

Maths Year 1 – Multiplication and Division Planning

By the end of the unit your child should be able to...

- To find double and half of an amount
- To add equal groups
- To share a total equally between a set number of groups
- To share a total equally and find the number of groups
- To explore arrays
- To build on previous understanding of halves and quarters of quantities

What confuses children with coins?

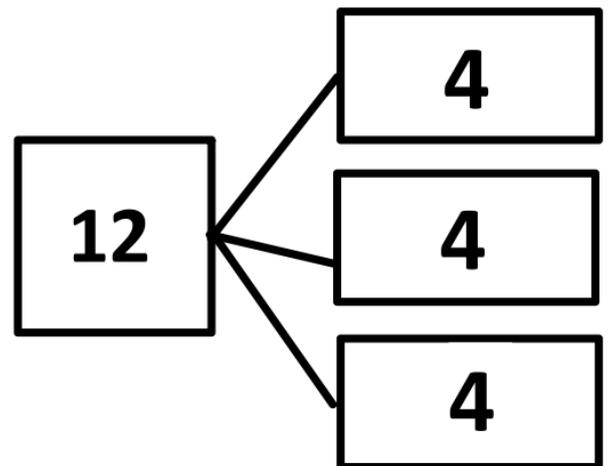
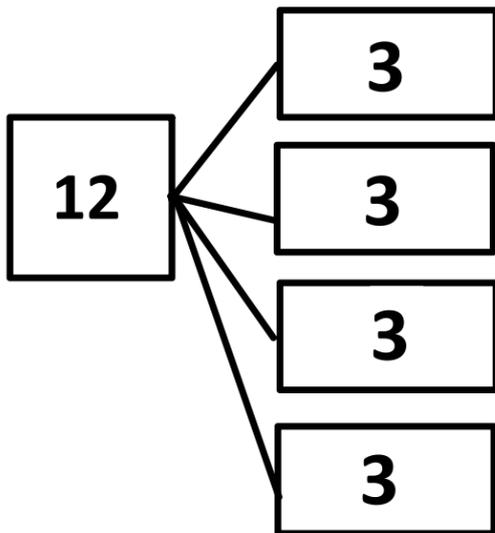
- Children may not understand that halving and doubling are the inverse of each other.
- Children may not 'see' that groups are not equal, and count them as if they are.
- Children may get confused between the number of groups and how many in each group.
- Children may think that half of 9 is 4, because when they split it in half, because they see four in each group and one left over.
- Children do not learn to read formal fractions in Y1 until they understand the concept of half and quarter very well.

Lesson 1 – Doubling and Halving

1. Tell them *Double means two equal amounts added together.*
2. Set up a shop, with different items having different prices (£1, £2, £3....£10). *“I want to buy two pens. Each pen is £4. I need to pay £4 and another £4 (Put coins out). Double £4 is £8.”* Show them 3 examples, then take it in turns to be shopkeeper.
3. *These sweets are half price. Half price means it’s been shared into two equal parts.* Put ten pound coins out, then split them into two equal groups. *In the half price sale, how much will this sweet cost? How do you know?*
4. Work through the questions on the sheet with them.
5. **Challenge – Show four things, three that cost 6p, 8p and 10p, and one that costs 5p. Can you find half of each price? Why/why not?**

Lesson 2 – Repeated addition

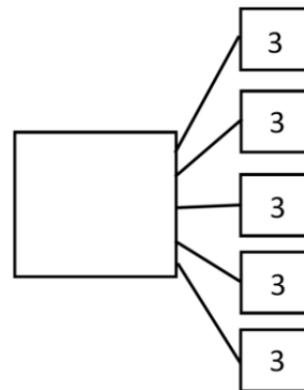
1. Roll a 1-6 die, children find double that number quickly using something to count with.
2. Show two teddies, one has three plates with 4 biscuits each, one has 4 plates with 3 biscuits each. Ask *What’s the same and different between X/Y’s plates?*
3. Tell them *“They have the same number of biscuits altogether each. They both have an equal amount on each plate. Count out each part as you draw this for them...”*



4. Help your child complete the task sheet.
5. **Challenge – You have 20 biscuits altogether. How many ways can you split 20 biscuits into equal groups? Have you found all the different ways? How do you know?**

Lesson 3 – Repeated addition.

1. Show five pots of pens with three pens in each pot.
*What can you tell me about the pots of pens?
Is there an equal amount in each pot? How many groups are there? How many pens are there altogether?*
2. Count each group as you write the equation $3+3+3+3+3=15$ and the part whole model.
3. Tell them *because we are adding equal groups together, we call this repeated addition, or multiplication.*
4. Use the first task sheet to physically make each sentence with beads/counters/pasta. Count how many altogether, and help them write the equations. Then help them with the second task sheet.
5. **Challenge - What pattern do you notice in the answers? Why does this happen? If the whole is ten, can you make some questions similar to those in the task? What about a whole of 11?**



Lesson 4 – Repeated addition.

1. Explain to them they will be cracking a secret code that uses shapes.
2. *What names of shapes do you know? What shapes could be in the code?*
3. Show them the first task sheet, and the three squares.
4. Write the equation $4 + 4 + 4 = 12$, and explain “This equation shows the three squares. Each square has four sides. To find how many sides I can use repeated addition.”
5. Talk with your child as they make each “code” with lollipop sticks, matching them with the corresponding part whole model on the next sheet.
6. **Challenge – Look at “Teacher Resource Sheet 1/2/3/4”. Ask your child to solve each code, and write the equations for each.**

Lesson 5 – Division as sharing

1. Have three teddies. *I have six sweets to give them.*
2. Give one teddy 3 sweets, another 2 sweets and the other 1. *Have I shared the sweets fairly? Why/Why not? How could I make it fair?*
3. Explain that *you will be learning to share equally, we call it division.*
4. Model many times sharing small numbers of objects fairly, *one in this group, one in this group, one in this group... Let me check the groups are shared fairly.*
5. Using the first task sheet, make each image using things you can count with asking *How many altogether? How many in this/this/this group? Are they shared fairly? How do you know?*
6. Using the second task sheet, children draw one in each group at a time and write how many in each group.
7. **Challenge – What numbers can be shared into 3 equal groups? Can you show me? Have you found all the answers? How do you know?**