

## 72 EVALUATE SOMEONE ELSE'S SURVEY

- 1 Partner up with someone and swap the survey that you did in **Chapter 18, Statistical investigation**.
- 2 Evaluate each other's surveys using the sheet provided.
- 3 Write a report which includes comments and suggested improvements for each stage of the **Enquiry Cycle**.

A statistical investigation consists of five stages: **Problem**, **Plan**, **Data**, **Analysis** and **Conclusion**.

At Year 8 you should be able to include these elements in your enquiry.

|                   |                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                        |                                                                          |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <b>Problem</b>    | A statistical question has been formed.                                                                                                |                                                                                                                                   |                                                                                                                                                                                        |                                                                          |
| <b>Plan</b>       | A decision on what data to collect, variables and units for each are shown.                                                            | An outcome has been predicted.                                                                                                    | The number of people to be surveyed and how/where to collect and organise the data have been given.                                                                                    | Possible ways to display data have been given.                           |
| <b>Data</b>       | Data has been collected and sorted – an example of the collection sheet has been given.                                                | Data has been displayed and choices can be justified. Errors have been identified and corrected.                                  | The following have been used: tally charts, frequency tables, pictographs, bar graphs, strip graphs, pie charts, dot plots, stem and leaf graphs, line graphs. (Tick those that apply) | Technology has been used, such as a spread sheet, to communicate data.   |
| <b>Analysis</b>   | Graphs have been analysed and patterns, trends, including information about clusters and outliers, have been identified and described. | Differences and similarities between distributions (if appropriate) have been analysed. Errors have been identified and corrected | Findings have been communicated to others.                                                                                                                                             |                                                                          |
| <b>Conclusion</b> | Statistical question(s) have been answered and evidence provided from data analysis.                                                   | The need for more data to fully answer the question has been identified.                                                          | If the enquiry has raised another question that could be pursued, it has been identified.                                                                                              | Future improvements for a possible repeat survey have been communicated. |