



# Tenbury High Ormiston Academy Maths Department

## Stage 7 Home Learning project Summer 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.

Alltasks should be completed in your maths homework book.

## Task 1: Mathematical definitions

Write a definition for each of the following terms and give an example where possible.

<b>Calculating space</b>	<b>Checking, approximating and estimating</b>
Volume	Approximate
Surface area	Round
Capacity	Decimal place
Perimeter	Check
Area	Estimate
Radius	Significant figure
Diameter	Inverse
Chord	
Circumference	
Prism	

**TASK 2:** Complete each of the tasks below in your homework book.

Estimating and Rounding

<p><b>Literacy</b></p> <p>Estimate "An accurate guess" Approximate Roughly Rounding Decimal places (d.p.) Significant figures (s.f.)</p>	<p><b>Research</b></p> <p>Find the following distances and write them to 2 significant figures.</p> <ul style="list-style-type: none"> <li>- the circumference of earth (km)</li> <li>- the maximum length of a blue whale (m)</li> <li>- the tallest ever man (m)</li> </ul> <p>Give an example of where you have (or could) used rounding in another subject at school.</p>	<p><b>Memory</b></p> <p><u>"kilo"</u> means <math>\times 1000</math> 1 kilometre (km) = 1000 metres (m) 1 kilogramme (kg) = 1000 grams (g)</p> <p><u>"milli"</u> means <math>\div 1000</math> 1000 millimetres (mm) = 1 metre (m) 1000 milligrams (mg) = 1 gram (g)</p>
<p style="text-align: center;"><b>Skill Practice</b></p> <p><u>Estimating</u> - (remember to lay your work out clearly - think about using a table.) Find three things at home that are under 10cm long and three things that are above 1m long and estimate their exact length. Write your estimate of their length in your book. Now measure them accurately and write down the measurements in your book. Were your estimates higher or lower than the measurements?</p> <p><u>Rounding</u></p> <p>1. Round the following numbers to 1 s.f. (significant figure) and then do the calculations in your head. a) <math>13 \times 28</math>   b) <math>109 \times 44</math>   c) <math>46 \div 54</math>   d) <math>12954 - 7866</math>   e) <math>0.53 - 0.47</math></p> <p>2. Round these numbers to 2 d.p. (2 decimal places) a) 0.317   b) 0.455   c) 15.304   d) -0.116   e) -855.429</p>		<p style="text-align: center;"><b>Challenge and Stretch</b></p> <p>3. Use your calculator to work out the following and write your answer to 3 s.f.</p> <p>a) <math>195 \div 382</math> b) <math>587 \div 99</math> c) <math>1 \div 12345</math> d) <math>22 \div 7</math> (Do you recognise this number? What is it used for?)</p> <p>4. Use your calculator to work out the following and write your answer to 5 d.p.</p> <p>a) <math>18 \div 19</math> b) <math>2 \div 9</math> c) <math>99 \div 70</math> d) <math>1 \div 100001</math></p>

**Task 3:** Create one of the following resources to explore the difference between volume and surface area.

- a presentation
- prepare a starter activity
- a game

**Task 4:** Computer based homework task

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 59** Circumference of circles

Green	Amber	Red	Killer
Textbook exercise Q1 and Q2	Textbook exercise Q3 and Q4 Apply question 1 and 2	Textbook exercise Q5 and Q6 Apply questions 1-5	Textbook exercise Q7 and Q8 Apply questions 4 - 10

**Video 60** Area of Circles

Green	Amber	Red	Killer
Textbook exercise Q1 and Q2	Textbook exercise Q3 and Q4 Apply question 1 and 2.	Textbook exercise Q5 and Q6 Apply questions 1-5.	Textbook exercise Q7 and Q8 Apply questions 4-11.