

## MATHS Learn at Home packs: Year 6, Week 10

**These notes are intended for teachers who are using these materials to continue to teach their class using any form of online file sharing.**

*'Your home-learning resources have helped our school immeasurably: they're so clear, and the fact that they are in daily chunks, with plenty of explanation for parents at home, has made them invaluable.'*

Nick, a Suffolk primary teacher.

Our small team have been working round the clock to produce these materials and we're really happy that huge numbers of teachers, schools and parents have found them useful – and emailed us to say so!

If you're not a regular user of Hamilton, why not consider becoming a [Friend of the charity](#) to access the teaching materials in English, Maths and Topics for the whole year? Or take a moment to browse our [free resources for schools](#).

### The 'timetable' for this week's teaching and learning is as follows

- **Day 1** – Children explore how to use factors and partitioning to multiply by 5, 20, 6 and 8. They multiply by 20 then 8 to scale up given dimensions of models. Encourage children to have a go at the investigation to develop further fluency in mental multiplication.
- **Day 2** – Children explore mental strategies to divide by 5, 20, 6, 8 and 200. They divide by 200 to calculate the dimensions of dinosaur toys on the practice sheets.
- **Day 3** – *Provide some teacher input, using the Presentation\** to show a shape being translated and reflected repeatedly to form a pattern (no voiceover provided). Encourage children to create their own patterns using translation, reflection or rotation.
- **Day 4** – Children explore the ratios of side lengths in rectangles and learn about the 'Golden Section' ratio. They are given instructions on how to draw a 'natural' spiral. They may recognise the sequence as the Fibonacci sequence.
- **Day 5** – Children explore ratios between body measurements, looking for pairs of measurements which have the ratio 1 to 1.6, the Golden Section. Ensure that they realise that the ratios of body measurements will vary – it would be boring if we were all the same!

### Structure of materials

	PowerPoint lesson	Learning Reminders	Practice Sheet(s)	Problem solving task	A bit Stuck?	Check your understanding
Day 1		✓	✓	✓	✓	
Day 2		✓	✓		✓	✓
Day 3	✓	✓		✓		✓
Day 4		✓		✓		✓
Day 5		✓		✓		✓

## Summary of Week

**Day 1** – Use mental strategies to multiply by 5, 20, 6, 4 and 8. Solve scaling problems.

**Day 2** – Use mental strategies to divide by 5, 20, 6, 4 and 8. Solve scaling problems.

**Day 3** – Use translations, rotations and reflections to create patterns.

**Day 4** – Explore ratios, including the Golden Section.

**Day 5** – Explore ratios, including the Golden Section.

*\*PowerPoint presentations are provided. You can use your phone to film yourself going through these on a laptop. OR parents and children can access them at home, preferably in PowerPoint but also as images on a tablet. You can then talk these through. Or you may have a clever online way, perhaps through the school's website, of sharing these presentations with children at home.*