KAP Predictive Interim Cluster Map

- The predictive interim assessments provide an estimate of a student's future performance on Kansas summative assessments. The assessments also allow educators to evaluate students' knowledge and skills in a subject and are designed to inform decisions both at the classroom level and beyond (e.g., at the school or district level). To keep the assessment length short, the total number of items that students respond to are limited. The predictive interim assessments do not support any inferences about performance at standard level because measurement best practice would require substantially more items per standard in order to provide an accurate measure of whether the student knows the content of each standard. However, the predictive interim assessments support the inferences made about clusters at the classroom level and beyond because student responses are aggregated and thus more reliable.

- The cluster map resource documents include the clusters embedded in the 2017 Kansas standards and a table mapping each item on the predictive interim assessments to the cluster and item description. In a cluster map resource document, there are two parts: a cluster key table and a cluster mapping table. The cluster key table includes the cluster code and cluster description as well as its domain, and the cluster mapping table links each item with the cluster it is measuring.

- Teachers could use this resource to identify items measuring the same cluster or domain. Combining this resource with information from the school or district report, teacher also could make inferences about school or district performances on clusters or domains. If the whole school performed better than the state average on the majority of items measuring the same cluster or domain, then the teacher could infer that the students in the school likely understood the knowledge and skills of this cluster or domain. If the whole school performed worse than the state average on the majority of items measuring the same cluster or domain, then the teacher might want to spend more instruction time on this cluster or domain.

- Although there are more items measuring one cluster or domain than one standard, the predictive interim assessment still do not support any inferences made about clusters or domains at student level because the number of items per cluster or domain is still not large enough to provide an accurate measure of whether the student understands the content of each cluster or domain.

KAP Predictive Interim Cluster Map

Mathematics Key

Domain	Cluster	Description
Ratios and Proportional Relationships	6.RP.A	Understand ratio concepts and use ratio reasoning to solve problems.
The Number System	6.NS.A	Apply and extend previous understandings of multiplication and division to divide fractions by fractions.
	6.NS.B	Compute fluently (efficiently, accurately, and flexibly) with multi-digit numbers and find common factors and multiples.
	6.NS.C	Apply and extend previous understandings of numbers to the system of rational numbers.
Expressions and Equations	6.EE.A	Apply and extend previous understandings of arithmetic to algebraic expressions.
	6.EE.B	Reason about and solve one-variable equations and inequalities.
	6.EE.C	Represent and analyze quantitative relationships between dependent and independent variables.
Geometry	6.G.A	Solve real-world and mathematical problems involving area, surface area, and volume.
Statistics and Probability	6.SP.A	Develop concepts of statistical measures of center and variability and an informal understanding of outlier.
	6.SP.B	Summarize and describe distributions.
Strategic Thinking and Reasoning	6.STAR.PSM	Problem solving and modeling.
	6.STAR.CR	Communicating Reasoning.

Grade 6 Mathematics: Fall

Item Position	Cluster	Item Description
1	6.NS.B	Divide a multidigit number by a two-digit number
2	6.NS.B	Find the difference between two decimal numbers to the hundredths place
3	6.NS.C	Identify opposites on a number line
4	6.NS.C	Describe the result of a positive and a negative value in a situation
5	6.NS.C	Identify the number line of integer values to represent a situation
6	6.NS.C	Order integers from least to greatest
7	6.NS.C	Identify the location of integers on a number line, given a comparison statement
8	6.NS.C	Find the equivalent integer, given an absolute value
9	6.EE.A	Identify an equivalent expression by combining like terms
10	6.EE.B	Write a one-step equation in one variable to represent a situation
11	6.EE.B	Write an expression in one variable to represent a situation
12	6.EE.C	Compare a situation modeled in a table with one modeled in a graph
13	6.EE.C	Identify an equation in two variables modeling a relationship shown in a table
14	6.EE.C	Identify an equation in two variables of a description of a situation
15	6.RP.A	Determine the unit rate in a situation
16	6.RP.A	Determine the unit rate in a situation
17	6.RP.A	Write a numerical ratio to represent a situation
18	6.NS.A	Solve a word problem in which a fraction is divided by a fraction
19	6.NS.A	Solve a word problem in which a fraction is divided by a whole number
20	6.NS.A	Solve a word problem in which a mixed number is divided by a fraction
21	6.G.A	Use the net of a rectangular prism to find its surface area
22	6.G.A	Use the description of a triangle to find its area
23	6.SP.B	Determine the median of a data set
24	6.STAR.PSM	Use data in a table and knowledge of percentages to find a fraction modeling a situation

Be cautious about any inferences made about a cluster measured by less than 4 items. In this case, inferences are better suited at the domain level.

Grade 6 Mathematics: Winter

Item Position	Cluster	Item Description
1	6.NS.C	Compare two integers using symbols
2	6.NS.C	Compare the absolute values of numbers
3	6.NS.C	Identify the location of absolute values numbers on a number line
4	6.EE.A	Identify an equivalent expression by combining like terms
5	6.EE.B	Write an expression in one variable to represent a situation
6	6.EE.C	Identify an equation in two variables of a description of a situation
7	6.EE.C	Identify an equation in two variables modeling a relationship shown in a table
8	6.EE.C	Create an equation in two variables from a description of a situation
9	6.RP.A	Use percentage of discount and amount saved to find original cost
10	6.RP.A	Use equivalent ratios to find an unknown value
11	6.RP.A	Solve a problem by finding the whole given a part and the percentage
12	6.NS.A	Solve a word problem in which a mixed number is divided by a whole number
13	6.NS.A	Solve a word problem in which a whole number is divided by a mixed number
14	6.NS.A	Solve a word problem in which a mixed number is divided by a whole number
15	6.NS.A	Solve a word problem in which a whole number is divided by a mixed number
16	6.G.A	Use the dimensions of a triangle to find its area
17	6.G.A	Use the net of a rectangular prism to find its surface area
18	6.SP.A	Use the median of a data set to determine the missing values in the set
19	6.STAR.CR	Use ratio and unit rate to solve a real-world problem
20	6.STAR.PSM	Use unit conversions to compare unit rates
21	6.STAR.PSM	Use percentages and operations with rational numbers to determine a ratio
22	6.STAR.PSM	Solve a word problem using unit rate and ratio to find a total

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Grade 6 Mathematics: Spring

Item Position	Cluster	Item Description
1	6.NS.C	Describe the result of combining a positive and a negative value in a situation
2	6.EE.A	Identify an equivalent expression by combining like terms
3	6.EE.B	Write an expression in one variable to represent a situation
4	6.EE.B	Write a one-step equation in one variable to represent a situation
5	6.EE.C	Use a graph to relate the independent and dependent variables and determine the equation
6	6.EE.C	Create an equation in two variables from information in a table
7	6.EE.C	Create an equation in two variables from information in a graph
8	6.RP.A	Solve a problem by finding the whole given a part and the percentage
9	6.RP.A	Use the description of a ratio to make a table of equivalent ratios
10	6.RP.A	Compare the rates in two tables
11	6.NS.A	Solve a word problem in which a fraction greater than one is divided by a fraction
12	6.G.A	Find the area of a figure composed of a triangle and quadrilaterals
13	6.G.A	Find the area of a figure composed of triangles and squares
14	6.G.A	Represent a triangular prism using a net
15	6.SP.B	Determine the range and the median of a data set displayed in a dot plot
16	6.STAR.CR	Solve a multistep word problem involving ratios and costs
17	6.STAR.PSM	Solve a multistep word problem involving percentage and ratio
18	6.STAR.CR	Solve a word problem involving rational numbers
19	6.STAR.PSM	Solve a multistep word problem using unit rate
20	6.STAR.PSM	Write an expression in one variable using a percentage to represent a situation
21	6.STAR.PSM	Determine the surface area of a percentage of a rectangular prism given the dimensions

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