## MATHEMATICS ACADEMIC SEQUENCE OF COURSES K-12 -- AP PYRAMIDS

| ELEMENTARY SCHOOL | MIDDLE SCHOOL |  | HIGH SCHOOL |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Grades K -6 | Grade 7 | Grade 8 | Grade 9 | Grade 10 | Grade 11 | Grade 12 |
| Curriculum defined by: <br> - Program of Studies (POS) | Algebra 1 Honors ${ }^{1}$ | Geometry Honors | Algebra 2 Honors | Precalculus Honors ${ }^{2}$ | AP Calculus BC | Multivariable Calculus ${ }^{3}$ |
| Schools <br> - Standards of Learning (SOL) of Commonwealth of Virginia | Mathematics 7 <br> Honors <br> or <br> Mathematics 7 | Algebra 1 Honors or Algebra 1 | Geometry or Geometry Honors | Algebra 2 or Algebra 2 Honors | Precalculus ${ }^{2}$ <br> or <br> Precalculus <br> Honors ${ }^{2}$ | AP Calculus AB <br> or <br> AP Calculus BC ${ }^{4}$ |
| Content includes: <br> - Numerical Relationships <br> - Operations <br> - Measurement <br> - Geometry <br> - Data Analysis, Statistics and Probability <br> - Patterns, Functions, and Algebra |  |  |  |  |  |  |
|  | Mathematics 7 | Prealgebra | Algebra 1 | Geometry | AFDA ${ }^{5}$ <br> or <br> Algebra 2 | Algebra 2 or Precalculus or Mathematics Elective ${ }^{6}$ |
| Advanced Math Curriculum |  |  |  |  |  |  |

1. Students enrolling in Algebra $\mathbf{1}$ Honors in $7^{\text {th }}$ grade must meet placement criteria.
2. Precalculus and Precalculus Honors include Trigonometry.
3. Multivariable Calculus is a one semester course followed by Matrix Algebra.
4. The prerequisite for AP Calculus BC is Precalculus Honors.
5. AFDA is Algebra, Functions, and Data Analysis and is a bridge course to Algebra $\mathbf{2}$ for students needing additional support in mathematics.
6. Mathematics Electives vary by school and include: Trigonometry (semester), Probability and Statistics (semester or year), Discrete Math (semester or year), AP Statistics, Computer Science, AP Computer Science A, AP Computer Science Principles.

## MATHEMATICS ACADEMIC SEQUENCE OF COURSES K-12 -- IB PYRAMIDS

| ELEMENTARY SCHOOL | MIDDLE SCHOOL |  | HIGH SCHOOL |  |  |  |
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| Grades K -6 | Grade 7 | Grade 8 | Grade 9 | Grade 10 | Grade 11 | Grade 12 |
| Curriculum defined by: <br> - Program of Studies (POS) of Fairfax County Public Schools <br> - Standards of Learning (SOL) of Commonwealth | Algebra 1 Honors ${ }^{1}$ | Geometry Honors | Algebra 2 Honors | IB Math Applications $1^{2}$ or IB Math Analysis 1 | IB Math Analysis 1 or <br> IB Math <br> Analysis HL 2 | IB Math Analysis HL 2 or Multivariable Calculus ${ }^{2,3}$ |
| of Virginia <br> Content includes: <br> - Numerical Relationships <br> - Operations <br> - Measurement <br> - Geometry <br> - Data Analysis, Statistics | Mathematics 7 or <br> Mathematics 7 <br> Honors | Algebra 1 or Algebra 1 Honors | Geometry or Geometry Honors | Algebra 2 or Algebra 2 Honors | IB Math Applications 1 or IB Math Analysis 1 | IB Math <br> Applications SL 2 or HL 2 or <br> IB Math Analysis SL 2 or HL 2 |
| and Probability <br> - Patterns, Functions, and Algebra <br> Advanced Math Curriculum | Mathematics 7 | Prealgebra | Algebra 1 | Geometry | AFDA ${ }^{4}$ <br> or <br> Algebra 2 | Algebra 2 or IB Math Applications 1 or Mathematics Elective ${ }^{5}$ |

1. Students enrolling in Algebra 1 Honors in $7^{\text {th }}$ grade must meet placement criteria.
2. Students pursuing this sequence would need to take the IB Math Analysis HL exam at the end of $12^{\text {th }}$ grade.
3. Multivariable Calculus is a one semester course followed by Matrix Algebra.
4. AFDA is Algebra, Functions, and Data Analysis and is a bridge course to Algebra $\mathbf{2}$ for students needing additional support in mathematics.
5. Mathematics Electives vary by school and include: Trigonometry (semester), Probability and Statistics (semester or year), Discrete Math (semester or year), AP Statistics, Computer Science, IB Computer Science.
