

Mathematics

The 11 year journey.

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Primary Foundations

Knowledge/Strategy Curriculum

The Journey to Qualifications

How we can help?

Building Foundations

Example

(Level 1)

$$26 \div 3 =$$

What do I need to know?

- To recognise numbers 0 to 26 (P1)
- To recognise the division and equals signs (P1/2)
- To understand that division is the inverse process of multiplication (P2/3)
- To understand that multiplication/division is about grouping (P2)
- To know the 3 times tables ($3 \times 8 = 24$) (P3)
- To understand remainders (P4)
- To know addition/subtraction bonds within 10 ($6 - 4 = 2$) (P1)
- To apply understanding of place value ($26 - 24 = 2$) (P2/3)

The journey is just as important as the destination

Curriculum design

1. Knowledge
2. Strategy

Strategy focussed learning

Examples

1. $421 + 24$ (level 1)

2. 35×16 (level 2)

3. Quarter past three (level 1)

The journey of 5-3

- Level 1 $15 - 3$ $65 - 33$ $500 - 300$ $35 \div 3$
- Level 2 $0.5 - 0.3$ $5x - 3x$ $\frac{5}{7} - \frac{3}{7}$
- Level 3 $55\% - 33\%$ $13.30\text{pm} - 15.50\text{ pm}$ $-5 + 3$
- Level 4 (National 4) $(5y - 3y)^3$ $5(a + b) - 3(a + b)$
- Level 5 (National 5) $x^5 \div x^3$ $5\sqrt{7} - 3\sqrt{7}$

Growth Mindset and “yet”

- It's ok to make mistakes
- Discussion should focus on using different strategies rather than just the correct answer
- Avoid subconscious negative vibes
- There is no set journey time
- Strategies are easier to understand if the building blocks (bonds and tables) are known

How can we help?

- Ensuring knowledge is firmly stored so it can be retrieved easily for application and moving forward.
- Strategies are easier to understand if the building blocks (bonds and tables) are known

Home input:

- Dialogue (vocabulary improvement)
- Tables and bonds practice (knowledge building)
- Games (board games and computer)
- Tablet apps
- Education city, Sumdog
- Practical activities
- POSITIVE ATTITUDE! (remember it is an 11 year journey!)