**Take Home Resources:**

**Dan Meyer’s 3-Act Math Activities**: [https://docs.google.com](https://docs.google.com/spreadsheet/ccc?key=0AjIqyKM9d7ZYdEhtR3BJMmdBWnM2YWxWYVM1UWowTEE#gid=0)

Dan Meyer has created many three act math activities. Many of these are situated in real-world contexts, and most are launched with an engaging video that frames the problem. Act one introduces the central conflict of the task clearly and uses as few words as possible. The second act encourages the students to overcome obstacles, search for resources, and develop tools to solve the problem. Act three is where conflict resolution takes place and an extension is made.

**Spark 101 Mathematics**: <http://www.spark101.org/math/>

This website gives 10-minute video “case studies” that launch how mathematics can be used to solve real world problems. These case studies provide ways to integrate STEM (science, technology, engineering, and math) content to classrooms.

**Model-Eliciting Activities:** <http://www.cpalms.org/cpalms/MEA.aspx>

These complex, engaging mathematics activities show how middle and high school math can be used to solve problems real world problems, including problems that utilize engineering design. Click on the MEA Library link and then search by subject (Math) and grade level.

**NRICH Complex Tasks**: <http://nrich.maths.org/8517>

This website gives short, high-level research-based mathematical tasks for high school algebra, geometry, and statistics. Some of these activities are situated in real world contexts, while others are not. Collections of activities are organized to help students develop good mathematical habits and work as mathematicians.

**The Art of Mathematics**: <http://www.artofmathematics.org/about>

This website focuses on lessons and strategies to teach mathematics to liberal arts majors in college. It gives many ideas for activities that engage students who have an interest in the arts, but are not necessarily interested in mathematics. These lessons focus on inquiry-based teaching methods to teach concepts taught in high school Algebra, Geometry, Pre-calculus, and Calculus.

**NCTM Illuminations:** [**http://illuminations.nctm.org/Lessons-Activities.aspx**](http://illuminations.nctm.org/Lessons-Activities.aspx)

This is a go-to resource for high quality high school mathematics lessons on a variety of topics. Each lesson is connected to the NCTM Standards and the Common Core Math Standards. By searching by your desired grade level and mathematical content area, you can find lesson plans and activities with virtual manipulatives, applets, and games.

**NextLesson**: <https://www.nextlesson.org/>

This website has real-world problem solving activities for high school mathematics topics. Each activity has multiple editions in order to provide students with different topics to pique their interests. Although not all activities are free, most range from free to $5.99.