

Lesson Plan Title: Scale Drawing**Author: Aileen Zeigler****Date: June 30, 2020****Description:** In this skill lesson, students will grasp the concept of scale drawing.**Learning Outcomes:**

The students will be able to identify measurements and calculate the scale difference.

Grade Levels: 6-8**2014 National Core Theatre Standards:**

TH:Cr3.1.6.c. Explore a planned technical design during the rehearsal process for a devised or scripted drama/theatre work.

TH:Cr.1.1.7.b. Explain and present solutions to design challenges in a drama/ theatre work.

TH:Pr5.1.8.b. Use a variety of technical elements to create a design for a rehearsal or drama/theatre production.

Time to Teach: 1 90 minute class period**Materials Required for Instruction:**

Rulers for student use (Architects or scale rulers)

Pencils

large format paper

Pre-measured objects

Opening:

Problem solving challenge: Similar to tanagrams, give each group a collection of shapes and challenge them to discover how to fit them all into the same space.

Instructional Procedures:

1. Review the use of a ruler for measurement
 - a. Take a ruler and measure 3 different objects
 - i. The teacher should previously measure the objects, be sure to include at least one that is small and requires using fractions.
 - ii. Students compare results and verify answers
 - iii. fun fact: the hooked tab at the end of a tape measure moves to ensure accuracy of measurement, it extends when used around an object and contracts when used inside an object.
2. Review the concept of drawing to scale.
 - a. Ask students to convert lengths to scale versions. Start with $\frac{1}{2}$ " as that is the simplest to compute.
3. Choose a room (bedroom, classroom, lobby, stage) and ask students to draw that room to scale.
 - a. They must include the walls, doors and at least 3 pieces of furniture.
 - b. Larger format paper will allow for a larger scale.
 - c. Students should measure the items and make notes of their sizes, then convert the dimensions to the scale and then draw on paper.
 - d. If you have a stock of scale rulers you can also give them the opportunity to use those.

Assessment:

Checklist-

Drawing includes:

- ___ Walls
- ___ doors, windows, curtains
- ___ 3 furniture items
- ___ drawing is to scale

Closing:

Share and compare drawings

Please use the space below for suggestions for any adaptations or accommodations for inclusion of special needs learners.

You may provide students with graph paper for drawing rather than free hand. Students may also complete their drawings on the computer using a site like SketchUp.

Extension: If you have access to a 3-d printer you can have students draw $\frac{1}{2}$ " scale items from your scenery stock and 3d print them to scale.

Virtual: This work can be completed at home. It will be more challenging to verify the accuracy of their measurements. However you could find common objects and use the known measurements.

Please use the space below to list any other specific resources for multi-cultural inclusions.

Whenever possible theatre teachers should strive to include references to objects, experiences and/or text which represents the diversity of the cultures in their student body.