Trade Prep Tabletop Labs

FEATURES

Trade Prep is a division of
National Education Developers, LLC
Lutz, FL 33549

1. SAFE.

Inexperienced trainees can be dangerous -- to themselves and others. Tabletop lab materials are the safest for teaching construction principles. Working in a shop area can be hazardous. Heavy objects, sharp tools, noise, grease, dust, chemicals, and other factors make Tabletop Building Labs the best option for "no-experience" trainees. (Best yet, Trade Prep brings the materials for the school, for the employer.) Trade Prep supplies our proprietary curriculum, necessary materials, and the NCCER*-certified instructors. *(National Center for Construction Education and Research)*

2. AFFORDABLE.

Construction and building materials are costly. And once mortar is applied to block and brick, it is impossible to reuse. Same with nails, cut lumber, and more. Tabletop Building Labs provide the same principles without the "waste factor" of costly materials. Tabletop materials are less expensive to begin with, and they are reusable, year after year. (Best yet, Trade Prep supplies the lab materials...it's not left to the school, not left to the employer)

3. PORTABLE.

Imagine carrying enough brick and mortar into a classroom to build 7 park benches! Consider motors, structural steel, hydraulic cylinders, pneumatic cylinders, and more... This is all possible in minutes with Tabletop Building Labs for inexperienced learners. Proven building materials and miniaturized versions teach the same principles -- wherever you want it, whenever you need it. (Best yet, Trade Prep sets up and cleans up the materials... the schools or employers do not have to do it.)

4. FITS in the ROOM.

No costly training areas! No rooms redesigned. No architects, no funding, no inspections, no ground studies, no hydraulic studies, no bonding, no liability, no bid process, no hassle with using full-size construction materials to learn principles. Trainees put the equipment on the table, follow the instructions, and learn the same principles by DOING the learning, not just reading about it, or watching a video. (Yes, Trade Prep supplies the materials, our proprietary curriculum, and the NCCER-certified instructors.)

5. FAST, REUSABLE, and TEMPORARY!

Do Tabletop Building Labs in one session, remove it for the next session. Simple, lightweight, portable. Move the sets to the next classroom for another lab. Imagine the logistics of making regular-size brick and block disappear, or steel trusses, or hydraulic cylinders! Tabletop labs are the best way to let the inexperienced trainees feel, use, do, and learn construction and building principles. (Yes, Trade Prep cares for, cleans, sorts, assembles, replaces, & stores construction kits... not the school, not the employer.)

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ELECTRICAL

Tabletop models using different types of electronic components including resistors, capacitors, transistors, switches, diodes, solar cells, motors, sound and light sensors are used to introduce students to basic electrical concepts.

MASONRY

Tabletop Building Labs are constructed from a variety of manipulative sets, including mini brick-and-mortar sets, (…YES…the future Masons marvel at these!) Basic brick and block positions, blueprint reading, mortar mixing techniques, and various masonry terminology are easily understood when accompanied by life-like mini brick-and-mortar tabletop models.

MECHANICAL

Mechanical engineering principles are introduced as students actively engage in building working models. Using interlocking brick systems as well as mini gears, pulleys, motors, pneumatic pistons, valves, and cylinders, students learn lever classifications, ratios, mechanical advantage, energy transfer, steering, mechanical systems, friction, motion & force, and more. All are important in understanding and using equipment.

STRUCTURAL

Tabletop rod-and-connector building systems highlight structural engineering concepts. Trainees study bridge types including beam, truss, arch, cantilever, suspension, cable-stayed and bascule. These allow students to experience related terminology such as tension, dead & live loads, stress, abutments and anchorages.

MATHEMATICAL

Measurement, graphing, data analysis, data organization, and problem-solving all take place right on the classroom tabletop. Measurements become tangible and important when used to cut, connect, and fasten materials...when done in the trainee's hands, these become very real.

SOCIAL

Tabletop labs guide trainees to follow strategic questioning leading them to practice problem-solving and communication skills. Such "soft skills" are critical to success in any career. Working together, trainees participate in enriching activities and learn to cooperate with others. They compromise, negotiate, make decisions, practice leadership, follow instructions, develop patience & self-confidence, enhance their vocabulary, and get the job done.

MOTIVATIONAL

Technology, math, and science come alive as trainees with varied learning styles engage in developing solutions to real world design problems…right in the safety of a classroom!
Tabletop building labs are direct and to the point. They create moments where trainees say things like, "Ahha!" "I got it!"

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