Counting in twos, fives and tens

National Curriculum attainment target

• Solve one-step problems involving multiplication by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

Lesson objective

• Make connections between arrays, number patterns and counting in twos, fives and tens

Previous related lessons

Unit 3, Week 1, Lessons 1–4; Unit 3, Week 2, Lessons 1–3; Unit 6, Week 1, Lessons 1–3

Prerequisites for learning

Pupils need to:

• count accurately in multiples of two, up to at least 20

• count accurately in multiples of five, up to at least 25

• count accurately in multiples of ten, up to at least 50

Vocabulary

zero, one, two, three … fifty, zero, ten, twenty … fifty, zero, five, ten, fifteen, twenty, twenty-five, zero, two, four, six … twenty, count on, count up to, count in ones, count in twos, count in fives, count in tens, pattern, how many?, groups, groups of, makes, equals, altogether, array

Future related lessons

Unit 6, Week 2, Lessons 1 and 2; Unit 10, Week 1, Lessons
1–4; Unit 10, Week 2, Lessons 1 and 2; Unit 12, Week 1, Lessons 1 and 4

Success criteria

Pupils can:

• begin to make connections between arrays, number patterns and counting in twos, fives and tens

• accurately count a number of objects by counting in multiples of two, five or ten



Getting Started

• Choose an activity from Number – Multiplication and division/Number – Number and place value.

• Choose a game or activity from *Fluency in Number Facts: Y1/Y2* – Multiplication and division/ Number and place value.

**Year 1, Unit 6, Week 1**

Teach

• Remind children that they have been counting in twos, fives and tens.

• Say: **We have also used counting in twos, fives and tens to help us to add together groups that have all been equal.**

• Ask: **Who can tell me what they understand by the word ‘equal’?**

• Encourage individual children to explain their understanding of ‘equal’. Discuss children’s ideas.

• Confirm that, if groups of objects are equal, they all have exactly the same number of objects
in them.

• Display: Slide 1 showing a group of 12 balloons.

• Say: **These balloons are all mixed up and are difficult to count …**

• Display: Slide 2 showing the balloons arranged into an array.

• Say: **If we arrange the balloons into a pattern, or an *array*, then they are easier to count.**

• Ask: **How are the balloons arranged? How many are there?** (12)

• Say: **We could count each balloon individually, but they are arranged so that we can count them more quickly. How can we count them?** (in twos)

• Count the balloons in twos with children, pointing to each set of two as you count.

• Display: Slide 3 showing a group of 18 bugs.

• Say: **If we arrange these into an array, it will be easier to count them.**

• Display: Slide 4 showing the bugs arranged into an array.

• Ask: **How many bugs are there?** (18) **How did you count them?**

• Invite children to explain how they worked out the answer.

• Say: **We can count the bugs in twos.**



• Count the bugs in twos with children, pointing to each set of two as you count.

• Repeat for Slides 5–8 showing arrays of fives, and Slides 9–12 showing arrays of tens, counting with children in fives and tens.

• Display Slide 13 showing a group of 24 bugs. Click to arrange them in an array.

• Ask pairs to work out how many bugs there are and to write down their total. Encourage children to consider how to count: in ones, twos, fives or tens.

• Repeat for Slides 15 and 16 showing a group of 25 buttons, then for Slides 17 and 18 showing a group of 40 sweets.

• Share children’s answers. Invite them to explain how they counted.

• Establish that the arrays make it easy to count the bugs in twos, the buttons in fives and the sweets in tens.

Individualised Learning

**Activity Book 1B** – Page 17: Rows of roses

**Progress Guide 1** – Support, Year 1, Unit 6, Week 1, Lesson 4: Rowing boat rows

 Resources: scissors and glue (per child)

Refer to Activity 4 from the
Learning activities on page 249.

Plenary

Resources

30 counting objects (per class)

• Display: Slide 19 showing a set of circles arranged in an array of multiples of two and another set of circles that are not quite arranged in an array.

• Say: **If objects in a set are arranged into an array, then it can be much easier to count them. But an array must have exactly the same number in each row** (point to a row) **and exactly the same number in each column** (point to a column)**.**

• Ask children to identify which of the two sets displayed is an array. Discuss their reasoning and agree that the second arrangement is not an array because there is one ‘extra’ circle (so that one of the rows has one more than the other, and one of the columns has one less than the others).

• Point to the first set – the array – and ask children how they would count it. (in twos)

• Say: **If we look at the first column** (point to the first column)**, we can see that it has two in it** (point to each of the two circles)**. If we look at all the columns** (point) **we can see they all match the first. We know that they all have two, so we can count in twos. It is like counting in steps of two along a number line.**

• Repeat for slides 20 and 21 asking children which of the sets is an array and how they would count the array (in fives and tens, respectively).

• Next, use counting objects or draw an array of six columns of five. Ask children to count each object as you add it to the array.

• Say: **We have just counted each object and found that there is a set of 30. Now let’s count them again.**

• Agree that the set is arranged in an array: all the columns are the same. Count the first column with children.

• Say: **One, two, three, four, five. So this is a column of five, and we know that we can count in fives.**

• Point to each column in turn and count with children.

• Say: **Five, ten, 15, 20, 25, 30.**

**Homework Guide 1**

Year 1, Unit 6, Week 1, Lesson 4: Counting in 2s, 5s and 10s

• Discuss with children which method was
quicker, and which they found easier.