**LONGHORN MATHEMATICS ACTIVITIES.**

**GRADE 5 SCHEMES OF WORK TERM 1**

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| **Week**  | **Lesson**  | **Strand**  | **Sub strand**  | **Specific learning outcomes** | **Key inquiry questions**  | **Learning experiences** | **Learning resources** | **Assessment**  | **Remarks** |
| **1** | **1** | **Numbers** | **Whole numbers: place value** | By the end of the sub strands, the learner should be able to: Use place value of digits up to hundreds of thousands in real life | Where is ordering of numbers used in real life?  | In pairs, groups or as individuals identify place value of digits up to hundreds of thousands using place value apparatus | Longhorn MathematicsGrade 5 pg. 1-2 | Written exercises Oral questions Observation Group discussion |  |
|  | **2** | **Numbers** | **Whole numbers: Total value** | By the end of the sub- strand, the learners should be able to:Use total value of digits up to hundreds of thousands in real life | Where is ordering of numbers used in real life? | learner is guided individually or in groups to:  In pairs, groups or as individuals identify total value of digits up to hundreds of thousands using place value apparatus. | Longhorn MathematicsGrade 5 pg.3-4 | Written exercises Oral questions Observation Group discussion |  |
|  | **3** | **Numbers** | **Whole numbers** | By the end of the sub- strand, the learners should be able to: Use numbers up to hundreds of thousands in symbols in real life | Where is ordering of numbers used in real life? | In pairs, groups or as individuals read numbers up to hundreds of thousands in symbols from number charts or cards. | Longhorn MathematicsGrade 5pg.5-6 | Written exercises Oral questions Observation Group discussion |  |
|  | **4** | **Numbers** | **Whole numbers** | By the end of the sub-strand, the learner should be able to:Read, write and relate numbers up to tens of thousands in words in real life | Where is ordering of numbers used in real life? | In pairs, groups or as individuals read and write numbers up to tens of thousands in words from number charts or cards. | Longhorn MathematicsGrade 5pg.7 | Written exercises Oral questions Observation Group discussion |  |
|  | **5** | **Numbers** | **Whole numbers** | By the end of the sub- strand, the learners should be able to:Order numbers up to tens of thousands in real life | Where is ordering of numbers used in real life? | In pairs, groups or as individuals read numbers up to hundreds of thousands in symbols from number charts or cards | Longhorn MathematicsGrade 5pg.8-10 | Written exercises Oral questions Observation Group discussion |  |
| **2** | **1** | **Numbers** | **Whole numbers** | By the end of the sub-strand, the learner should be able to:Round off numbers up to tens of thousands to the nearest hundred and thousand in different situations | Where is ordering of numbers used in real life? | In pairs, groups or as individuals round off numbers up to tens of thousands to the nearest hundred and thousand using number cards and share with other groups | Longhorn MathematicsGrade 5pg.11-13 | Written exercises Oral questions Observation Group discussion |  |
|  | **2** | **Numbers** | **Whole numbers** | By the end of the sub- strand, the learners should be able to:Apply divisibility tests of 2, 5 and 10 in real life | Where is ordering of numbers used in real life? | In pairs, groups or as individuals divide different numbers by 2, 5 and 10 and come up with divisibility rules | Longhorn MathematicsGrade 5pg.14-17 | Written exercises Oral questions Observation Group discussion |  |
|  | **3** | **Numbers** | **Whole numbers** | By the end of the sub- strand, the learners should be able to:Apply divisibility tests of 2, 5 and 10 in real life | Where is ordering of numbers used in real life? | In pairs, groups or as individuals divide different numbers by 2, 5 and 10 and come up with divisibility rules | Longhorn MathematicsGrade 5pg.14-17 | Written exercises Oral questions Observation Group discussion |  |
|  | **4** | **Numbers** | **Whole numbers** | By the end of the sub-strand, the learner should be able to:Identify Common Factor (HCF) and Greatest Common Divisor (GCD) in different situations | How do you find out whether a number can be divided by another? | In pairs, groups or as individuals identify factors and divisors of given numbers.  | Longhorn MathematicsGrade 5pg.18-20 | Written exercises Oral questions Observation Group discussion |  |
|  | **5** | **Numbers** | **Whole numbers** | By the end of the sub- strand, the learners should be able to:Identify Multiples of numbers | How do you find out whether a number can be divided by another? | In pairs, groups or as individuals identify multiples of given numbers. | Longhorn MathematicsGrade 5pg.20-21 | Written exercises Oral questions Observation Group discussion |  |
| **3** | **1** | **Numbers** | **Whole numbers** | By the end of the sub- strand, the learners should be able to:Use Least Common Multiple (LCM) in real life situations | How do you find out whether a number can be divided by another? | In pairs, groups or as individuals determine the least common multiple.  | Longhorn MathematicsGrade 5pg.21-22 | Written exercises Oral questions Observation Group discussion |  |
|  | **2** | **Numbers** | **Whole numbers** | By the end of the sub-strand, the learner should be able to:Use IT devices for learning more on whole numbers and leisureAppreciate use of whole numbers in real life situations | How do you find out whether a number can be divided by another? | In pairs or as individuals play digital games on involving numbers. | Longhorn MathematicsGrade 5pg.22 | Written exercises Oral questions Observation Group discussion |  |
|  | **3** | **Numbers** | **Addition** | By the end of the sub-strand, the learner should be able to:Add up to two 6 -digit numbers without regrouping up to a sum of 1,000,000 in different situations | How do you estimate the sum of givennumbers? | In pairs, groups or as individuals add up to three 6-digit numbers without regrouping up to 1,000,000 using place value apparatus  | Longhorn MathematicsGrade 5pg.23-25 | Written exercises Oral questions Observation Group discussion |  |
|  | **4** | **Numbers** | **Addition** | By the end of the sub- strand, the learners should be able to: Add up to three 6 -digit numbers with double regrouping up to a sum of 1,000,000 in different situations |  How do you estimate the sum of givennumbers? | In pairs, groups or as individuals add up to two 6-digit numbers with double regrouping up to 1,000,000 using place value apparatus  | Longhorn MathematicsGrade 5pg.26-29 | Written exercises Oral questions Observation Group discussion |  |
|  | **5** | **Numbers** | **Addition** | By the end of the sub- strand, the learners should be able to: Estimate sum by rounding off the addends to the nearest hundred and thousand in different situations | Where do we use addition in real life? | In pairs, groups or as individuals estimate sums by rounding off the addends to the nearest hundred and thousand using a number line. | Longhorn MathematicsGrade 5pg.30-32 | Written exercises Oral questions Observation Group discussion |  |
| **4** | **1** | **Numbers** | **Addition** | By the end of the sub-strand, the learner should be able to:Create patterns involving addition of numbers up to a sum of 1,000,000 in real life situations | How do you create patterns in addition?  | In pairs, groups or as individuals create patterns involving addition of numbers up to a sum of 1,000,000 using number cards and other resources | Longhorn MathematicsGrade 5pg.33-34 | Written exercises Oral questions Observation Group discussion |  |
|  | **2** | **Numbers** | **Addition** | By the end of the sub- strand, the learners should be able to:Use IT devices for learning more on addition of numbers and for enjoymentAppreciate use of addition of whole numbers in real life situations | How do you create patterns in addition? | In pairs play digital games involving addition | Longhorn MathematicsGrade 5pg.27 | Written exercises Oral questions Observation Group discussion |  |
|  | **3** | **Numbers** | **Subtraction** | By the end of the sub-strand the learner should be able to:Subtract up to 6-digit numbers without regrouping in real life situations | How do you work out estimate difference to the nearest hundred? | earner is guided individually or in groups to: In pairs, groups or as individuals subtract up to 6-digit numbers without regrouping using place value apparatus | Longhorn MathematicsGrade 5pg.36-37 | Written exercises Oral questions Observation Group discussion |  |
|  | **4** | **Numbers** | **Subtraction** | By the end of the sub- strand, the learners should be able to:subtract of up to 6-digit numbers with regrouping in different situations | How do you work out estimate difference to the nearest hundred? | In pairs, groups or as individuals subtract up to 6-digit numbers with regrouping using place value apparatus | Longhorn MathematicsGrade 5pg.38-39 | Written exercises Oral questions Observation Group discussion |  |
|  | **5** | **Numbers** | **Subtraction** | By the end of the sub- strand, the learners should be able to:estimate difference by rounding off the minuend to the nearest hundred and thousand in different situations | How do you work out estimate difference to the nearest hundred? | In pairs, groups or as individuals estimate difference by rounding off the minuend to the nearest hundred and thousand using a number line | Longhorn MathematicsGrade 5pg.40-41 | Written exercises Oral questions Observation Group discussion |  |
| **5** | **1** | **Numbers** | **Subtraction** | By the end of the sub- strand, the learners should be able to:estimate difference by rounding off the subtrahend to the nearest hundred and thousand in different situations | How do you work out estimate difference to the nearest hundred? | In pairs, groups or as individuals estimate difference by rounding off the subtrahend to the nearest hundred and thousand using a number line | Longhorn MathematicsGrade 5pg.40-41 | Written exercises Oral questions Observation Group discussion |  |
|  | **2** | **Numbers** | **Subtraction** | By the end of the sub- strand, the learners should be able to:Perform combined operations involving addition and subtraction in different situations | How do you work out estimate difference to the nearest hundred? | In pairs, groups or as individuals work out questions involving addition and subtraction | Longhorn MathematicsGrade 5pg.42-43 | Written exercises Oral questions Observation Group discussion |  |
|  | **3** | **Numbers** | **Subtraction** | By the end of the sub- strand, the learners should be able to:Create patterns involving subtraction from up to 1,000,000 in different situations | How can you create number patterns involving subtraction? | In pairs, groups or as individuals create patterns involving subtraction of whole numbers from up to 1,000,000 using number charts | Longhorn MathematicsGrade 5pg.44-45 | Written exercises Oral questions Observation Group discussion |  |
|  | **4** | **Numbers** | **Subtraction** | By the end of the sub-strand the learner should be able to:Use IT devices for learning more on subtraction of numbers and for enjoyment | How can you create number patterns involving subtraction? | In pairs or groups play digital games involving subtraction | Longhorn MathematicsGrade 5pg.46 | Written exercises Oral questions Observation Group discussion |  |
|  | **5** | **Numbers** | **Subtraction** | By the end of the sub-strand the learner should be able to:appreciate subtraction of numbers in real life situations | How can you create number patterns involving subtraction? | In pairs /in groups learners to play digital games involving subtraction play math puzzles | Longhorn MathematicsGrade 5pg.46 | Written exercises Oral questions Observation Group discussion |  |
| **6** | **1** | **Numbers** | **Multiplication** | By the end of the sub-strand the learner should be able to:multiply up to a 3-digit number by up to a 2-digit number in real life situations | Where is multiplication used in real life? | In pairs, groups or as individuals multiply up to a 3-digit number by up to a 2-digit number using different methods  | Longhorn MathematicsGrade 5pg.47-49 | Written exercises Oral questions Observation Group discussion |  |
|  | **2** | **Numbers** | **Multiplication** | By the end of the sub-strand the learner should be able to:Estimate product by rounding off factors to the nearest ten in different situations | How can you estimate products of numbers? | In pairs, groups or as individuals estimate product by rounding off factors | Longhorn MathematicsGrade 5pg.50-51 | Written exercises Oral questions Observation Group discussion |  |
|  | **3** | **Numbers** | **Multiplication** | By the end of the sub-strand the learner should be able to:Estimate product by using compatibility in different situations | How can you estimate products of numbers? | In pairs, groups or as individuals estimate product by using compatibility of numbers | Longhorn MathematicsGrade 5pg.51-52 | Written exercises Oral questions Observation Group discussion |  |
|  | **4** | **Numbers** | **Multiplication** | By the end of the sub-strand the learner should be able to: Estimate product to the nearest ten in different situations | How can you estimate products of numbers? | In pairs, groups or as individuals estimate product by own strategies. | Longhorn MathematicsGrade 5pg.52 | Written exercises Oral questions Observation Group discussion |  |
|  | **5** | **Numbers** | **Multiplication** | By the end of the sub-strand the learner should be able to:make patterns involving multiplication of numbers with product not exceeding 1000 in in different situations | How can you form patterns involving multiplication? | In pairs, groups or individuals make patterns involving multiplication with products not exceeding 1000 groups learners to:  | Longhorn MathematicsGrade 5pg.52-53 | Written exercises Oral questions Observation Group discussion |  |
| **7** | **1** | **Numbers** | **Multiplication** | By the end of the sub-strand the learner should be able to:Use IT devices for learning more on multiplication and for enjoyment | How can you form patterns involving multiplication? | In pairs or groups play digital games involving multiplication of whole numbers | Longhorn MathematicsGrade 5pg.53-54 | Written exercises Oral questions Observation Group discussion |  |
|  | **2** | **Numbers** | **Multiplication** | By the end of the sub-strand the learner should be able to:Appreciate use of multiplication in real life | How can you form patterns involving multiplication? | In pairs or groups play digital games involving multiplication of whole numbers | Longhorn MathematicsGrade 5pg.53-54 | Written exercises Oral questions Observation Group discussion |  |
|  | **3** | **Numbers** | **Division** | By the end of the sub-strand the learner should be able to:Divide up to a 3-digit number by up to a 2-digit number where the dividend is greater than the divisor in real life | Where is division used in real life? | In pairs, groups or as individuals divide up to a 3-digit number by up to a 2-digit number where the dividend is greater than the divisor using long and short form  | Longhorn MathematicsGrade 5pg.55-58 | Written exercises Oral questions Observation Group discussion |  |
|  | **4** | **Numbers** | **Division** | By the end of the sub- strand, the learners should be able to:Apply the relationship between multiplication and division in different situations | Where is division used in real life? | In pairs, groups or as individuals demonstrate that multiplication is the opposite of division | Longhorn MathematicsGrade 5pg.59-60 | Written exercises Oral questions Observation Group discussion |  |
|  | **5** | **Numbers** | **Division** | By the end of the sub- strand, the learners should be able to:Estimate quotients by rounding off the dividend and divisor to the nearest ten in real life situations | How can we estimate quotients? | In pairs, groups or as individuals estimate quotients by rounding off the dividend and divisor to the nearest ten | Longhorn MathematicsGrade 5pg.61-62 | Written exercises Oral questions Observation Group discussion |  |
| **8** | **1** | **Numbers** | **Division** | By the end of the sub- strand, the learners should be able to;Perform combined operations involving addition, subtraction, multiplication and division of whole numbers in different situations | How can we estimate quotients? | In pairs, groups or as individuals work out questions involving addition, subtraction, multiplication and division | Longhorn MathematicsGrade 5pg.62-63 | Written exercises Oral questions Observation Group discussion |  |
|  | **2** | **Numbers** | **Division** | By the end of the sub- strand, the learners should be able to:Use IT devices for learning more on division of whole numbers and for enjoyment | How can we estimate quotients? | In pairs, groups or as individuals create number games and puzzles involving division | Longhorn MathematicsGrade 5pg.63 | Written exercises Oral questions Observation Group discussion |  |
|  | **3** | **Numbers** | **Division** | By the end of the sub- strand, the learners should be able to;Appreciate use of division of whole numbers in real life situations | How can we estimate quotients? | In pairs or as individuals. play digital games involving division of whole numbers | Longhorn MathematicsGrade 5pg.63 | Written exercises Oral questions Observation Group discussion |  |
|  | **4** | **Numbers** | **Fractions** | By the end of the sub-strand the learner should be able to:Use equivalent fractions in real life | Why do we order fractions in real life? | In pairs, groups or as individuals identify equivalent fractions using a fraction board or chart | Longhorn MathematicsGrade 5pg.64-65 | Written exercises Oral questions Observation Group discussion |  |
|  | **5** | **Numbers** | **Fractions** | By the end of the sub-strand the learner should be able to:simplify fractions in different situations | Why do we order fractions in real life? | In pairs, groups or as individuals simplify given fractions using a fraction chart | Longhorn MathematicsGrade 5pg.66-67 | Written exercises Oral questions Observation Group discussion |  |
| **9** | **1** | **Numbers** | **Fractions** | By the end of the sub-strand the learner should be able to:Compare fractions in order to make decisions in real life | Why do we order fractions in real life? | In pairs, groups or as individuals compare given fractions using paper cut outs and concrete objects | Longhorn MathematicsGrade 5pg.67-68 | Written exercises Oral questions Observation Group discussion |  |
|  | **2** | **Numbers** | **Fractions** | By the end of the sub-strand the learner should be able to:Order fractions with denominators not exceeding 12 in different situations | Where are fractions used in real life?  | In pairs, groups or as individuals order given fractions in increasing and decreasing order using a number line, paper cut outs, real object | Longhorn MathematicsGrade 5pg.68-70 | Written exercises Oral questions Observation Group discussion |  |
|  | **3** | **Numbers** | **Fractions** | By the end of the sub-strand the learner should be able to:Add fractions with same denominator in different situations | Where are fractions used in real life?  | In pairs, groups or as individuals add two fractions with the same denominator using paper cut outs, number line, real objects | Longhorn MathematicsGrade 5pg.71-72 | Written exercises Oral questions Observation Group discussion |  |
|  | **4** | **Numbers** | **Fractions** | By the end of the sub-strand the learner should be able to:Subtract fractions with same denominator in different situations | Where are fractions used in real life?  | In pairs, groups or as individuals subtract two fractions with the same denominator using paper cut outs, number line, real objects | Longhorn MathematicsGrade 5pg.72-73 | Written exercises Oral questions Observation Group discussion |  |
|  | **5** | **Numbers** | **Fractions** | By the end of the sub-strand the learner should be able to:Add fractions with one renaming in different situations | Where are fractions used in real life?  | In pairs, groups or as individuals add and subtract two fractions by renaming one fraction using equivalent fractions | Longhorn MathematicsGrade 5pg.74-75 | Written exercises Oral questions Observation Group discussion |  |
| **10** | **END OF TERM EXAM** |