**Project Brief: Viking Sword and Shield**

**It’s all about the tools and the process!**

“Design thinking” about the features and functions of a Viking sword and shield starts by formulating and answering some key questions:

* How and where will the sword and shield be used?
* What are the functional requirements of both items?
* What is the ideal size, shape, and weight of each item?
* How might the sword and shield respond to the force of blows?
* What materials should you use to create a sword and shield?
* How will the items be stored when not in use?
* What cultural messages will your sword and shield send?
* How will the items be repaired, cleaned, and maintained?
* What is your schedule for completion?
* What inspires you most about this project?

**Process**:

For this Viking shield project, the first task is to develop basic skills in using Autodesk® 123D Design® software to develop concepts as part of the Design Thinking ideation stage. After completing the sample Viking shield, students are encouraged to develop their own designs and apply their knowledge of the software to generate multiple concepts for alternative designs. The bottom line is this: if students can expand and enhance their ability to combine the innovation capabilities of the software and the power of the design thinking process, then the goals of this curriculum have been achieved.

**Design considerations used in the example project are as follows**:

* Purpose: To design a Viking shield that incorporates both functional, aesthetic, and cultural elements, and to consider how these elements inform our understanding of the past
* Target user: Who will be using the sword and shield, and who else will he/she interact with?
* Materials to be used: Limited to historical materials/technology available
* Size, shape, and weight: What is the most practical design for you? Why?
* Scheduling requirements: 8 to 10 hours to complete the sample project