Solving Data Problems: Maths : Year 6 : Autumn Term, Week 10

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To interpret data presented in tables and pie charts.	Children will recap features of pie charts, identify mistakes in pie charts, read and interpret data presented in pie charts, and learn how to calculate percentage amounts of a given total. They will then go on to answer questions and explain their own interpretations of data presented in a variety of ways, including pie charts.	• Can children relate data presented in tables and pie charts? • Can children solve problems by interpreting pie charts? • Can children find percentages of an amount?	• Slides • Worksheets 1A/1B/1C • Clothes Shop Challenge sheets 1A–1C (FSD…? activity only)
Lesson 2	To convert proportions of a total amount to percentages and present them using pie charts.	Children will develop strategies, using prior knowledge of degrees and angles, to sketch 'estimated' pie charts by interpreting given sets of data. They will then practise making accurate pie charts, including those where it may be necessary to round degrees to the nearest whole number.	• Can children use knowledge of percentages and angles to make estimated drawings of pie charts? • Can children find percentages of proportions, including percentages of 360°? • Can children use a protractor to draw pie charts?	• Slides • Airport Challenge sheets 2A/2B/2C • Station Clues cards (FSD…? activity only)
Lesson 3	To interpret and construct line graphs, including those with two variables.	Children will explore how line graphs are useful for showing changes over time, looking at both continuous and discrete data. They will plot continuous and discrete data on line graphs, including those with two variables, and interpret the information shown. There is also the opportunity to solve problems involving the information shown on a variety of line graphs.	• Can children identify differences between discrete and continuous variables? • Can children draw scales and plot data on line graphs? • Can children solve problems by interpreting line graphs?	• Slides • Worksheets 3A/3B/3C • Graph paper • Business Report Challenge sheet (FSD…? activity only) • Charts and Graphs 3A–3D (FSD…? activity only)
Lesson 4	To interpret and draw conversion graphs.	Children will start by looking at how simple conversions can be solved using a four-cell ratio model before quickly finding out that this is only useful for simple conversions. They will then study a variety of conversion graphs. Children are encouraged to explain what they show before learning how to create their own accurate conversion graphs.	• Can children solve problems by interpreting conversion graphs? • Can children choose an appropriate scale for conversion graphs? • Can children accurately draw conversion graphs?	• Slides • Challenge Card 4 • Graph paper • Converting Currency sheet (FSD…? activity only) • Internet access (FSD…? activity only)
Lesson 5	To interpret and construct pie charts, line graphs and conversion graphs.	Children will consolidate their understanding of pie charts, line graphs and conversion graphs in this lesson as they solve a variety of problems. Children are challenged to create a report either from given data or from data about themselves. They will need to decide how to present each set of data, accurately draw pie charts, line graphs and conversion charts, and interpret the information they have collated.	• Can children construct and interpret pie charts? • Can children construct and interpret line graphs? • Can children construct and interpret conversion graphs?	• Slides • Annual Report sheets 5 • Annual Report form • Lined paper and graph paper • Challenge Card 5 (FSD…? activity only)

NB: 'FSD? Activity only' refers to the alternative 'Fancy Something Different…?' activity within the lesson plan