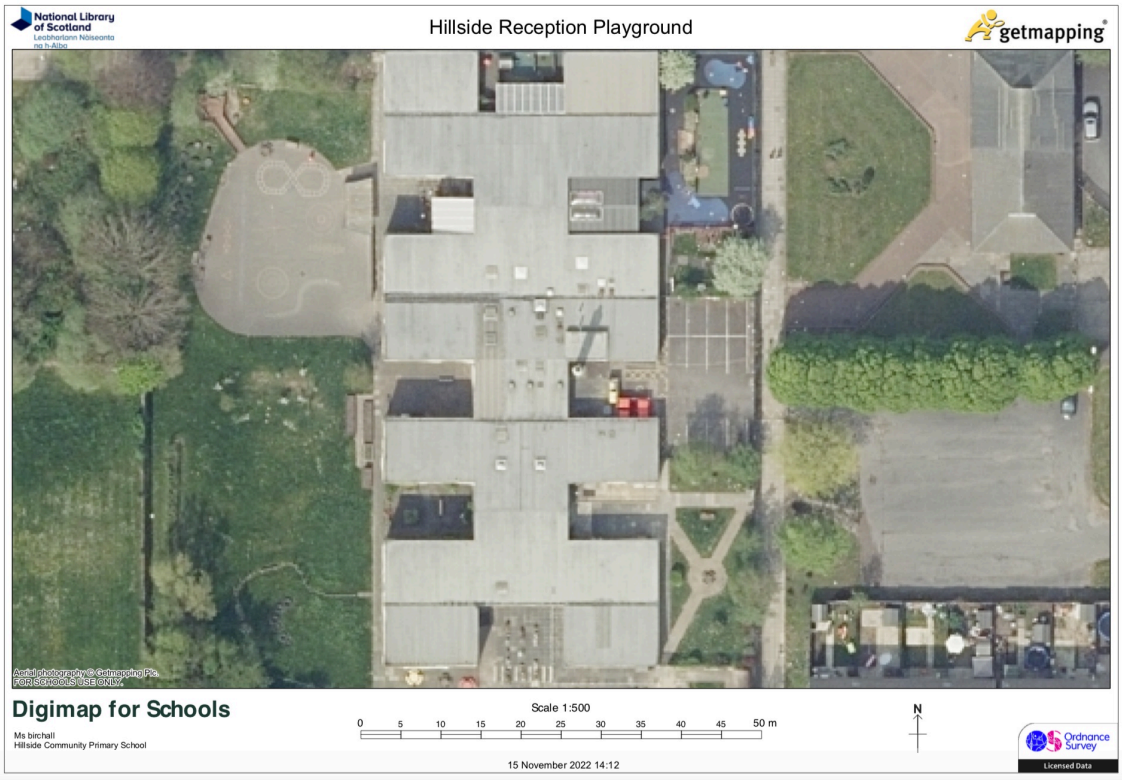
Mathematical moments with 4 & 5 year olds

Spatial reasoning: Using Digimap to create 3D messy maps

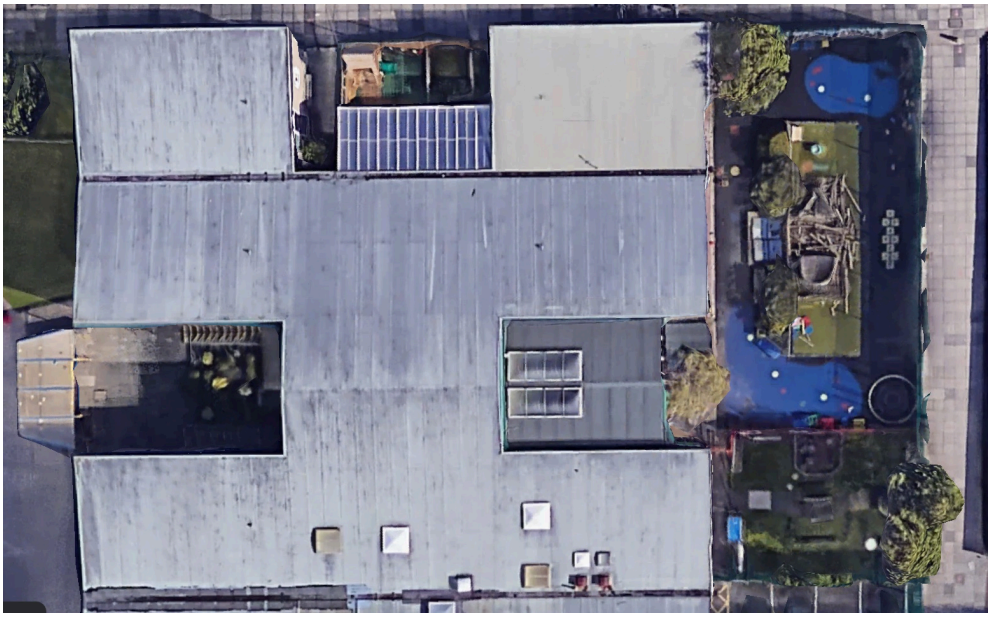


Marie, the Reception teacher, wanted to explore how to best utilise the Digimap for Schools software being used by the rest of the school with young learners in the foundation stage. She decided to use the tool to support learners to map the Reception playground.

To start with, the class had an engaging afternoon outdoors deciding what the key features of the playground were (the bench, the tree, the bridge, the archway, the path etc.) and categorising them into human and physical features. The learners also used iPads to take photographs of selected key features.

As a next step, and as a whole class, the children explored the aerial photographs of the school playground available on the Digimap for Schools website and on Google Earth. The children looked for the key features they had seen and photographed, and then uploaded these photographs to the correct position on the Digimap aerial photograph using the software's drawing tools. This was an opportunity for lots of

mathematical and positional talk (i.e. the bench goes next to the tree; the archway is at the bottom of the path).



Following this exploration, Marie printed the photographs of the key features and the aerial maps of the playground and encouraged the children to use their spatial reasoning skills to work in small groups to create a 3D 'messy map' of the area.

Marie encouraged the children to choose any resources from the classroom and outdoor area to recreate their map, thinking carefully about the shapes and colours they wanted to replicate. The first few

groups worked outdoors, and used grass snippings, twigs, leaves, and other natural items in their messy maps. But (as is typical) the weather turned and the children had to move indoors. The indoor groups tended to choose resources from the classroom in the recreation of their maps, such as multilink cubes, building blocks and art resources.

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