

# GRADE 4 – MATHEMATICS

## MATHDALI

Knowledge Channel's Mathdali Show is its contribution to K to 12's aim of providing mastery of concepts and skills in Mathematics leading to better Math learning outcomes. The series revolves around the story of Kuya Robi (played by Robi Domingo), a Math enthusiast, who helps Igi Boy, Vic, Joj, and Jai in their quests for learning Math.

Each episode illustrates a Math concept through real-life situations which aims to positively change how to learn Math, develop conceptual understanding, critical thinking, and problem solving, allowing the students to learn in new ways, and make the learning experience both interesting and exciting. The episodes are anchored to positive norms espoused in the Math Mindset book of Jo Boaler, the importance of number talks in Making Number Talks Matter of Cathy Humphreys and Ruth Parker, and key math strategies and classroom approaches in What's Math Got To Do With It? by Jo Boaler.

**Medium: Filipino**

### Learning Competency:

#### NUMBERS UP TO 100 000

This episode develops the conceptual understanding of the students about whole numbers by visualizing numbers up to 100 000 with emphasis on numbers 10 001–100 000. The place value and value of a digit is also discussed in this episode.

June 5 (Mon)    10:20am - 10:40am  
                         3:00pm - 3:20pm  
                         5:00pm - 5:20pm

June 8 (Thu) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

June 12 (Mon) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

June 15 (Thu) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

Oct 4 (Wed) ~ 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

**Learning Competency:**

**ROUNDING OFF NUMBERS**

This episode teaches how to round-off numbers to the nearest thousands and ten thousands.

June 6 (Tue) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

June 9 (Fri) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

June 13 (Tue) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

June 16 (Fri) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

June 19 (Mon) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

Oct 10 (Tue) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

**Learning Competency:**

**COMPARING AND ORDERING NUMBERS**

This episode discusses how to compare and order numbers. It shows how to compare numbers up to 100 000 using relation symbols and how to order numbers up to 100 000 in increasing or decreasing order.

June 7 (Wed) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

June 14 (Wed) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

June 20 (Tue) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

June 23 (Fri) 10:20am - 10:40am  
3:00pm- 3:20pm  
5:00pm- 5:20pm

June 26 (Mon) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

June 29 (Thu) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

Oct 13 (Fri) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

**Learning Competency:**

**UNDERSTANDING MULTIPLICATION**

This episode demonstrates techniques and properties of multiplication. It discusses several shortcuts in multiplication. It explains how shortcuts help multiplying mentally 2-digit by 1-to 2-digit numbers with products up to 200 and explains the strategies used.

June 21 (Wed) 10:20am - 10:40am  
3:00pm - 3:20pm

5:00pm - 5:20pm

June 27 (Tue) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

June 30 (Fri) 10:20am - 10:40am

3:00pm- 3:20pm

5:00pm- 5:20pm

Jul 3 (Mon) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Jul 6 (Thu) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Oct 16 (Mon) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

### **Learning Competency:**

#### **MULTIPLYING BY TWO- TO THREE-DIGIT NUMBERS**

This episode shows the steps in multiplying numbers up to 3-digit numbers by up to 2-digit numbers without or with regrouping.

June 28 (Wed) 10:20am - 10:40am

3:00pm - 3:20pm

	5:00pm - 5:20pm
Jul 4 (Tue)	10:20am - 10:40am
	3:00pm - 3:20pm
	5:00pm - 5:20pm
Jul 7 (Fri)	10:20am - 10:40am
	3:00pm - 3:20pm
	5:00pm - 5:20pm
Jul 10 (Mon)	10:20am - 10:40am
	3:00pm - 3:20pm
	5:00pm - 5:20pm
Jul 13 (Thu)	10:20am - 10:40am
	3:00pm - 3:20pm
	5:00pm - 5:20pm
Oct 17 (Tue)	10:20am - 10:40am
	3:00pm - 3:20pm
	5:00pm - 5:20pm

**Learning Competency:**

**SOLVING WORD PROBLEMS INVOLVING MULTIPLICATION, ADDITION, AND SUBTRACTION**

This episode teaches how to solve multiplication routine and non-routine problems involving multiplication of whole numbers including money using appropriate problem solving strategies and tools. This episode also teaches how to solve multi-step routine and non-routine problems involving multiplication and addition or subtraction using appropriate problem solving strategies and tools.

Jul 5 (Wed)	10:20am - 10:40am 3:00pm - 3:20pm 5:00pm - 5:20pm
Jul 11 (Tue)	10:20am - 10:40am 3:00pm - 3:20pm 5:00pm - 5:20pm
Jul 14 (Fri)	10:20am - 10:40am 3:00pm - 3:20pm 5:00pm - 5:20pm
Jul 17 (Mon)	10:20am - 10:40am 3:00pm - 3:20pm 5:00pm - 5:20pm
Jul 20 (Thu)	10:20am - 10:40am 3:00pm - 3:20pm 5:00pm - 5:20pm
Oct 18 (Wed)	10:20am - 10:40am 3:00pm - 3:20pm 5:00pm - 5:20pm

**Learning Competency:**

**UNDERSTANDING DIVISION**

This episode demonstrates techniques and properties of division. Practical uses and applications of division are also shown.

It teaches how to divide 3- to 4-digit numbers by 1-to 2-digit numbers without and with remainder

Jul 12 (Wed)      10:20am - 10:40am  
                         3:00pm - 3:20pm  
                         5:00pm - 5:20pm

Jul 18 (Tue)      10:20am - 10:40am  
                         3:00pm - 3:20pm  
                         5:00pm - 5:20pm

Jul 21 (Fri)      10:20am - 10:40am  
                         3:00pm - 3:20pm  
                         5:00pm - 5:20pm

Jul 24 (Mon)      10:20am - 10:40am  
                         3:00pm - 3:20pm  
                         5:00pm - 5:20pm

Jul 27 (Thu)      0:20am – 10:40am  
                         3:00pm- 3:20pm  
                         5:00pm- 5:20pm

Oct 19 (Thu)      10:20am - 10:40am  
                         3:00pm - 3:20pm  
                         5:00pm - 5:20pm

**Learning Competency:**

**ESTIMATING QUOTIENTS**



This episode shows how to estimate the quotient of 3- to 4-digit dividends by 1- to 2-digit divisors with reasonable results.

Jul 19 (Wed) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Jul 25 (Tue) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Jul 28 (Fri) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Jul 31 (Mon) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Aug 3 (Thu) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Oct 20 (Fri) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

**Learning Competency:**

**ORDER OF OPERATIONS**

This episode presents and explains Multiplication, Division, Addition, Subtraction (MDAS) correctly. It also teaches how to perform a series of two or more operations

Jul 26 (Wed) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Aug 1 (Tue) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Aug 4 (Fri) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Aug 7 (Mon) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Aug 10 (Thu) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Oct 23 (Mon) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

**Learning Competency:**

**PRIME AND COMPOSITE NUMBERS**

This episode presents prime and composite numbers. This episode also shows how to differentiate prime from composite numbers

Aug 2 (Wed) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Aug 8 (Tue) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Aug 11 (Fri) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Aug 14 (Mon) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Aug 17 (Thu) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Oct 24 (Tue) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

**Learning Competency:**

**Greatest Common Factor**

This episode discussed how to find the common factors and the greatest common factor (GCF) of two numbers using the following methods: listing, prime factorization, and continuous division. This episode also presents real-life problems involving the GCF of 2 given numbers.

Aug 9 (Wed)      10:20am - 10:40am  
                         3:00pm - 3:20pm  
                         5:00pm - 5:20pm

Aug 15 (Tue)     10:20am - 10:40am  
                         3:00pm - 3:20pm  
                         5:00pm - 5:20pm

Aug 18 (Fri)     10:20am - 10:40am  
                         3:00pm - 3:20pm  
                         5:00pm - 5:20pm

Aug 21 (Mon)    10:20am - 10:40am  
                         3:00pm - 3:20pm  
                         5:00pm - 5:20pm

Aug 24 (Thu)     10:20am - 10:40am  
                         3:00pm - 3:20pm  
                         5:00pm - 5:20pm

Oct 25 (Wed)    10:20am - 10:40am  
                         3:00pm - 3:20pm  
                         5:00pm - 5:20pm

**Learning Competency:**

## **Least Common Multiple**

This episode instructs how to find the least common multiple of two or more numbers using the following methods: listing, prime factorization, and continuous division. This episode also presents real-life problems involving the LCM of 2 given numbers.

Aug 16 (Wed)	10:20am - 10:40am 3:00pm - 3:20pm 5:00pm - 5:20pm
Aug 22 (Tue)	10:20am - 10:40am 3:00pm - 3:20pm 5:00pm - 5:20pm
Aug 25 (Fri)	10:20am - 10:40am 3:00pm - 3:20pm 5:00pm - 5:20pm
Aug 28 (Mon)	10:20am - 10:40am 3:00pm - 3:20pm 5:00pm - 5:20pm
Aug 31 (Thu)	10:20am - 10:40am 3:00pm - 3:20pm 5:00pm - 5:20pm
Oct 26 (Thu)	10:20am - 10:40am 3:00pm - 3:20pm 5:00pm - 5:20pm

## **Learning Competency:**

## **UNDERSTANDING FRACTIONS**

This episode introduces the concept of fractions. This episode also identifies proper fractions, improper fractions, and mixed numbers. The process of changing improper fractions to mixed numbers and vice versa are also discussed.

Aug 23 (Wed) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

Aug 29 (Tue) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

Sep 1 (Fri) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

Sep 4 (Mon) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

Sep 7 (Thu) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

Oct 27 (Fri) 10:20am - 10:40am  
3:00pm - 3:20pm  
5:00pm - 5:20pm

**Learning Competency:**

## **ADDING AND SUBTRACTING SIMILAR FRACTIONS**

This episode visualizes, performs, and solves problems involving addition and subtraction of similar fractions.

Aug 30 (Wed) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Sep 5 (Tue) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Sep 8 (Fri) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Sep 11 (Mon) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Sep 14 (Thu) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Oct 30 (Mon) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

**Learning Competency:**

## **ADDING AND SUBTRACTING DISSIMILAR FRACTIONS**

This episode visualizes, performs, and solves problems involving addition and subtraction of dissimilar fractions.

Sep 6 (Wed) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Sep 12 (Tue) 10:20am – 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Sep 15 (Fri) 10:20am – 10:40am

3:00pm- 3:20pm

5:00pm- 5:20pm

Sep 18 (Mon) 10:20am - 10:40am

3:00pm- 3:20pm

5:00pm- 5:20pm

Sep 21 (Thu) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Oct 31 (Tue) 10:20am - 10:40am

3:00pm- 3:20pm

5:00pm- 5:20pm

**Learning Competency:**



## **VISUALIZING DECIMALS**

Visualizes decimal numbers using models like blocks, grids, number lines and money to show the relationship to fractions.

Sep 13 (Wed) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Sep 19 (Tue) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Sep 22 (Fri) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Sep 25 (Mon) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Sep 28 (Thu) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Nov 1 (Wed) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

**Learning Competency:**

## **UNDERSTANDING DECIMALS**

This episode introduces the concept of decimals. It shows the importance of properly reading and writing decimal numbers through hundredths. It also teaches the place value and the value of a digit of a given decimal number through hundredths.

Sep 20 (Wed) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Sep 26 (Tue) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Sep 29 (Fri) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Oct 2 (Mon) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Oct 5 (Thu) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Nov 2 (Thu) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

**Learning Competency:**

## **COMPARING, ORDERING, AND ROUNDING OFF DECIMALS**

This episode discusses how to compare and order decimal numbers. This episode also covers rounding decimal numbers to the nearest whole number and tenth.

Sep 27 (Wed) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Oct 3 (Tue) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Oct 6 (Fri) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Oct 9 (Mon) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Oct 12 (Thu) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm

Nov 3 (Fri) 10:20am - 10:40am

3:00pm - 3:20pm

5:00pm - 5:20pm