

Ideas for Outdoor Maths at Home

Numbers and Numerals

Nature's Numbers: Children need to count the number of trees, birds, flowers etc. they can see, from where they are standing. What can they see the most of, least of and equal number of? What would the total be if there was one more or one less tree etc.?

'Mud' and sticks: Show the children your chosen stick and explain why you have chosen it. (You could even create a story about the "powers" of your special stick.) Ask them to find their "special" stick. Explain to the children that they are going to use their "special" stick to write numbers in the (mud/sand or on the playground) in numerals. Ask the children to start at 1 and count slowly to 20, as you demonstrate the correct formation of the numerals. Allow the children time to think about the numerals and ask any questions. Which numbers are easy? Which numbers are difficult?

The children could then write numerals in chalk next to their 'mud' writing. We do this in handwriting practise, having a go with our magic pens in the air.

Try some mental maths: Which is 1 more or 1 less? Pick two of your numbers, add them together? What do you get? Choose a big number, pick a smaller number and take it away from the bigger number. What do you have left?

Matching Game: An adult needs 'cards' with the words for numbers 1-20, or just a pad and pen, or whiteboard and pen to write them up. Children to write the numerals 1-20 in chalk on the ground. When the adult writes and says the number using words, the children have to identify their correct numeral. They could circle or tick it.

Pictures by numbers: Explain to the children that they are going to create a picture of something that they would find in nature in Britain – bird, mammal, tree, minibeast, flower etc. but they are going to use their knowledge of numbers – 1 - 20 to create their picture.

Demonstrate what they will need to do by first asking each of them to collect e.g. 1 pebble, 2 daisies, 3 twigs, 4 sticks etc. up to 20. Can they find 20 different natural resources? Once the different resources are collected ask the children to lay out the resources from 1 - 20 and to write the correct number next to each object.

The next challenge is for the children to use their resources to create a picture of something from nature e.g. a butterfly.

Data Handling

Favourite vegetable block diagram activity sheet

Favourite vegetable pictogram activity sheet

Favourite vegetable tally chart activity sheet

Favourite colour tally and block diagram

Tally Chart Birthdays activity sheet

Favourite pet tally and pictogram activity sheet

Garden Birds Bar graph activity sheet

Minibeasts Bar graph activity sheet

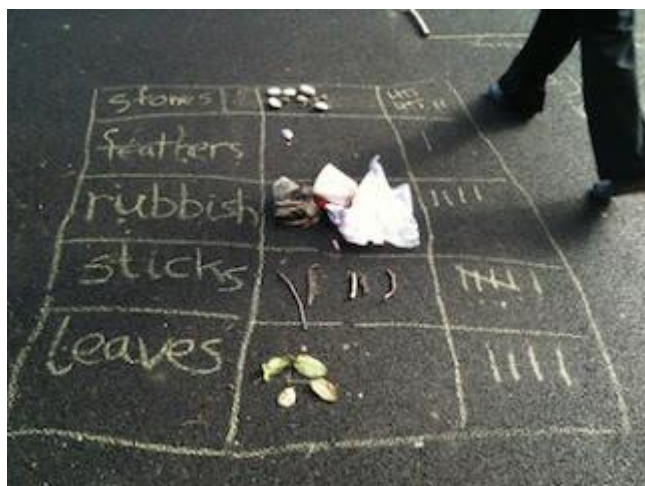
Counting Fruit tally activity sheet

Interpreting Bar charts activity sheet

Interpreting Pictograms activity sheet

Collect a variety of natural objects. Using chalk, make a tally chart using the objects you have found. Which object did you find the most of? Which object was hardest to find? Can you show your findings another way?

Can you challenge yourself and use the same data to create a pictogram and bar chart using chalk?



Bird Spotting challenge – use the activity sheet above to inspire children further to spot birds outdoors. If you can spend longer watching for birds (and over a longer period of time), paying attention to feeders, keep a log of the types of birds and how many of each you see. Record this as a tally, pictogram to show a child's favourite bird spotted perhaps, or a bar chart to show the number of each bird spotted, in your own creative way. Which is the most common? Which is the least common?

Data Handling Website games

<https://www.topmarks.co.uk/maths-games/5-7-years/data-handling>

Games: Bar charts, Fruit fall, Fishing, Pictograph game, Tally chart game, Interpreting Data