

Decimals		Knowledge Organiser															
Key Vocabulary	Tenths, Hundredths and Thousandths				Order and Compare Numbers with Three Decimal Places												
tenths					<table border="1"> <thead> <tr> <th>Ones</th> <th>Tenths</th> <th>Hundredths</th> <th>Thousandths</th> </tr> </thead> <tbody> <tr> <td></td> <td>$\frac{1}{10}$</td> <td>$\frac{1}{100}$</td> <td>$\frac{1}{1000}$</td> </tr> <tr> <td>0</td> <td>.</td> <td>2</td> <td>1 3</td> </tr> </tbody> </table>	Ones	Tenths	Hundredths	Thousandths		$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$	0	.	2	1 3
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1	$\frac{1}{10}$		$\frac{1}{1000}$														
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decimal hundredths					Decimal Numbers as Fractions												
decimal equivalents					$0.71 = \frac{71}{100} = \frac{7}{10} + \frac{1}{100}$												
part-whole model					$0.37 = \frac{37}{100} = \frac{3}{10} + \frac{7}{100}$												
rounding																	
decimal point																	
place value																	
Year 5																	

Decimals

Knowledge Organiser

Multiplying and Dividing by 10, 100 and 1000

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
+ 10		3	8	
3	8			
		× 10		

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
+ 100		0	3	8
3	8			
		× 100		

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
+ 1000		0	0	3
3	8			
		× 1000		

Adding and Subtracting Decimals

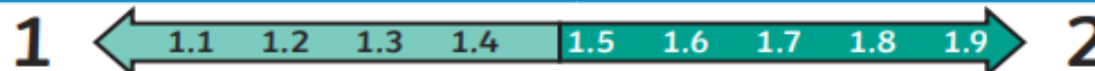
$$0.8 + 0.001 = 0.801$$

$$1.031 - 0.23 = 0.801$$

$$0.4005 + 0.4005 = 0.801$$

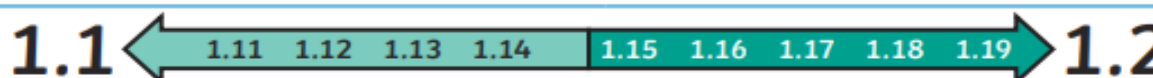
Year 5

Rounding Decimals



If the tenths digit is 1, 2, 3 or 4, we round down to the nearest whole number.

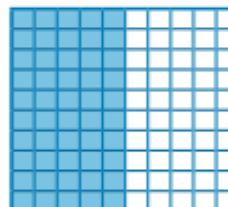
If the tenths digit is 5, 6, 7, 8 or 9, we round up to the nearest whole number.



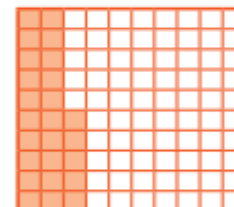
If the hundredths digit is 1, 2, 3 or 4, we round down to the nearest tenth.

If the hundredths digit is 5, 6, 7, 8 or 9, we round up to the nearest tenth.

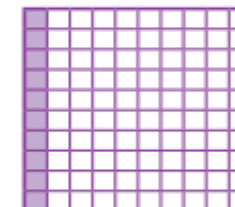
Percentage and Decimal Equivalents



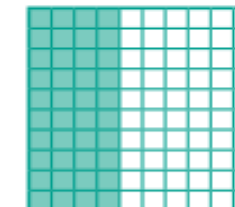
$$50\% = \frac{50}{100} = \frac{1}{2} = 0.5$$



$$25\% = \frac{25}{100} = \frac{1}{4} = 0.25$$



$$10\% = \frac{10}{100} = \frac{1}{10} = 0.1$$

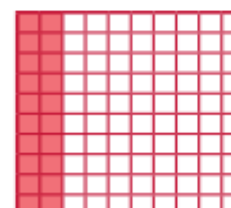


$$40\% = \frac{40}{100} = \frac{2}{5} = 0.4$$

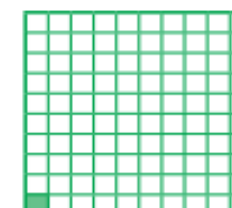
Crossing the Whole

$$0.82 + 0.63 = 1.45$$

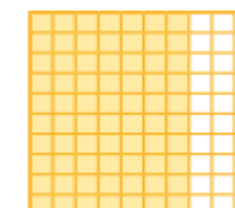
$$2.531 - 0.6 = 1.931$$



$$20\% = \frac{20}{100} = \frac{1}{5} = 0.2$$



$$1\% = \frac{1}{100} = 0.01$$



$$70\% = \frac{70}{100} = \frac{7}{10} = 0.7$$