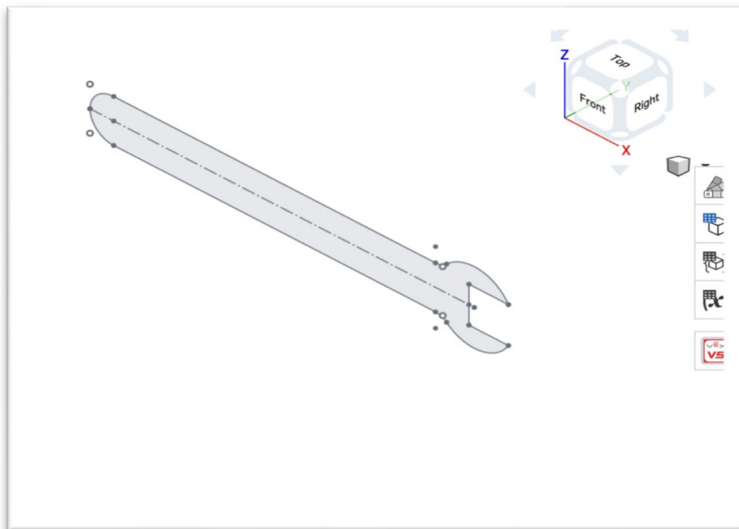


# HIGH SCHOOL DESIGN BRIEF

## Onshape Certification byDesign



**Course Description:** The Onshape Certification byDesign course is specifically designed to prepare students to pass the Onshape Certified Associate Exam. The course is broken into three units, each containing five learning cycles, a preliminary challenge, and a primary challenge. Students learn sketching, extrusion, assemblies, and engineering drawings.

**Course Objective:** Creating complex assemblies in CADD software is an important step in product development. Anyone seeking Associate Certification in Onshape will need to be proficient in creating assemblies within Onshape.

**Challenge:** Everything starts with a beginning. Our first challenges are just that, the beginning. Sketching and geometric construction are the foundation of all engineering graphics. Whether drawing a two-dimensional engineering drawing or creating a three-dimensional model, CADD technicians must have a strong understanding of sketching and geometric construction.

**Criteria:** The purpose of Learning Cycle 1 is for students to develop a strong foundation in sketching skills by utilizing geometric construction techniques. Students will learn the sketching tools available in Onshape.

**Materials:** [Onshape](#) is a browser-based, three-dimensional parametric modeling system that is free for education. We recommend the use of an Educational Enterprise account, but it is not required. Onshape can run on iOS, Android, Chromebooks, or any device that runs a modern web browser.

**Time Frame:** 6 hours

**Evaluation:** Students will be evaluated using the rubric provided on each handout.

**ITEEA EbD Onshape Certification byDesign:**  
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This EbD™ High School Design Brief was authored by Ashley Fore and ITEEA's STEM Center for Teaching and Learning.