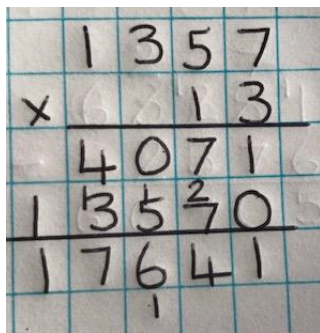# Supporting Maths at Home: A Guide for Year 6 Parents

Wincham Community Primary School

Year 6 is a significant year where all the building blocks of primary maths come together. We focus on "fluency" (speed and accuracy) and "reasoning" (explaining why an answer is correct). The children move into complex long division, the basics of algebra, and sophisticated fraction work.

Here is how you can help your child feel confident and prepared for the challenges of the Year 6 curriculum.

1. The Four Operations: Precision and Speed

What we do in school: We work with numbers up to 10 million. The children must be comfortable with Long Multiplication (4-digits x 2-digits) and Long Division (4-digits ÷ 2-digits). We also focus on the Order of Operations (BIDMAS) : Brackets, Indices, Division, Multiplication, Addition and Subtraction.

How to help at home:

- **The "Estimate First" Habit:** Before they solve a big calculation, ask: "Roughly what should the answer be?" If they are doing 4,321 ÷ 12, they should know the answer is roughly 4,400 ÷ 11 approx 400.

- **BIDMAS Bingo:** Write a simple expression like (5 + 2) x 10. Remind them that Multiplication comes before Addition, so the answer is 25, not 70!
- **Long Division Support:** Long division can be slow. Help them write out the "multiples" of the divisor first (e.g., if dividing by 15, write 15, 30, 45, 60, 75...) to make the "bus stop" easier to solve.

2. Fractions, Decimals, and Percentages (The "Big Three")

What we do in school: Year 6 is the year of Multiplying and Dividing Fractions. We also find percentages of amounts (e.g., 15% of £360) and convert between all three forms fluently. How to help at home:

- **The Fraction "Flip":** When dividing a fraction by a whole number (e.g., $\frac{1}{2}$ divided by 3), we imagine the pizza is already halved, and we are sharing that half between 3 people.

Each person gets $\frac{1}{6}$.

- **Shopping for Percentages:** "This TV is £400 with a 15% discount. How can we find 10% (£40) and then 5% (£20) to find the total saving?"
- **Sporting Stats:** Look at football league tables or cricket averages. "If a player scored 4 goals out of 10 shots, what is that as a percentage? (40%) and a decimal? (0.4)."

3. Algebra: Solving the Mystery

What we do in school: Algebra sounds scary, but in Year 6 it's just about finding "missing values." We use letter symbols (x and a) to represent numbers.
How to help at home:

- **Fruit Bowl Algebra:** "I have 2 apples and x bananas. I have 10 pieces of fruit in total. What is x" ($2 + x = 10$).
- **Function Machines:** Give them a rule: "Input x x 2 + 5." If the input is 10, what is the output? (25). What if the output is 15, what was the input? (5).

4. SATs Preparation: Building Confidence

What we do in school: We practice multi-step word problems. These require the children to read carefully and decide which operations to use in which order.
How to help at home:

- **The "Underline" Technique:** When looking at a word problem together, ask them to underline the "key numbers" and the "maths words" (like *altogether*, *difference*, *share*, or *product*).
- **Explain the Error:** Instead of just marking a wrong answer, ask: "I can see the answer is different to the back of the book. Can you find where the 'hiccup' happened in your working out?"

Key Vocabulary for Year 6:

- **BIDMAS:** Brackets, Indices, Division/Multiplication, Addition/Subtraction (the order we solve calculations).
- **Common Denominator:** A number that can be divided by the bottom numbers of two different fractions.
- **Ratio:** Comparing one part to another part (e.g., for every 2 red beads, there are 3 blue).
- **Mean:** The average (Add all the numbers up and divide by how many there are).

Quick "Year 6" Everyday Maths:

- **The "Best Buy":** In the shop, compare prices. "Is it cheaper to buy one big 2kg bag of pasta for £3.50 or two 1kg bags for £1.80 each?"
- **Bank Statements:** Talk about "Balance," "Credit," and "Debit" to show how addition and subtraction work in adult life.
- **Map Scales:** If a map scale is 1cm = 1km, how far away is the next town?