

Crash Dummies Project

Content Area: **21st Century Life & Careers**
Course(s): **Level 1 Engineering Drawing**
Time Period: **Marking Period 1**
Length: **3 weeks**
Status: **Published**

Unit Introduction

Standards

ARCH.9-12.9.4.12.B.(1).9	Develop technical drawings drafted by hand and computer-generated plans to design structures.
ARCH.9-12.9.4.12.B.(2).17	Use craft skills to meet or exceed teacher and/or employer expectations.
ARCH.9-12.9.4.12.B.75	Use and maintain appropriate tools, machinery, equipment, and resources to accomplish project goals.
STEM.9-12.9.4.12.O.(1).11	Demonstrate understanding of processes and concepts that are key to understanding the design process.
STEM.9-12.9.4.12.O.2	Demonstrate mathematics knowledge and skills required to pursue the full range of postsecondary education and career opportunities.
STEM.9-12.9.4.12.O.3	Demonstrate science knowledge and skills required to pursue the full range of postsecondary education and career opportunities.
STEM.9-12.9.4.12.O.5	Demonstrate use of the concepts, strategies, and systems for obtaining and conveying ideas and information to enhance communication.
STEM.9-12.9.4.12.O.17	Employ critical thinking skills (e.g., analyze, synthesize, and evaluate) independently and in teams to solve problems and make decisions.

Essential Questions

1. How do you create the best solution to the problem?
2. What can we learn by solving this problem?

Content/Skills

Students will design and build #1 or #2. (TBA)

- 1. A vehicle with three safety devices that will allow an egg passenger to survive a head on collision.
- 2. A device that will allow an egg astronaut to survive a free fall from space.
- 3. Students will learn/apply Engineering Design Process to help create the best possible solution

Skills (delete)

- Brainstorming
- Drawing plans
- Fabricating a model
- Model storming
- Using design processes