# Daily Lesson Plan

# Design and Draw for Production

## Unit 10 | Section 2 | Puzzle Cube Presentation | Day 1-3

### ITEEA Standards

### Objectives [SWBATU]

* Define the problem at hand and design various solutions
* Communicate their designs via technical drawing, CAD & prototyping
* Evaluate their designs by means of testing and feedback to make improvements/adjustments

### Success Criteria

* Completed presentation file submitted via Google Classroom with identifiable slides for the design process and explains how the problem was identified and a solution designed (*review rubric*)

### Materials

* Laptops/computer lab access
* Drafting tools and materials
* 3D printer + filament
* Projector
* Smartboard

### Resources

* Unit 10 - Section 2 - Handout 1

### Instructional Outline

* Review design and engineering process
* Review completed assignments up until this points such as:
* Written statement for defining the problem and a solutions
* Solution constraints and Criteria
* How .STL file format is important and how to 3D printer interacts with the files
* TinkerCAD and SketchUp optional CAD tools

### Assignment / Activities

|  |  |
| --- | --- |
| Assignment | Grade |
| Puzzle Cube Presentation | 100 points |

### Evaluation

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Category | Weight | 0 points | 25 points | 50 points | 75 points | 100 points |
| Organization | 20% | Unable to find assignments or not routinely saved | Able to demonstrate some organization by backing up files or use of folders | Both drawings and models are identifiable and can be found if needed | All drawings are in a folder and models organized by folders in Google Drive | All drawings are in a folder labeled correctly and models organized by folders in Google Drive labeled correctly |
| Class Participation | 20% | Showed no participation | Limited to no participation | Inconsistent day-to-day participation | Participated only when needed | Engaged daily and actively participated |
| Effort | 30% | No effort | limited to no effort | Inconsistent day-to-day effort | Showed effort only when needed or routinely directed | Continuous day-to-day effort with or without direction |
| Creativity/Originality | 15% | No creativity, copied designs | Minimal creativity based off past designs | Moderate improvements based off past designs | Complete overhaul of past or found designs | Completely new idea/design |
| Craftsmanship/Skill | 15% | Poor execution, no planning | Moderate end result, able to achieve an outcome | Good planning but poorly executed end result | Good planning and good end result although not what had been designed or communicated | Great planning & execution able to achieve what had been designed or communicated |

### Added Notes