## Summary of Grade Level Work

| Key Areas of Focus |  | Required Fluencies by Grade Level |  | Mental Strategies |
| :---: | :---: | :---: | :---: | :---: |
| K-2 | Addition and subtraction-concepts, skills, and problem solving; place value | K.OA. 5 | Add and subtract within 5 | Operations \& Algebraic Thinking |
|  |  | 1.0A. 6 | Add and subtract within 10 | -Counting |
|  |  | 2.0A. 2 | Add and subtract within 20 using strategies | -Making ten e.g., $8+6=8+2+4=10+4=14$ |
|  |  |  | By end of grade 2, know from memory all sums of two one-digit numbers | -Decomposing a number leading to a ten e.g., $13-4=13-3-1=10-1=9$ |
|  |  | 2.NBT. 5 | Add and subtract within 100 using strategies | -Using the relationship between addition and subtraction <br> e.g., knowing that $8+4=12$, one knows $12-8=4$ |
| 3-5 | Multiplication and division of whole numbers and fractions-concepts, skills and problem solving | 3.0A. 7 | Multiply and divide within 100 using strategies | -Using the relationship between multiplication and division |
|  |  |  | By the end of grade 3, know from memory all products of two one-digit numbers | e.g., knowing that $8 \times 5=40$, one knows $40 / 5=8$ <br> -Creating equivalent but easier or known sums E.g., adding $6+7$ by creating the known |
|  |  | 3.NBT. 2 | Add and subtract within 1000 using strategies and algorithms | equivalent $6+6+1=12+1=13$ |
|  |  | 4.NBT. 4 | Add and subtract within $1,000,000$ using the standard algorithm | -Place value <br> -Properties of operations |
|  |  | 5.NBT. 5 | Multi-digit multiplication using the standard algorithm | -Relationship between multiplication and division |

