Date	28.1.21
Subject/s	Maths
Learning Objective	To find percentages of an amount

		SA	TA

Success Criteria ✓!	I know the whole is 100%		
	I can use my knowledge of factors to divide 100% = 320 50% = 160		
	I can add together to make the total 100% = 320 10% = 32 1% = 3.2 11% = 35.2		
Support	Independent Adult Support ( ) Group Work		

Pre-Task
What is 50% of 250 =
What is 10% of 130 =
What is 5% of 120 =
What is 25% of 120 =

Pre-task Answers

What is 50% of 250 = 125
What is 10% of 130 = 13
What is 5% of 120 = 6
What is 25% of 120 = 30

How did you do?

Move to Fluency if you got them all correct. If not, try the Teacher Led.

Teacher Led

Today we are finding the percentage of a whole amount.

First, I need to use my understanding of fractions to help me.

- I know that 50% is equivalent to $\frac{1}{2}$ so to find it, I divide by 2

- I know that 25% is equivalent to $\frac{1}{4}$ so to find it, I divide by 4.

- I know that 10% is equivalent to $\frac{1}{10}$ so to find it, I divide by 10

250	
50% = $\frac{1}{2}$ = 125	50% = $\frac{1}{2}$ = 125

120			
25% = $\frac{1}{4}$ = 30	25% = $\frac{1}{4}$ = 30	25% = $\frac{1}{4}$ = 30	25% = $\frac{1}{4}$ = 30

130									
10% = $\frac{1}{10}$ = 13									

If I can find 10%, I know that 5% will be half

To find 5% of 120:

0% = $\frac{1}{10}$ so I do 120 ÷ 10 = 12

Then, half of 12 = 6

So 5% of 120 = 6

To find 20% of 120,

I know that 10% = 12

All I need is to double that to find 20%

Double 12 = 24

So 20% of 120 is 24

To find 1% of 350,

I know that 1% = $\frac{1}{100}$

so I divide by 100

350 ÷ 100 = 3.5

So, 1% of 350 is 350

I can use parts of each method to find other amounts.

For example

16% of 300 =

10% = $\frac{1}{10}$ = 300 ÷ 10 = 30

5% = half of 30 = 15

1% = 300 ÷ 100 = 3

30 + 15 + 3 = 48

16% of 300 = 48

Fluency

    a)   Find 10 % of the following amounts
1) 30
2) 80
3) 50
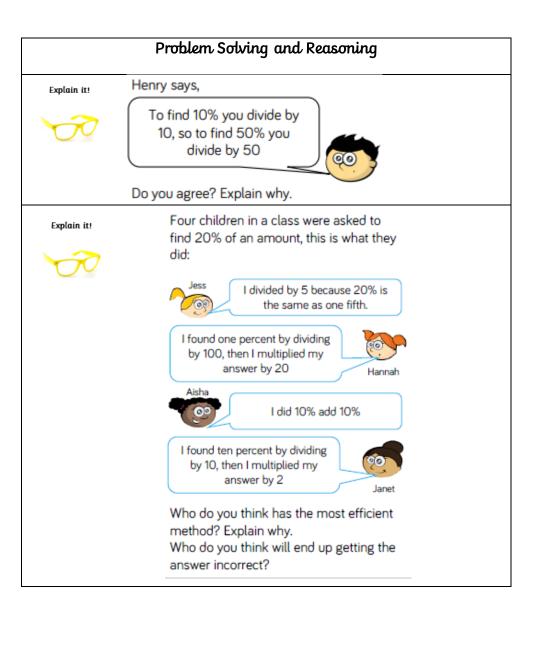4) 100
5) 150
6) 200
7) 420
8) 500
9) 40

10) 70
11) £4.60
12) £1.80

B)

1) Find 10% 200
2) Find 5% of 500
3) Find 20% of 3000
4) Find 20% of 150
5) Find 20% of 300
6) Find 30% of 600
7) Find 1% of 240
8) Find 50% of £4.60
9) Find 25% of 280
10) Find 15% of 200
11) Find 11% of 500
12) Find 15 % of 4000

Fluency Answers

1) 3
2) 8
3) 5
4) 10
5) 15
6) 20
7) 42
8) 50
9) 4
10) 7
11) £0.46 or 46p
12) £0.18 Or 18p

B)

13) Find 10% 200 = 20
14) Find 5% of 500 = 25
15) Find 20% of 3000 = 600
16) Find 20% of 150 = 30
17) Find 20% of 300 = 60
18) Find 30% of 600 = 180
19) Find 1% of 240 = 2.4
20) Find 50% of £4.60 = £2.30
21) Find 25% of 280 = 70
22) Find 15% of 200 = 30
23) Find 11% of 500 = 55
24) Find 15 % of 4000 = 600

Problem Solving and Reasoning

Explain it!

Henry says,

> To find 10% you divide by 10, so to find 50% you divide by 50

Do you agree? Explain why.

Explain it!

Four children in a class were asked to find 20% of an amount, this is what they did:

Jess: I divided by 5 because 20% is the same as one fifth.

Hannah: I found one percent by dividing by 100, then I multiplied my answer by 20

Aisha: I did 10% add 10%

Janet: I found ten percent by dividing by 10, then I multiplied my answer by 2

Who do you think has the most efficient method? Explain why.
Who do you think will end up getting the answer incorrect?

Answers
Henry is wrong because 50% is equivalent to a half so to find it you divide by 2
Children to write which one they think is the most effective answer and explain their reasons.