National Curriculum Maths Unit 4

Level 1 Unit 4 - Maths (Handling data)

1. The learner will work with a variety of objects making simple classifications.

1.1 I can sort objects into a group [1]

1.2 I can identify the reason for putting an object into a particular group [2]

Level 2 Unit 4 - Maths (Handling data)

1. The learner will classify objects on two or more criteria, gather data and record information in lists, tables and block graphs.

1.1 I can sort objects into different groups based on particular reasons [4]

1.2 I can identify the information I need [5]

1.3 I can record my results in simple lists [6]

1.4 I can put my results into a table [7]

1.5 I can build a block graph from my results [8]

Level 3 Unit 4 - Maths (Handling data)

1. The learner will use inormation provided in tables and lists explaining its meaning and constructing a range of charts to present it graphically.

1.1 I can extract and interpret information presented in simple tables and lists [10]

1.2 I can construct bar charts and pictograms, where the symbol represents a group of units [11]

1.3 I can communicate information I have gathered in a range of ways [12]

1.4 I can interpret information presented to me in lists, tables and charts [13]

Level 4 Unit 4 - Maths (Handling data)

1. The learner will collect data and construct frequency tables describing features of data sets using mathematical vocabulary. They will construct and interpret simple line graphs.

1.1 I can collect discrete data and record them using a frequency table [15]

1.2 I can describe sets of data using mode and range [16]

1.3 I can group data in equal class intervals [17]

1.4 I can represent collected data in frequency diagrams [18]

1.5 I can interpret frequency diagrams [19]

1.6 I can construct simple line graphs [20]

1.7 I can interpret simple line graphs [21]

Level 5 Unit 4 - Maths (Handling data)

1. The learner will understand and use mathematical terms associated with data, interpreting graphs and drawing conclusions. They will understand probability carrying out simple experiments

1.1 I can use the mean of discrete data [23]

1.2 I can compare two simple distributions using the range and one of the mode, median or mean [24]

1.3 I can interpret graphs and diagrams, including pie charts, and draw conclusions [25]

1.4 I can explain and use the probability scale from 0 to 1 [26]

1.5 I can identify and justify probabilities and approximations to these [27]

1.6 I can select and use methods based on equally likely outcomes and experimental evidence [28]

1.7 I can explain how different outcomes may result from repeating an experiment [29]

Level 6 Unit 4 - Maths (Handling data)

1. The learner will construct and interpret frequency diagrams and pie charts using appropriate mathematical terms. They will draw conclusions from scatter diagrams and demonstrate a basic understanding of correlation. They will solve practical probability problems with an understanding of the total probability of all mutually exclusive events.

1.1 I can collect and record continuous data [31]

1.2 I can create frequency tables choosing appropriate equal class intervals over a sensible range [32]

1.3 I can construct and interpret frequency diagrams [33]

1.4 I can construct pie charts [34]

1.5 I can draw conclusions from scatter diagrams [35]

1.6 I can explain the meaning of correlation [36]

1.7 I can identify all the outcomes when dealing with a combination of two experiments [37]

1.8 I can recall that the total of all the mutually exclusive outcomes of an experiment is 1 [38]

Level 7 Unit 4 - Maths (Handling data)

1. The learner will carry out experiments to test hypotheses using mathematical methods and terminology to report and evaluate their findings.

1.1 I can specify a hypothesis and test it [40]

1.2 I can design and use appropriate methods that take account of variability or bias [41]

1.3 I can determine the modal class appropriate for my enquiry [42]

1.4 I can estimate the mean, median and range of sets of grouped data [43]

1.5 I can select the statistic most appropriate to my line of enquiry [44]

1.6 I can use measures of average and range, with associated frequency polygons [45]

1.7 I can compare distributions and make inferences [46]

1.8 I can explain relative frequency as an estimate of probability and use this to compare outcomes of experiments [47]

Level 8 Unit 4 - Maths (Handling data)

1. The learner will compare distributions using a range of mathematical methods

1.1 I can construct and interpret cumulative frequency tables and diagrams [49]

1.2 I can estimate the median and interquartiles [50]

1.3 I can use median and interquartile range to compare distributions and make inferences [51]

1.4 I can explain how to calculate the probability of a compound event and use this in solving problems [52]

Level 9 Exceptional Performance Unit 4 - Maths (Handling data)

1. The learner will increase the range of graphical presentations that they can construct and interpret, understanding the relationship between sample size and reliability, quantifying probabilities in practical situations.

1.1 I can interpret and construct histograms [54]

1.2 I can explain how different methods of sampling and different sample sizes may affect the reliability of conclusions drawn [55]

1.3 I can select and justify a sample and method to investigate a population [56]

1.4 I can explain how probabilities associated with independent, mutually exclusive events are used to solve practical problems in a range of cases [57]

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(function(i,s,o,g,r,a,m){i['GoogleAnalyticsObject']=r;i[r]=i[r]||function(){ (i[r].q=i[r].q||[]).push(arguments)},i[r].l=1*new Date();a=s.createElement(o), m=s.getElementsByTagName(o)[0];a.async=1;a.src=g;m.parentNode.insertBefore(a,m) })(window,document,'script','//www.google-analytics.com/analytics.js','ga'); ga('create', 'UA-46896377-2', 'auto'); ga('send', 'pageview');

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