|  |  |  |
| --- | --- | --- |
| |  |  | | --- | --- | | |  | | --- | | *Human Perspectives ATAR Units 3 & 4* | | |

Worksheet 1.1 Scientific investigations

**1** Design an investigation to test the following hypothesis: *Drinking caffeine will increase memory.*

**a** Rewrite the hypothesis to improve it.

|  |
| --- |
|  |
|  |
|  |

**b** Identify the independent and dependent variables.

|  |
| --- |
|  |
|  |
|  |

**c** Describe how you will control the other variables.

|  |
| --- |
|  |
|  |
|  |

**d** Describe any ethical considerations that would need to be factored in.

|  |
| --- |
|  |
|  |
|  |

**e** Write a method for the investigation.

|  |
| --- |
|  |
|  |
|  |
|  |

**f** Prepare a results table.

**g** Describe how you would graph the data.

|  |
| --- |
|  |
|  |
|  |
|  |

**h** How could you maximise the accuracy of your data?

|  |
| --- |
|  |
|  |
|  |
|  |

**i** How could you identify the reliability of the data?

|  |
| --- |
|  |
|  |
|  |
|  |

**j** How could you ensure the validity of the method and data?

|  |
| --- |
|  |
|  |
|  |
|  |

**k** What information would you include in the conclusion?

|  |
| --- |
|  |
|  |
|  |
|  |

**2** If your teacher allows, conduct your investigation and write a scientific report.