

**Year 3 Maths No Problem lesson plans Chapter 10, Lesson 1-5, Pages 61 - 80, week
beginning 04/05/20**

Lesson 1: Drawing Picture Graphs

Textbook pages: 96 – 98

Lesson Objective

To be able to present data using picture graphs.

Lesson Approach

To begin this lesson, show pupils the In Focus task. Provide them with a variety of counters (e.g. cubes, beans) they can use to represent the items in the tally chart. Ask them if they are able to show the data from the tally chart using the counters. Tell them your friend said she used one counter to represent each item on the tally chart. Is this possible? In what ways might we show that we are counting three different items? Can we use different-coloured counters? Can we arrange them in a graph or label them?

Allow pupils to arrange the data in different ways, prompting them to consider alternatives. Focusing on the examples in Let's Learn, prompt them to construct horizontal and vertical graphs as well. Tell the class your other friend said he could use 4 counters to represent the oranges. Is this possible? If 4 counters are used to represent the oranges, how many counters should be used for the pears and strawberries? Can this be presented in a graph? Get them to draw the graph using this scale of 2.

During Guided Practice, pupils are using data presented in a graph to complete a table and then draw another picture graph with a scale of 2.

Lesson 2: Drawing Bar Graphs

Textbook pages: 99 – 101

Lesson Objective

To be able to interpret and present data using bar charts.

Lesson Approach

To begin this lesson, show pupils the In Focus task. Ask them questions about the graph, such as what each red square represents and the number of each type of fruit. Then ask pupils if they have heard of other types of graphs. Tell them that there are other types we can use to present data, such as the number of fruits.

Show pupils the bar graph in Let's Learn and ask them if they can see any similarities between the picture graph and the bar graph. What are the differences? Lead them to see that there are numbers shown on the line that reads 'number of fruits'. Introduce the word 'scale' to pupils. Tell them that in a bar graph, we don't need to count the number like we do in the picture graph; instead we can tell the number by reading the 'scale'. Then proceed to

show pupils how to read the 'scale' for each of the bars: 8 oranges, 6 pears and 10 strawberries.

Ask pupils which is the largest group of fruit and which is the smallest. Can we find how many more the largest group have by looking at the graph? Show the class how to read the 'difference' by using the bar graph. Then ask them to show how many more oranges there are than pears.

During Guided Practice, pupils are interpreting information from a bar graph and answering related questions.

Lesson 3: Reading Bar Graphs

Textbook pages: 102 – 104

Lesson Objective

To be able to interpret and present data using bar charts.

Lesson Approach

To begin this lesson, show pupils the In Focus task and ask them what information they can learn from the bar graph. Tell them your friend knows which book is the most popular and least popular. Is this true? Does the graph show this kind of information? Tell pupils you think it only shows how many books children read. Allow them time to discuss what the graphs are showing.

Then ask pupils to work in groups of 4 to create 3 questions using the bar graph. Gather all the questions created and ask them to answer the questions. Go through the questions in Let's Learn. Did pupils create similar questions? Show them how to use the data from the graph to answer the questions.

During Guided Practice, pupils are answering questions about a bar graph that is horizontally represented. Ask them how this bar graph is different from the one in the In Focus task. Guide them to see that the graphs are essentially the same, only presented in a different orientation.

Lesson 4: Reading Bar Graphs

Textbook pages: 105 – 107

Lesson Objective

To be able to interpret and present data using scaled bar charts.

Lesson Approach

To begin this lesson, show pupils the In Focus task and allow them time to look at the information presented. Ask them how many doughnuts the baker sold. What about cupcakes? Then ask them if they can tell you how many croissants were sold.

Prompt pupils to look at the scale of the graph and discuss what might have been the issue. It is important that they are able to determine the scale of a graph, so spend time focusing on how to read the scale with them. Draw their attention to the small markings between the numbers. What does each marking represent? Guide pupils to count on to determine what each marking represents. Help them to use the knowledge gained from previous lessons on reading measurements from different scales.

Show pupils how to determine the number of croissants sold by drawing a dotted line down from the croissant bar to the scale. Guide pupils to count on from 15, and then count backwards from 20. Ask them to use the same method to find the number of cream puffs sold. Ask pupils to work in groups of 4 to create 3 more questions using the bar graph. Then get them to exchange their questions with another group and find the answers.

During Guided Practice, pupils are reading the information from a bar graph with a scale of 10.

Lesson 5: Reading Bar Graphs

Textbook pages: 108 – 112

Lesson Objective

To be able to interpret and present data using scaled bar charts.

Lesson Approach

To begin this lesson, provide pupils with an enlarged version of the graph from the In Focus task. Ask them to describe the information presented. Remind them to determine the scale used for this bar graph. Give them some time to read the graph and give you some responses. Write their descriptions on the board.

Ask pupils to look at Sam's statements. Are they all correct? Ask them to use the bar graph to check each of his statements. Then ask pupils to use the bar graph to check if Amira's statements are all correct and to do the same for Ravi's statement.

During Guided Practice, pupils are reading a horizontal bar graph on the number of children who visited the library over five days.