



## STEMworks – STEM Advisory Council’s Approved STEM Program December 2018

### MATHSPACE

#### PROGRAM OVERVIEW

*Mathspace is an engaging digital mathematics curriculum with STEM focused content and intervention materials for grades 3 through Precalculus. Mathspace individualizes instruction for each student, assigns a variety of reengagement experiences to ensure mastery of the concepts based on identified weaknesses, and includes the necessary supports for students to complete these activities without teacher support. With a specific emphasis in STEM, Mathspace’s partnership with NASA Space Math introduces students to the use of mathematics in today’s scientific discoveries. This content links space with STEM concepts in open-ended, exploratory modules of project-based learning and conceptual discussions (for example, modules on the math behind black holes, math required on NASA missions, etc). Mathspace provides schools the opportunity to deliver adaptive technology while inspiring students in STEM through authentic learning modules, to further engage and motivate students by making connections to real-world scenarios.*

#### TARGET GRADES

3-12

#### A UNIQUE OR SPECIAL FOCUS OF THE PROGRAM

*By grading work throughout the problem-solving process, Mathspace’s StepSmart Technology guides the student through each step of the solution with hints, videos, and other valuable math resources. Data is collected as students receive feedback at every step of every problem; not just at the final answer.*

#### THE PROGRAM’S IMPACT ON STUDENTS

*Mathspace is designed to replicate the feedback of a personal tutor. Students receive step-by-step support as they work through math problems. When students get stuck on a question, there are helpful hints, video tutorials, and an automated adaptive engine adjusting the learning path at the step level.*

#### SPECIFIC SKILLS STUDENTS WILL LEARN

*Mathspace is geared towards conceptual understanding of mathematical problems, giving students an introduction to various approaches in solving a problem along with identifying multiple problem-solving strategies. This allows students to place the problem in a wider mathematical context, before solving the problem itself. Also, Mathspace’s project-based learning modules (“Investigations”) provide students a way to connect math concepts with real-world applications through activities and classroom discussions. In addition, the NASA Space Math partnership introduces students to the use of mathematics in today’s scientific discoveries. Through press releases and real data from NASA space missions, it explores how many kinds of mathematics skills come together in exploring the universe.*

#### RESOURCES PROVIDED TO EDUCATORS

*All student data is reported to teachers and administrators in intuitive dashboards that facilitate differentiated instruction and allow teachers to give focused and timely support to individuals or groups of students. Mathspace provides a catalog of professional development workshops, focusing on implementing best practices, data interpretation and application along with strategies for differentiating instruction. The workshops give teachers insight into how to incorporate Mathspace seamlessly into their classroom with fidelity and customized to be in line with school requirements and pedagogy assisting student mathematical understanding and confidence.*

#### WEBSITE

<https://mathspace.co>

#### CONTACT INFORMATION

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