Scale Unit Plan

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Course Name(s)	Introduction to Educational Theatre
Course Section(s)	
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Unit Overview	
Unit Plan Topic	Scale
Curriculum-Framing Questions	
Overview (Goal)	This unit will build upon the student's knowledge of the scenic design process for a play by employing their understanding of the fundamentals of design and scenic renderings in order to apply them to the practices of drawing in scale, creating ground plans, and scale models.
Rationale	Knowing how to analyze draftings and create objects in scale is a very important skill to have, specifically in the practice of scenic designing. Students are not only exposed to a technical aspect of theatre that they may be unfamiliar with, but they also develop an understanding of a useful set of skills that can be applied outside of the theatrical classroom. Furthermore, the process of drafting and creating models in scale engages students in practicing skills that can be applied and developed in their math courses.
Learning Objectives	
1) The student will practice using a scale ruler to **create** drawings in various scales. 2) The student will **create** a model of a basic set and **develop** a ground plan. 3) The student will **construct** models of an object using unit cubes and **modify** the scale of each model.	
Content	
1) Drawing in Scale - This section of the unit will be devoted to understanding the practice of drawing in scale. This is an important skill that is necessary when creating scenic renderings, elevations, and drafting by hand. This portion of the unit will also cover how to use and read a scale ruler. 2) Creating a Ground Plan	

- This section of the unit will focus on the construction of a ground plan. In Theatre I, the primary focus was to develop the understanding of reading and identifying different types of preproduction materials for the scenic designer. This portion of the unit will apply the students' understanding to the process of drafting a basic ground plan for objects in a space.

3) Creating a Scale Model
   - This section of the unit will introduce students to the process of creating a 3-D model of an object in various scales.

Instructional Strategies

1) *Instructional Video on Practicing Using a Scale Ruler with Hands-On Talkback*
   The students will watch a short video demonstrating how to use a scale ruler in the context of scenic design and drafting. After displaying the video, the teacher will distribute color coded scale rulers to the students and explain how each edge of the scale ruler is measuring distance using a specific scale. The teacher will walkthrough drawing different shapes in different scales (i.e. a 2 ft. square in ¼ and ½ inch scale)
2) *Teacher-Led Walk Through of Creating a Ground Plan*
   The teacher will place different acting blocks around the performance space before class. The teacher will guide the students as they measure the dimensions of the space, the acting blocks, and their spatial relation to the borders of the space. The students will return to the classroom and the teacher will walk through the process of drafting the dimensions of the blocks, with the correct location in the space, onto drafting paper in the correct scale.
3) *Unit Cube Scale Model Examples*
   To teach the students how to make a model of an object to scale, the teacher will use unit cubes to demonstrate a 3-Dimensional version of a scale. The teacher will create an object, such as a table, that has a specific set of dimensions, demonstrating how to make a model of something that is proportional to an actualized version of that object. It is important to note that 1 foot = 1 cube. Once the teacher has created the first object, the teacher will create the same object, but using a different scale, such as 1 foot = 2 cubes. This will show that a scale model can be created in different scales, as long as the dimensions remain proportional to one another.
4) *Play-Mo-dohs! *pronounced like maw-does*
   To further the student's understanding of scale models, the teacher will use Play-Doh to walk the students through the creation of objects in various scales, just like with the unit cubes, but using the Play-Doh to increase the challenge and possibilities of making 3-Dimensional objects. The teacher will place an object in front of the students that is of an irregular shape, such as a pot used for a plant. The students will first measure the dimensions of the object, and will then recreate the object to scale using Play-Doh.

TEKS Measured

§117.324.c.1.A demonstrate proper use of standard vocabulary in costumes, lights, makeup, theatre management, properties, scenery, and sound
§117.324.c.2.B apply the design process, including analysis, research, incubation/selection, implementation, and evaluation, to a theatrical product such as a rendering, model, and sketch

§117.324.c.2.F demonstrate understanding of communication methods between directors and designers such as prompt book, costume plot, light plot, makeup, theatre management, property list, design renderings, and models
§117.324.c.2.G practice proper measurement and scale as applied to design or construction
§117.324.c.5.C recognize the design and technical elements of theatre as an art form and evaluate self as a creative being

Approximate Length of Unit

1 week

Materials Needed

Projector or TV Screen, Computer, Drafting Paper, Pencils, Scale Rulers (class set), Unit Cubes

Prerequisite Skills

-Basic script reading (understanding dialogue, characters, and stage directions)

-Know parts/areas of the stage

-Comprehension of principles of design

-Ability to identify the parts of a ground plan

-Knowing the different parts of a design package (ground plan, scale model, renderings, elevations)

Assessment

Formative:

- Measuring Drawings in Scale
  The students will be given different images depicting objects that they will be required to measure with a scale ruler. Some images will require the students to measure the length and width in a given scale (¼ inch or ½ inch) while other images will provide the students with the dimensions, and they will need to determine which scale the objects were measured in.
- Scale Object Practice
  The students will be allowed to create any object of their choosing using unit cubes. They must create two examples of that object, but each in it's own scale (i.e. 1 foot = 1 cube, 1 foot = 4 cubes).

Summative:

- Ground Plan
  The students will place various sized acting blocks around a given space and create a ground plan for their "set" they have created. The students will turn in a picture of the set they created, and their completed ground plan in ¼ in scale.