# Lesson Plan

# Design and Draw for Production

## Unit 10 | Section 1 | Puzzle Cube Design | Day 9-10

### ITEEA Standards

5-8. Attributes of design 5-9. Engineering designs 5-10. The role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving 6-11. Apply the design process

### Objectives [SWBATU]

* Summarize their designs by means of testing their puzzle cube designs through different variables
* Create a baseline assessment of how easy or hard their puzzle cubes are based on different testing variables

### Materials

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

### Resources

* Finalized puzzle cube

### Instructional Outline

* Provide the testing spreadsheet or allow students to fabricate their own
* Students can approach students in class to time completion results of their puzzle cubes
* Students are then allowed to also take the testing outside of class if needed to compute larger data sets

### Assignment / Activities

|  |  |
| --- | --- |
| Assignment | Grade |
| Puzzle cube testing worksheet | 100 points |

### Added Notes