

# Applications of Maths

## National 4/5 - Unit 1 - Managing Finance and Statistics

Bold print indicates National 5 Requirements

### Unit 1.1 - Income & Expenditure TEST 1

- I can calculate: hourly, monthly and annual rate of pay.
- I can calculate overtime rate and total overtime. (Eg. time and a half)
- I can complete a pay slip - Gross salary, total deductions, Net pay (Added Value Unit, including OT)
- I can make a list of typical monthly expenditures for a family
- I can complete a 'Financial Statement' involving income and expenditure (Added Value Unit)
- I can work out 'family tax credit' & 'child benefit' from tables of information**
- I understand the terms 'Income Tax', 'National Insurance' & 'pension contributions'**
- I understand the 'surplus' & 'deficit' and can identify which is appropriate from given information.**

### Unit 1.2 - Saving & Spending TEST 2

- I can work out the cost of 3 products and explain my choice of best value. (eg. Holiday)
- I can convert between British and Foreign currencies.
- I can convert between currencies involving the use of at least 3 currencies in a multi-stage task**
- I can work out the interest for savings or loans and explain a choice of 2 products. (Added value Unit)
- I can work out the interest for savings and loans and compare 3 products with more complex percentage work, explaining my choice**

### Unit 1.3 - Budgeting & Costing TEST 2

- I have investigated budgeting for an event such as a party or day out
- I have investigated budgeting eg: by selecting a job & determining earnings...**

### Unit 2.1 - Probability & Risk (EXAM)

- I have investigated the meaning of 'lifestyle statistics' eg. Bias in data, chances of winning the lottery...
- I understand the link between simple probability and expected frequency and can work out the probability of an event occurring from a table of information**

### Unit 2.2 - Statistical Diagrams TEST 3

- I can construct a frequency table without class intervals
- I can use and present statistical data in the form of: bar graphs, line graphs, pie charts and stem and leaf diagrams (pie charts with percentages - AVU)
- I can construct a scatter graph (national 4 and 5)
- I can draw a line of best fit use it to estimate (**using tolerance**) one variable, given the other. (nat.4/5)(AVU)

### Unit 2.3 - Calculating Statistics & Comparing Data Sets TEST 3

- I can work out mean, mode and range. (mean without a calculator to nearest penny is AVU)
- I can use mean and range to compare sets of data.
- I can compare 2 scatter graphs**
- I can make a 5-figure summary for a data set (median is included here)**
- I can construct, interpret and compare boxplots**
- I can calculate inter-quartile range and standard deviation**
- I can use mean and standard deviation to compare sets of data.**