

## ASDEC Summer Math Program Virtual 2021

ASDEC Math specialists will teach students online using highly interactive multisensory concrete-representational-abstract methods.

All students will take a pre-assessment.

Parents will receive pre-assessments by mail and will return them within 5 days.

Instructors will use evaluations to determine placements in the sessions described below.

### Get ready for Middle School Math for rising 6<sup>th</sup> graders and above. All sessions are from 2:00-3:00 ET

#### July 12-16 – Session 1: **Discovering the Meaning Behind the Math**

Students will review the essential skills which form the basis of calculations, pattern recognition for fluency with addition and subtraction, multi-digit arithmetic, composing and decomposing quantities within various place values, estimation, rounding and foundational fraction concepts involving whole to part reasoning.

#### July 19-July 23 – Session 2: **Multiplication and Division**

Students will explore strategies for multiplication and division. They will work toward building fluency in targeted math facts and explore pattern recognition strategies for building fluency. Students will work with multiple models for creating visual and tactile representation to support reasoning. They will build near point references which they may use in class. There will be an emphasis on long division and building procedural fluency for the multi-digit multiplication algorithm.

#### July 26-30 – Session 3: **Fraction Concepts and Operations**

Students will explore fraction concepts using concrete manipulatives. They will practice all operations and model concepts with explicit language to support reasoning. Students will create graphic organizers to support memory and explore applications using concrete models, drawings and the number line.

### Algebra Prep: 11:30-1:00 (rising 7<sup>th</sup> graders and above) All Sessions are from 3:30-4:30 ET

#### July 12-16 – Session 1: **Pre-Algebra Tools & Skills, Preparing for Algebraic Reasoning**

Students will explore concepts which prepare for algebraic reasoning. They will work with concepts involving ratios, integer concepts and operations, solving equations, graphing on the coordinate plane and angle relationships. Applications with fraction and decimal concepts will be interwoven within the activities.

**July 19-July 23 – Session 2: Foundations of Algebraic Reasoning -Part One Linear Function Basics** Students will explore linear relationships in algebra. They will construct models of linear functions, practice recognizing linear relationships in real life applications, write the equation of a line from a word problem, graph linear functions, write the equation of a line from a graph, and recognize and use slope intercept form.

**July 26-30 – Session 3: Algebra Prep- Extended Explorations of Linear Algebra & Other Topics.**

**Students may not register for this session unless they participated in the previous week's introduction to linear algebra**

Students in this session will continue exploring linear functions which form the foundation of middle and high school algebra concepts. They will explore patterns with linear functions including recognizing parallel and perpendicular lines, working with linear functions to create tables of values, recognizing linear relationships in typical test questions, extending linear relationships to model linear inequalities and beginning explorations with linear systems. Students may also construct simple models of polynomials and work with square roots in solving equations.

## FAQs

- 1) **May I register my child for only 1 week of camp? RESPONSE: Yes based on the pre-assessment.**
- 2) **My child is in 8<sup>th</sup> grade but needs the middle school concepts, may I register her for the middle school program? RESPONSE: Yes based on the pre-assessment.**
- 3) **We are traveling during the first week, can my child take week 1 virtual and then the following weeks onsite? RESPONSE: No, in this case, we recommend enrolling in all virtual.**
- 4) **For virtual instruction, will it be necessary for me to be present during the sessions? RESPONSE: Generally, no., but all students must keep their cameras on. Students with severe attention issues may require support. Most students do well with this approach because it is hands-on. That said, some parents may be asked to be nearby if it appears the student needs additional support.**