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| **KS2 Arithmetic P1 2017****Addition and subtraction** | **Knowledge/ strategy** | **Pupils who need further teaching to address gaps in understanding****Date:** |
| 40 + 1,000 =  | Any multiple of 10 + 1000Using understanding of PV  |  |
|  | Any 4 digit number – 100Using understanding of PV |  |
| 345 − 60 =  | Subtracting multiples of 10 from any 3 digit numberPartitioning multiples of 10 using number bond for U (eg 6/ 60) to bridge 100s boundary |  |
|  | Any3/ 4 digit numbers /multiples of 500, 100 etc seen as mental strategyUsing bar model imagery |  |
| 707 + 1,818 =  | Any 3digit + 4 digit numberKnowing/ checking reasonable answer ( rounding)Using formal method |  |
|  | Any 4 digit- 3 digit numberKnowing/ checking reasonable answer ( rounding)Using formal method |  |
| 2.7 + 3.014 =  | Any number to tenths + 4 dp decimalKnowing/ checking reasonable answer (PV &rounding)No need for formal methods |  |
|  | Any 2 digit number to tenths - 3 dp decimalKnowing/ checking reasonable answer (PV &rounding)Using formal methods |  |
|  | Any whole number – decimal Knowing/ checking reasonable answerNumber line jotting  |  |
| 4/6 + 3/6 =  | Any addition of fractions with same denominator (to one and more than one whole)Link to U+U bonds as known fact |  |
|  | Any fractions linked to %/ PVSubtraction of fractions with same denominatorLink to TU-TU |  |
|  | Adding any 3 fractions different denominatorEquivalence ( bar model imagery/ fraction walls) |  |
|  | Subtraction with fractions different denominatorsEquivalence ( bar model imagery/ fraction walls) |  |
|  | Lowest Common denominatorEquivalence ( models, arithmetic methods using multiplying numerator and denominator ) |  |
|  | Mixed number additionManage whole number and fraction calculationEquivalence ( bar model imagery/ fraction wall) |  |

Key Stage 2 Arithmetic Paper 2017: addition and subtraction