Varied Fluency
Step 1: Three Decimal Places

National Curriculum Objectives:

Mathematics Year 6: (6F9a) Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to three decimal places
Mathematics Year 6: (6F10) Solve problems which require answers to be rounded to specified degrees of accuracy

Differentiation:

Developing Questions to support understanding place value in numbers with up to 3 decimal places, describing columns in words and digits. Problems do not include conversion. Representations of counters in place value charts.
Expected Questions to support understanding place value in numbers with 3 decimal places, describing columns in words and digits. Some problems require conversion. Representations of counters or base ten in place value charts.
Greater Depth Questions to support understanding place value in numbers with 3 decimal places, describing columns in words and digits. Problems require conversion. Representations of counters, base ten or place value charts.

More resources which follow the same small steps as White Rose.

Did you like this resource? Don't forget to review it on our website.

Three Decimal Places

1a. Convert the number in the place value chart to digits.

Tens	Ones	Tenths	Hundredths
10	1 1 1 1 1 1	0.1 0.1 0.1 0.1 0.1 0.1	0.01 0.01 0.01

D VF

1b. Convert the number in the place value chart to digits.

Tens	Ones	Tenths	Hundredths
10 10 10 10	1 1 1 1 1 1 1 1	0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.01 0.01 0.01 0.01

D VF

2a. Represent a number which has nine ones, five tenths, six hundredths and two thousandths.

Tens	Ones	Tenths	Hundredths	Thousandths

D VF

2b. Represent a number which has five tens, two ones, six tenths, eight hundredths and five thousandths.

Tens	Ones	Tenths	Hundredths	Thousandths

D VF

3a. In which number does the digit 7 have the lowest value?

7.62 | 1.07 | 0.73

D VF

3b. In which number does the digit 2 have the highest value?

12.03 | 543.02 | 29.34

D VF

4a. Use the digit cards to create the greatest and smallest number possible.

2 3 4 1

Tens	Ones	Tenths	Hundredths

D VF

4b. Use the digit cards to create the greatest and smallest number possible.

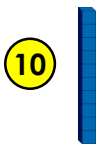
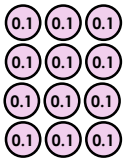
8 9 9 7

Tens	Ones	Tenths	Hundredths

D VF

Three Decimal Places

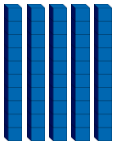
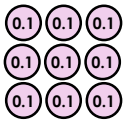
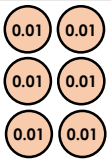
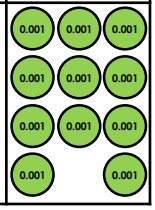
5a. Convert the number in the place value chart to digits.

Tens	Ones	Tenths	Hundredths	Thousandths
				

VF

Three Decimal Places

5b. Convert the number in the place value chart to digits.

Tens	Ones	Tenths	Hundredths	Thousandths
				

VF

6a. Represent a number which has seven tens, no ones, eight tenths, nine hundredths and seven thousandths.

10s	1s	0.1s	0.01s	0.001

VF

6b. Represent a number which has five tens, three ones, six tenths, eight hundredths and two thousandths.

10s	1s	0.1s	0.01s	0.001

VF

7a. In which number does the digit 8 have the highest value?

27.038 | 8.413 | 12.834

VF

7b. In which number does the digit 9 have the lowest value?

78.933 | 413.09 | 9.408

VF

8a. Use the digit cards to create the greatest and smallest number possible.

7 0 9 1 9

Tens	Ones	Tenths	Hundredths	Thousandths

VF

8b. Use the digit cards to create the greatest and smallest number possible.

2 8 3 5 9

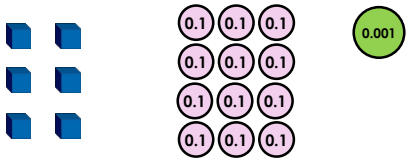
Tens	Ones	Tenths	Hundredths	Thousandths

VF

Three Decimal Places

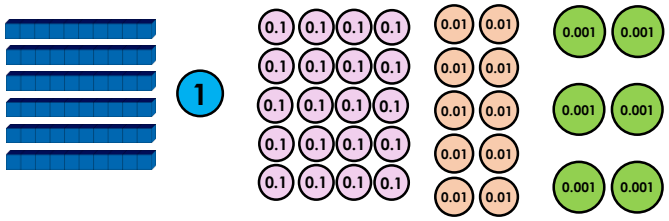
Three Decimal Places

9a. Convert the number represented below to digits.



GD VF

9b. Convert the number represented below to digits.



GD VF

10a. Convert 2,737cm to m and represent the answer on the place value chart below:

10s	1s	0.1s	0.01s	0.001

GD VF

10b. Convert 4,652g to kg and represent the answer on the place value chart below:

10s	1s	0.1s	0.01s	0.001

GD VF

11a. In which number does the digit 4 have the lowest value?

4kg 386g	3.24kg	2,482g

GD VF

11b. In which number does the digit 1 have the highest value?

3.621km	3.15m	2km 513m

GD VF

12a. Use the digit cards to create the greatest and smallest number possible.

0	9	1	9

You must use one digit twice.

GD VF

12b. Use the digit cards to create the greatest and smallest number possible.

0	8	7	2

You must use two digits twice.

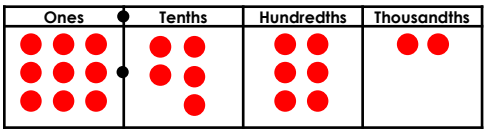
GD VF

Varied Fluency
Three Decimal Places

Developing

1a. 16.63

2a. Children may use digits or counters to show 9.562



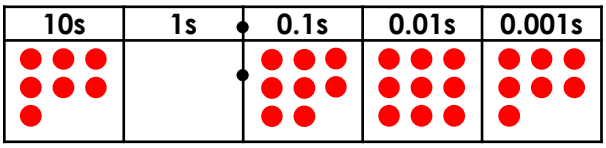
3a. 1.07, the digit 7 is worth 7 hundredths.

4a. Largest: 43.21, Smallest: 12.34

Expected

5a. 24.211

6a. Children may use digits or counters to show 70.897



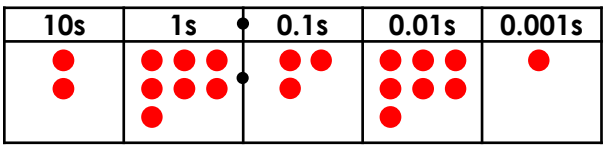
7a. 8.413, the digit 8 is worth 8 ones.

8a. Largest: 99.71, Smallest: 1.799

Greater Depth

9a. 7.201

10a. Children may use digits or counters to show 27.37



11a. 3.24kg, the digit 4 is worth 40g.

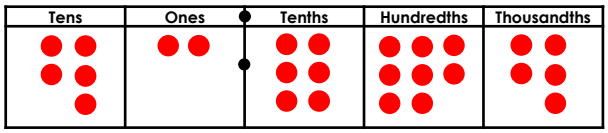
12a. Largest: 99.1 (99.100),
Smallest: 0.199 (00.199)

Varied Fluency
Three Decimal Places

Developing

1b. 48.94

2b. Children may use digits or counters to show 52.685



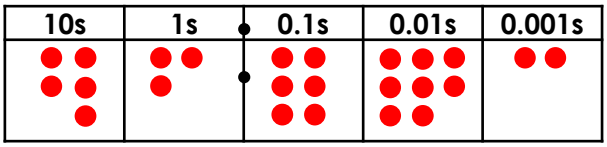
3b. 29.34, the digit 2 is worth 2 tens.

4b. Largest: 99.87, Smallest: 78.99

Expected

5b. 56.971

6b. Children may use digits or counters to show 53.682



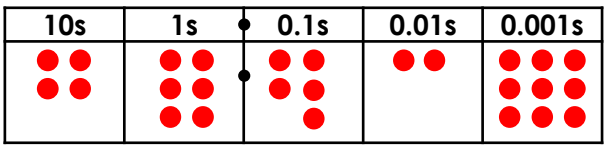
7b. 413.09, the digit 9 is worth 9 hundredths.

8b. Largest: 98.532, Smallest: 23.589

Greater Depth

9b. 63.106

10b. Children may use digits or counters to show 4.652



11b. 2km 513m, the digit 1 is worth 10m

12b. Largest: 887.2 (887.20),
Smallest: 0.278 (00.278)