

What sort of data? What sort of graph?

Data can be displayed in tables and in graphs. There are many statistical graphs and we have to decide which type displays the information best. In this exercise you will have the opportunity to use a number of ways. You need to comment on your findings.

1. This table shows the rate per thousand of population of male and female offenders.

Year	1900	1925	1950	1975	2000
Male	2	1.3	5.5	20.8	19.6
Female	0.5	0.1	0.8	4	4.1

- Use two methods to display this information. Which method do you think shows the trends better? Give a reason.
- What do the graphs tell you about criminal offenders?

2. These figures show the number of pupils by school type.

Type of School	Thousands
State nursery	137
State primary	5345
State secondary	3886
Non-maintained schools	616
Special schools	114
All schools	10100

- Work out the angles for each sector. Do the angles add up to 360° ? Why not?
- Draw a pie chart for this data.
- Who might be interested in this information?

3. This table shows the percentage of children immunised against measles, mumps and rubella (MMR) and whooping cough by their second birthday.

Year of 2 nd birthday	'89	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99
Percentage MMR	80	84	87	90	92	91	91	92	92	91	88
Percentage whooping cough	75	79	84	88	92	93	93	94	94	94	94

Draw a line graph to show this information.

Who might be interested in seeing the trends in immunisation?

4. This table shows the number of females of different ages (thousands)

Age	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80-	85-90
Wales	91	88	84	105	113	109	89	94	97	80	77	78	83	84	68	60	42	29
N. Ireland	67	65	62	67	64	60	53	48	48	42	39	38	37	36	29	25	16	10

- Draw a frequency diagram for the ages in (i) Wales (ii) Northern Ireland.
- Regroup the data into class intervals 0-, 10-, 20-,.....
- Draw two more frequency diagrams with these new intervals.
- Which set of class intervals do you think is most useful?
- What do your graphs tell you about the ages of females in Wales and Northern Ireland?