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**Knowledge Rich Curriculum Plan**

Year 10 Higher+ Number 2



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| **Lesson/Learning Sequence** | **Intended Knowledge:**  *Students will know that…* | **Tiered Vocabulary** | **Prior Knowledge:**  *In order to know this…* | **Assessment** |
| **To learn how to solve problems involving percentages** | * Students will know how to solve multi-step worded problems involving percentages * Students will know how to solve problems involving simple interest * Students will know that VAT is tax you have to pay when you buy goods or services * Students will know that the standard rate of VAT in the UK is 20%. | **Interest -** a fee paid for borrowing money or other assets or an amount earned by saving money in a bank account that pays it  **VAT – Value Added Tax** – a tax that is applied to the purchase price of certain goods, services and other taxable supplies that are bought and sold within the UK. Standard VAT is 20%. | * Students should already know how to calculate percentages of amounts * Students should already know how to increase and decrease by a percentage | Exam Prep 2 |
| **To learn how to calculate percentage change, profit and loss** | * Students will know how to calculate percentage change, percentage profit and percentage loss both with and without a calculator (as appropriate) * Students will know that * Students will know that * Students will know that | **Profit –** a financial gain, the difference between the amount earned and the amount spent in buying, operating, or producing something | * Students should already know how to convert fractions to percentages | Exam Prep 2 |
| **To learn how to solve problems involving reverse percentages** | * Students will know how to find the original amount given the final amount after a percentage increase or decrease (reverse percentages), including VAT both with and without a calculator (as appropriate) |  | * Students will know how to solve proportion problems using the unitary method | Exam Prep 2 |
| **To learn how to calculate compound interest and depreciation** | * Students will know how to calculate a repeated percentage change including compound interest and depreciation * Students will know how to determine the number of years interest has been accrued for given the starting and end value * Students will know how to work out the interest rate when compound interest has been accrued for a given number of years, given the starting and end amounts | **Interest -** a fee paid for borrowing money or other assets or an amount earned by saving money in a bank account that pays it  **Compound Interest –** the interest on a loan or deposit that accrues on both the initial principal and the accumulated interest from previous periods.  **Depreciation –** a decrease in the value  **Accumulated –** built up over time  **Accrued –** received  **Initial –** starting/original amount  **Annum –** year | * Students will need to know how to increase by a percentage * Students will need to know how to convert percentages into decimals * Students will need to know how to solve linear equations using inverse operations | Exam Prep 2 |
| **To learn how to calculate income tax** | * Students will know how to carry out income tax calculations; * Students will need to be able to calculate percentages with and without a calculator. * Students will need to be able to calculate with the 4 operations. | **Tax –** a compulsory contribution to state revenue, levied by the government on workers' income and business profits, or added to the cost of some goods, services, and transactions. | * Students should already know how to find percentages of amounts | Exam Prep 2 |