New York State Next Generation Mathematics Learning Standards		
Grade 6 Crosswalk		
Ratio and Proportional Reasoning		
Cluster	**NYS P-12 CCLS**	**NYS Next Generation Learning Standard**
Understand ratio concepts and use ratio reasoning to solve problems.	**6.RP.1** Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."	**NY-6.RP.1** Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. e.g., "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received three votes."
	6.RP.2 Understand the concept of a unit rate a/b associated with a ratio a:b with b ≠ 0, and use rate language in the context of a ratio relationship. For	

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Ratio and Proportional Reasoning

Cluster

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The Number System		
Cluster	**NYS P-12 CCLS**	**NYS Next Generation Learning Standard**
Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	**6.NS.1** Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4 cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?	**NY-6.NS.1** Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions. Note: Strategies may include but are not limited to the following: using visual fraction models**, a standard algorithm**, and equations to represent the problem. e.g., Create a story context for $(\frac{2}{3}) \div (\frac{3}{4})$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(\frac{2}{3}) \div (\frac{3}{4}) = \frac{8}{9}$ because $\frac{3}{4}$ of $\frac{8}{9}$ is $\frac{2}{3}$. In general, (–) ÷ (–) = —. e.g., How much chocolate will each person get if 3 people share $\frac{1}{2}$ lb of chocolate equally?

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The Number System		
Cluster	**NYS P-12 CCLS**	**NYS Next Generation Learning Standard**
Compute fluently with multi-digit numbers and find common factors and multiples.	**6.NS.4** Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express 36 + 8 as 4 (9 + 2).	**NY-6.NS.4** Find the greatest common factor of two whole numbers less than or equal to 100. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers **with no common factor other than 1**. Find the least common multiple of two whole numbers less than or equal to 12. e.g., Express 36 + 8 as 4 (9 + 2).
Apply and extend previous understandings of numbers to the system of rational numbers.	**6.NS.5** Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., tt vals luiaessite12.m [e(e)2al t	

New York State Next Generation Mathematics Learning Standards		
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The Number System		
Cluster	**NYS P-12 CCLS**	**NYS Next Generation Learning Standard**
Apply and extend previous understandings of numbers to the system of rational numbers.	**6.NS.7a** Interpret statements of inequality as statements about the relative position of two numbers on a number line ~~diagram~~. For example, interpret ~~3~~ > –7 as a statement that ~~3~~ is located to the right of ~~7~~ on a number line oriented from left to right.	**NY-6.NS.7a** Interpret statements of inequality as statements about the relative position of two numbers on a **number line.** e.g., Interpret –3 > –7 as a statement that –

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Grade 6 Crosswalk		
Expressions and Equations (Inequalities)		
Cluster	**NYS P-12 CCLS**	**NYS Next Generation Learning Standard**
Apply and extend previous understandings of arithmetic to algebraic expressions.	**6.EE.1** Write and evaluate numerical expressions involving whole-number exponents.	**NY-6.EE.1**

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Expressions and Equations (Inequalities)		
Cluster	**NYS P-12 CCLS**	**NYS Next Generation Learning Standard**

New York State Next Generation Mathematics Learning Standards		
Grade 6 Crosswalk		
Geometry		
Cluster	**NYS P-12 CCLS**	**NYS Next Generation Learning Standard**
Solve real-world and mathematical problems involving area, surface area and volume.	**6.G.4** Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.	**NY-6.G.4**

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Grade 6 Crosswalk		
Statistics and Probability		
Cluster	**NYS P-12 CCLS**	**NYS Next Generation Learning Standard**
Develop an understanding of statistical variability.	**6.SP.1** Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a stat cal question because one anticipates variability in students' ages.	**NY-6. SP.1a** Recognize that a statistical question is one that anticipates variability in the data related to the question and accounts for it in the answers. e.g., "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.
		NY-6. SP.1b Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. **Note: Students need to understand that data are generated with respect to particular contexts or situations and can be used to answer questions about those contexts or situations.**
		NY-6. SP.1c Understand that the method and sample size used to collect data for a particular question is intended to reduce the difference between a population and a sample taken from the population so valid inferences can be drawn about the population. **y.1.1(o)- t -1.157 TD [( )-3.7o8 re f 7w72 ,g58(c)-3(o)0**

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Statistics and Probability		
Cluster	**NYS P-12 CCLS**	**NYS Next Generation Learning Standard**
Summarize and describe distributions.	**6.SP.5c** Giving quantitative measures of center (median and/or mean) and variability (~~interquartile range and/or mean absolute deviation~~), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.	**NY-6. SP.5c Calculate range and measures of center, as well as describe any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.** **Note: Measures of center are mean, median, and mode. The measure of variation is the range. Role of outliers should be discussed, but no formula required.**
	6.SP.5d Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	**NY-6. SP.5d** Relate **the range** and the choice of measures of center to the shape of the data distribution and the context in which the data were gathered. **Note: Measures of center are mean, median, and mode. The measure of variation is the range.**
Investigate chance processes and develop, use and evaluate probability models.		**NY-6. SP.6 Understand that the probability of a chance event is a number between 0 and 1 inclusive, that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.**
		NY-6. SP.7 Approximate the probability of a simple event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. **e.g., When rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.** **Note: Compound events are introduced in grade 7.**

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Statistics and Probability		
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Investigate chance processes and develop, use and evaluate probability models.		**NY-6. SP.8 Develop a probability model and use it to find probabilities of simple events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.**
		NY-6. SP.8a Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of simple events. **e.g., The probability of rolling a six-sided fair number cube and landing on a 2 is –. The probability of landing on an even number is –.**
		NY-6. SP.8b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. **e.g., Find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?**