



KS2 Maths Year 4 - Information for Teachers

National Curriculum objectives:

Number and Place Value

- Identify, represent and estimate numbers using different representations.

Addition and Subtraction

- Add and subtract numbers with up to four digits, using formal written methods of columnar addition and subtraction where appropriate.
- Estimate and use inverse operations to check answers to a calculation.
- Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

Multiplication and division

- Recall multiplication and division facts for multiplication tables up to 12×12 .
- Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

Fractions

- recognise and write decimal equivalents to $1/4$, $1/2$, $3/4$.
- Recognise and show, using diagrams, families of common equivalent fractions.

Measurement

- Estimate, compare and calculate different measures, including money in pounds and pence.

Geometry

- Identify acute and obtuse angles and compare and order angles up to two right angles by size.
- Identify lines of symmetry in 2-D shapes presented in different orientations.
- compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.

Activities:

Mother Shipton trail - to be used as children go through the park:

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

- * Identify different types of lines (parallel, perpendicular, horizontal and vertical).
- * Complete multiplication and division problems on the benches near the café.

Mother Shipton's

- * 2D shape hunt and checking against symmetry and whether they are quadrilaterals.
- * Estimation of the height of the Viaduct.
- * Identifying acute, obtuse and right angles within the park.
- * Ordering angles by size.
- * Addition and subtraction calculations linking to the trees within the park and the steps to the cave and Petrifying Well.
- * Fractions - equivalent, decimal equivalents and comparing.
- * Multiplication and division calculations linking to the number of teddies hanging up under the Petrifying Well.
- * Coin identification and money problems linking to the Wishing Well.
- * Estimation and measurement of bench along Beech Avenue in cm.
- * Mathematical vocabulary word search.

Resources needed:

- *Pencils*
- *Paper for working out*
- *Rubbers*
- *Possibly 2D and shape examples*
- *Possibly coins for support*
- *Any mathematical supporting resources normally used for each area*

Answers:

1. Café Calculations:

✧ 5000 ✧ ✧ horizontal, vertical, parallel and perpendicular

✧ ✧ ✧ all four types of lines are present

2. Picnic Puzzles:

✧ 8 people ✧ ✧ 7 will be left standing ✧ ✧ ✧ 12 benches would be needed

3. Eerie Estimation: The Viaduct stands at 23m.

4. Angle Hunt: dependent on angles seen.

b) labelling angles - 4, 1, 3, 2

Mother Shipton's

5. Tree Tester:

✧ 81

✧✧ 50

✧✧✧ 1598

6. Shape Hunt: Grid – dependent on shapes seen (quadrilateral = 4-sided shape)

7. Cackling Calculations: steps answers

✧ (21 steps) 1021

✧✧ 3521

✧✧✧ Number placed accurately on number line

8. Fearsome Fractions:

✧ $\frac{1}{4}$ as a decimal = 0.25

✧✧ 2 and 6

✧✧✧ $\frac{2}{4} < \frac{2}{3}$

9. Petrifying Puzzles:

✧ 21 months / 1 year 9 months

✧✧ 40

✧✧✧ 20 can be hung with 13 left over

10. Wishing Well Wealth:

✧ coins – dependent on what is seen

✧✧ £1.88

✧✧✧ £1, 50p, 20p, 10p, 5p, 2p and 1p

11. Mystical Measuring: you would use metres to measure the distance

a) dependent on estimation

b) each stride multiplied by 50cm