

Maths Trail KS3- information for teachers

Students go through the park using their surroundings to work out Mathematical calculations and problems which include:

- ✓ 3D shape hunt linking to vertices, parallel lines, and equal opposite angles
- ✓ Measurement of the perimeter surrounding the 1st adventure playground
- ✓ Measurement of the gradient of the ramp up to the adventure playground
- ✓ Obtuse angle hunt and challenge of working out missing angles in a parallelogram
- ✓ Measurement of a tree using a clinometer
- ✓ Completion of the Pythagoras theorem
- ✓ Ratio problems
- ✓ Calculating the speed of a duck swimming against the speed of the river
- ✓ Estimation of the height of the viaduct and calculation of the price to build each arch supporting the viaduct
- ✓ Probability statement to place on probability scale
- ✓ Conversions of length from metric to imperial linking to the length of the river
- ✓ 3D shape net drawing
- ✓ Nth term and area of a circle
- ✓ Working out averages and FDP's from a frequency table
- ✓ Multiplication, multiples and prime factors linking to the steps to the cave and Petrifying Well
- ✓ Multiplication and division calculations linking to the number of teddies hanging up under the Petrifying Well with challenge of showing remainder as mixed number and a decimal
- ✓ Coin identification and money problems (decimals) linking to the Wishing Well
- ✓ Challenge to work out how long ago the lake and spring which flow over the Petrifying Well were formed in days
- ✓ Money problems linking to souvenirs sold in the museum
- ✓ Mathematical vocabulary wordsearch

Resources needed:

- *Pencils*
- *Rubbers*
- *Possibly 3D shape examples*
- *Trundle wheels*
- *Gradient and clinometer help sheets (provided)*
- *Clinometers*
- *Rulers*
- *Measuring tape*
- *Any other mathematical supporting resources normally used for each area*