



## Teacher Hub

MBRT is building what STEM teachers say they need –

an online system that connects them to people and resources that will:

- bolster student learning and interest in science and math
- demonstrate real-world application of math and science concepts/skills
- facilitate greater interaction/collaboration among STEM teachers and practitioners.

<p><b>STEM Specialists in the Classroom</b></p> 	<p>Offers teachers at-elbow instructional support from workplace specialists with on-the-job expertise in specific mathematics and science concepts and practices.</p> <p>Using an “e-Harmony”-type online system containing profiles of trained workplace specialists and their areas of expertise, teachers invite/schedule specialists to “co-teach” a lesson in their classroom, aligned to standards/curriculum, providing students with the opportunity to experience real-world application of their learning.</p> <p>2011-12 – Piloted in Baltimore County, biology focus      2012-13 – Expanded to 6 districts, algebra and biology focus      2013-14 – Launch in 24 districts, chemistry and physics added</p>
<p><b>STEM Resource Clearinghouse</b></p> 	<p>Offers teachers a single online destination where they can find STEM resources to strengthen classroom instruction and improve student learning.</p> <p>Using an “app store”-type format, teachers can easily locate and download curriculum materials, lesson plans, demonstration videos, classroom experiments, enrichment activities, and teaching aids that are mapped and meta-tagged to Common Core Standards and Maryland Core Learning Goals.</p> <p>2012-13 – Initial phase launched, focus on algebra and biology      2013-14 – Chemistry and physics resources added</p>
<p><b>STEM Connections</b></p> 	<p>Offers teachers access to STEM educators and professionals in industry, higher education, and government to obtain/share information and collaborate on projects.</p> <p>As part of an online STEM community, teachers can connect with other STEM teachers and professionals in the field to pose questions, share effective practices/resources, work together to solve problems, and learn about professional development or externship opportunities.</p> <p>2013-14 – Initial phase launched</p>

**STEMnet** – Maryland’s STEM Innovation Network – is being created by MBRT in response to the Governor’s STEM Task Force Report, to provide a platform that ensures universal access to Maryland’s vast STEM resources. In partnership with the Maryland State Department of Education, local school districts, and STEM teachers across the state – and with funding from Race To The Top, the State of Maryland and private corporations – the Teacher Hub is being created by MBRT to support STEM teachers and their efforts to move Maryland to world-class status in STEM education.



## Student Hub

MBRT is building what students say they want –

an online system that connects them to information, resources and opportunities that will:

- make science and math instruction come to life
- provide opportunities to learn about STEM careers
- challenge their thinking and reward outstanding achievement

<p><b>STEM Career Exploration</b></p> 	<p>Offers students an opportunity to explore a wide variety of STEM careers and what it takes to qualify for them.</p> <p>Using an interactive teen-oriented website, students can browse through a variety of well-paying, high-demand career fields, get in-depth information about the ones that interest them, and construct a plan to set and achieve their career goals – and to become part of an online community of STEM-interested students.</p> <p>2011-12 – Initial phase developed, biology-related fields      2012-13 – Expanded to include algebra-related fields      2013-14 – Expanded to more STEM fields</p>
<p><b>STEM Challenge Program</b></p> 	<p>Offers students, in class or on their own, the opportunity to solve real STEM problems experienced by (and posed by) real-world STEM specialists.</p> <p>Students will be introduced to real-world challenges by an expert in the field and are invited to develop solutions, allowing them to become part of a community of problem-solvers and to receive feedback and recognition for their contributions to the solutions.</p> <p>2012-13 – Initial phase launched, focus on algebra and biology      2013-14 – Chemistry and physics challenges added</p>
<p><b>STEM Workplace Exposure Opportunities</b></p> 	<p>Offers students the opportunity to obtain workplace exposure in the form of internships and job shadowing.</p> <p>Using an online inventory of workplace exposure opportunities, students can locate and apply for positions that will allow them to experience work in a career field of their choosing. This program will give all students a more level playing field to compete for existing opportunities.</p> <p>2013-14 – Initial phase launched</p>

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