



## Lesson 6: Presenting information

### Introduction

During this lesson learners will be shown alternative ways to present data, other than using tally charts and pictograms. They will use a pre-made tally chart to create a block diagram on their device. Learners will then share their data with a partner and discuss their findings. They will consider whether it is always OK to share data, and when it is not OK. They will know that it is alright to say no if someone asks for their data, and how to report their concerns.

### Learning objectives

To explain that we can present information using a computer

- I can use a computer program to present information in different ways
- I can share what I have found out using a computer
- I can give simple examples of why information should not be shared

### Key vocabulary

Tally chart, pictogram, block diagram, most, least, common, sharing, data

### Assessment opportunities

**Introduction:** Assess the learners' understanding of alternative ways to present data, rather than as a pictogram.

**Activity 1:** Assess the learners' ability to create a block diagram from a tally chart.

**Activity 2:** Assess the learners' ability to share and discuss their data with a partner.

**Activity 3:** Assess the learners' understanding of the importance of thinking carefully before sharing data, and understanding it is OK to say no to sharing data.

**Plenary:** Assess the learners' preferences for presenting/analysing data.

### Preparation

**Subject knowledge:**

You will need to understand how data from tally charts can be presented as block diagrams. It would be an advantage to have an understanding of the 'J2Data: Chart' package. This is supported in the slides.

**You will need:**

- L6 Slides
- Access to: 'J2Data: Chart'
- Whiteboards, pens, and rubbers
- A1 Worksheet – Tally chart
- Cubes or counters
- A2 Handout – Sharing your data
- A2 Solutions – Sharing your data

## 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*

<p><b>Introduction</b> (Slides 2–4)</p> <p>5 mins</p>	<p><b>Introduction</b></p> <p>Show slide 2. Share the objectives with the learners.</p> <p>Show slide 3, and remind the learners that during this unit we have been looking at tally charts and pictograms. Ask them 'Are there any other ways to present data?' Allow time for the learners to think, write/draw, pair, share their ideas, and feed back to the class. Learners could record their ideas on whiteboards.</p> <p>Show slide 4. Tell the learners there are lots of ways to present data. Today, they are going to learn all about block diagrams. Show the learners the example of a block diagram, and point out that this slide also shows a table. Look at the block diagram and ask the learners some key questions, e.g. 'What do you think this is showing us?' 'How is this similar to a pictogram?' 'How is this different from a pictogram?' Allow time for the learners to think, pair, and share with the class.</p> <p>Discuss some possible answers with the learners:</p> <ul style="list-style-type: none"> <li>• This is a block diagram showing the colours of the teacher's cars.</li> <li>• It is similar to a pictogram, as it is also a way to present data.</li> <li>• The blocks are similar to the pictures in a pictogram: one object is represented by one block or picture.</li> <li>• It has a title.</li> <li>• They are different to the pictograms we made, as they have numbers listed at the side. How does this help us?</li> </ul>
-----------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p><b>Activity 1</b> (Slides 5–7)</p> <p>20 mins</p>	<p><b>From pictograms to block diagrams</b></p> <p>Show slide 5, with the tally chart that has already been created. Explain that this tally chart shows the ‘number of legs’ of different animals seen in a zoo. Tell the learners you would like them to enter the totals into a tally chart and then create a block diagram to present the data.</p> <p>Show slide 6. Tell the learners that today they will be using a different piece of software. Explain that it is still ‘Just2Data’, but that instead of choosing <b>Pictogram</b> they will choose <b>Chart</b> from the first menu.</p> <p>Play the video to show learners how to create a block diagram.</p> <p><b>Note:</b> Ensure children understand that the column on the left of the table shows the number of legs, and the column on the right shows how many animals have that number of legs. You may want to draw their attention to the column headings to reinforce this</p> <p>Show slide 7. Allow time for the learners to create their own block diagrams using the tally chart worksheet and the given data. Remind the learners that they need to add up the totals on the tally chart worksheet before completing their block diagram.</p>
<p><b>Activity 2</b> (Slide 8)</p> <p>10 mins</p>	<p><b>Sharing your data</b></p> <p>Show slide 8. Tell the learners they are now going to share what they have found out with a partner.</p> <p>Tell the learners they will play a game similar to ‘rock, paper, scissors’, but using the information in their block diagram. Learners should sit opposite each other and pick one of the questions from the handout. They should read the question together, answer the question on a whiteboard, and then count down from three and hold up the board to show their partner. If the answer is the same they win a cube or counter each. If the answers are different they should discuss the differences, referring to the block diagram if needed, and decide on who deserves the cube. Model the activity in front of the class.</p> <p><b>Note:</b> During this activity teachers can support discussions if learners are not sure why different answers have occurred, and listen to their reasoning.</p>
<p><b>Activity 3</b> (Slides 9–11)</p> <p>5 mins</p>	<p><b>Is it safe to share?</b></p> <p>Discuss data collection with the learners. Explain that during this unit they have been collecting data. They have asked other learners in the class about their likes and dislikes, collected data about them, and presented this to others.</p>

	<p>Show slide 9. Tell the learners you are going to show them some sentences, and they should respond with thumbs up or thumbs down.</p> <p>Is it always OK to share data? (No)</p> <p>Ask learners for their response. Discuss reasons why it might not be OK to share data:</p> <ul style="list-style-type: none"> <li>• It isn't OK to share personal data about someone else without their permission</li> <li>• Some data might be personal, and you may not want to share it with others</li> </ul> <p>Show slide 10. Can you give your data to anyone who asks? (No)</p> <p>Ask learners for their response. Remind learners:</p> <ul style="list-style-type: none"> <li>• It isn't OK to share personal data with strangers</li> <li>• It is always OK to say no</li> </ul> <p>Show slide 11. Can you share any data about yourself?</p> <p>Ask learners for their response. Remind learners:</p> <ul style="list-style-type: none"> <li>• Some data is personal and should not be shared with others</li> </ul> <p>Explain that learners should tell an adult they trust if they have been asked for data that they do not feel comfortable sharing.</p>
<p><b>Plenary</b> (Slide 12)</p> <p>5 mins</p>	<p><b>Plenary</b></p> <p>Show slide 12. Tell the learners you are going to show them some data, and that you would like them to think, write, pair, and share a question to ask the class about the data. Tell the learners 'I asked a group of teachers what pet they had, and this is the data I collected.'</p> <p>Allow time for learners to write their answers on a whiteboard, share with a partner, and then with the wider class.</p> <p>Allow time for the learners to answer the questions posed, and discuss any misunderstandings or misconceptions.</p> <p>Can anyone think of a question that can't be answered using this data? Questions could include 'What pet does Miss [Insert name] have?' 'Did anyone have a chinchilla?'</p>
<p><b>Next time</b> (Slides 13-14)</p> <p>5 mins</p>	<p>Review the 'Assessment' and 'Summary' slides.</p>

Resources are updated regularly – the latest version is available at: [ncce.io/tcc](https://ncce.io/tcc).

This resource is licensed under the Open Government Licence, version 3. For more information on this licence, see [ncce.io/ogl](https://ncce.io/ogl).