# Lesson 1: Counting and comparing

## Introduction

During this lesson learners will begin to understand the importance of organising data effectively for counting and comparing. They will create their own tally charts to organise data and represent the tally count as a total. Finally, learners will answer questions comparing totals in tally charts using vocabulary such as ‘more than’ and ‘less than’.

## Learning objectives

To recognise that we can count and compare objects using tally charts

* I can record data in a tally chart
* I can represent a tally count as a total
* I can compare totals in a tally chart

## Key vocabulary

More than, less than, most, least, organise, data, object, tally chart, votes, total

## Assessment opportunities

**Introduction:** To assess the learners’ ability to reliably count groups of objects.

**Activity 1:** To assess the learners’ ability to create a tally chart and represent a tally count as a total.

**Activity 2:** To assess the learners’ ability to compare totals in a tally chart and answer questions.

**Plenary:** To assess the learners’ ability to match tally charts to a corresponding data set.

## Preparation

**Subject knowledge:**

You will need to have an understanding of how tally charts are made, and the benefits of organising data in this way. This is also supported in the slides.

**You will need:**

* L1 Slides
* A1 Worksheet – Tally chart
* A1 Handout – How many animals?
* A2 Worksheet – Comparing totals

## Outline plan

Please note that the activities are labelled in the top right-hand corner of the slide deck to help you navigate the lesson.

*\*Timings are rough guides*

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| Introduction (Slides 2–6)  5 mins | **Introduction**  Show slide 2 and share the objectives for today’s lesson with the learners.  Show slide 3 and tell the learners there are some objects on the slide that we are going to count. Ask the learners ‘What are these objects?’ (Elephants) and ‘How many elephants can you see?’ (4) Tell the learners that we are going to collect data to help us answer questions and learn more about the animals.  Show slide 4 and ask the learners ‘What are these objects?’ (leopards) and ‘How many leopards can you see?’ (6) .  Show slide 5 and ask the learners ‘What are these objects?’ (tigers) and ‘How many tigers can you see?’ (8) Now this is information, there are eight tigers.  Show slide 6 and ask the learners ‘What are these objects?’ (zebras) and ‘How many zebras can you see?’ (3) Now this is information, there are three zebras. |
| **Activity 1**  (Slides 7–13)  20 mins | **Tally charts**  Show slide 7 and tell the learners we have just counted all of these different animals during the introduction activity. Ask the learners ‘Which animal appears the most?’ Explain that although we have counted the animals in the previous activity, we don’t have any record of what we counted. Now we might have to do some more work, such as counting the animals again, looking back at the other slide, etc.  Show slide 8 and tell the learners that when you have lots of objects to count and compare, it helps to organise and record the data you find using a tally chart. This helps you to count and compare the data more effectively. Show the learners the example of the tally chart.  Show slide 9, and explain that this tally chart has three headings.  Animal (this shows which animal is being counted)  Tally (this is where we record how many of each animal we have counted)  Total (this is where we count up the number of marks made in the tally and record this as a number/total)  **Note:** It is important that children don’t count the data as they record their tallies. Counting the total number at the end is where they turn the data into information e.g. I have a total of five elephants.  Stay on slide 9 and inform the learners that we are going to look at how we can count and record how many animals there are on the page. Click to run the animation and model to the learners how a line is crossed through the animal once it has been counted, and a mark is made in the animal’s corresponding box on the tally.  Ask the learners ‘Did you see what happened on the tally chart when we got to the number 5?  Show slide 10, and explain that when we make marks on a tally chart we chunk them together into groups of five. Share how this helps us to count the total number of marks made, especially when we are working with large numbers. Clickto start the animation and count along with the marks that appear: 1, 2, 3, 4, 5. Tell the learners that each group of five will look like a gate. You may like to practise counting in fives with the class at this point.  Show slide 11 and tell the learners they are now going to create their own tally chart to show how many of each of the animals there are on the farm. Show the learners how to fold their handouts to concentrate on one set of animals at a time, so they are not distracted by the other animals.  Show slide 12, and talk the learners through the tally chart.  Ask the learners:  ‘What will go under the first heading in the tally chart?’  (The animal names or drawings of the animals.)  ‘What will we do under the next heading in the tally chart?’  (This is where we will make marks for each animal counted.)  ‘What will go under the last heading?’  (We will count up the number of marks for the corresponding animal and record how many there are in total.)  Give a worksheet and handout to each learner. Allow the learners time to fold their handouts and complete their tally charts.  Tell the learners that you are going to work through the answers together. Tell them we will start by counting how many cows there are on the farm.  Show slide 13 and click through the animation. Count the marks on the tally chart as they appear 1, 2, 3, 4,5, 6 (emphasise the 5). There are six cows on the farm. Learners could mark their own piece of work, or that of a partner.  Ask the learners ‘Did you remember to draw a line across when you reached the number 5, or a multiple of 5?’  Repeat the process counting the tally marks for the remaining animals:  Pig (12)  Chicken (7)  Sheep (5) |
| **Activity 2** (Slides 14–19)  15 mins | **Can you answer questions using a tally chart?**  Show slide 14, and remind the learners about the tally chart we have created. Ask the following questions.  Show slide 15, and ask ‘Which animals does the farmer have most of?’ (Pigs)  Show slide 16, and ask ‘Which animals does the farmer have least of?’ (Sheep)  Show slide 17, and ask ‘How many chickens are there?’ (7)  Show slide 18, and ask ‘The number of \_\_\_\_ is half the number of pigs. What is the missing word?’ (Cows)  Show slide 19, and tell the learners they are going to see some questions about favourite pets. Tell them that a number of people have been asked what their favourite pets are, and that each person had one vote for their favourite. Show the learners the space where they can write in the totals. Read through the questions with the learners and discuss any new vocabulary.  Hand out the worksheets and allow the learners time to complete them.  If time permits, learners could peer assess their work as a group with the teacher. |
| **Plenary**  (Slides 20–22)  5 mins | Tell the learners you are going to show them some tally charts. Explain that they are going to choose the set of data that matches the tally chart by showing one or two fingers.  Learners should give reasons for their answers.  Show slide 20. The tally chart matches Set 1 of the data, as there are five dogs and three cats.  Show slide 21. The tally chart matches Set 2 of the data, as there are six apples and four bananas.  Show slide 22. The tally chart matches Set 1 of the data. Both sets show seven brown eyes and seven blue eyes. Set 2 shows a green eye. This is not shown on the tally chart so this cannot be the correct set of data. |
| **Summary**  (Slides 23–24)  5 mins | Review the ‘Assessment’ and ‘Summary’ slides. |

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