

## Key Stage 4

# Critical Consumer

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### Notes for teachers

#### KS4 Mathematics

Students will analyse different purchasing options and justify their choice of retailer.

#### Learning outcomes

- collect and record discrete data
- design two-way tables
- compare distributions and make inferences
- communicate and interpret results of a statistical survey
- select and construct suitable graphical representations

#### Resources required

- catalogues for different stores
- different list of websites if the internet is to be used
- calculator
- graph paper

#### Activity information

- Students have 15 minutes to find the prices from four different stores to buy a pair of jeans, a pair of trainers and a bag. The number of retailers can be increased to provide a wider data set. Data could be recorded in a two-way table.
- Statistical and/or graphical analysis can then be carried out on this data, including determining the mean and median prices. Discussion could follow as to which is the most suitable statistic or graphical representation to use.
- Justification is then required as to which retailer is to be used. Students should consider any additional costs such as delivery, return if it is not suitable or the cost of getting to the shop. If different retailers are used for different items then consideration should be given to whether time has a cost.

#### Extension activities

- Stem and leaf diagrams could be constructed and compared for the individual items and then the overall cost.
- The opportunity cost of spending the money could be compared with the savings interest rate on a current account.