A possible lesson outline:

**Interpret and construct pie charts**

* Understand that a pie chart shows proportions, and not frequencies
* Make conclusions about data using a pie chart
* Calculate the required angle for a slice of a pie chart
* Use a protractor to measure and draw angles in a pie chart

Start with ‘Bring on the Maths’ activity (Y8 Pie Charts)

Carry out a quick ‘Number of cars in household’ survey. Complete [spreadsheet](http://www.kangaroomaths.com/free_resources/teaching/statistics/pie_chart_survey.xlsx) (frequency column) as survey carried out. Challenge students to identify what is happening. Choose student to note key points on the board.

Hide pie chart. Hand out large template (page 4). In pairs, work out how to use the protractor to complete a pie chart by hand. Compare across pairs.

Individual task – three sets of data (page 2). Construct pie charts (templates on page 3). *Note careful progression in the three sets of data. In particular, the third one involves rounding that leads to an angle sum not equal to 360°.*

How can you check your work? What do you do about the third set of data?

Construct pie charts for these sets of data

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| **Number of children** |  **Frequency** |
| 1 | 7 |
| 2 | 12 |
| 3 | 9 |
| 4 or more | 2 |

|  |  |
| --- | --- |
| **House type** | **Frequency** |
| Caravan | 1 |
| Flat | 3 |
| Bungalow | 2 |
| Terrace | 7 |
| Semi-detached | 15 |
| Detached | 8 |

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| **Sport** | **Frequency** |
| Football | 7 |
| Rugby | 4 |
| Tennis | 4 |
| Cricket | 9 |
| Snooker | 5 |
| Darts | 6 |

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