Unit 2: Research and Design

Content Area: **Technology**
Course(s):
Time Period: **September**
Length: **2 weeks**
Status: **Published**

Enduring Understandings

Technology

-The universal design process is a series of steps one takes to either create something or to solve a problem.

-The design process is a cyclical process; designers cycle through the steps and go back and forth between steps as solutions to problems are developed.

Art

-Artists choose different tools, techniques, and materials to express specific ideas.

-Informed opinions promote the ability to analyze, respond to and evaluate art in daily experiences.

Essential Questions

Technology

-How are things created?

-What is design?

-What is the difference between design criteria and constraints?

-How do the constraints of a design challenge ultimately impact the final product?

Art

-How do criteria influence personal artistic growth?

-How do we think critically about our world and stay constantly engaged as artists?

-How does art create meaning through subject matter, symbols, and ideas?

Content

Goal

The goal of this unit is to introduce students to the stage throughout history, the advancements, changes, and new ideas in regards to the production of stage design and theatre as a whole.

Suggested Activities:

-Create a model of a stage in order to better understand the importance of the layout and design.

-Create a timeline of technology and art advancements highlighting their significance and cultural impacts as it relates to the theatre.

-Compare and contrast two productions in order to see advancement in design and prduction.

Skills

-Students will be able to revise language within the design process, distinguishing each step.

-Students will be able to write a project proposal and create an elementary technical sketch.

-Students will be able to construct a simple prototype for given criteria and constraints and justify their solution.

-Students will be able to support their choices for planning and creation based on research of art, theater, literature and history.

-Students will be able to illustrate and develop basic sketches, models, and mock ups of their designs based upon their investigations.

-Students will be able to synthesize acquired knowledge, skills, and techniques into well researched designs.

Resources

-Musicals: The Definitive Illustrated Story, DK Publishing, 2015

-Theatre Games for the Classroom, Viola Spolin, 1986

-American Musical Theater History

http://www.theatrehistory.com/american/musical030.html

-Parts of a Stage

http://www.theatresolutions.net/parts-of-a-stage/

-History of Theater

http://www.historyworld.net/wrldhis/PlainTextHistories.asp?ParagraphID=cui

-Understanding Scale and Scale Drawings

https://www.firstinarchitecture.co.uk/understanding-scales-and-scale-drawings/

-Copyright Laws in School Performances

https://www.legalzoom.com/articles/copyright-laws-and-school-performances

-Various Filmed Stage Productions

-Director and Student Scripts

Assessments

Formative Assessments

-Open class discussions

-Self assessment

-Class Participation

-Student Group Interaction

-Exit tickets

Summative Assessments

-Writing assignments

-Unit quiz

-Project Rubrics

-Technical Sketches

Standards

Tech

8.2.8.C.4 Identify the steps in the design process that would be used to solve a designated problem.

8.2.8.C.5 Create a technical sketch of a product with materials and measurements labeled.

8.2.8.C.8 Develop a proposal for a chosen solution that include models (physical, graphical or mathematical) to communicate the solution to peers.

8.2.8.D.3 Build a prototype that meets a STEM-based design challenge using science, engineering, and math principles that validate a solution.

Art

1.2.8.A.2 Justify the impact of innovations in the arts on societal norms and habits of mind in various historical eras.

1.3.8.D.6 Synthesise the physical properties, processes, and techniques for visual communication in multiple art media and apply this knowledge to the creation of original works.

1.4.8.B.2 Differentiate among basic formal structures and technical proficiency of artists in works of dance, music, theatre, and visual art.