team A chooses a shape and places on table in front of them.

Team B selects another shape that could be placed immediately before/after Team A's shape. E.g. if team A select 4, then team B could choose 3 or 5.

When the shapes are all arranged in order, could discuss things they notice from pattern e.g numbers growing as go up are getting smaller as go down, alternating pattern of odd and even numbers etc.

ACTIVITY - SWAPS (Both)

When shapes are in order, one person covers eyes while other swaps two shapes over. First person then has to find the incorrect shapes

Linking the shapes to their number name and numeral

ACTIVITY - SNATCH (Both)

Children take handful of pegs. Arrange in Numicon or 10-frame order to work out how many

ACTIVITY- NAME THAT SHAPE (Both)

Resources: 1-10 number shapes arranged in order. Numeral/word cards shuffled and placed face down in a pile.

Take it in turns to take a card and match it appropriately to the shape. Or vice versa.

ACTIVITY- FEEL AND FIND (Both)

Resources: 1-10 digit cards shuffled and placed face down in pile. Number shapes 1-10 in feely bag (ten frame with dots removed).

Turn over a card. Feel for shape in bag.

Point out that as before, could use numeral cards instead of name cards or mixture of both.

SWAP SHAPE / SWAP NUMERAL

Have shapes in order with matching numerals. While one player looks away, the other swaps over two of the shapes or numerals. The first player has to put the shapes/numerals back into their correct places.

Using the patterns

ACTIVITY-WRAPPING PAPER (Both)

Resources: wrapping paper, counters, pegs etc.

Select a motif. Find how many there are of that motif without counting. Put one peg on each motif. (i.e. collect pegs and arrange in appropriate pattern)

Point out difference between this activity and snatch is that no counting should be involved. Children simply build pattern and say number through recognising pattern. At this point larger numbers could be used so some children could begin to explore patterns of numbers beyond 10.

ACTIVITY- HOW MANY PEGS

Set out shapes and cards in order. Use the white base board to set out a random arrangement of pegs (no more than 10). Encourage child to arrange the pegs into Numicon pattern and say the number. Use shapes to check. Find the number on the number line.

Challenge - children play independently in pairs.

ACTIVITY-ADD ONE MORE

This activity is designed to help develop children's mathematical thinking using what they now know about patterns.

Set of number shapes 1-10 arranged in order.

Take the one shape and put it with the 2 shape to make the 3 shape.

Now take the one shape and put it with the 3 shape so it looks like the 4 shape.

Repeat with each shape in turn.

ACTIVITY - DOUBLES

Child finds combinations of numbers that make a given number. Put other combinations away but keep double on top of number. Repeat with other even numbers until you have a row of doubles. Ask children what they notice and introduce term 'double'.

Challenge - what might the next number in the pattern be?

Applying arithmetic - addition

ACTIVITY- TURN IT OVER (Numicon only)

Resources: 2-10 digit cards arranged randomly in a 3x3 array, 1-9 number shapes

Select a digit card- this is the total you are trying to make.

Select two shapes to make it. If successful take the card and return the shapes.

Challenge - take a peg for each different combination you can make. Who has the most pegs?

ACTIVITY - BONDS (Numicon)

Resources: 2 sets of 1-10 shapes

Arrange one set of the shapes in order in front of you.

Challenge is to make all the combinations of ten that can be made from two numbers. How do you know that you have made all the possible combinations?

Did anyone use counting? Those who didn't, why was it not necessary? (because of the pattern).

Look for lots of opportunities for children to be doing this in practical problem solving contexts e.g. number stories etc.

What we are looking for at this stage is children saying things like, "I've got a 4 shape and a 5 shape and that makes a 9," without counting and before putting them together.

ACTIVITY - BLOCK OF FLATS

Practitioner chooses a shape and fills with pegs. Child finds two or more shapes that fit on top exactly. Continue to build more floors using pegs and different number combinations.

ACTIVITY - MAKE THAT NUMBER

Child chooses number from a pile/selection. Says number and then makes number using two or more shapes. Says what s/he has made.

Applying arithmetic - subtraction

ACTIVITY - CHOPPING OFF GAME (Numicon)

Involves practitioner covering up or pretending to 'chop off' parts of the Numicon shapes to demonstrate subtraction. (Using pegs works better)

ACTIVITY - PICK AND TAKE ONE (Numicon)

Arrange shapes in order and cover each shape with pegs. Child 1 chooses number from pile. Reads out number and child 2 finds that shape, removes one peg and says what is left. Check by comparing with preceding shape.

ACTIVITY - FEEL AND COMPARE (Both)

1-10 shapes in feely bag. Child chooses 2 shapes, names them and then puts one on top of the other to find the difference. Generate numbers for comparison and difference by spreading number cards 1-10 on table and turning 2 over, throwing 2 dice or using spinners.