Reasoning and Problem Solving
Multiplication and Division Consolidation – Year 1

About This Resource

This resource is aimed at Year 1 Expected and has been designed to give children the opportunity to consolidate the skills they have learned in Summer Block 1 – Multiplication and Division.

The questions are based on a selection of the same 'small steps' that are addressed in the block, but are presented in a different way so children can work through the pack independently and demonstrate their understanding and skills.

Small Steps

Count in 10s
Make equal groups
Add equal groups
Make arrays
Make doubles
Make equal groups – grouping
Make equal groups – sharing

National Curriculum Objectives

Mathematics Year 1: (1C8) Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

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Dappy Dog runs Donaldson Bakery on Rafferty Road.

He has some very exciting news.

"We are going to be having a party.
We have a very special guest attending
so we need to work together to get everything
ready."

Their first job is to count the biscuits in the bags.

There are 5 bags of biscuits.
Each bag has 10 biscuits.

1a. How many biscuits are there?

Benny Bear says,

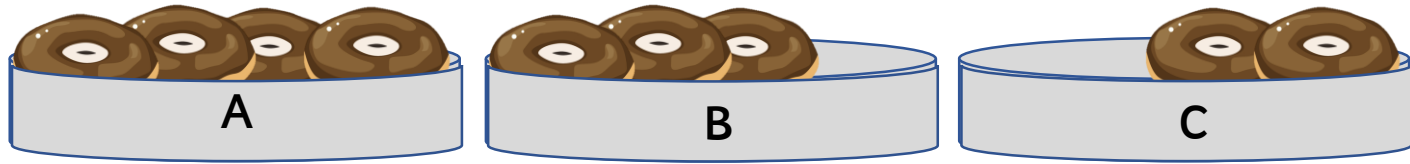"We would have more biscuits if we had 5 biscuits in 10 bags."

1b. Is he correct?
Explain your answer.

"What is that glorious smell coming out of the kitchen?" Penny Pig says as she walks towards the kitchen door.

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In the kitchen the donuts have just come out of the oven.
They are on 3 baking trays.
They need to be in equal groups.

A	B	C

2a. They need to make the trays equal.
How many donuts should be on each tray to make equal groups?

Cheeky Rosie Rabbit could not resist the donuts and
has sneakily eaten one donut from 2 of the trays. How naughty!

2b. How can you make the donuts equal now?

2c. Complete the sentence to explain how many donuts there are on the baking tray now.

There are _____ donuts on _____ baking trays.

2d. How many donuts are left altogether now?

Benny Bear and Penny Pig are counting up the scones.
Scones are baked in groups of 4 and there are 4 groups of scones.

Benny Bear says that there are 16 scones
Penny Pig says that there are 8 scones.

3a. Who is correct and why?

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3b. They have 16 scones but they need 20 scones. How many more groups of 4 do they need?

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4. Charlie Chicken is setting the party table and he is making a plan.

Complete the plan to show how the cupcakes and biscuits will be laid out on the table.

Array	Description	Total
	There are 4 columns and 2 cupcakes in each column.	2 + 2 + 2 + 2 = 8
	There are ☐ rows and 4 cupcakes in each row.	4 + 4 = ☐
	There are ☐ columns and 5 biscuits in each column.	☐ + ☐ + ☐ = 15
	There are 5 rows and ☐ biscuits in each row.	3 + 3 + 3 + 3 + 3 = ☐

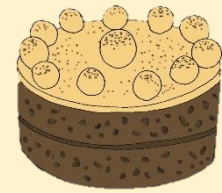**Reasoning and Problem Solving – Consolidation Pack – Year 1 Expected**

Oh no! Ralphy Rabbit has just had news that more guests are coming to the party.

They are going to have to make another cake.
This recipe is for 1 cake, the ingredients need to be doubled.

5. How much of each ingredients do they need?

	eggs
	bags of flour
	sticks of butter
	cubes of sugar

6a. There are 20 flowers for decorating the party room.
How can the flowers be grouped equally?
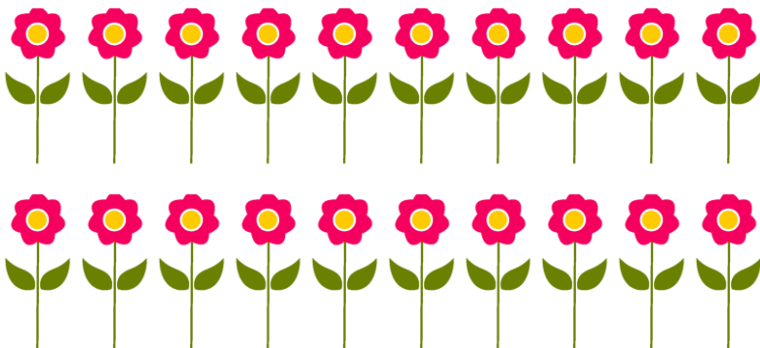
	equal groups of 2
	equal groups of 5
	equal groups of 10

6b. There are 5 tables. Will the same amount of flowers fit on each table? Explain how.

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Super. We are all ready for the party to begin.

The special guest, The Good Fairy has turned up just in time.

All the animals are so happy to see her and all the food is ready. Yippee!

There is just one thing left to do and that is to share out the food with everyone at the party.

Luckily, The Good Fairy waves her magic wand and the food is shared out equally onto all of their plates.

7a. All 5 animals get 4 biscuits each.
How many biscuits did the Good Fairy share out altogether?
You can use the plates to help you.

				Biscuits all together

7b. The two cakes are cut into 10 slices each.
It needs to be shared between 16 people.
Each person gets one slice. How many slices of cake are left over?

What a brilliant party!

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1a. 50

1b. No. There would be the same amount of biscuits. 5 x 10 = 50 and 10 x 5 = 50.

2a. One donut from tray A needs to be moved to tray C. 3 donuts on each tray.

2b. Take one donut from the other tray, so that 2 donuts are left on each tray.

2c. There are 2 donuts on 3 baking trays.

2d. 6

3a. Benny Bear is correct. 4 x 4 = 16 or 4 + 4 + 4 + 4 = 16

3b. 1 more group of 4

4.

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	There are **2** rows and 4 cupcakes in each row.	4 + 4 = **8**
	There are **3** columns and 5 biscuits in each column.	**5** + **5** + **5** = 15
	There are 5 rows and **3** biscuits in each row.	3 + 3 + 3 + 3 + 3 = **15**

5.

8	Eggs
2	Flour
4	Butter
20	Sugar

6a.

| 10 | equal groups of 2 |

| 4 | equal groups of 5 |

| 2 | equal groups of 10 |

6b. 20 flowers shared between 5 tables = 4 flowers per table.

7a. 20. 5 x 4 = 20

7b. 10 slices x 2 = 20. Shared between 16 = 16 slices. 20 – 16 = 4 slices left over.