

Learning Maths through Kites

New Hartley Primary School

Infinite Arts was commissioned by the National Centre for Excellence in the Teaching of Mathematics, to design and deliver a 2 day programme for Yr 4 pupils based on learning mathematics through kitemaking. The project took place in New Hartley Primary School in Northumberland and focussed on scale, ratio, symmetry, geometry, area.....you name it, you can learn it through kitemaking. The work was led by Pauline Taylor and Frances Anderson.



Using simple everyday materials, newspaper and sticks, pupils each measured, made and flew several kites during the course. Starting with a Scrapheap Challenge, everyone had 5 minutes to make something that might fly. This activity served to get everyone going and help us to introduce ourselves. Pupils went on to measure and make their own small kite – 10cm square using Chinese newspaper. Once this was done they were asked to scale everything up by a ratio of 2:1 and see how big the next kite would be. We went outside to test both these kites and see which flew better.

Using a Japanese folding and dyeing technique called Shibori, pupils all coloured a sheet of paper ready to make another kite, this time a diamond shape with a two point bridle, requiring them to assess and measure angles.

The children's evaluations indicate the range of their learning experience.

“It didn't seem like maths even though it was” .

“The teamwork was really good, it's all about listening to people's suggestions, taking turns, helping each other and having fun!”

“I liked flying the kites, I think kite making is cool but what made it cooler was learning maths as well.”

“I've learned that to fly a kite you need patience and balance and it's no good trying to fly a kite when it's not windy!”

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Pete Sturrs, Deputy-Head and Y4 teacher at New Hartley First School, wrote;

“Pauline and Frances from Infinite Arts produced two days of high intensity maths work meticulously planned with quality resources. Every child met targets set; less able exceeded expectations and the more able were definitely challenged.

“Maths covered included measuring to the nearest millimetre, symmetry (beyond what was needed for Y4/5 curriculum) doubling, multiplication, ratio angles, use of the set square and shapes. Weeks of maths work were covered in two days; assessments were carried out easily with two skilled practitioners leading.”

“Maths was the focus but this project could be developed on similar lines to cover science, design and technology or art to the same high standard.”

“The awe and wonder demonstrated by all the class when they flew their shibori kites at the end of the two days will remain with me for the rest of my career.”

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