## 8th Grade Algebra Curriculum Calendar: Semester 1

**Unit 1: Back to School**

Week 1 Aug 23-25:

> Policies, Procedures, and Mathematics Skill Exam.

Week 2 Aug 28-Sept 1:

> Review of important past material: order of operations, integers, frac/dec/per, and more.

**Unit 2: Numbers and Roots**

Weeks 3 and 4 Sept 4 - 15: (PA.N.1.4 and PA.N.1.5) A1.N.1.1 and A1.N.1.2

> Rationales/irrationals, square roots, cube roots

**Unit 3: Exponents**

Weeks 5 & 6 Sept 18 - 29: (PA.N.1.1 PA.N.1.2 and PA.N.1.3)

> Exponential properties and scientific notation

**Unit 4: Expressions, Equations, and Inequalities**

Weeks 7 and 8 Oct 2 - 13: (PA.A.3.1, PA.A.3.2, PA.A.4.1, PA.A.4.3,  )

> Using substitution and justifying steps in solving expressions.
>
> Solving, interpreting, and explaining multistep equations in context
>
> Inequalities

Week 9 Oct 16-18:

> Review and Exam 1

Weeks 10 - 13 Oct 23 to Nov 17:  A1.A.1.1, A1.A.1.2, A1.A.3.1, A1.A.3.2, A1.A.3.3, A1.A.3.4

> Polynomials, absolute value and radical expressions,
>
> Interpreting, Solving, and Graphing multi-step equations

Week 14 Nov 20 - 21:

> Review and Exam 2

Weeks 15 and 16 Nov 27 - Dec 8: (PA.A.4.2 and PA.A.4.3) A1.A.2.2

Solving and graphing linear inequalities and absolute values

Weeks 17 and 18 Dec 11 - 21:

2 days for review, 1 for fall semester exam. remaining are flex days for the previous weeks.

# 8th Grade Algebra Curriculum Calendar: Semester 2

### Unit 5: Functions

Week 19 Jan 8 - 12:

Going over Semester exam, brief review of previous semester.

Weeks 20, 21, 22 & 23 Jan 16 - Feb 2: (PA.A.1.2, PA.A.1.3, PA.A.2.1, and PA.A.2.2) A1.F.1.1 A1.F.1.2 A1.F.1.3 A1.F.1.4 A1.F.3.1 A1.F.3.2 A1.F.3.3

Interpreting, using, and graphing functions in various forms.

Adding, subtracting, and multiplying functions.

Weeks 24 and 25 Feb 5 - 23: PA.A.2.3, PA.A.2.4, and PA.A.2.5 A1.F.3.1 A1.F.3.2 A1.F.3.3

Predicting and explaining changes to functions.

Non-Linear Functions

### Unit 6 Geometry

Week 26 Feb 26 - Mar 2 PA.GM.1.1 and PA.GM.1.2

Pythagorean Theorem

Week 27 Mar 5 - 9

Review and Exam 3 (Exam 4 is given out as a take home exam due Mar 29)

Week 28 Mar 19 - 23 PA.GM.2.1, PA.GM.2.2, PA.GM.2.3, and PA.GM.2.4

Surface Area and Volume of Rectangular Prisms and Cylinders.

### Unit 7 Data Analysis

Weeks 29, 30, and 31 Mar 26 - Apr 12: PA.D.1.1, PA.D.1.2 PA.D.2.1 PA.D.2.2 PA.D.2.3 A1.D.1.1 A1.D.1.2 A1.D.1.3 A1.D.2.1 A1.D.2.2 A1.D.2.3 A1.D.2.4

Measures of Central Tendency with Outliers, Scatter Plots, and Experimental Probability.

Week 32 Apr 16 - 20:

Review and State Exams

Weeks 33 - 37 Apr 23 to May 24

Projects and spring semester exam