Set in a Box: Designing a Scenic Model

Unit 1, Lesson 1 · 10 class days · Grades 6–8 · Theater Tech

Lesson Goals

Central Focus

Students step into the role of a scenic designer. Each student chooses one scene from a folktale, analyzes what the scene needs (where, when, mood, and space for actors), translates those needs into a scaled ground plan, and builds a three-dimensional model of the set from printable cut-and-fold templates. The project ends with a peer gallery walk and a short designer's pitch in which students explain and defend their design choices using theater tech vocabulary. This lesson formalizes the hands-on production work students just completed and introduces the design process that the Theater Tech / CTE pathway builds on.

State Standards

- 6.TH:Cr1.c – Identify solutions to design challenges in a drama/theatre work.
- 7.TH:Cr1.c – Explain and present solutions to design challenges in a drama/theatre work.
- 8.TH:Cr1.c – Imagine and explore solutions to design challenges of a performance space in a drama/theatre work.
- 6.TH:Pr5.b / 7.TH:Pr5.b / 8.TH:Pr5.b – Articulate how technical theatre elements are integrated into a drama/theatre work / Choose a variety of technical theatre elements that can be applied to a design / Use a variety of technical theatre elements to create a design for a rehearsal or drama/theatre production.
- CCSS.MATH.CONTENT.7.G.A.1 – Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
- CCSS.ELA-LITERACY.SL.7.1 – Engage effectively in a range of collaborative discussions, building on others' ideas and expressing their own clearly.
- CTE Arts, Media & Entertainment – Production and Managerial Arts pathway.

Learning Objective

I will design and build a scale model of a set for one scene from a folktale, using a ground plan, so that my set shows the audience where and when the story happens, creates a mood, and gives actors room to move, and I will explain my design choices to my peers.

Academic Language and Language Supports

Language function: Design, explain, justify

Language demand: Reading (story summary), Drawing/Drafting (ground plan to scale), Building, Writing (designer's statement), Speaking (peer feedback and designer's pitch)

Lesson vocabulary:

- **Scenic designer** – the artist who designs the world of the play
- **Set** – the scenery and furniture on stage
- **Model** – a small 3-D version of the set, built to scale
- **Ground plan** – a bird's-eye (top-down) drawing of the set
- **Scale** – a rule that shrinks real sizes (1 square = 1 foot)
- **Flat** – a flat, painted wall unit; **jack** – the brace that holds it up
- **Platform** – a raised floor unit actors can stand on
- **Proscenium** – the frame around the stage opening
- **Sightlines** – what the audience can and can't see
- **Thumbnail sketch** – a fast, small idea drawing
- **Mood, texture** – the feeling of a space; how a surface looks like it feels
- Stage directions review: upstage, downstage, stage left, stage right, center

Syntax: Students use structured sentences to connect a design choice to its purpose:

- “My set shows the audience that we are in ___ because ___.”
- “I chose ___ (color/shape/texture) to make the audience feel ___.”
- “In real life this piece is ___ feet, so in my model it is ___ squares.”

Discourse: Students give and receive glows and grows during the mid-point design huddle and gallery walk, and answer peer questions after their pitch.

- Glow: “One choice that really works is ___ because ___.”
- Grow: “Have you considered ___? It might help ___.”
- Actor check: “Can an actor get from ___ to ___ without ___?”
- Build-on: “I agree with ___, and I also noticed ___.”

Materials

- Set in a Box Template Pack (bilingual, ½ inch = 1 foot): story menu, designer's notebook, ground plan grid, stage box templates, set piece templates, blank flats, scale actors, build log, glow/grow cards, designer's pitch rubric (print templates on card stock at actual size)
- Scissors, glue sticks, clear tape
- Rulers, pencils, erasers
- Colored pencils and markers
- Optional: printable ½-inch-scale model furniture and actor pages for tables, chairs, couches, fireplaces, and bookcases
- One work folder or tray per student (models stay in class between days)
- SOAR board (Set in a Box)

- Projector / document camera for build demos
- 3–4 production photos of contrasting sets (teacher-selected)
- Masking tape (to tape a life-size stage outline on the studio floor)
- A finished teacher example model
- Flashlights (Day 10 pitch and preview of lighting unit)

Differentiation

English Language Learners

- All handouts and the story menu are bilingual (English/Spanish).
- Post a visual vocabulary wall (labeled picture of a flat, platform, jack, ground plan, proscenium).
- Sentence frames on every worksheet and on the SOAR board.
- Pair ELL students with a bilingual peer for the story menu and the design huddle.
- Designer's pitch may be given in the student's home language, or partially in English with a written card.

Gifted/Advanced Students

- Design a scene change: a second location from the same story that shifts within the same box (reversible flats or a rolling wagon).
- Draft a front-view rendering in addition to the ground plan.
- Invent and draw an original template net (a tower, a well, a boat) to scale.
- Serve as a “shop lead” who demonstrates a build step for peers.

IEP/504

- Offer pre-cut stage boxes and pieces for students with fine-motor needs; tape may replace glue.
- Reduced minimum: stage box + 3 set pieces + 1 scale actor (standard is 5 pieces).
- Chunked daily build checklist on the build log; teacher checks off each step.
- Extended time and a quiet build station as IEP dictates.
- Pitch may be recorded privately or presented to the teacher only.

Culturally Responsive Teaching

- The story menu includes Korean and Latin American folktales alongside European tales so students can see their own heritage represented.
- Students may relocate their story to a place they know (an abuela's kitchen, a Koreatown street, a market) as long as the scene's needs are met.
- Labels and design notes may be written in the student's home language.
- Glow/grow protocol frames feedback as support for a fellow designer, reinforcing ensemble values.

Day 1: What Does a Scenic Designer Do? (56 min)

8 min Step 1 – Hook: “Where Are We?”

Show 3–4 production photos of very different sets. For each, students call out WHERE and WHEN the story happens and HOW it makes them feel. Bridge to the play students just worked on: “What did our set tell the audience before anyone said a word?”

10 min Step 2 – Mini-Lesson: The Three Jobs of a Set

Introduce the scenic designer and the three jobs of a set (posted on the SOAR board):

- Show WHERE and WHEN the story happens.
- Create a MOOD.
- Give ACTORS space to move (entrances, exits, playing space).

Introduce key vocabulary with the visual vocabulary wall: model, ground plan, scale, flat, platform. Show the teacher example model and explain the project goal.

6 min Step 3 – Stage Directions Warm-Up

Quick movement game (“Director Says”): teacher calls stage directions, students move to that area of the studio. Speed up and add combinations (“downstage left!”). Students will need these terms on their ground plans.

15 min Step 4 – Choose Your Story

Distribute the bilingual Story Menu. Read the summaries aloud together. Each story lists one key scene and its design challenge. Students circle a first and second choice, then record their choice and the scene on page 1 of the Designer's Notebook.

12 min Step 5 – Scene Needs

On the Designer's Notebook, students list WHERE / WHEN / MOOD for their scene, and the MUST-HAVES: anything the actors must use, enter through, or stand on (a door, a bed, a window, a beanstalk).

5 min Closure – Build Log

Students complete Day 1 on their Build Log: “My set needs to show ___ because ___.” Teacher reviews logs to confirm every student has a story, a scene, and at least two must-haves.

> **Assessment 1.1 (Informal) · Standards: 6.TH:Cr1.c, 7.TH:Cr1.c**

Day 2: Mood, Color & Thumbnail Sketches (45 min)

5 min Step 1 – Do Now

Students reread their scene needs and star the single most important must-have.

12 min Step 2 – Mini-Lesson & Game: “Mood Swap”

Teacher describes the same location two ways (a friendly forest vs. a scary forest). Students call out what changes: color (warm vs. cool), shape (round vs. jagged), texture, and size (open vs. crowded). Repeat with a kitchen or a castle. Record design tools on the board: COLOR, SHAPE, TEXTURE, SIZE.

20 min Step 3 – Three Thumbnails

On the Designer's Notebook, students draw three fast thumbnail sketches of their scene, each a different approach:

- Realistic (looks like the real place)
- Storybook (like an illustration)
- Symbolic (a few bold pieces that suggest the place)

Remind students: thumbnails are about ideas, not drawing skill.

8 min Closure – Pair Pick

Partners trade notebooks and use the stem “I think your ___ thumbnail works best because ___.” Each designer circles the thumbnail they will develop and completes the Day 2 Build Log entry.

> **Assessment 1.1 (Informal, cont.) · Standards: 7.TH:Cr1.c, SL.7.1**

Day 3: Ground Plans, Scale & Sightlines (90 min block)

10 min Step 1 – Hook: “Will It Fit?”

Hold up a scale actor next to the teacher model: “This tiny person is 5½ feet tall in real life.” Introduce the scale rule for the project: **1 square = 1 foot**. The model is built at ½ inch = 1 foot (1:24, the same scale as standard printable white-card model kits); the ground plan is drawn at half that size (¼ inch = 1 foot) so the whole stage fits on one page.

20 min Step 2 – Mini-Lesson: The Ground Plan

Explain the ground plan as a bird's-eye view. Model reading the grid, stage areas, and symbols (flat, door, platform, stairs, furniture) on the document camera. Scale practice on the ground plan worksheet: a door is 3 feet wide (__ squares); a platform 8 squares long is __ feet and __ inches on the model; a bed 1½ inches long on the plan is __ inches on the model. Key idea: the square count never changes, only the size of the square (reproducing a scale drawing at a different scale).

15 min Step 3 – Sightlines on Our Feet

Tape a life-size stage outline on the studio floor. Several students become “set pieces” (standing as walls, trees, a table); the rest are the audience. Teacher moves the “set” around. Audience members raise a hand when they can't see the actor at center. Students discover: keep downstage center open, don't block entrances, put tall pieces upstage.

35 min Step 4 – Draft the Ground Plan

Students draft their ground plan in pencil from their chosen thumbnail. Requirements:

- At least one entrance/exit labeled
- A clear playing space for actors
- At least 5 scenic pieces drawn to scale and labeled (3 for modified IEP minimum)
- Must-haves from Day 1 included

Teacher circulates with the ground plan checklist.

10 min Closure – Ground Plan Checkpoint

Teacher conferences briefly with each student and checks the ground plan against the checklist (entrance, playing space, 5 pieces to scale, labels). Students who are not yet ready receive a specific next step on their Build Log. Students complete the Day 3 entry.

> **Assessment 1.2 (Formal) · Standards: 8.TH:Cr1.c, 7.G.A.1**

Day 4: Shop Safety & Building the Stage Box (56 min)

8 min Step 1 – Shop Norms

Introduce build norms as a real scene shop would: cut on solid lines, fold on dashed lines (score with a pencil and ruler first), color BEFORE you fold, scissors stay on the table, clean workspace = safe workspace. Assign rotating materials managers.

10 min Step 2 – Demo

Teacher builds the stage box live under the document camera: cut the Stage Left floor half on its dashed line and glue it onto the Stage Right half at the center line (36′ × 14′ stage); join the two back wall halves; glue the back wall and side walls to the floor with their gray tabs.

30 min Step 3 – Build the Box

Students cut, score, fold, and glue the stage box. Students write their name on the underside. Before cutting, each student checks the print with the cover-page ruler (0 to 14 must measure exactly 7 inches). Advanced students who finish early serve as shop leads.

8 min Closure – Strike & Log

Clean up (“strike” the shop), store models in folders/trays, complete the Day 4 Build Log entry.

Day 5: Set Pieces – Flats & Platforms (56 min)

5 min **Step 1 – Do Now: Cut List**

Using their ground plan, students list every template piece they need (a “cut list”) on the Build Log, and mark where each piece goes on the model floor by counting squares from the ground plan.

10 min **Step 2 – Demo**

Demonstrate a flat with a fold-back jack, and folding a platform box. Show how to check a piece against the ground plan grid (“does it take up the right number of squares?”).

36 min **Step 3 – Build**

Students color, cut, and fold their flats and platforms. Teacher circulates, checking pieces against ground plans.

5 min **Closure – Strike & Log**

Clean up and complete the Day 5 Build Log entry.

Day 6: Color, Texture & Custom Pieces (45 min)

5 min **Step 1 – Do Now**

“What mood is my set going for? Which colors will create it?” Students jot an answer on the Build Log.

8 min **Step 2 – Mini-Lesson: Scenic Painting on Paper**

Demo quick texture techniques with colored pencil and marker: brick, wood grain, stone, foliage, and simple shading to make flat pieces look 3-D. Show how to draw a custom shape (tree, tower, cottage) on a blank flat.

27 min **Step 3 – Build**

Students add color and texture and create custom pieces on blank flats.

5 min **Closure – Strike & Log**

Clean up and complete the Day 6 Build Log entry.

Day 7: Build Day & Mid-Point Design Huddle (90 min block)

5 min **Step 1 – Do Now**

Students write one build goal for today on the Build Log.

30 min **Step 2 – Build**

Continue building. Students begin placing pieces in the box according to their ground plan.

10 min Step 3 – Model the Critique

Teacher places the teacher model at center and invites students to give it one glow and one grow using the frames on the SOAR board. Teacher models receiving feedback (“Thank you. I'm going to try ___.”).

20 min Step 4 – Design Huddle

In trios, each designer presents their model-in-progress for one minute (“My set shows ___”). Partners give one glow and one grow, including one actor check (“Can an actor get from ___ to ___?”). Each designer records one revision they will make on the Build Log.

> **Assessment 1.3 (Informal) · Standards: 7.TH:Cr1.c, SL.7.1**

20 min Step 5 – Revise & Build

Students make the revision from their huddle and continue building.

5 min Closure – Strike & Log

Clean up and complete the Day 7 Build Log entry.

Day 8: Dress the Set & Designer's Statement (56 min)

5 min Step 1 – Do Now

Students compare their model to their ground plan and note any differences.

33 min Step 2 – Finish & Dress

Students finish building, glue pieces in final positions, add set dressing details (rugs, signs, plants), and place at least one scale actor in the playing space.

14 min Step 3 – Designer's Statement

Students write a 3–4 sentence designer's statement using the frames on the rubric sheet: where/when, mood, one color/shape choice and why, and how actors use the space.

4 min Closure – Strike & Log

Clean up and complete the Day 8 Build Log entry.

Day 9: Gallery Walk (56 min)

8 min Step 1 – Set the Gallery

Students set up their model with their ground plan and designer's statement at their station. Review the glow/grow frames and the three jobs of a set; these are the gallery criteria.

30 min Step 2 – Gallery Walk

Students rotate on a teacher signal and leave a written Glow/Grow card at three different models. Every card must name a specific choice (no “It's cool”). Teacher circulates and notes strong feedback to share aloud.

> **Assessment 1.3 (Informal, cont.) · Standards: 6.TH:Pr5.b, 7.TH:Pr5.b, SL.7.1**

13 min Step 3 – Read & Revise

Designers read their cards, choose one grow to act on, and make a final quick fix.

5 min Closure – Share Out

Two or three students share the most useful feedback they received and what they changed. Complete the Day 9 Build Log entry.

Day 10: Designer's Pitch & Reflection (45 min)

5 min Step 1 – Pitch Setup

Arrange models in a curve. Hand out flashlights.

27 min Step 2 – Designer's Pitch

Each student gives a 60-second pitch to the “director” (teacher) and “production team” (class), explaining how their set does its three jobs. A partner “lights” the model with a flashlight during the pitch. One peer asks a question using a discourse stem. Teacher scores the model, ground plan, and pitch with the Designer's Pitch Rubric.

> **Assessment 1.4 (Formal, Summative) · Standards: 6.TH:Cr1.c, 7.TH:Cr1.c, 8.TH:Cr1.c, 8.TH:Pr5.b, 7.G.A.1**

8 min Step 3 – Self-Assessment

Students complete the self-assessment column of the rubric and write one thing they would do differently as a professional designer.

5 min Closure – Next Up: Lighting

Turn off the room lights. Shine one flashlight on a model from the front, then from the side, then through a colored marker cap or colored paper. Ask: “Did the set change? What did the light do?” Preview the next unit: lighting design.