7 Platforms and Stairs

Content Area: **21st Century Life & Careers**
Course(s):   **Generic Course, Level 1 Engineering Drawing**
Time Period: **Semester 1**
Length: **1-2 weeks**
Status: **Published**

Unit Introduction

In this unit, students will be learn how to safely design and build stage sets involving platforms and stairs.

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.
CAEP.9.2.12.C	Career Preparation
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. What are the results of a collapse of a platform or stair system on a stage set?

2. How do you know if the structure that you are designing or building is safe?

Content/Skills

- Students will design/build a set or prop for show or scene.

- Students will learn/apply Design Process to help create the best possible solution/set/prop

- Students will work collaboratively and provide critical feedback

Skills

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