

Home Learning Maths Outdoors

Here are some different activities to help your child learn maths outdoors.

Measurement Scavenger Hunt

Here are some examples:

Measurement Hunt Find a twig exactly 20cm long.	Measurement Hunt Find three pebbles measuring a total of 250mm when laid in a row.	Measurement Hunt Find two trees spaced more than 4 metres apart.	Measurement Hunt Find a way of measuring your height without using a measuring stick, tape or standard unit.
Measurement Hunt Find something that can be squashed to less than 10cm.	Measurement Hunt Find something which can't be measured in terms of its length, width or height.	Measurement Hunt Find something which is exactly the same length as your foot.	Measurement Hunt Find something which can be put together to make 1 metre.

Ordering length

Collect sticks of different lengths and order them from smallest to largest.

What is the smallest length measurement? What is the largest length measurement? What is the difference between the smallest length and the largest length?

Measuring

How many leaves long are your arms?

How many sticks does it take to measure your leg?

If there is more than one child in your household it is interesting to discuss if they both have the same answer. Encourage them to think about the size of the leaf or stick they chose. Were they both the same? Do they know any standard units of measure that would be more accurate to measure length?

Natural Numbers

Find two natural treasures and decide which number each one represents. For example, the leaf has 5 points and there are 4 seeds.



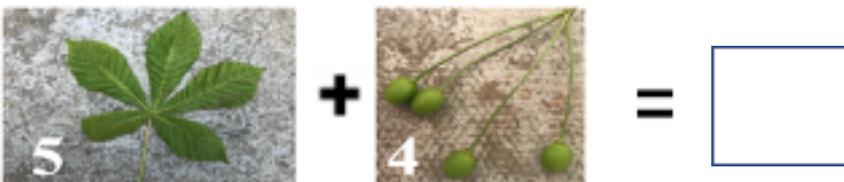
Can you make a number line using your natural treasure?

You could use chalk to draw your number line and write the numbers each object represents.



Natural number sentence

Use your natural treasures to make number sentences.



Go on a hunt to find natural treasures to fill in the missing gap?



Chalk is an excellent way to record your ideas outdoors. If you don't have a suitable paved/tarmac area for chalk, try to represent the numbers using sticks.

Take Away Tournament

The idea of this game is to subtract 1 or 2 away from a 2 digit number.

You need two people or split your family into two teams and play against each other.

Place natural treasures e.g. sticks (or whatever natural material you choose) on the ground between the teams. 21 is a good number of objects to start with. The first challenge is for them to find 21 objects. Once everyone has agreed there are 21 objects each team takes it in turns to take away 1 or 2 sticks. Each time it is your teams go you can choose whether to take away 1 or 2 sticks. The winner is the team that can take away the last stick.

When the children first start playing the game, they will probably just take the sticks randomly. Encourage them to think about how many sticks they are taking and how many are left. Can they think of a strategy?

Stick logic

Find 9 sticks of equal length.

How many triangles can you make using 9 sticks?

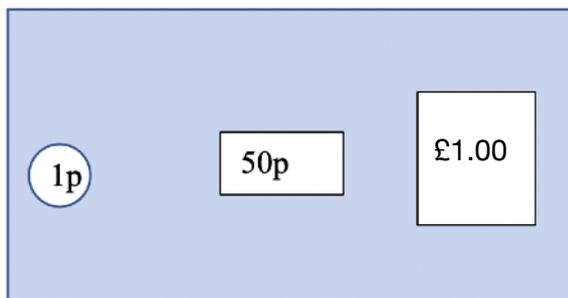


Crossing the river

The purpose of this activity is to add and subtract amounts of money. This activity can be made easier by marking up each item in the shop for 1p or 2p. If your child is more confident with money and adding amounts you can increase the amount of the items.

Set up a shop theme and explain how the challenge is for them to buy 'stepping stones' so they can cross the river. The stepping stones can be different sizes of cardboard or paper. The river can be an area marked on the ground. *Make sure there are enough objects in the shop for the child to have a choice of what to buy and be able to reach from one side of the river to the other. You can give the child real money to buy items from the shop. The child will need to add the total cost of the items and use the coins to pay. If they find adding money difficult get them to tap the coin the same number of times as its value e.g. tap a 2p coin twice when counting. You can also draw a number line to help.*

How much have you spent? Do I need to give you any change? Can you cross the river with your items?



Once the items have been purchased the child can put them across the river to see if they can reach the other side. Explain that when crossing the river your feet can't touch the ground as it is infested with crocodiles.

What is the least amount of money you can spend to cross the river safely?

Shapes

Gather lots of sticks and join them together using elastic bands or alternatively use natural objects to make shapes.

How many 2-D shapes can you make? Encourage the children to talk about their properties e.g. how many sticks will you need to make a triangle?

Making 3-D shapes is more difficult and you may need to support the children to join the sticks together. *Try to encourage the correct use of vocabulary e.g. vertices, faces and edges.*



2-D Shape Hunt

Go on a walk looking for 2-D shapes? Are some shapes easier to find than others? Encourage the children to discuss the properties of the shapes e.g.

How do you know it is a rectangle?

2-D shape	Where can you see the shape?
circle 	
square 	
rectangle 	
triangle 	
pentagon 	
hexagon 	
octagon 	

3-D Shape Hunt

Go on a walk looking for 3-D shapes? Are some shapes easier to find than others? *Encourage the children to discuss the properties of the shapes.*

3-D shape	Where can you see the shape?
<p data-bbox="252 421 363 454">cylinder</p> 	
<p data-bbox="276 645 339 678">cube</p> 	
<p data-bbox="260 846 355 880">cuboid</p> 	
<p data-bbox="276 1137 339 1171">cone</p> 	
<p data-bbox="260 1391 355 1424">sphere</p> 	
<p data-bbox="220 1671 395 1738">square based pyramid</p> 	