

**Scheme of Work**

**Subject: Maths**

**Year Group: 11**

**Teacher: Michelle Gater**

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| **Sutton House Academy**  **Scheme of Work** | | | | | |
| **Academic Year:** | **From:**  **Sept 2020** | **To:**  **July 2021** | **Location:**  **Sutton House Academy** | | **Room:**  **Maths** |
| **Course Title:**  **Maths** | | | **Tutor/s:**  **Michelle Gater** | **Learning support: (if applicable) -** | |
| **Unit: (if applicable) -** | | | **Awarding Body:**  **Edexcel** | **Level:**  **MATHEMATICS FOR GCSE** | |
| **Overall aim of the programme:**  The aim of this course is to enable students to develop fluent knowledge, skills and understanding of mathematical methods and concepts. Acquire, select and apply mathematical techniques to solve problems. To reason mathematically, make deductions and inferences and draw conclusions. To be able to comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context. As per the Pearson GCSE curriculum. | | | | | |

**Spring Term**

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| **Week Number** | **Lesson Objectives/Outcomes**  **(SMART)** | | **Content**  **By the end of this unit pupils should be able to…** | **Resources** | **Differentiation** | **Literacy & Numeracy links/**  **NC** | **Assessment for Learning/Assessment method** |
| **Half Term** | | | | | | | |
| 73 | To be able to find fractions of amounts | Know how to calculate a fraction of an amount | | Mathematics for GCSE page 51 - 3 Exercises 1 & 2  Maths books  Pens  Rulers  Calculators | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 74 | To be able to multiply fractions | Know that you multiply the top numbers by the bottom numbers | | Mathematics for GCSE page 53 Exercises 3  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 75 | To be able to divide fractions | Know that you flip the second fractions then multiply | | Mathematics for GCSE page 55 Exercises 5  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 76 | To be able to write reciprocal numbers | Know that the reciprocal means turning it upside down | | Mathematics for GCSE page 54 Exercises 4  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 77 | To be able to add and subtract fractions | Know that denominators need to be the same | | Mathematics for GCSE page 48 Exercises 1  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 78 | To be able to change between fractions, decimals and percentages | Know the formulas for changing between fractions, decimals and percentages | | Board work  Maths books  Pens  Rulers  Calculators | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 79 | To be able to solve fraction related problems | To be able to solve exam style fraction questions | | Mathematics for GCSE page 60 Exercises 1  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 80 | To be able to go over work , so far, and identify learning gaps | To go over learning, so far, and find learning gaps | | Various worksheets / books as appropriate  Maths books  Pens  Rulers  Calculators | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 81 | Practice exams -assessment week | Able to attempt a practice exam at a level appropriate to self under exam conditions | | Resources 13  Pens  Pencil  Calculator  Ruler  Protractor | Differentiated exams at appropriate level for individual | Reading  writing | Teacher assessment |
| 82 | Practice exams -assessment week | Able to attempt a practice exam at a level appropriate to self under exam conditions | | Resources 13  Pens  Pencil  Ruler  Protractor | Differentiated exams at appropriate level for individual | Reading  writing | Teacher assessment |
| 83 | Practice exams -assessment week | Able to look at exams and see how they could have achieved a better grade. | | Resources 13  Pens  Pencil  Calculator  Ruler  Protractor | Differentiated exams at appropriate level for individual | Reading  Discussion | Teacher assessment  Student assessment  Peer assessment |
| 84 | Practice exams -assessment week | Able to look at exams and see how they could have achieved a better grade. | | Resources 13  Pens  Pencil  Calculator  Ruler  Protractor | Differentiated exams at appropriate level for individual | Reading  Discussion | Teacher assessment  Student assessment  Peer assessment |
| 85 | To be able to find multiples of numbers | Know that a multiple of a number is in its times table | | Mathematics for GCSE page 34 Exercise 1  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 86 | To be able to find factors of numbers | Know that a factor of a number is something that divides into it exactly | | Mathematics for GCSE page 35 Exercise 2  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 87 | To be able to recognise prime numbers | Know that a prime numbers has no factors except itself and 1 | | Mathematics for GCSE page 36 Exercises 1  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 88 | To be able to write a number a s a product of primes | Whole numbers that are not prime can be broken down into prime factors | | Mathematics for GCSE page 37 Exercises 2  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 89 | To be able to find the LCM of a set of numbers | Know that the LCM of numbers is the smallest of their common multiples | | Mathematics for GCSE page 38 Exercises 1, 2 & 3  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 90 | To be able to find the HCF of a set of numbers | Know that the HCF is the biggest number that divides into them exactly | | Mathematics for GCSE page 40 Exercises 3  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 91 | To be able to list the first few terms of a sequence using term to term rules | Know that a sequence is a list of numbers or shapes that follows a particular rule | | Mathematics for GCSE page 127 Exercises 1, 2 & 3  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 92 | To be able to list the terms of a sequence using position to term rules | Know that n = the position in the sequence | | Mathematics for GCSE page 130 Exercises 1 & 2  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 93 | To be able to fin d the position to term rules | To be able to write a formula for the nth term | | Mathematics for GCSE page 132 Exercises 1 & 2  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 94 | To be able to read and interpret simple pie charts | To be able to interpret a simple pie chart to interpret data being displayed. | | Mathematics for GCSE page 335 Exercise 2  Maths books  Pens  Rulers  protractor  Calculators | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 95 | To be able t draw a pie charts accurately | To be able to show data in the form of a pie chart – know that angles must add up to 360˚ | | Mathematics for GCSE page 333 Exercise 1  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |
| 96 | To be able to read and create scatter graphs and explain correlation | Know that a scatter graph shows two variables plotted against each other | | Mathematics for GCSE page 338 Exercise 1 & 2  Maths books  Pens  Rulers | Differentiated levels appropriate to individual students as per levels and stage. See weekly plan. Extension tasks | Discussion  Reading questions | Peer assessment  Teacher evaluation of work completed |

**End of Spring term**