OUR FUTURE DEMANDS

SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

The U.S. will have more than 1.2 million job openings in science, technology, engineering and math (STEM)-related occupations by 2018. These include scientists, doctors, software developers and engineers. Yet, there will be a significant shortage of qualified college graduates to fill these careers. For the U.S. to succeed and continue to play a leadership role in addressing tough global challenges, we must do a better job of engaging students in these subjects and encouraging them to pursue careers in STEM-related fields. Here is a look at how early education plays a part in inspiring students to seek a higher education in STEM and what motivates students to pursue STEM-related fields. ¹



OF JOBS IN THE NEXT DECADE WILL REOUIRE TECHNOLOGY SKILLS.²

The U.S. ranks 25th out of 30 in an international assessment of high schoolers' performance in math.³ -----

The U.S. Department of Labor has projected that by 2018, the U.S. will have more than 1.2 million job openings in STEM fields.¹





ONLY 16% OF BACHELOR'S DEGREES IN 2020 WILL SPECIALIZE IN STEM.⁵

POSITIVE ASPECTS OF STEM LEARNING IN EARLY EDUCATION



4 in 5 STEM college students made the decision to study STEM in high school or earlier.



61% of male STEM college students say that games or toys sparked their interest in STEM; the top factor for men.



Microsoft

68% of female STEM college students say a teacher or class sparked their interest in STEM; the top factor for women.

1 in 5 STEM college students decided to study STEM in middle school or earlier.

49% OF WOMEN PURSUING STEM DEGREES CHOSE STEM TO MAKE A DIFFERENCE







1.8% to 5.3%, while non-STEM workers went from

MICROSOFT UNDERSTANDS THE IMPORTANCE OF STEM AND IS WORKING TO MAKE TECHNOLOGY EASILY AVAILABLE TO STUDENTS IN ORDER TO GET THEM EXCITED IN STEM WITH DIGIGIRLZ, IMAGINE CUP, DREAMSPARK AND KODU GAME LAB.

URCES: 1. "Occupational employment projections to 2018;" U.S. Bureau of Labor Statistics; November 2009 2. "Why the Focus on STEM?" the Massachusetts STEM Advisory Council; 2011 Why the Focus on STEM? The Massachusetts STEM Advisory Council; 2011
"PISA 2006: Science Competencies for Tomorrow's World, OECD briefing note for the United States;" Organisation for Economic Co-operation and Development; September 2007
"STEM: Good Jobs Now and for the Future;" U.S. Department of Commerce, Economics and Statistics Administration; July 2011
"Help wanted; Projections of jobs and education requirements through 2018;" U.S. Bureau of Labor Statistics; 2010
"STEM Perceptions: Student & Parent Survey;" Harris Interactive online survey of 500 STEM college students and 854 parents of K-12 students; May 2011