Reasoning and Problem Solving
Step 6: Divide by 10

National Curriculum Objectives:

Mathematics Year 2: (2C6) Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
Mathematics Year 2: (2C8) Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts

Differentiation:

Questions 1, 4 and 7 (Reasoning)
Developing Explain whether a statement is correct to support dividing multiples of 10 with pictorial support for every question.
Expected Explain whether a statement is correct to support dividing multiples of 10. Includes a mixture of pictures and numbers.
Greater Depth Explain whether a statement is correct to support dividing multiples of 10. Includes multiplication as the inverse operation. Includes a mixture of numbers and words.

Questions 2, 5 and 8 (Problem Solving)
Developing Calculate the ingredients needed for 1 item when given the ingredients needed for 10 items. Pictorial support for every question.
Expected Calculate the ingredients needed for 1 item when given the ingredients needed for 10 items. Without pictorial support.
Greater Depth Calculate the ingredients needed for 1 item when given the ingredients needed for 10 items and vice versa.

Questions 3, 6 and 9 (Problem Solving)
Developing Complete the inequality statement to support dividing multiples of 10 with pictorial support for every question.
Expected Complete the inequality statement to support dividing multiples of 10. Includes a mixture of pictures and numbers.
Greater Depth Complete the inequality statement to support dividing multiples of 10. Includes multiplication as the inverse operation. Includes a mixture of numbers and words.

More Year 2 Multiplication and Division resources.

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

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1a. George is going to share 30 marbles between 10 people.

He says,

> I think everybody will get 10 marbles each.

Is he correct? Explain your answer.

(R)

1b. Aalia is going to put 20 buns into bags. She is going to put 10 in each bag.

She says,

> I think I will have enough for 3 bags.

Is she correct? Explain your answer.

(R)

2a. This is how many strawberries you need to make 10 strawberry tarts.

10 tarts	1 tart

Complete the amount needed to make 1 strawberry tart.

(PS)

2b. This is how many eggs are needed to make 10 omelettes.

10 omelettes	1 omelette

Complete the ingredients needed to make 1 omelette.

(PS)

3a. Complete the boxes to make the following statements correct.

A. [4 coins] ÷ 10 > ☐

B. [10 counters] ÷ 10 < ☐

C. [2 coins] ÷ 10 > ☐

(PS)

3b. Complete the boxes to make the following statements correct.

A. [3 coins] ÷ 10 > ☐

B. [20 counters] ÷ 10 < ☐

C. [6 coins] ÷ 10 > ☐

(PS)

Divide by 10

Divide by 10

4a. Mary is going to share 80 sweets between 10 people. She says,

I think everybody will get 9 sweets each.

Is she correct? Explain your answer.

☆(E)   R

4b. Danny is going to share 60 biscuits between 10 plates, He says,

I think there will be 7 biscuits on each plate.

Is he correct? Explain your answer.

☆(E)   R

5a. These are the ingredients needed to make 10 chocolate crispy buns.

Ingredients	10 buns	1 bun
chocolate	120g	
rice pops	100g	
butter	90g	
syrup	80g	

Complete the ingredients needed to make 1 chocolate crispy bun.

☆(E)   PS

5b. These are the ingredients needed to make 10 butterfly buns.

Ingredients	10 buns	1 bun
sugar	110g	
butter	70g	
flour	100g	
milk	30ml	

Complete the ingredients needed to make 1 butterfly bun.

☆(E)   PS

6a. Complete the boxes to make the following statements correct.

A. $80 \div 10 >$ ☐

B. 9 tens $\div 10 <$ ☐

C. [coins] $\div 10 >$ ☐

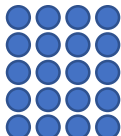☆(E)   PS

6b. Complete the boxes to make the following statements correct.

A. $40 \div 10 >$ ☐

B. 7 tens $\div 10 <$ ☐

C. [dots] $\div 10 >$ ☐

☆(E)   PS

Divide by 10 | # Divide by 10

7a. Zach has ninety sweets to share between 10 people. He gives everyone 1 sweet. He says,

> The rest of the sweets can be shared using the calculation
> 80 ÷ 10 = 8

Is he correct? Explain your answer.

7b. Betty has eighty stickers to share between herself and nine friends. She gives everyone 2 stickers.

> The rest of the stickers can be shared using the calculation
> 70 ÷ 10 = 7

Is she correct? Explain your answer.

R | R

8a. These are the ingredients needed to make flapjack.

Ingredients	10 portions	1 portion
butter		10g
syrup	50g	
sugar		11g
oats	120g	

Complete the table.

8b. These are the ingredients needed to make chocolate ice cream.

Ingredients	10 portions	1 portion
chocolate	120g	
cream	300ml	
sugar		8g
egg yolks		6g

Complete the table.

PS | PS

9a. Complete the boxes to make the following statements correct.

A. ☐ ÷ 10 > ☐ ÷ 10

B. ☐ x 10 < ☐ ÷ 10

C. ☐ ÷ 10 < ☐ ÷ 10

9b. Complete the boxes to make the following statements correct.

A. ☐ ÷ 10 > ☐ x 10

B. ☐ ÷ 10 < ☐ ÷ 10

C. ☐ ÷ 10 < ☐ x 10

PS | PS

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Reasoning and Problem Solving – Divide by 10 – Year 2 Greater Depth

Reasoning and Problem Solving
Divide by 10

Developing
1a. George is incorrect. 30 ÷ 10 = 3, not 10.
2a. 4 strawberries.
3a. Various answers, for example:
A. any number less than 4
B. any number greater than 1
C. any number less than 2

Expected
4a. Mary is incorrect. 8 ÷ 10 = 8, not 9.
5a. 12g chocolate, 10g rice pops, 9g butter, 8g syrup.
6a. Various answers:
A. any number less than 8
B. any number greater than 9
C. any number less than 3

Greater Depth
7a. Danny is correct. He shares out 10 of the 90 sweets so has 80 left therefore 80 ÷ 10 = 8 is the correct calculation.
8a.

Ingredients	10 portions	1 portion
butter	100g	10g
syrup	50g	5g
sugar	110g	11 g
oats	120g	12g

9a. Various answers, for example:
A. 30 ÷ 10 > 20 ÷ 10
B. 1 x 10 < 110 ÷ 10
C. 60 ÷ 10 < 70 ÷ 10

Reasoning and Problem Solving
Divide by 10

Developing
1b. Aalia is incorrect. 20 ÷ 10 = 2, not 3.
2b. 2 eggs.
3b. Various answers, for example:
A. any number less than 3
B. any number greater than 2
C. any number less than 5

Expected
4b. Danny is incorrect. 60 ÷ 10 = 6, not 7.
5b. 11g sugar, 7g butter, 10g flour, 3ml milk.
6b. Various answers:
A. any number less than 4
B. any number greater than 7
C. any number less than 2

Greater Depth
7b. Betty is incorrect. She shares out 20 of the stickers so has 60 left therefore 60 ÷ 10 = 6 is the correct calculation.
8b.

Ingredients	10 portions	1 portion
chocolate	120g	12g
cream	300ml	30ml
sugar	80g	8g
egg yolks	60g	6g

9b. Various answers, for example:
A. 120 ÷ 10 > 1 x 10
B. 30 ÷ 10 < 50 ÷ 10
C. 60 ÷ 10 < 1 x 10

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Reasoning and Problem Solving – Divide by 10 ANSWERS