

Year 2 Maths Activities - Week Beginning 8.2.21

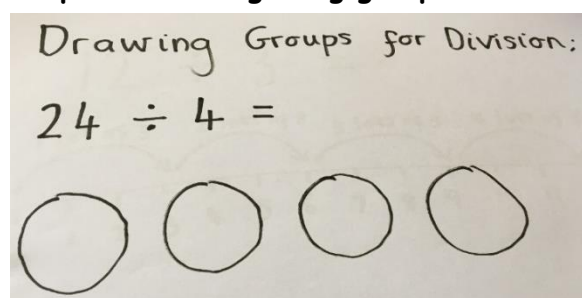
Before you get the activities, please familiarise yourself with the method for dividing we teach in year 2.

Some of this week's activities are intended to be done practically using equipment. In school, we would be using counters of some description. You don't need specific counters; use whatever you have at home (e.g. dried pasta, pens, cereal, sweets [smarties!] etc.). Please don't worry if this isn't possible though; the below written method is to be used when counters are not available.

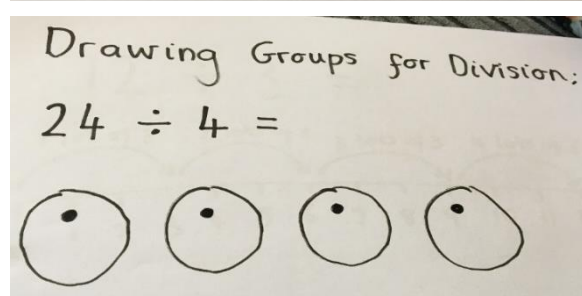
Division

Children divide by sharing objects into equal groups using one-to-one correspondence. They need to do this using concrete manipulatives in different contexts, then move on to pictorial representations. Children will be introduced to the $\div$ symbol. They will begin to see the link between division and multiplication.

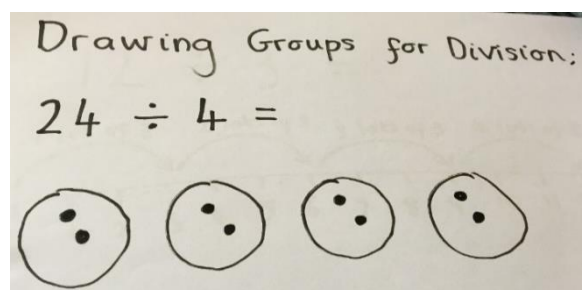
Steps for dividing using groups:

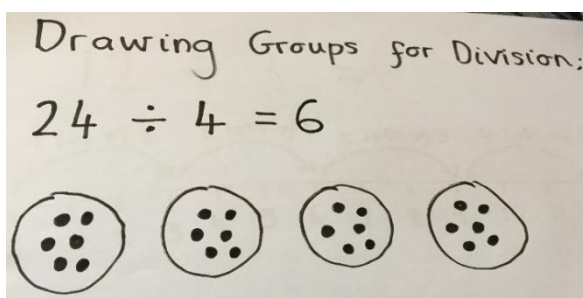
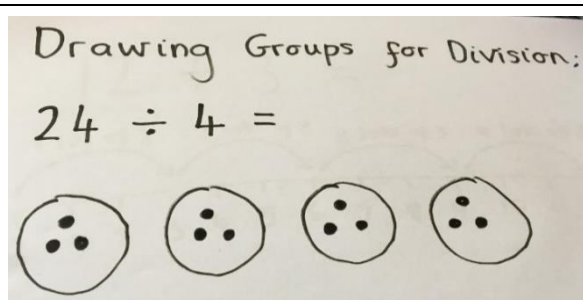


Step 1 - Draw your groups. The number of groups you need to draw will be the smaller number in the number sentence and the larger number is how many 'things' we need to share amongst them.



Step 2 - Share the larger number amongst the groups. Do this systematically. Draw one in the first group and say 'one', then draw the second one in the next group and say 'two', the third in the next group and say 'three'. When you have put one in each group, go back to the first group and start again. Keep going in this way, counting the whole time until you get to the larger number (in this case 24).



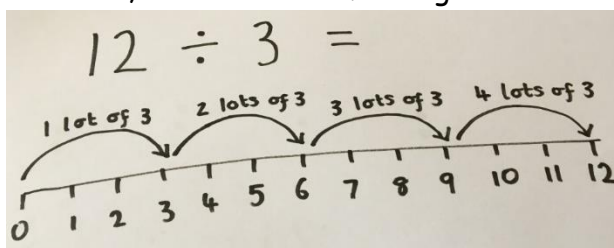


Step 3 - Once you have shared the bigger number equally between your groups, count how many 'things' are in each group and that is the answer.

$$12 \div 2 = 6$$

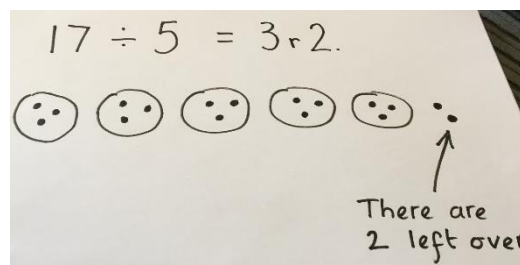
Total quantity	Number of groups	Number in each group
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Like with Multiplication, children should use their times tables where they are able to. As shown, the children begin by seeing division as 'sharing' into equal groups, but they should now also start to see the link between multiplication and division. They are 'inverse operations', so to do $12 \div 3$, they should be able to count in 3s until they get to 12 and then see that they counted 4 times, it took 4 lots of 3 to get to 12. They may just know this as a number fact, or they may be able to do it mentally. Alternatively, it helps some children to see it drawn on a number line, as shown.



Extra things for stretching further:
Understanding of remainders.

- 1) When your child draws groups, they should see that the groups are not equal and they have some 'left over' that will not share exactly.



- 2) Alternatively, they might be able to use their times tables. So in the above example, they may know that 17 does not occur in the Five Times Table, but 15 does. If it was 15, there would be 3 in each group and then 17 is 2 more than 15, so there will be 2 left over.

Day 1

Objective: To make equal groups - sharing

Learning video: <https://youtu.be/CJIShG2UHC0>

Use **Activity 1** for making equal groups by sharing. It's a rather word-heavy sheet so you may need to read each question for your child.

Then use **Activity 2**. **It is in two levels.**

Page 1: for those who found Activity 1 tricky to support them with smaller amounts.

Page 2: for children who are confident with sharing and who may be able to make the link between repeated addition/multiplication to find a total.

Extra activity for 'stretching further':

Always, Sometimes, Never?



Equal groups always have to have 3 objects.



Equal groups always have to have the same amount of objects.



You can have up to 10 equal groups.

Draw a picture to show what each child's group could look like.



I have 4 unequal groups.



I have 3 equal groups.

Day
2

Objective: To share practically

Ideally, this activity requires the children to use counters. Please use whatever you have at home or use the written method as stated in the guidance.

Learning video: <https://youtu.be/hEruFvQX8mo>

Activity: Use the differentiated **Activity 3** sheet.

Page 1 is for children working towards the year 2 math curriculum
Children on this sheet share between two - seeing the link between halving and sharing between two.

Page 3 is for children working within the year 2 math curriculum
Children on this sheet share between two, three, four, five and ten.

Page 4 is for children who would like an extra challenge
Children on this sheet share need to read written calculations to find the amount they need to share. They then write the full division calculation they have used to solve the question.

Extra activity for 'stretching further':



Noah had these strawberries to share with his 10 friends. Molly had the same number of strawberries to share with her 5 friends.

Whose friends will get the most strawberries?

How do you know?

Prove it and write a calculation for each one.



Use these pictures to write another problem for your friend to solve. Remember the sweets will need to be shared equally.

Day 3	Objective: To make equal groups by sharing Ideally, this activity requires the children to use equipment. Please use whatever you have at home. Alternatively, use the written method as stated in the guidance. Activity: Use the Activity 4 sheet. There's a page that has 6 sections for children to share counters into. This could be drawn in their book if needed. Page 1 is for every child to try. Count the counters. Use equipment to work out whether this amount can be shared into 2, 3, 4, 5, 6 equal groups. Page 2 is for children who would like an extra challenge.
Day 4	Objective: To make equal groups by sharing For this activity the children could use counters of some description if available. If not, they could draw groups and put the totals in (as shown in the method at the start of this guidance). Activity: Use the differentiated Activity 5 sheet. Page 1: for children working towards the year 2 math curriculum Children on this sheet concentrate on sharing with visuals and would benefit from using manipulatives alongside this. Page 3: for children working within the year 2 math curriculum Children on this sheet can share by drawing circles or use manipulatives alongside this. They use bar models to see the link between multiplication and division. Page 5: for children who would like an extra challenge Choose this if your child appears efficient in division by sharing. They'll be able to answer questions outside of the 2, 5 and 10 times tables and division facts and move onto using the bar model to create their own multiplication and division word problems.
Day 5	Objective: To make equal groups - sharing Children will focus on the $\div$ symbol using real-life questions. If possible, have Activity 6 accessible whilst watching the learning video. Where the sheets suggests using certain equipment, please use whatever you have (if your child wishes to do so). Learning video: https://vimeo.com/492603633

Extra activity for 'stretching further':

5 children want to buy sweets from the shop.

They want to share them equally.

Which bag should they buy? Explain why.



The teacher wants to buy balls to use in PE.

She wants to be able to share them equally between 10 children. Which bag should she buy?

Explain why.



Answers:

The children should buy the bag of 15 sweets. They would get 3 sweets each. $15 \div 5 = 3$

The teacher should get the bag of 20 balls. Each child would get two balls because $20 \div 10 = 2$.

If your child is wanting an extra challenge, keep scrolling...!

A Little Extra

Magic Plant

On Friday at 9 am, the magic plant was only 2 centimetres tall.



Every twenty four hours, it doubled its height.



How tall was it on Monday at 9 am?

Question prompts:

How tall will the plant be on Saturday at 9am?

How tall will the plant be on Sunday at 9am?

Ways your child may have come up with a solution:

On Friday at 9am, it was 2cm
On Saturday at 9am, it was $2 \times 2 = 4\text{cm}$
On Sunday at 9am, it was $2 \times 2 \times 2 = 8\text{cm}$
On Monday at 9am, it was $2 \times 2 \times 2 \times 2 = 16\text{cm}$
So, the answer is 16cm.

On Saturday it's double 2. And double 2 is 4.
On Sunday it's double 4. And double 4 is 8.
On Monday it's double 8. And double 8 is 16.
So the answer is ...16 centimetres.

$2 + 2 = 4$
 $4 + 4 = 8$
 $8 + 8 = 16$
Answer = 16