SLAB Classroom Build Framework

Subtitle: A simple structure to guide teachers and mentors through a complete classroom build

Purpose of the Build

SLAB classroom builds are short, high-impact design-build experiences led by college mentors and supported by the classroom teacher. The goal is to expose students to the built environment — from design and planning to real construction skills — in a way that's fun, empowering, and age-appropriate.

Each build is structured for flexibility. You can spread it across multiple sessions or condense it depending on your schedule. The framework below is designed to help you pace the project and understand how to support students at each stage.

Session 1: Introduction + Design

Objective: Get students excited about the project. Introduce basic building concepts and guide them through sketching their ideas.

What to Do:

- Kick off with energy explain what they'll build and why it matters
- Introduce the mentors (college students) and what they study
- Discuss what makes a good design: function, stability, creativity
- Have students sketch their initial ideas individually or in groups
- Ask questions like:
- What do you want this to do?
- How will it be used?
- How can we make it sturdy?

Teacher Role:

Encourage creativity. Remind students that every builder starts with an idea — there are no bad designs at this stage.

Session 2: Planning + Measurement

Objective: Begin turning ideas into action. Teach students how to measure, plan materials, and use tools properly.

What to Do:

- Review sketches from last session
- Finalize a group design and break it into steps
- Teach measuring basics: tape measures, rulers, alignment
- Have students measure and mark wood/materials for cutting
- Introduce basic safety concepts and team roles

Teacher Role:

Reinforce math concepts through measurement and planning. Help students stay focused as they translate ideas into real steps.

Session 3: Build Time

Objective: Begin building! This is where the classroom becomes a workshop.

What to Do:

- Assign roles: cutters, holders, builders, safety leads
- Review tool use and safety one more time
- Guide students through each build step with mentor support
- Encourage iteration it's okay to revise along the way
- Celebrate effort, not perfection

Teacher Role:

Float between groups. Encourage teamwork and safe behavior. Step in to redirect as needed and celebrate progress.

Session 4: Finishing + Reflection

Objective: Complete the project and take time to reflect on the process.

What to Do:

- Finish final construction steps
- · Let students paint, decorate, or customize their build
- Guide a short reflection:
- · What was hardest?
- What did you enjoy most?
- What would you do differently next time?
- If possible, present the final product to another class or take-home

Teacher Role:

Help students take pride in their work. Emphasize process over product and encourage students to keep building in the future.

Materials & Prep Tips

- Each project has a material list and cut guide provided
- No power tools are used everything is classroom-safe
- Teachers should review mentor materials ahead of time
- You'll have a point person from SLAB to help with setup