## $4^{th}$ Grade Math MCAS 2017 – 2022

## Released Constructed Response Questions

Question Link <b>Year - Item # - (# of Parts)</b>	Student Work Exemplars Link	Domain	Item Description
<u>2022 - #8 – (4)</u>	2022 #8 Student Work Samples	Measurement and Data; 4.MD.A.3	Determine the area of a rectangle given the length and width, determine the width of a rectangle given the area and length, explain how it is possible for two rectangles with different areas to have the same perimeter, and solve a real-world problem involving rectangles with the same perimeter but with different areas
<u>2022 - #15 – (4)</u>	2022 #15 Student Work Samples	Operations and Algebraic Thinking; 4.OA.C.5	Determine the next step in a shape pattern, identify how many shapes will be in future steps, and demonstrate understanding of the relationships between different features of the pattern.
<u> 2021 - #6 - (4)</u>	2021 #6 Student Work Samples	Number and Operations in Base Ten; 4.NBT.A.2	Express multi-digit whole numbers in standard and expanded forms and use place value understanding to compare the numbers with symbols and to explain your answer
<u> 2021 - #14 - (4)</u>	2021 #14 Student Work Samples	Measurement and Data; 4.MD.A.2	Solve real-world problems involving reading an analog clock and adding and subtracting time intervals
<u> 2019 - #3 - (3)</u>	2019 #3 Student Work Samples	Number and Operations- <i>Fractions;</i> 4.NF.C.7	Compare decimals given in tenths and hundredths in a list, order decimals from least to greatest, and determine which decimal from the list is closest in value to a given decimal.
<u> 2019 - #6 - (3)</u>	2019 #6 Student Work Samples	Operations and Algebraic Thinking; <u>4.OA.A.2</u>	Write an equation with a symbol for the unknown number to represent a word problem involving multiplicative comparison and then multiply to solve problems.
<u> 2018 - #29 - (4)</u>	2018 #29 Student Work Samples	Operations and Algebraic Thinking; <u>4.OA.C.5</u>	Determine additional terms of a pattern given the rule, explain how the rule affects the pattern, and then analyze a similar pattern to find additional terms.
<u> 2018 - #7 - (3)</u>	2018 #7 Student Work Samples	Number and Operations in Base Ten; 4.NBT.A.2	Write numbers in expanded notation and standard form, determine a number that meets given criteria, and write a number sentence using <, >, or = to compare numbers
<u>2017 - #5 - (3)</u>	2017 #5 Student Work Samples	Operations and Algebraic Thinking; <u>4.OA.B.4</u>	Determine multiples, factors, and whether numbers are prime or composite and justify the reasoning used to determine the answers.