



Crosby Primary School

Mathematics Medium Term Plan Year 6 Summer Term

Unit 1 Ratio (3 Weeks)

National Curriculum

- Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.
- Solve problems involving similar shapes where the scale factor is known or can be found.
- Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

Ready to Progress

- 6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number)
- 6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.
- 6AS/MD-3 Solve problems involving ratio relationships.

Times Tables

- Consolidate and practice all multiplication and division facts to 12x12 – any order, missing numbers, fractions.
- Use multiplication and division facts to derive associated facts.
- Develop multiplicative reasoning - links between multiplication, division and fractions

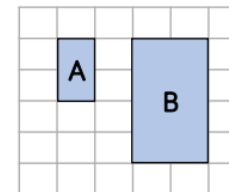
Concept Sequence

- Add or multiply? – look at relationships between numbers. Look at double number lines.
- Use ratio language – ratios show relationship between two values and describes how they are related. Make simple comparisons.
- Ratio symbol – colon notation. Notation relates to the order of parts. Calculating ratio – answer worded questions. Draw bar models.
- Link with fractions – link 1:2 to $\frac{1}{2}$. Use objects and diagrams.
- Scale drawings – consider what each square represents. Make shapes x times bigger.
- Scale factors – Calculating scale factors – use similar shapes to determine scale factor – use multiplication/division facts.
- Similar shapes – work systematically to see if all sides have been enlarged by same scale factor.
- Solve ratio problems – use bar models.
- Proportion problems – use double number lines. One step than two step problems.
- Recipes – adapt recipes including multi-step situations. Be wary of converting measures.

| Rectangle | Length | Width |
|-----------|--------|-------|
| A | 5 cm | 2 cm |
| B | | 4 cm |
| C | 25 cm | |
| D | | 18 cm |

Vocabulary

Ratio
Compare, colon
Scale, scale factor
Times bigger/larger
Similar, parts,
proportion



Planning Links

White Rose Scheme of Work:

<https://assets.whiterosemaths.com/new-schemes/Year%206%20Spring%20Block%201%20SOL%20Ratio.pdf>

Power Maths, White Rose, Maths No Problem, Aspire Maths

Resources

Cubes, Bar Models
Gordons Games, Mathletics, TTRockstars
BBC Super Movers
<https://www.bbc.co.uk/teach/supermovers/ks2-collection/zr4ky9q>



For every , there are

For every 8 , there are

For every 1 , there are