

FREE STANDING MATHS QUALIFICATION

Making Sense of Data Foundation level

Interpreting another person's raw data and charts

The following data has been taken from the labels of various bottled waters showing the mineral content in milligrams per litre.

Task A

The charts on the following pages have been drawn using this data. For each chart:

- give a summary of what the chart tells you
- say whether you think the chart is a good way of displaying the information or not, giving a reason for your answer.

Task B

Use the table of data to investigate at least one other aspect of the mineral content of the bottled water. As part of this investigation you could use statistical measures such as the mean and range and/or statistical diagrams.

Mineral content of bottled water in mg per litre

	Calcium	Magnesium	Sodium	Potassium	Iron	Bicarbonate	Chloride	Sulphate	Nitrate	Fluoride	Aluminium
Minton	13.6	9.2	18.5	2	0.01	0.1	15.7	26			
Ashbrook	14	5.1	13	1.4			22.7	24.5	13		
Cumbrian	22	4	16.5	1.5		43	22	15	31	0.1	
Buxton	55	19	24	1		248	42	23	<0.1		0
Chiltern Hills	104	1.4	8	<1	0.02	293	15	12	5	0.1	
Badoit	190	85	150	10		1300	40	40		1	
Naya	38	22	6	2		243	1	17	<0.05		
Abbey Wells	54	36	45	7.5		173	80	28	0.9	0.09	
Ballygowan	114	16	15	3		400	28	15	9		
Highland Spring	35	8.5	6	0.6	<0.01	136	7.5	6	<1	<0.1	<0.01
Volvic	9.9	6.1	9.4	5.7	<0.01	65.3	8.4	6.9	6.3		<0.01
Ada Spring	59.7	20.4	42.5	4.7		287	60.4	20.7	1.6		
Scottish Tesco	18	7.1	7.1	3.4		62	13.5	6.3	0.8	0.07	
Irish Tesco	36	33	68	1			54	75	0.5		
Coldwell Spring	22	4	16.5	1.5			22	15	7	0.013	
Pennine Spring	64	23	34	5		319	51	27	2.2	0.18	
Tesco Value	64	23	34	5		319	51	27	2.2	0.18	



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Chart 1

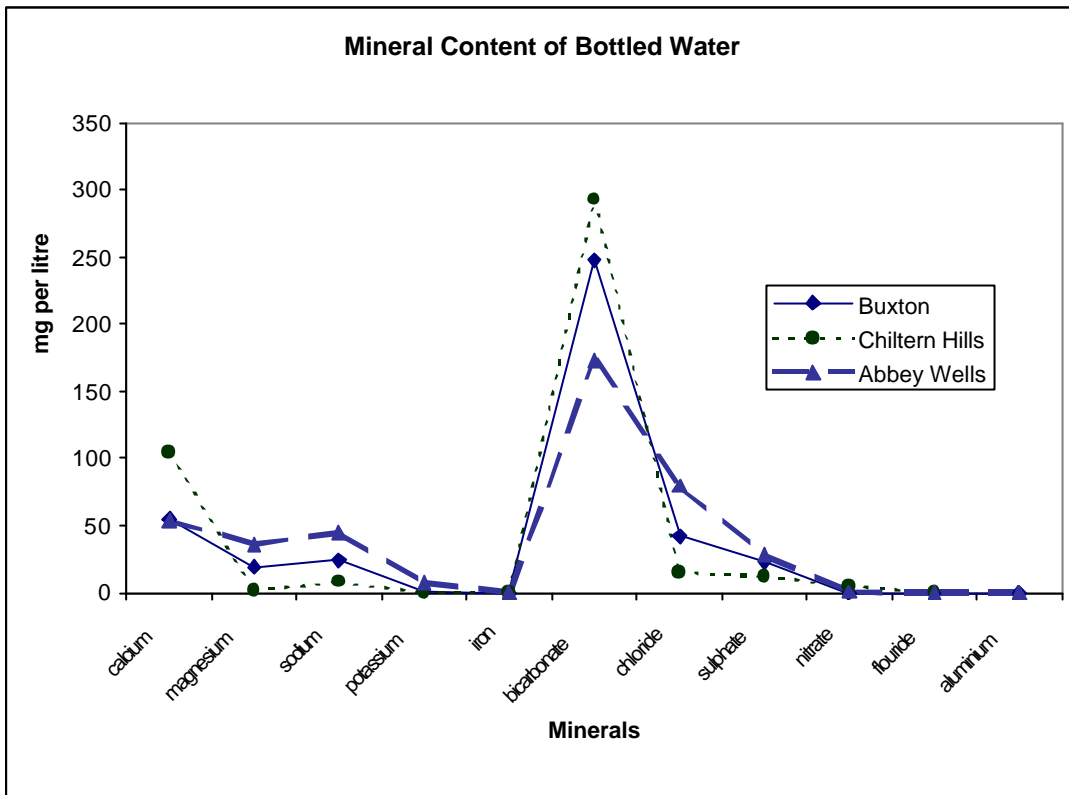
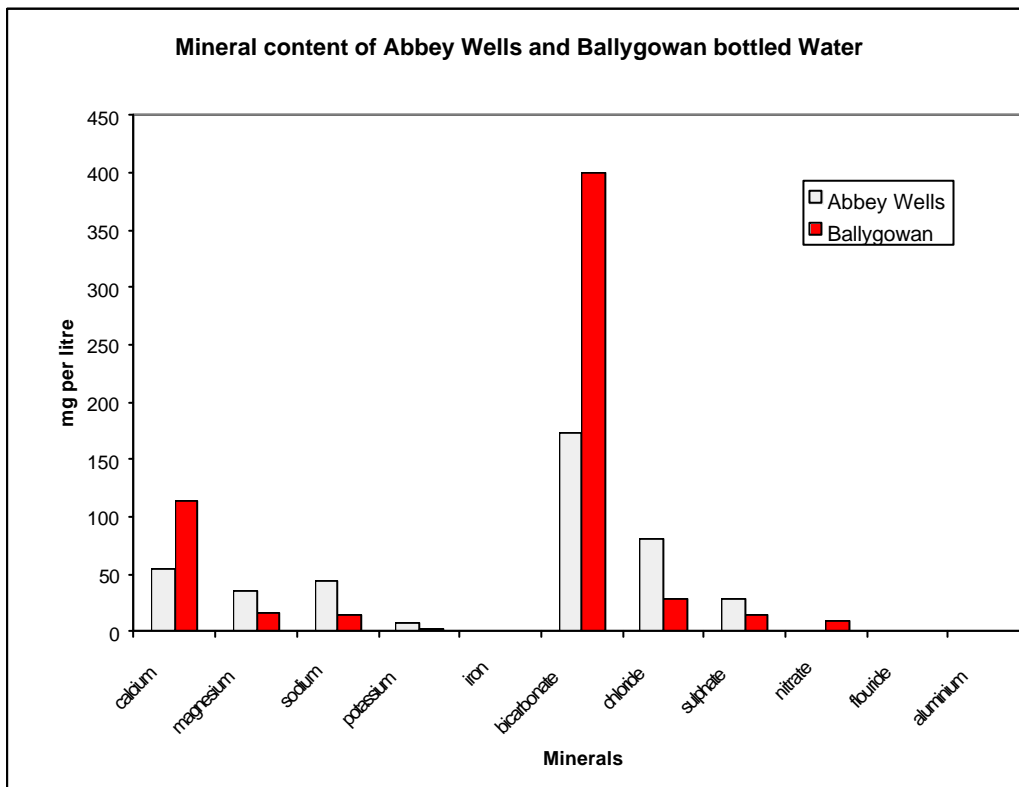


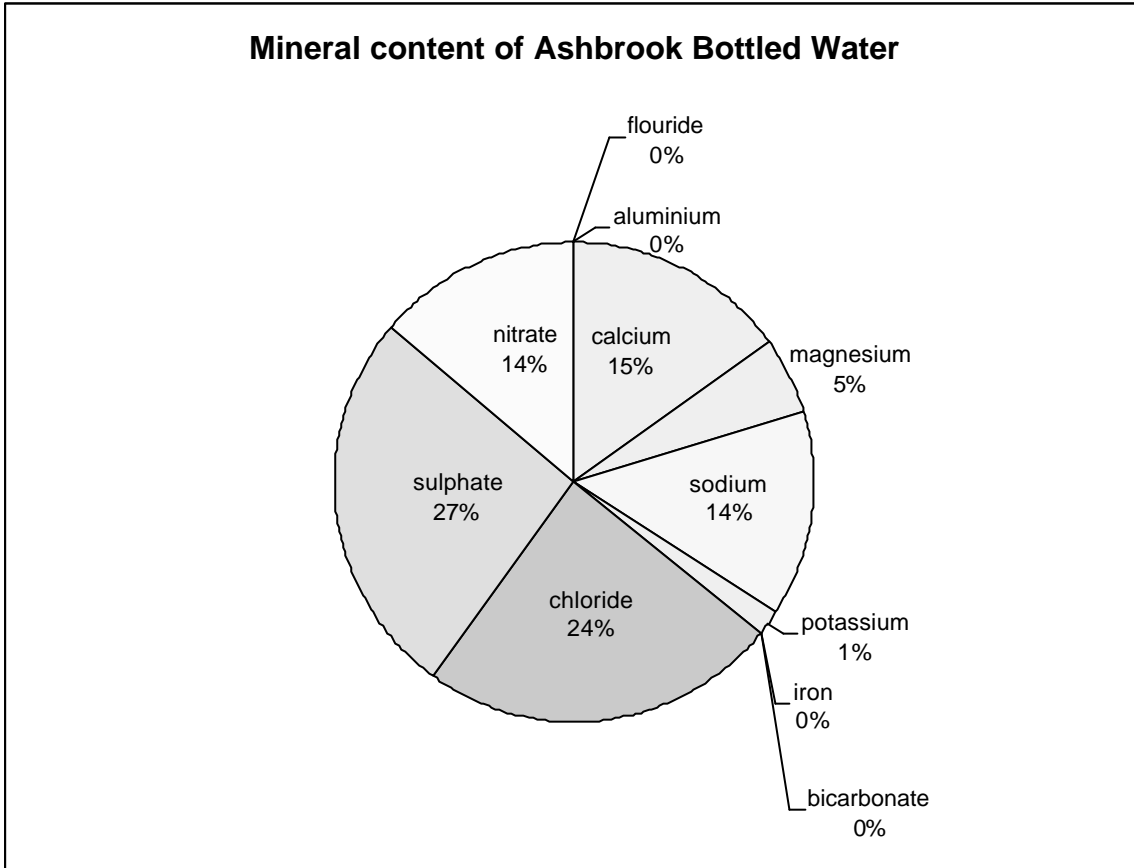
Chart 2



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Chart 3



This work may be used in your Coursework Portfolio to contribute to requirements 2 and 5:

What you need to produce:	You must:
<p>2</p> <p>Two different types of statistical diagrams and two different statistical measures that illustrate data from up to two different situations. The data you use can be the result of your work towards 1 above, or can be taken from another source such as a newspaper article, book or the internet.</p> <p>At least one of your diagrams should be drawn and one of your measures should be calculated using a spreadsheet.</p>	<ul style="list-style-type: none"> • use only diagrams that are relevant • present diagrams that are clear, accurate and fully labelled • show the calculations you carry out • include calculations you have carried out by hand
<p>5</p> <p>A brief report in which you have interpreted both raw data and at least two statistical diagrams produced by someone else.</p>	<ul style="list-style-type: none"> • draw relevant and appropriate conclusions

