

Stock Market Challenge

Learning Opportunities: Maths GCSE

Aims and learning outcomes**	Subject content	Application of learning in Stock Market Challenge
<p>Develop knowledge, skills and understanding of mathematical methods and concepts.</p> <p>Acquire and use problem-solving strategies.</p> <p>Reason mathematically, make deductions and inferences and draw conclusions.</p> <p>Select and apply mathematical techniques and methods in mathematical, everyday and real-world situations.</p> <p>Interpret and communicate mathematical information in a variety of forms appropriate to the information and context.</p>	<p>Use percentages, decimals and fractions.</p> <p>Understand and use statistical problem-solving processes and handling data cycles.</p> <p>Identify possible sources of bias.</p> <p>Design data-collection sheets, distinguishing between different types of data.</p> <p>Extract data from printed tables and lists.</p> <p>Design and use two-way tables for discrete and grouped data.</p> <p>Produce charts and diagrams for various data types.</p> <p>Calculate median, mean, range, quartiles and inter-quartile range, mode and modal class.</p> <p>Interpret a wide range of graphs and diagrams and draw conclusions.</p> <p>Look at data to find patterns and exceptions.</p> <p>Compare distributions and make inferences.</p> <p>Understand and use the vocabulary of probability and the probability scale.</p> <p>Understand and use estimates or measures of probability from theoretical models (including equally likely outcomes) or from relative frequency.</p> <p>List all outcomes for single events, and for two successive events, in a systematic way and derive related probabilities.</p> <p>Use tree diagrams to represent outcomes of compound events, recognising when events are independent.</p>	<p>Understanding and managing money, making sound economic decisions, learning about investments, reasoning with numbers, communicating mathematical information.</p> <p>Managing a portfolio of shares, calculating profit and loss, analysing percentage gains and losses, analysing game data.</p> <p>Presenting game data in graph, diagram or chart form. For example, tracking the variation of a share price or an entire portfolio over the course of a trading day, and then using this information to create or develop a game strategy.</p> <p>Reporting in words, numbers and graphs to an imaginary investor on the performance of the fund managed during the week's trading.</p> <p>Constructing a financial statement with tables and graphs that includes mathematical information e.g. the amount invested each day; the profit/loss on each day's trading; the percentage gains/losses each trading day and/or week.</p>

** From OFQUAL's subject criteria for Maths GCSE 2010. There may be minor variations in the UK's regional curricula e.g. Scotland's SCE.