

**Mathematical moments with 3 and 4 year olds**  
**Spatial reasoning and directional language**  
**Obstacle course**



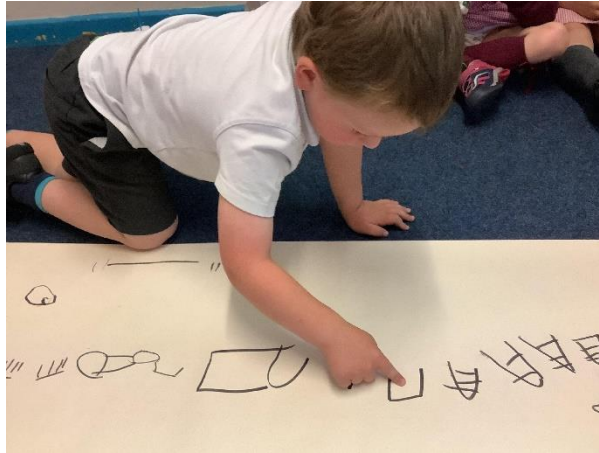
Sharon, the nursery teacher, started by setting up a short course and the children rushed to it. First she gave verbal directions so the children moved through one at a time, then added gestures and encouraged children to talk about their movements. They gained confidence, chanting as they moved, *'I'm going over, I'm going under, I'm going through...'*

After a while the children began to create their own courses, using their own ideas. Two children used a hoop to jump through by 'fixing it' to the steps. Alfie was very keen to create his own route and with encouragement began to explain how to move through it. View the video recordings [here](#).

Sharon commented: *I hadn't done this before (encouraging descriptive talk) for moving through a physical space, and it is something I will definitely use from now on because it helped them link actions to words. Quite a lot of our children are reluctant/less confident speakers but enjoy the physical experience. There is lots to go at with this activity and I think it gives scope to keep revising, thinking about space and helping children gain confidence using directional/positional language.*

In this activity, the children were not only gaining confidence in using directional language, but were beginning to visualise routes that they could create. Later the children drew their own maps of the obstacle course, with lines showing which way to go, so representing their 3D

experiences of shapes and space in 2D. They also made a collaborative group map on a long strip of paper, taking it in turns to trace the directions with their fingers. However, they found it hard to concentrate on tracing the directions and to talk at the same time!



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