

Homemade maths activity ideas for three to four year olds

Hide and seek numbers:

What you will need:

- Paper or card
- Marker or felt tip pen
- Scissors



What to make:

- Write bold numbers up to 5 or 10 (depending on what your child can manage) on your paper or card.
- Cut out to make individual number cards.

How to play:

- Hide the numbers randomly around the house or garden without your child knowing where they are.
- Tell your child its 'hide and seek numbers' so you will count to 10 closing your eyes and then they can find as many numbers as they can.
- If your child/children are having trouble finding them you might need to give them clues. Try to use positional language to do this e.g. "try looking higher/lower" or "look under/between/next to".
- As they find numbers can they tell you which numerals they are?
- To finish off when they have found all of the numbers can they place them in order.

Water measures:

What you will need:

- A bowl, bucket or large tray
- Plastic bottles and tubs varying in sizes
- Different sized scoops and spoons
- Warm water
- Optional – washing up liquid for bubbles or food colouring for colour
- An apron or clothes that you don't mind getting wet



What to do:

- Find a space such as outside in the sink or bath tub where it's ok if it gets splashed.
- Provide the water, bottles, plastic jugs and scoops and to start off just let your child play freely exploring pouring and tipping the water into the different containers.

How to develop the play:

- Encourage your child to guess how many of the smaller containers it will take too fill the larger container.
- Support your child to carefully scoop and pour using the smaller container to fill the larger one, counting as you go.
- Repeat using different sized tubs, scoops and bottles.
- Write the number together on a paper to record your findings.

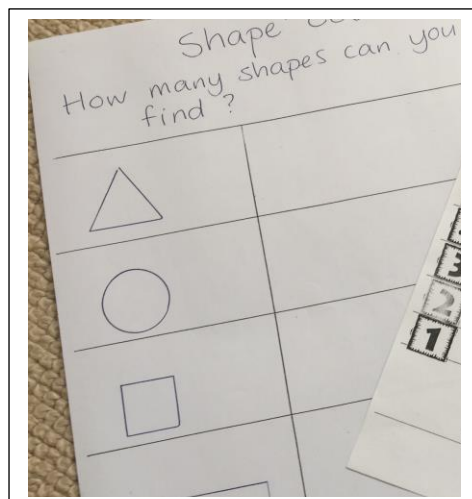
Tally search:

What you will need:

- Paper and pencil/pen

How to make:

- Draw a line vertically like a margin down the left hand side of your page.
- Draw 4 horizontal lines across your page around 3cm apart (approx).
- Use the small boxes on the left side of your page to draw things that you might find nearby e.g. a door, a window, a pipe, a ball, a toy, a flower etc.
- At this stage you might like to peg your paper to a book or piece of sturdy card to make a clip board so that your child can transport the paper around.



What to do:

- Support your child to find as many e.g. doors as possible, Each time that they find one they make a line next to the picture of the door. Repeat this marking their tally sheet each time they find something that corresponds to the pictures. Make sure that your child only makes one line per one object. E.g. if they see one door draw one line then if they see another door draw another line.
- Once they have found a few of each object discuss their findings together – Which object did they find most/least of? How many doors did they find? How many more windows than doors did they find?
- This activity can be adapted to all sorts of things such as shapes, natural objects (stones and leaves etc.) or objects around your home. You might wish to deliberately put out a few things so that you have the sort of quantities that your child can manage to count and tally with.

Icing numbers:

What you will need:

- Plain biscuits or cakes (bought or pre-made)
- An apron
- Tubes of icing (you can buy these at the baking section of the supermarket)
- Numbers to look at or refer to (these can just be written clearly on a piece of paper).

What to do:

- Wash hands and put on an apron.
- Choose the colour of icing.
- Choose the number.



How to play:

- Talk about how to form the number encouraging your child to count to the number and to write the number with their finger in the air.
- Carefully support your child to make the number by squeezing the icing onto the biscuit.
- If your child finds this too tricky choose a number and make the same number of blobs or spots on your biscuit counting as you go.
- If you can't get hold of tubes of icing you can make your own using icing sugar and water. Do not make it too wet. Using a small sturdy food bag, put some icing mixture in the bag and cut a tiny piece off the corner to make a piping bag. Only use a small amount in the bag at a time so that small hands can manage.

Making patterns:

What you will need:

- Collections of around 3 varying groups of objects e.g. some buttons, some stones, beads, paperclips or coins (around 10-20 of each).



What to do:

- Look at your collections together and talk about their details, colours, patterns and marks on them.

- Mix all your objects up.
- Sort them out in lots of different ways together e.g. by shape, size, colour, texture or pattern.
- Use your objects to make pictures with.
- Support your child to make simple patterns with the objects e.g. a button, a bead, a button, a bead.....Keep it very simple to start with and do the same activity in lots of different ways.
- Can your child think of different ways to make patterns?
- As your child develops this skill they can move on to more complex repeating patterns such as using three objects.

Pair it up:

What you need:

Pairs of socks with different colours or patterns on them

How to play:

Talk about how pairs are made up of two. Use examples such as two legs, hands.

Lay out lots of pairs of socks, trying to use ones with interesting shapes, colours and patterns on them.

Take turns in finding pairs of socks that match.

Talk about why they match using language around colour, shape and pattern.

Talk about what makes them the same and what makes them different.

Find lots of other things around your home that are in pairs.



Ball in the bucket:

What you need:

A bucket or bowl

A ball

Masking tape or chalk or anything to mark out a line

Chalk or numbers written boldly on card or paper - optional



How to play:

Draw or mark out a line on the ground using tape.. Place your bucket around a metre in front of the line. Stand on the line, aim your ball and throw it into the bucket.

If this is easy move the bucket further away and if it is difficult bring it closer.

Use the language of near, nearer, close, closer, far, further, how far away, a long way away etc. This is mathematical language.

You might like to draw another line at the side and place numbers along it. Place the bucket next to a number, aim and throw. This way you can measure which number you can throw to.

Pasta in the Pot:

What you need:

10 pieces of pasta such as Twists or Penn for each player

A pot or bowl

A dice



How to play:

Share out the pieces of pasta so that each player has 10. Place the pot in the centre of the table.

The first player rolls the dice and counts the spots. They then count out the same number of pasta pieces and place them into the pot.

The other players do the same and this is repeated in turn until all the pasta is gone but in order to finish the player must roll the exact number that they need to finish off their pasta pieces.

You can make this game last longer by using more pieces of pasta each.

Shape Bingo:

What you will need:

- Paper and coloured pens/pencils
- Objects to cover the shapes (such as buttons, coins or small pieces of cut out card)
- 2-4 players
- Time to make the resources together



How to make:

- This game will need some preparation time to make.
- Draw out a grid of 6 squares on a piece of paper or card. In each square draw a clear basic shape (circle, square, rectangle, oval, diamond or star). With your child colour the shapes. Repeat this on a second sheet keeping to the same colours and shapes only change least 1 of them. Make as many cards as there are players always ensuring that each card has 1 different shape to the others.
- Each shape also has to be drawn on a separate piece of paper or card and coloured. This is to be cut up and put into a bag or box so that they cannot be seen – the callers cards.

How to play the game:

- Provide each player with a sheet/card.
- You will need a caller. The caller draws out a piece from the bag or box and asks the Player/s what it is e.g. a purple oval. (The caller can also have their own playing board).
- Whichever player has this exact shape on their board covers it with a button/coin/card.
- Answers must match both the colour and the shape called.
- The caller can put the shape called back into the bag and draw another one out.
- Carry on like this until all 6 shapes have been covered when the player can shout “Bingo”.
- This player is the winner of the game.