

Year 6 Decimals Knowledge Organiser

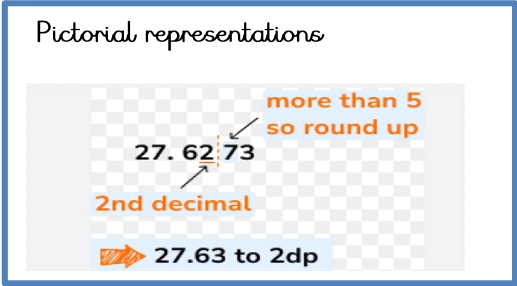
Lesson sequence:

Learning focus: To round decimals
 Learning focus: To add and subtract decimals
 Learning focus: To multiply decimals by integers
 Learning focus: To divide decimals by integers
 Learning focus: To multiply and divide decimals in context

Vocabulary revision
 (vocabulary I have been taught before)

Decimal place
 Integer
 Place Value
 Rounding
 Multiples

New vocabulary
 Thousandths



Sticky Learning

New knowledge	New Skills
<ul style="list-style-type: none"> To recognise the value of each digit in numbers given to three decimal places To multiply numbers with up to 3 decimal places by 10, 100 and 1,000 To divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places To multiply 1-digit numbers with up to 2 decimal places by whole numbers To use written division methods in cases where the answer has up to 2 decimal places 	<ul style="list-style-type: none"> To identify the value of each digit to three decimal places To round any whole number to a required degree of accuracy To multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 where the answers are up to three decimal places To solve problems involving addition, subtraction, multiplication and division

Multiplying and Dividing by 10, 100 and 1000

Thousands	Hundreds	Tens	Ones	tenths	hundredths	thousandths
			2	0	8	
			$\leftarrow \times 10$			
		2	0	8		
				$\rightarrow + 10$		
			2	0	8	

Thousands	Hundreds	Tens	Ones	tenths	hundredths	thousandths
		4	3	5		
			$\leftarrow \times 100$			
4	3	5	0			
					$\rightarrow + 100$	
		4	3	5		

Thousands	Hundreds	Tens	Ones	tenths	hundredths	thousandths	
			1	3	5	1	
			$\leftarrow \times 1000$				
1	3	5	1				
							$\rightarrow + 1000$
			1	3	5	1	

Pictorial representations

Multiplying Decimals by Integers

	3	4	5
×			3
1	0	3	5
1	1		

$3.21 \times 3 = 9.63$

Ones	tenths	hundredths
● ● ●	● ● ●	● ●
● ● ●	● ● ●	● ●
● ● ●	● ● ●	● ●

$8.12 \div 4$

	2	0	3
4	8	1	2

$6.93 \div 3 = 2.31$

Ones	tenths	hundredths
● ●	● ● ● ●	● ●
● ●	● ● ● ●	● ●
● ●	● ● ● ●	● ●