

Coolants

A scientist wants to find out why the amount of coolant used by nuclear power stations depends on the concentration of salt in the water.

- 1 Process the data you have collected and plot a graph to show the results of your investigation.
- 2 Describe any patterns or trends in your results. Comment on any unexpected results.

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- 3 Compare the data on specific heat capacities of sea water and fresh water from your research (Part 1) with the results of your own investigation (Part 2).

Comment on any similarities and differences. Suggest possible reasons for any differences.

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5 Do your results from Part 2 support the hypothesis suggested by the scientist? Explain your answer.

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6 Nuclear power stations use more coolant when the concentration of salt in the water is higher. Suggest why.

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7 The Government is considering building more nuclear power stations. These will need access to water for cooling. From your research (Part 1) and investigation (Part 2), describe the advantages and disadvantages of building them by lakes or the sea.

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