



# Tenbury High Ormiston Academy Maths Department

## Stage 7 Home Learning project Spring term 1

Name: .....

Maths teacher: .....

LMG: .....

If you have any problems with any of the tasks then please ask your class teacher or pop along to homework club on Tuesday, Wednesday or Thursday lunchtimes.

For assessment criteria please see the school websites new homework page.

All tasks should be completed in your maths book and clearly labelled homework.

### Task 1: Mathematical definitions

In your homework book write a definition for each of the following terms and give an example where possible.

<b>Proportional reasoning</b>	<b>Pattern sniffing</b>
Ratio	Pattern
Proportion	Term
Compare/comparison	Sequence
Common factor	Term-to-term rule
Convert	Ascending
Unit	Descending

<b>Measuring space</b>	<b>Investigating angles</b>
Capacity	Acute
Volume	Obtuse
Metric	Reflex
Imperial	Vertical
Compound measurements	Alternate
	Corresponding

**TASK 2:** Complete each of the tasks below.

Make notes on how you did this.

Give the definition of each keyword.

### Literacy

Un-jumble the following keywords

A trio    I Spy film    I dived

No rip troop

### Research

Find out about the Golden Ratio.

Name 3 places where you might see the Golden Ratio.

### Memory

Teach a friend or a member of your family how to go about dividing £80 in the ratio 3:5.



### Skill Practice

1. Simplify these ratios.

4:12		8:10:12	
8:12		15:18:9	
6:9		12:8:20	
16:12		12:6:24	

- Share £25 in the ratio 2:3
- In a maths club there are boys and girls in the ratio 2:5. There are 28 people altogether. How many boys and girls are there?
- Mr Ladak shares sweets out between Aisha, Bartek and Connor in the ratio 5:3:1. He has 45 sweets in total. How many sweets does each person get?

### Stretch!

- Sanah and Madiyah share some money in the ratio 4:3. Sanah gets £60. How much does Madiyah get?
- The angles in a quadrilateral are in the ratio 3:2:2:5. What is the size of the biggest angle?

**Task 3:** Create one of the following resources to explore the idea of **converting between metric units of measurement**.

- a presentation
- prepare a starter activity
- a game

You should be prepared to share this in a group for peer assessment.

**Task 4:** Computer based homework task - **Angles**

Using [www.corbettmaths.com](http://www.corbettmaths.com) watch the following videos and answer the questions set in your homework book. You must show all your working out.

**Video 25** Angles in parallel lines

Green	Amber	Red	Killer
Textbook exercise Q1 and Q2	Textbook exercise Q2 and Q3	Textbook exercise Q3d-f and Q4 and Apply questions 1 - 2.	Textbook exercise Q4 and Apply questions 1 - 5.

**Video 37** Angles in triangles

Green	Amber	Red	Killer
Textbook exercise Q1 and Q2	Textbook exercise Q2 and Q3 and Q4a-c.	Textbook exercise Q4 and Apply questions 1-3.	Textbook exercise Q4 and Apply questions 1 - 7.