

Fyvie Primary School, Aberdeenshire

What we spent:

Measuring tapes (4 packs – 2 separate invoices for £5.38 each)	£10.76
Set of 10 large dice	£10.99
Sewing thread (for making cloth tens frames, etc)	£3.98
Measuring wheel 4 x £13.31	£53.24
Metre sticks (4) £19.72 + VAT	£23.64
Sets of coloured plastic cones £32.33 + VAT	£38.80
Place value counters	£119.94
Paracord	£6.97
Velcro cable ties	£9.99

Total spent £278.31

Grant awarded £250.00

Why we changed what we bought from our original application.

Our original application was for £1000 but we were awarded £250 so we had to make changes. We stuck with the spirit of the application, which was to allow children to learn maths outside, taking into account covid restrictions. My class were already doing maths outside several times a week but were going to become restricted in what we could do due to having already covered some areas where we could easily work outside but being unable to cover some others outside due to a lack of equipment. So we decided to focus on that and also on making what resources we could to supplement this, for little cost (but a large time commitment.)

Therefore what we decided was that my class would get some new equipment to use just for us (the equipment is not being shared due to covid restrictions), as we were already trying to do maths outside several times a week, and we'd spend a small amount on getting some other pieces of equipment (measuring wheels, metre sticks, tape measures and 3cm dice) based on what we felt other classes would use outside in terms of maths, in order to encourage as many teachers as possible to be able to do some maths learning outside and therefore allow as many pupils as possible to get this experience. We are adding additional things to these kits as well and the pupils in my class are helping me make them, like sets of 0-9 number stones and 0-9 wood cookies, trying to use low cost resources and natural resources where we can. The Velcro ties are being used for holding sets of measuring sticks together and also for using for building 3D shapes from sticks and the paracord is for making 'Sammy the 1m snake' and 'Sid the 1m snake' (Sid has tape every 10cm).

What we've used it for so far – just a few examples:

Measuring wheel used for measuring a 230 metre course for an ultra-marathon and comparing measuring to using a rope and using the Strava app on a phone. The class then took part in the Lakeland Lapland Virtual Ultra marathon, completing 145 miles in 3 days, round and round their pre-measured course.

The cones have been used with outdoor beanbags to make games for comparing and ordering 2 and 3 digit numbers. We also plan to use them for addition and multiplication games outside.

The foam place value discs have also been used for comparing and ordering games as well as practising adding and taking away 10, 100 and 1000 from a starting number.

Sammy and Sid the snakes get taken out a lot – they're easy to pop in the pocket of a bag so they're always with us if someone needs them and they can be used for estimating as well as measuring. With the addition of the measuring tapes and metre sticks they allow children to progress from measuring metres to measuring in cm and mm, and then larger distances with the measuring wheel.

We've made some other resources at low cost (thread and a donated sheet) including HTU frames and a 1 square metre cloth, as well as some resources which don't use the grant money at all but which I've included a few photos of in use as it was too hard for the children to give me feedback on just the resources bought with the grant money, they just wanted to enthuse about outdoor maths in general!

Feedback from the children:

The feedback from the children has been fascinating as it's made me realise just how little maths manipulative we're using inside compared to usual, due to the covid restrictions, and also how cramped they feel the classroom is for maths inside, due to the desks all being spaced apart from each other. We generally do maths outside at least 3-4 times a week and often on all 5 days and I've seen a growth in confidence in some children who used to not like maths but now see it as more fun and are now beginning to be able to apply their learning inside when using a textbook much more confidently when they're reminded that it's the same thing they were managing easily outside.

A few quotes from the pupils (these were all from P3s):

I prefer maths outside. Inside in the textbook there's pictures of equipment on the pages. Outside we use lots more equipment and it's more fun. I definitely prefer outside.

It is harder to do maths inside because there is not enough room in the class room, but it is easier to do maths outside as there is a lots of room.

I think that maths outside is easier because you can feel it and you can move things more easily if you need to.

Outside you pay more attention to the work, inside you're just doing it. Outside it's much more fun and it's easier to concentrate.

It's better outside so you can get some fresh air which makes you think better.

Some photos:

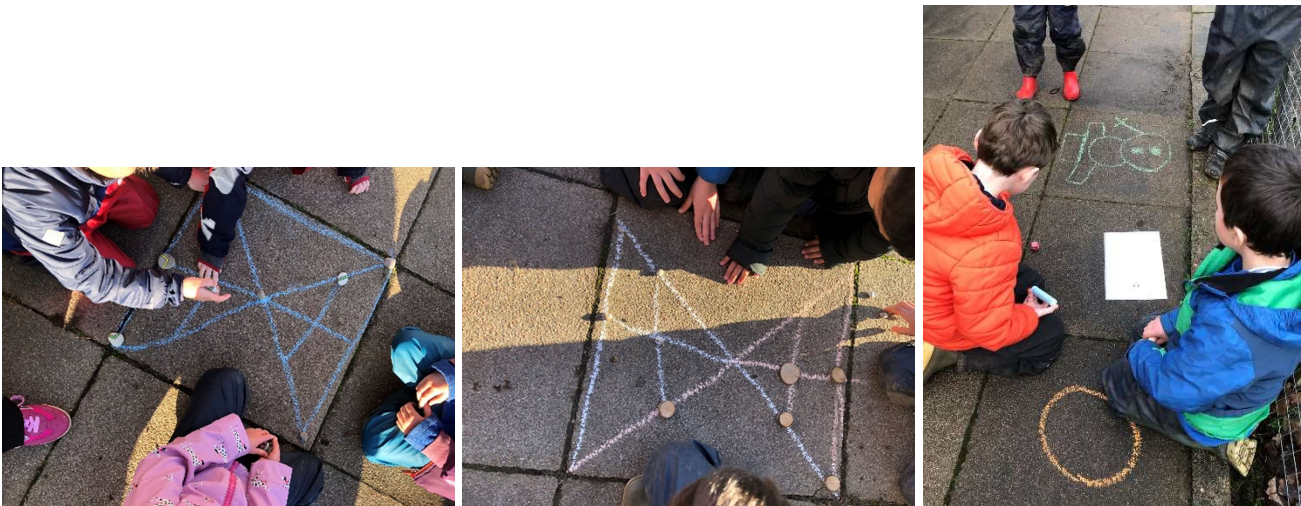
Angles



Estimating and measuring (Sammy the snake is 1m long, Sid has a tape marking every 10cm)

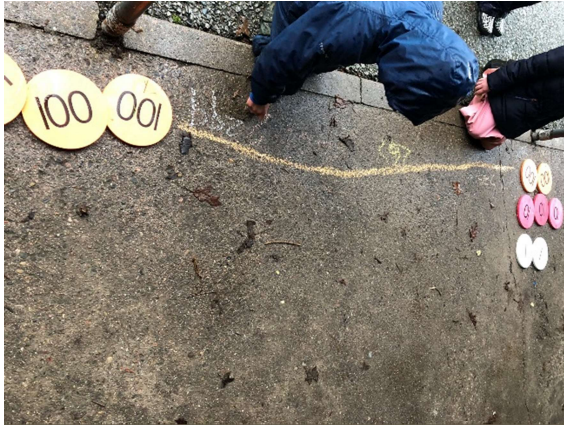


Strategy & probability games (problem solving and building resilience)



Number work – place value, addition & subtraction





And finally – back indoors we log our time inside (not just for maths, but all learning outside) then calculate the weekly total and add it to our graph. This helps give us the incentive to get out, even if the weather isn't so good.

