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| **Phase One: Performance Information Analysis and Outcome Focussed Planning** |
| **Step One: Analyse pupil performance information** |
| Through analysis of pupil performance information identify a *small* group *(4-6)* of low-performing learners to target in order to improve outcomes (attendance, attainment, exclusion/inclusion, engagement, participation).  **Target Group:** P6  **Number of Pupils:** 11  **Detail the rationale for selection** (SIMD, gender, LAC, ethnicity, lowest performing 20%):  **Attainment:** Lower attainment in Numeracy than in Literacy  **Support:** Lowest Performing 20%  **Health and Wellbeing:** Confidence/Anxiety |
| **Step Two: Identify SMART outcomes for the target group** |
| Following intervention, what improvements would you expect to see? *It might be helpful to review these outcomes following completion of Phase 2.*  **Expected SMART outcomes (attendance, attainment, exclusion/inclusion, engagement, participation):**   * Improved attainment in Numeracy (Components TBC – perhaps Fractions, Percentages, Ratio) * Increased staff confidence in using engaging approaches * Increased confidence in own abilities * Increased use of effective strategies to build confidence and self-esteem * Increased independence and engagement in Numeracy |

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| **Phase Two: Exploring and Understanding the Target Group’s Performance** | |
| **Step One: Explore the strengths of and pressures on your target group** | |
| What are the factors that impact (positively/negatively) on this identified group of learners? | |
| **Strengths/Positive Factors:**   * Reinforcement and Consolidation * Positive relationships with teaching staff * Nurturing approaches * Praise and encouragement * High but realistic expectations | **Pressures/Negative Factors:**   * Pedagogy – Differentiation/Targeted Support * Assessment should inform specific areas of focus * Deployment of teaching staff * Emotional/Mental Wellbeing - Low self-confidence in own abilities * Lack of engagement in Numeracy * Use of more engaging/exciting approaches is required (digital approaches) |
| **Step Two: Evaluating the significance of the factors identified** | |
| Consider ways in which you can test (confirm/disprove) the significance of the factors outlined (e.g. existing school information, research evidence, assessment, professional enquiry, questionnaires, focus groups). | |
| **Confirmed strengths/positive factors:**  **Nurturing approaches (eg. NLP, CBT, Bounce Back)** Professional Enquiry/Research Evidence  **High but realistic expectations**  Pre and Post Assessment  Analysis of P5 Standardised Test Data | **Confirmed pressures/negative factors:**  **Pedagogy – Differentiation/Targeted Support**  Existing School Information  On-going Assessment  **Health and Wellbeing**  Leuven Scale (Pre and Post-intervention)  **Engaging Approaches**  Pupil Questionnaire |



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| **Phase Three: Intervention and Evaluation Planning** |
| **Step One: Identifying evidenced based interventions through research/professional enquiry** |
| **3.1.1. Evidence Based Research**   |  | | --- | | **Mastery Learning** | | ***John Hopkins: A Mastery Learning Manual*** | | Properly implemented, mastery learning strategies have been useful in increasing the level of achievement of students who meet the minimum standards of participation. Higher levels of retention and future application of skills have been documented […] Using mastery learning techniques, the learner tends to become more interested in the content being learned and feels more competent as a learner […] Recent evidence suggests that extended time under mastery conditions during the primary school years can have an impact on more general affective characteristics which parallel the dimensions of positive mental health. It is likely that these concerns, the motivation for future learning and the impact on personal adequacy, will have an effect comparable to the cognitive outcomes of the mastery strategy on the student's adaptation to future learning experiences. | | ***Thomas R. Guskey: Lessons of Mastery Learning*** | | Bloom believed that nearly all students, when provided with the more favorable learning conditions of mastery learning, could truly master academic content (Bloom, 1976; Guskey, 1997a). A large body of research has borne him out: When compared with students in traditionally taught classes, students in well-implemented mastery learning classes consistently reach higher levels of achievement and develop greater confidence in their ability to learn and in themselves as learners (Anderson, 1994; Guskey & Pigott, 1988; Kulik, Kulik, & Bangert-Drowns, 1990) |  |  | | --- | | **Precision Training** | | Precision Teaching is an engaging, systematic intervention for evaluating the impact of teaching. The methodology aims to improve attainment and accuracy in Numeracy in individual pupils in short, regular sessions (20 mins per day) using the Numeracy Map App on I-pads. Precision Teaching methodology has been found to achieve an improvement of almost twice (x1.8) the progress rate of learning specific skills compared to other intervention methodologies (Brooks 2007). Precision teaching was found to be effective in raising skills in five reviewed studies and these findings were found to be significant (Freedom 2012). |   **3.1.2. What actions could you take to build on the identified strengths of the target group?**   * Create a nurturing and motivational environment for the intervention * Engage and excite pupils about the brand new approach and their involvement in its trial * Having a small group to ensure pupils are focused and to maximise productive learning time * Everyday sessions to build on staff/pupil relationships   **3.1.3. Are there areas where the evidence base for improvement is weak?**  There is a lack of evidence of the long-term impact of this specific intervention (Maths on Track). |
| **Step Two: Action Planning** |
| **3.2.1. What are you going to do? (See Appendix 2 for more detail)**   * Implement small group sessions * Introduce New App (Maths on Track) * Develop speed and accuracy within the four Numeracy operations (Add, Subtract, Multiply and Divide) * Monday – 45 minutes, Tuesday-Friday – 20 minutes * Pre and Post Numeracy Operations Assessment * Pre and Post Leuven Scale Questionnaire * Post Form on GLOW with questions on pupil perceptions of the App   **3.2.2. What are the timescales**?  The project will run for 8 weeks from January to March 2018.  **3.2.3. Who is going to be involved?**  Our Lady of the Missions Primary School and Eaglesham Primary School: One lead teacher from each school (Marie Kane and Janet Bell), Link Educational Psychologist (Eddie McGhee), Education Development Officer for Assessment and Moderation (Jaclyn Andrews).  **3.2.4. How will the intervention be evaluated in the short and long term?**  **Table 3: Table of Measures**  The table below displays the quantitative and qualitative measures that will be used during the project**.**   |  |  |  | | --- | --- | --- | |  | Quantitative Measure | Qualitative Measure | | Mental Agility | Targeted Pre and Post Numeracy assessments (Appendix 1) | Formative Assessment during teacher-led sessions and pupil use of the app (Appendix 3) | | Pupil Engagement, Motivation and involvement in learning | Targeted group Leuven Scale (Appendix 4) | Comments from Scale  Observations during sessions | | Overall impact and evaluation of the project | Pupil evaluations  Teacher evaluations | Pupil evaluations (comments)  Teacher evaluations (comments) |   **3.2.5. Do you intend to have a control/comparison group (i.e. a group of pupils who have similar needs who do not receive the intervention but take part in the pre and post evaluation for comparison purposes)?**  Yes, it was discussed and decided that it would be beneficial to include a control group of children to help evaluate the direct correlation between the intervention and attainment. Otherwise it could be difficult to ascertain the extent to which the intervention was successful. |

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| **Phase Four: Action (Implement intervention)** |
| **Progress Update: 14th March 2018**  **Our Research Question**  To what extent does engagement with the Maths on Track Numeracy Map App improve pupils’ understanding of the four operations (addition, subtraction, multiplication, division)?  **8 Week Intervention – 29th January – 20th April**  Delayed start due to ipad access, 2 extended weeks due to February weekend and snow days resulting in finishing after the Easter break   * Pre-Intervention Assessment completed (OLM Control Group included) * Pre-Intervention Leuven Engagement Scale completed * Teacher-led inputs for Weeks 1-5 completed * Daily pupil access to Numeracy Map App |

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| **Phase Five: Evaluation and Reflection** |
| **Step One: Measuring impact and outcomes** |
| **Following evaluation of the intervention (as planned in phase 3):**  **What impact has the intervention had?**  The intervention appears to have had a positive impact on all participants. Pupils have reported increased engagement with the four number operations through the digital approach and all pupils were engaged throughout. Pupils have also commented on noticing improvements in accuracy and pace when answering number questions. All pupils scored higher in post-intervention assessments than pre-intervention assessments.  See tables for results.  OLM 1-5 (=1-5)  Eaglesham 6-11 (=1-6)  OLM 1-5 (=1-5)  Eaglesham 6-11 (=1-6)  **Have the SMART outcomes been achieved? Please describe.**   |  |  | | --- | --- | | **Expected SMART outcomes (attendance, attainment, exclusion/inclusion, engagement, participation):** | **Evaluation** | | * Improved attainment in Numeracy (Components TBC – perhaps Fractions, Percentages, Ratio) | Components changed to the four number operations due to consideration of ST results. All participants showed improvements. | | * Increased staff confidence in using engaging approaches | Key staff developed knowledge of the Numeracy Map App which could be shared with colleagues moving forward. | | * Increased confidence in own abilities | Pupils expressed increased confidence in their abilities, particularly within multiplication and speed of recall | | * Increased use of effective strategies to build confidence and self-esteem | All participants responded well to the digital approach. | | * Increased independence and engagement in Numeracy | Long-term impact is unknown however some teachers have noted some improvements in accuracy of addition, subtraction, multiplication and division. All pupils showed improvements or consistency in engagement levels. | |
| **Step Two: Critical Reflection** |
| **What have you learned?**   * Digital approaches engage and motivate pupils * Small group sessions enable pupils to develop confidence * Pupils responded well to repetition and consolidation   **What went well?**   * Pupils were engaged in the use of the digital approach * Pupils experienced success in completing calculations with increasing accuracy when using the app * Pupils developed confidence in their own abilities within Numeracy * Pupil attendance was high which maximised learning time * All pupils achieved higher scores in the post-intervention assessment than the pre-intervention assessment   **What didn’t work so well?**   * The ‘practice’ section taught the reverse method of multiplication which was confusing * Overall, pupils didn’t show significant gains in scores   **Is there anything that could have been done better?**   * More time could have been spent on mixed questions rather than discreet weekly focuses * The ‘time limit’ element of the pre and post-intervention assessments could have been removed and more focus placed on accuracy of answers |
| **Step Three: Planning for Improvement** |
| **What are you going to do now?**  Due to the fact that the Numeracy Map App engaged and motivated pupils and all pupils received higher scores when comparing pre and post-intervention assessments we aim to use the app for targeted pupils moving forward. The cost of the app is minimal to enable struggling pupils to access it. With more consistent use we hope improvements will be shown. We will engage in further evaluation of the impact of the resource as appropriate.  **Recommendations for future implementation**   * Remove time restriction on assessment * Use the ‘Quiz’ section of the app only as the practice section teaches the reverse method * Encourage mixed coverage of concepts instead of discreet focuses on each component (if used with upper school pupils) * Encourage use of the app with younger pupils as they learn the multiplication tables (discreet coverage is more appropriate in this context) |

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| 15 + 4 | 12 + 17 |  |
| of 24 | of 18 | – 7 |
| 27 – 15 | 36 + 49 | 54 ÷ 6 |
| 81÷ 9 | 43 – 12 | 30 – 11 |
|  | 15 + 3 | 16 + 7 |
| of 27 | 4 7 | 9 3 |
| 45 – 16 | 36 ÷ 9 | 28 ÷ 7 |
| 6 x 8 | 8 9 | 59 – 37 |
| 32 + 15 | 19 + 17 |  |
| 56 ÷ 8 | 56 – 23 | of 48 |
| – 27 | 29 + 10 | 19 + 14 |
| 4 5 | 36 – 18 | 11 7 |

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| **Numeracy Map – Timeline** | |
| **Friday 19th January** | **Pre-Intervention Assessment** |
| **Week 1 - 22nd January** | **+ or – within 20**  **+ or – within 100** |
| **Week 2 – 29th January** | **x or ÷ by 3**  **find 1/3** |
| **Week 3 – 5th February** | **x or ÷ by 4**  **find 1/4** |
| **12th February – 3 day week – no intervention** | |
| **Week 4 – 19th February** | **x or ÷ by 6**  **find 1/6** |
| **Week 5 – 26th February** | **x or ÷ by 7**  **find 1/7** |
| **Week 6 – 5th March** | **x or ÷ by 8**  **find 1/8** |
| **Week 7 – 12th March** | **x or ÷ by 9**  **find 1/9** |
| **Week 8 – 19th March** | **÷ with remainders** |
| **Monday 26th March** | **Post-Intervention Assessment** |

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| **Numeracy Map – Timeline – Lesson Overview** | |
| **Pre-Intervention Assessment**  **Friday 19th January** | No direct teaching  Paper Copies of Assessment (See Appendix 1)  Laminated Hundred Square for each pupil |
| **Lesson 1**  **Monday 22nd January** | Introduction of large scale Hundred Square- <http://www.primarygames.co.uk/pg2/splat/splatsq100.html>  Teaching the purpose of the Hundred Square as a helpful learning tool. Identifying and recognising visual patterns within the square – 1, 11, 21, odd and even numbers, multiples of 5  Practical focus - Engagement with movement (+/-) around the Hundred Square |
| Stage 1 – numbers within 20, no bridging | 2 + 6, 12 + 6, 4 + 5, 14 + 5, 1 + 7, 11 + 7, 10 – 3, 20 – 3, 6 – 5, 16 – 5, 8 – 4, 18 – 4 |
| Stage 2 – numbers within 20 and just beyond, with bridging | 9 + 2, 19 + 2, 8 + 4, 18 + 4, 6 + 7, 16 + 7, 11 – 3, 21 – 3, 13 – 4, 23 – 4, 15 – 6, 25 – 6 |
| Stage 3 – numbers within 100, no bridging | 36 + 3, 42 + 5, 57 + 2, 61 + 8, 73 + 4, 82+ 7, 97 – 3, 82 – 2, 78 – 5, 64 – 3, 57 – 5, 49 – 6 |
| Stage 4 - numbers within 100, with bridging | 39 + 2, 46 + 5, 57 + 4, 62 + 9, 73 + 8, 84 + 9, 92 – 4, 81 – 3, 76 – 7, 65 – 6, 52 – 8, 47 – 9 |
| Stage 5 – two-digit numbers within 100, no bridging | 12 + 16, 36 + 23, 13 + 12, 14 + 35, 31 + 17, 22 + 47, 37 - 24, 53 - 21, 56 – 15, 46 – 25, 78 – 34, 98 – 43 |
| Stage 6 – two-digit numbers within 100, with bridging | 27 + 28, 32 + 49, 63 + 28, 54 + 37, 29 + 63, 47 + 59, 31 – 12, 82 – 48, 55 – 37, 62 – 48, 71 – 54, 95 – 77 |
| End of Session Quiz (Mixture) | 15 + 4, 78 – 45, 38 + 16, 97 – 88, 24 + 65, 82 – 47, 53 + 19, 64 – 17, 99 – 21, 66 + 34 |
| **Tuesday 23rd, Wednesday 24th,**  **Thursday 25th, Friday 26th** | Pupils use Numeracy Map App to reinforce teaching.  Level 2 - + or – within 20, + or – within 100 |

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| **Lesson 2**  **Monday 29th January** | Quick recap of Lesson 1 using End of Session Quiz - 15 + 4, 78 – 45, 38 + 16, 97 – 88, 24 + 65, 82 – 47, 53 + 19, 64 – 17, 99 – 21, 66 + 34  Oral recitation of 3 multiplication table  Introduction to multiplying and dividing by 3 and finding 1/3 using the hundred square |
| Stage 1 – identifying multiples | Pupils circle multiples of 3 on laminated hundred square (within 36)  Teacher confirms answers using Splat - <http://www.primarygames.co.uk/pg2/splat/splatsq100.html>  Reinforce importance of the order of digits within the examples (2 x 3 not 3 x 2) |
| Stage 2 – multiplication by 3 | 2 x 3, 11 x 3, 4, x 3, 3 x 3, 10 x 3, 7 x 3, 5 x 3, 8 x 3, 12 x 3, 6 x 3, 1 x 3, 9 x 3 |
| Stage 3 – division by 3/finding 1/3 | 18 ÷ 3, 24 ÷ 3, 36 ÷ 3, 9 ÷ 3, 12 ÷ 3, 27 ÷ 3, 33 ÷ 3, 21 ÷ 3, 3 ÷ 3, 6 ÷ 3, 15 ÷ 3. 30 ÷ 3 |
| End of Session Quiz | 5 x 3, 24 ÷ 3, 7 x 3, 15 ÷ 3, 9 x 3, 36 ÷ 3, 4 x 3, 27 ÷ 3, 3 x 3, 33 ÷ 3 |
| **Tuesday 30th, Wednesday 31st,**  **Thursday 1st, Friday 2nd** | Pupils use Numeracy Map App to reinforce teaching.  Level 2 – x or ÷ by 3, finding 1/3 |

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| **Lesson 3**  **Monday 5th February** | Quick recap of Lesson 1 using End of Session Quiz - 5 x 3, 24 ÷ 3, 7 x 3, 15 ÷ 3, 9 x 3, 36 ÷ 3, 4 x 3, 27 ÷ 3, 3 x 3, 33 ÷ 3  Oral recitation of 4 multiplication table  Introduction to multiplying and dividing by 4 and finding 1/4 using the hundred square |
| Stage 1 – identifying multiples | Pupils circle multiples of 4 on laminated hundred square (within 48)  Teacher confirms answers using Splat - <http://www.primarygames.co.uk/pg2/splat/splatsq100.html>  Reinforce importance of the order of digits within the examples (2 x 4 not 4 x 2) |
| Stage 2 – multiplication by 4 | 2 x 4, 11 x 4, 4, x 4, 3 x 4, 10 x 4, 7 x 4, 5 x 4, 8 x 4, 12 x 4, 6 x 4, 1 x 4, 9 x 4 |
| Stage 3 – division by 4/finding 1/4 | 16 ÷ 4, 24 ÷ 4, 36 ÷ 4, 12 ÷ 4, 20 ÷ 4, 4 ÷ 4, 40 ÷ 4, 8 ÷ 4, 48 ÷ 4, 28 ÷ 4, 32 ÷ 4. 44 ÷ 4 |
| End of Session Quiz | 7 x 4, 32 ÷ 4, 9 x 4, 24 ÷ 4, 6 x 4, 40 ÷ 4, 8 x 4, 36 ÷ 4, 5 x 4, 28 ÷ 4 |
| **Tuesday 6th, Wednesday 7th**  **Thursday 8th, Wednesday 14th** | Pupils use Numeracy Map App to reinforce teaching.  Level 2 – x or ÷ by 4, finding 1/4 |

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| **Lesson 4**  **Monday 19th February** | Quick recap of Lesson 1 using End of Session Quiz - 7 x 4, 32 ÷ 4, 9 x 4, 24 ÷ 4, 6 x 4, 40 ÷ 4, 8 x 4, 36 ÷ 4, 5 x 4, 28 ÷ 4  Oral recitation of 6 multiplication table  Introduction to multiplying and dividing by 6 and finding 1/6 using the hundred square |
| Stage 1 – identifying multiples | Pupils circle multiples of 6 on laminated hundred square (within 72)  Teacher confirms answers using Splat - <http://www.primarygames.co.uk/pg2/splat/splatsq100.html>  Reinforce importance of the order of digits within the examples (2 x 6 not 6 x 2) |
| Stage 2 – multiplication by 6 | 2 x 6, 11 x 6, 4, x 6, 3 x 6, 10 x 6, 7 x 6, 5 x 6, 8 x 6, 12 x 6, 6 x 6, 1 x 6, 9 x 6 |
| Stage 3 – division by 6/finding 1/6 | 54 ÷ 6, 72 ÷ 6, 18 ÷ 6, 6 ÷ 6, 12 ÷ 6, 60 ÷ 6, 36 ÷ 6, 42 ÷ 6, 24 ÷ 6, 48 ÷ 6, 30 ÷ 6, 66 ÷ 6 |
| End of Session Quiz | 7 x 6, 54 ÷ 6, 9 x 6, 12 ÷ 6, 4 x 6, 24 ÷ 6, 2 x 6, 18 ÷ 6, 3 x 6, 42 ÷ 6 |
| **Tuesday 20th, Wednesday 21st**  **Thursday 22nd, Friday 23rd** | Pupils use Numeracy Map App to reinforce teaching.  Level 2 – x or ÷ by 6, finding 1/6 |

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| **Lesson 5**  **Monday 26th February** | Quick recap of Lesson 1 using End of Session Quiz - 7 x 6, 54 ÷ 6, 9 x 6, 12 ÷ 6, 4 x 6, 24 ÷ 6, 9 x 6, 18 ÷ 6, 3 x 6, 42 ÷ 6  Oral recitation of 7 multiplication table  Introduction to multiplying and dividing by 7 and finding 1/7 using the hundred square |
| Stage 1 – identifying multiples | Pupils circle multiples of 7 on laminated hundred square (within 84)  Teacher confirms answers using Splat - <http://www.primarygames.co.uk/pg2/splat/splatsq100.html>  Reinforce importance of the order of digits within the examples (2 x 7 not 7 x 2) |
| Stage 2 – multiplication by 7 | 2 x 7, 11 x 7, 4, x 7, 3 x 7, 10 x 7, 7 x 7, 5 x 7, 8 x 7, 12 x 7, 6 x 7, 1 x 7, 9 x 7 |
| Stage 3 – division by 7/finding 1/7 | 56 ÷ 7, 28 ÷ 7, 14 ÷ 7, 77 ÷ 7, 63 ÷ 7, 21 ÷ 7, 49 ÷ 7, 35 ÷ 7, 84 ÷ 7, 70 ÷ 7, 42 ÷ 7, 7 ÷ 7 |
| End of Session Quiz | 7 x 7, 42 ÷ 7, 9 x 7, 14 ÷ 7, 3 x 7, 63 ÷ 7, 12 x 7, 28 ÷ 7, 5 x 7, 56 ÷ 7 |
| **Tuesday 27th, Wednesday 28th**  **Thursday 1st, Friday 2nd** | Pupils use Numeracy Map App to reinforce teaching.  Level 2 – x or ÷ by 7, finding 1/7 |

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| **Lesson 6**  **Monday 5th March** | Quick recap of Lesson 1 using End of Session Quiz - 7 x 7, 42 ÷ 7, 9 x 7, 14 ÷ 7, 3 x 7, 63 ÷ 7, 12 x 7, 28 ÷ 7, 5 x 7, 56 ÷ 7  Oral recitation of 8 multiplication table  Introduction to multiplying and dividing by 8 and finding 1/8 using the hundred square |
| Stage 1 – identifying multiples | Pupils circle multiples of 8 on laminated hundred square (within 96)  Teacher confirms answers using Splat - <http://www.primarygames.co.uk/pg2/splat/splatsq100.html>  Reinforce importance of the order of digits within the examples (2 x 8 not 8 x 2) |
| Stage 2 – multiplication by 8 | 2 x 8, 11 x 8, 4, x 8, 3 x 8, 10 x 8, 7 x 8, 5 x 8, 8 x 8, 12 x 8, 6 x 8, 1 x 8, 9 x 8 |
| Stage 3 – division by 8/finding 1/8 | 56 ÷ 8, 32 ÷ 8, 40 ÷ 8, 88 ÷ 8, 16 ÷ 8, 72 ÷ 8, 96 ÷ 8, 24 ÷ 8, 48 ÷ 8, 80 ÷ 8, 64 ÷ 8, 8 ÷ 8 |
| End of Session Quiz | 10 x 8, 32 ÷ 8, 6 x 8, 64 ÷ 8, 4 x 8, 48 ÷ 8, 8 x 8, 16 ÷ 8, 3 x 8, 88 ÷ 8 |
| **Tuesday 6th, Wednesday 7th**  **Thursday 8th, Friday 9th** | Pupils use Numeracy Map App to reinforce teaching.  Level 2 – x or ÷ by 8, finding 1/8 |

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| **Lesson 7**  **Monday 12th March** | Quick recap of Lesson 1 using End of Session Quiz - 10 x 8, 32 ÷ 8, 6 x 8, 64 ÷ 8, 4 x 8, 48 ÷ 8, 8 x 8, 16 ÷ 8, 3 x 8, 88 ÷ 8  Oral recitation of 9 multiplication table  Introduction to multiplying and dividing by 9 and finding 1/9 using the hundred square |
| Stage 1 – identifying multiples | Pupils circle multiples of 9 on laminated hundred square (within 108)  Teacher confirms answers using Splat - <http://www.primarygames.co.uk/pg2/splat/splatsq100.html>  Reinforce importance of the order of digits within the examples (2 x 9 not 9 x 2) |
| Stage 2 – multiplication by 9 | 2 x 9, 11 x 9, 4, x 9, 3 x 9, 10 x 9, 7 x 9, 5 x 9, 8 x 9, 12 x 9, 6 x 9, 1 x 9, 9 x 9 |
| Stage 3 – division by 9/finding 1/9 | 63 ÷ 9, 27 ÷ 9, 90 ÷ 9, 45 ÷ 9, 99 ÷ 9, 18 ÷ 9, 81 ÷ 9, 54 ÷ 9, 9 ÷ 9, 36 ÷ 9, 72 ÷ 9, 108 ÷ 9 |
| End of Session Quiz | 2 x 9, 27 ÷ 9, 6 x 9, 72 ÷ 9, 8 x 9, 99 ÷ 9, 4 x 9, 54 ÷ 9, 3 x 9, 36 ÷ 9 |
| **Tuesday 13th, Wednesday 14th**  **Thursday 15th, Friday 16th** | Pupils use Numeracy Map App to reinforce teaching.  Level 2 – x or ÷ by 9, finding 1/9 |

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| **Lesson 8**  **Monday 19th March** | Quick recap of Lesson 1 using End of Session Quiz - 2 x 9, 27 ÷ 9, 6 x 9, 72 ÷ 9, 8 x 9, 99 ÷ 9, 4 x 9, 54 ÷ 9, 8 x 9, 36 ÷ 9  Oral recitation of all multiplication tables |
| Stage 1 – Dividing by 3 with remainders | Pupils circle multiples of 3 on laminated hundred square (within 36)  Example Question: 10 ÷ 3  Step 1: Teach pupils to find how many multiples of 3 are within the given number eg. there are 3 sets of 3 within 10.  Step 2: from the closest multiple (9) pupils count on to find the remainder (1)  **Questions**  19 ÷ 3, 26 ÷ 3, 38 ÷ 3, 11 ÷ 3, 14 ÷ 3, 26 ÷ 3 |
| Stage 2 – Dividing by 4 with remainders | Pupils circle multiples of 4 on laminated hundred square (within 48)  Example Question: 15 ÷ 4  Step 1: Teach pupils to find how many multiples of 4 are within the given number eg. there are 3 sets of 4 within 15.  Step 2: from the closest multiple (12) pupils count on to find the remainder (3)  **Questions**  18 ÷ 4, 26 ÷ 4, 37 ÷ 4, 10 ÷ 4, 7 ÷ 4, 22 ÷ 4 |
| Stage 3 – Dividing by 6 with remainders | Pupils circle multiples of 6 on laminated hundred square (within 72)  Example Question: 29 ÷ 6  Step 1: Teach pupils to find how many multiples of 6 are within the given number eg. there are 4 sets of 6 within 29.  Step 2: from the closest multiple (24) pupils count on to find the remainder (5)  **Questions**  52 ÷ 6, 73 ÷ 6, 21 ÷ 6, 7 ÷ 6, 15 ÷ 6, 65 ÷ 6 |
| Stage 4 – Dividing by 7 with remainders | Pupils circle multiples of 7 on laminated hundred square (within 84)  Example Question: 53 ÷ 7  Step 1: Teach pupils to find how many multiples of 7 are within the given number eg. there are 7 sets of 7 within 53.  Step 2: from the closest multiple (49) pupils count on to find the remainder (4)  **Questions**  59 ÷ 7, 29 ÷ 7, 17 ÷ 7, 81 ÷ 7, 65 ÷ 7, 47÷ 7 |
| Stage 5 – Dividing by 8 with remainders | Pupils circle multiples of 8 on laminated hundred square (within 96)  Example Question: 75 ÷ 8  Step 1: Teach pupils to find how many multiples of 8 are within the given number eg. there are 9 sets of 8 within 75.  Step 2: from the closest multiple (72) pupils count on to find the remainder (3)  **Questions**  59 ÷ 8, 37 ÷ 8, 46 ÷ 8, 92 ÷ 8, 15 ÷ 8, 77 ÷ 8 |
| Stage 6 – Dividing by 9 with remainders | Pupils circle multiples of 9 on laminated hundred square (within 108)  Example Question: 88 ÷ 9  Step 1: Teach pupils to find how many multiples of 9 are within the given number eg. there are 9 sets of 9 within 88.  Step 2: from the closest multiple (81) pupils count on to find the remainder (7)  **Questions**  66 ÷ 9, 31 ÷ 9, 95 ÷ 9, 48 ÷ 9, 89 ÷ 9, 16 ÷ 9 |
| End of Session Quiz | 65 ÷ 7, 86 ÷ 8, 42 ÷ 9, 16 ÷ 3, 11 ÷ 2, 45 ÷ 6, 77 ÷ 10, 28 ÷ 5, 26 ÷ 4 |
| **Tuesday 20th, Wednesday 21st**  **Thursday 22nd, Friday 23rd** | Pupils use Numeracy Map App to reinforce teaching.  Level 2 – x or ÷ by 9, finding 1/9 |