**Project Brief: USB Pen**

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

“Design thinking” linked to the development of a customized USB pen starts by formulating and answering some key questions:

* Where will the drive be used?
* What type of activities will people be engaged in while using the USB pen?
* How much time in a day would a person be using the USB pen?
* Where will the pen be stored when not in use?
* How bright will the light from the lamp need to be?
* Hoe much memory will be required for the drive
* What are the potential problems related to damage to the USB pen?
* What materials should be used to make the USB pen housing?
* What is your budget for the entire project?
* What is your schedule for completion?
* What inspires you most about this project?

**Process**:

For the USB Pen project the first task is to develop basic skills in using Autodesk® Inventor® software to develop concepts as part of the Design Thinking ideation stage. After completing the sample USB Pen housings, 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 housing for a USB pen
* Target audience: Multiple
* Size limitations: size determined by ease of storage and transport
* Materials to be used: plastic
* Scheduling requirements: 6 to 10 hours to complete the sample project