

Guaranteed and Viable Curriculum

Unit (link to lesson)	Length of Unit (Days)	Power Standard	Proficiency Levels Document	Depth of Knowledge	Essential Question/Learning Targets	I Can Statement	This Means Statements	Formative Assessment	Summative Assessment
https://docs.google.com/document/d/0B_aJ0CmTJ35aY16R9Nc2st0dMf1eF7gEdit7uqpswhrlnqAQUid11741863744222141913&sourcekey=0;eL8xJ3Nc2BP4aU9N0YF6kRpooftrue&sd=true	This unit is broken up into two units. Two days for sketching. Three days for stacking blocks	Students will make two-dimensional and three-dimensional representations of the designed solution.	7	2	https://drive.google.com/file/d/0B_aJ0CmTJ35aY16R9Nc2st0dMf1eF7gEdit7uqpswhrlnqAQUid11741863744222141913&sourcekey=0;eL8xJ3Nc2BP4aU9N0YF6kRpooftrue&sd=true	I can correctly draw an orthographic drawing using the light et method and properly label the top, front and right side views. I will also know and understand the use and placement of the four basic line types found in orthographic drawings.	That students will be drawing examples of orthographic drawings, so that they will have something to study for the summative assessment to prove that they have attained the knowledge needed to be successful. For the stacking blocks, students will need to show the instructor that they can read the orthographic drawing and make the 3D stack of blocks match the drawing in the top, front and right side sketch.	Completing five different view points of the same block. Practicing drawing orthographic sketches and placing the correct line types when necessary. Visible and hidden line types. The later assignment Stacking blocks students will stack seven different stacks of blocks and ask for the teacher to check if they are correct. They will also have to answer three reflection/conclusion questions.	Summative will be The Sketching Quiz 16pts, summative: four line types in order of how you sketch an object, three types of sketches and how to identify these sketches. The eight steps of the design process.
https://docs.google.com/document/d/0B_aJ0CmTJ35aY16R9Nc2st0dMf1eF7gEdit7uqpswhrlnqAQUid11741863744222141913&sourcekey=0;eL8xJ3Nc2BP4aU9N0YF6kRpooftrue&sd=true	This unit will take two days	Students will develop an understanding of the process of designing involves presenting some possible solutions in visual form and then selecting the best solution (s) from many.		2	https://docs.google.com/document/d/1T0d5dR9WbTjvC7HufuYdSNX1bMT7Cj9z2L1Gd8Cf1eF7gEdit7uqpswhrlnqAQUid11741863744222141913&sourcekey=0;eL8xJ3Nc2BP4aU9N0YF6kRpooftrue&sd=true	I can correctly draw an orthographic drawing using the light et method and properly label the top, front and right side views. I will also know and understand the use and placement of the four basic line types found in orthographic drawings.	That students will be drawing examples of Thumbnails and isometric drawings so that they will have something to study for the summative assessment that follows that formative assignments.	Students will have to draw four thumbnails of ordinary classroom objects. They will have to maintain proportion of these different objects. They will also have to draw two different isometric shapes, the isometric cube and isometric peg and notch.	same as above
https://docs.google.com/document/d/0B_aJ0CmTJ35aY16R9Nc2st0dMf1eF7gEdit7uqpswhrlnqAQUid11741863744222141913&sourcekey=0;eL8xJ3Nc2BP4aU9N0YF6kRpooftrue&sd=true	This unit will take two days	Students will develop an understanding of the process of designing involves presenting some possible solutions in visual form and then selecting the best solution (s) from many.		4		I can correctly stack the seven different stacks with little to no help from the teacher. I can use my knowledge that I have attained from previous assignments to help me create the correct orthographic drawing of my personal challenge section of the assignment.	This Means that students will be able to look at a two dimensional drawing and create a three dimensional stack of blocks that match that drawing. Students will have a hands on application of finding the length, height and width of a two dimensional drawing and turning it into a three dimensional object.	Visual inspection	Sketching quiz that follows this assignment
Design process	Seven Days	The engineering design process involves defining a problem, generating ideas, selecting a solution, testing the solution(s), making the item, evaluating it, and presenting the results.			Students will have to learn the eight steps of the design process, in order to apply it to the Marble Run problem.			Visual inspection	Sketching quiz that includes the steps of the design process that follows this assignment
Sketching Review	two days	Students will make two-dimensional and three-dimensional representations of the designed solution.			Students will be able to draw and label the three following sketches correctly: Thumbnail , Isometric , and Orthographic .			Visual inspection	Sketching quiz that follows this assignment
Line Types	one day	Students will make two-dimensional and three-dimensional representations of the designed solution.			Students will be able to identify the four main line types on an Orthographic drawing. Students will know the correct order of applying/drawing the four main line types .			Visual inspection	Sketching quiz that follows this assignment
Robotic Arm	19 days	Students will be reading 2D blueprints and creating 19 3D parts using Autodesk Inventor			Students will be able to correctly sketch the 19 parts to the correct length, width and height using the 2D blueprints without help from the teacher. They will be able to assemble the parts into the Robotic Arm using the pictures provided on the blueprints.	I can read and interpret a technical drawing to create 3D parts, then later assemble them into a replica robotic arm model. When I finish assembling the robotic arm I will be able to manipulate the arm to make it pivot from side to side, go up and down, make the wrist rotate from side to side and make the fingers open and shut.	I will complete the five parts that will be formally assessed weekly by the instructor to see if they are sketched and extruded correctly.	I will show the instructor that I am learning the information by successfully scoring a 10/10 on the orthographic part quizzes that I complete each week of the unit.	