The Engineer's Mindset

Mission: the thief locked the mascot in the Evidence Locker again with a new code hidden in a blueprint. Build, test, improve, crack the blueprint code on the whiteboard, whisper the password, open the box, free the mascot. Character trait today: **Social Awareness**.

Grades 3–8 / middle school: run the competitive version. Fixed teams for the hour, a visible timer on every round, score each game (winning team, fastest crack, bracket wins) on the whiteboard, crown a champion at the finale. Older kids referee and invent their own build-codes. See each game below for the tougher 3-8 rules.

1 · Tallest Tower (5–16 min) — same materials for all, build, test, improve

Kit About 10 sheets of scrap paper + one short strip of tape per team, identical for every team so it is a fair test.

Run it Build ~4 min, measure (must stand on its own for 3 seconds), then an improve round: knock it down, beat your own height with what you learned.

Coach "What is holding it up?" · "Where does it wobble?" · "Does folding beat flat?" · "Little tape, where does it matter most?" Praise the team that improved, not just the tallest. TK-2: more paper, no tape, no contest. 3-8: cut to 6 sheets + one 3in tape, hard 4-min clock, head-to-head scored on height AND a 5-second wind test; a student refs. Ties break in a 60-second sudden-death rebuild.

2 · Human Bridge (16–31 min) — only bodies, span a gap or hold a shape

Setup 3 to 5 teams. Using only their bodies, build a bridge or structure that spans a gap or holds a shape for 5 seconds, then iterate stronger or longer.

Ideas Span a gap: link arms in a line, lean into an arch, lie head-to-toe. Hold a shape: tunnel, star, triangle. Coach toward a wide, low base. TK-2: simple tunnel or star, 3-count. 3-8: run a head-to-head bracket, judged on spanning the gap, holding a 10-count, and fewest bodies; winner stays on, a sidelined student refs, track wins for a champion.

Keep it safe no standing on shoulders, no full weight on anyone, feet on the ground.

3 · Blueprint Code (31–45 min) — steps out of order, sort them, letters spell the password

BASE B "Build a flat foundation" · A "Add the walls" · S "Set the beams across" · E "Each floor stacks on top." Build order **B-A-S-E**.

PLAN P "Pick your design" · L "Lay the base" · A "Add supports" · N "Nail it all together." Build order **P-L-A-N**.

Run it Write the steps scrambled on the board. Teams number them in build order (foundation first, roof last), then read the letters in that order for the password. First team to whisper it opens the box. TK-2: 3 steps, coach helps. 3-8: race a visible 3-min clock on a 5-6 letter codeword, 20-second penalty for a wrong password, then each team invents its own scrambled build-code for a rival and must defend the order. Fastest correct crack scores.

4 · Finale + Wristband (45–60 min)

Open Winning team announces the password to the room, coach turns the key, mascot lifts out, big cheer. Optional "thief's note" inside: "You built it better than I could lock it. I surrender!"

Award the **Social Awareness** trait wristband to detectives who shared ideas and built on what teammates suggested ("let's try Maya's idea").

Games bank (zero materials, 5-min energizers or swaps)

Games Wink Detective · Guess the Leader · **Detective Mafia** (best for 3-8): eyes closed, tap 2 Culprits + 1 Detective; Night (Culprits pick a catch, Detective investigates one), Day (announce who is out, debate, vote one out); town wins by voting out both Culprits. 5-7 min per round, then reshuffle. TK-2: 1 Culprit, no Detective, keep it silly.

Detective's Oath (say together, magnifiers up): I am a detective. / My brain is my best tool. / I don't guess, I reason. / I follow the clues to the truth.