

I. Topic: Simple Machines

II. Standards/Objectives

Standards- TH:Re9.1.6. / TH:Pr6.1.6. / TH:Cr2-6.a. / [CCSS.ELA-LITERACY.RST.6-8.3](#) /

[CCSS.ELA-LITERACY.RST.6-8.6](#)

SWBAT- articulate multiple ideas

SWBAT- identify multiple simple machines

SWBAT- create a functioning prop

III. Vocab

- Simple Machines
- Wheel and Axle
- Lever
- Inclined Plane
- Pulley
- Screw
- Wedge
- Props
- Scenic Design

IV. Teaching Procedures

Anticipatory Set

- 1) As students enter, hand them each a box and have them take their seats and play the following videos. On the second video tell them they can open the box as long as they listen.
- 2) https://www.youtube.com/watch?v=sQ1eRCOu5WM&ab_channel=AmericanTheatreWriting
- 3) <https://ny.pbslearningmedia.org/resource/idptv11.sci.phys.maf.d4ksim/simple-machines/#.X9DJVdhKg2w>

Guided Practice

- 1) When the videos finish ask the students if they have ever heard of a simple machine and if they know how it relates to the first video.
- 2) After some answers start with the simple machines they found in their boxes. Go through each of the 6 simple machines and explain them giving the students time to take notes.
- 3) Make sure to walk them through bigger examples of the smaller simple machines.

Independent Practice

- 1) Use a kahoot or question game to gauge their current level of understanding of simple machines.

Guided Practice

- 2) Next try to see if the students can remember a time they saw a musical or show where a simple machine was used?
- 3) After the discussion show some examples of this being used. Then explain props and the way they are used in the shows they have watched.

Independent Practice

- 1) Use a kahoot or question game to gauge their current level of understanding of props and prop design.
- 2) Introduce the project they will be working on so they may start researching in class.

The Project (rubric below)-

Students objective is to create a simple machine prop for a theatre show/scene.

Students will need to include:

- Research materials of the scene, show, simple machine and period
- Multiple sketches of ideas for the end result
- One final sketch of desired end product
- The final project
- A small presentation of how it works

Closure

- 1) At the end of class have them submit the research they have done so far.
- 2) For homework ask them to find a show they like and a scene from that show they would like to use as inspiration for their prop design.

V. Materials

- Boxes of simple machines
- Video Links
- Computers for students

VI. Adaptations/Mods

- Students will have access to any accommodations needed. Including but not limited to a TA for signing, a TA to help around the room, and extra time or assistance.

VII. Evaluation

Formative- Kahoots or question games through the day to gauge learning.

Summative- Their Prop Design Project.

VIII. Reflection

- 1) Did you let students ask enough questions? Were you able to communicate with them well? What did they seem to struggle with the most?
- 2) Were you efficient while still giving enough information? Did you run out of time? Did you have extra time? What is one thing to improve in the next lesson?

The Rubric for the project

Points	1	2	3	4	5
Research Materials	Has 3 or fewer resources. Has only one type of resource. Shows under 40% understanding of their idea.	Has at least 4 resources. Has only one type of resource. Shows 40% or greater understanding of their idea.	Has at least 6 resources. There are at least 2 different types of resources. Shows 60% or greater understanding of their idea.	Has at least 8 resources. There are at least 2 different types of resources. Shows 80% or greater understanding of their idea.	Has at least 10 resources. There are 3 different types of resources. Shows 100% understanding of the idea of their project.
Sketches	Does not have any sketches for the project.	Has at least 1 sketch. Shows little to no improvement through the progression. Final sketch is not present.	Has at least 2 sketches. Shows improvement a couple of times through the progression. Final sketch is somewhat present.	Has at least 3 sketches. Shows decent improvement through the progression. Final sketch is present.	Has 3 or more sketches. Shows improvement through all of them. Final sketch is present.
Final Project	Is not a simple machine. Can not be used.	Uses 1 simple machine. Barely creates the desired effect. Can not be used in a chosen scene.	Uses 1 simple machine. Creates a resemblance of the desired effect. Would work in the chosen scene.	Uses 1 or more simple machines. Creates most of the desired effect. Could be used in the scene chosen.	Uses multiple simple machines. Creates desired effect. Can be used in the scene chosen.
Presentation	Can not understand. Shows no understanding. Has no eye contact.	Can only understand a few times. Shows little to no understanding. Has eye contact less than 3 times.	Hard to understand 5 or more times. Shows a decent understanding. Has little eye contact.	Hard to understand only 1-2 times. Shows a good understanding. Has eye contact.	Speaks clearly and at a calm pace. Shows clear understanding of the topic. Has eye contact.

Total Points achievable: 20 points