

**MATH COMPETENCIES CROSS-WALK BETWEEN
STATE OF NEW HAMPSHIRE & EPPING SCHOOL DISTRICT**

STATE OF NEW HAMPSHIRE

NUMBERS AND QUANTITY	ALGEBRA	FUNCTIONS	GEOMETRY	STATISTICS AND PROBABILITY
<p>1. Students will demonstrate the ability to use and extend properties of complex number systems (includes both real and imaginary numbers). (CP)</p> <p>2. Students will demonstrate the ability to reason quantitatively when analyzing, representing, and solving problems. (CP, PS, MDA, CR)</p> <p>3. Students will demonstrate the ability to analyze and represent vector and matrix quantities in solving problems. (CP, PS,MDA,CR)</p>	<p>4. Students will demonstrate the ability to analyze and use structure in expressions to solve problems. (CP,PS,CR)</p> <p>5. Students will demonstrate the ability to solve problems when applying concepts of polynomials and concepts of rational expressions. (CP, PS,MDA,CR)</p> <p>6. Students will demonstrate the ability to create and use algebraic models to connect mathematical concepts and properties when solving real-world problems. (CP, PS, MDA)</p> <p>7. Students will demonstrate the ability to explain and justify reasoning when solving equations, inequalities, and systems of equations. (CP, PS, CR)</p>	<p>8. Students will demonstrate the ability to interpret, analyze, and use functions when applied in a variety of contexts, including real-world phenomena. (CP, PS, CR)</p> <p>9. Students will demonstrate the ability to build functions that model relationships between two quantities. (CP, PS, MDA, CR)</p> <p>10. Students will demonstrate the ability to distinguish among situations that can be represented with linear, quadratic and exponential models and provide evidence to support reasoning. (CP, PS, MDA, CR)</p>	<p>11. Students will demonstrate the ability to use reasoning to construct and apply viable arguments about congruence. (CP, PS, MDA, CR)</p> <p>12. Students will demonstrate the ability to use reasoning (e.g., properties of angles and triangles) to construct and apply viable arguments about similarity. (CP, PS, CR)</p> <p>13. Students will demonstrate the ability to reason with and apply theorems about circles. (CP, PS, CR)</p> <p>14. Students will demonstrate the ability to apply algebraic models to express geometric relationships. (CP, PS, MDA, CR)</p> <p>15. Students will demonstrate the ability to explain, apply, and model geometric measurement formulas. (CP, PS, MDA, CR)</p>	<p>16. Students will demonstrate the ability to apply statistical methods or reasoning to summarize, represent, and interpret categorical and quantitative data. (CP,MDA, CR)</p> <p>17. Students will demonstrate the ability to make inferences and justify or critique conclusions. (MDA, CR)</p> <p>18. Students will demonstrate the ability to apply the rules of probability including conditional probability to determine the likelihood of a given outcome. (CP, PS, MDA, CR)</p> <p>19. Students will apply probability concepts to analyze and evaluate potential decisions and strategies. (CP, PS, MDA, CR)</p>

EPPING SCHOOL DISTRICT

CONCEPTS AND PROCEDURES (CP)	PROBLEM-SOLVING (PS)	COMMUNICATING AND REASONING (CR)	MODELING AND DATA ANALYSIS (MDA)
<p>Students will demonstrate the ability to explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency.</p>	<p>Students will demonstrate the ability to solve a range of complex well-posed problems in pure and applied mathematics, making productive use of knowledge and problem solving strategies.</p>	<p>Students will demonstrate the ability to clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.</p>	<p>Students will demonstrate the ability to analyze complex, real-world scenarios and construct and use mathematical models to interpret and solve problems.</p>