Objective

By the end of this lesson, the student will be able to design and build a unique Lego structure, demonstrating their creativity and understanding of basic engineering principles. They will also learn to work through challenges and refine their designs through iteration.

Materials and Prep

- Assorted Lego bricks (various shapes and sizes)
- Baseplates for building
- Pencil and paper for sketching ideas
- Timer (optional, for timed challenges)

Before the lesson, ensure the student has a clean and organized workspace to build their Lego creations. Encourage them to think about what they want to create and to be open to making changes as they build.

Activities

- **Free Build Challenge:** Allow the student to create whatever comes to their mind using the Lego bricks. Give them a time limit of 30 minutes to encourage quick thinking and creativity.

- **Theme-Based Building:** Choose a theme (like a castle, spaceship, or animal) and have the student design a structure based on that theme. This activity will help them focus their creativity within specific parameters.

- **Design Iteration:** After completing their first build, have the student reflect on what they like and what could be improved. Encourage them to make changes and build a second version of their creation.

- **Storytelling with Lego:** Ask the student to create a scene with their Lego build and then tell a story about it. This activity will enhance their narrative skills and encourage imaginative thinking.

Talking Points

- "What do you think makes a structure strong? Let's think about shapes and how they can support weight."
- "How can we use different colors and shapes to express our ideas? Remember, creativity has no limits!"
- "As you build, don't be afraid to change your design. Sometimes the best ideas come from making adjustments!"
- "Can you tell me a story about your creation? What adventures happen in the world you've built?"