Chain Reaction

Mission: the thief wired the mascot's lock to a broken machine, and it stays jammed until the steps run in the right order. Win the games, put the machine back in cause-and-effect order on the whiteboard, whisper the password, open the box, free the mascot. Character trait today: **Self-Management**.

1 · The Human Machine (5–16 min) — everyone is one moving part, change one and the whole thing ripples

Warm-up build a 6–8 part machine in a line, each kid a repeating motion and sound. Coach: "your motion has to fit the beat of the person next to you."

Change gear tap one part to double-speed, then freeze another. Make them feel one change ripple down the chain. Ask a kid to predict before you change it.

Break & fix pull one part out so the machine jams, group reconnects and gets smooth again. Change one part, change everything.

Diff TK–2: one circle, same easy motion, coach calls the change, nobody out. 3–8: complex multi-part machine, timed sync challenge, two machines head-to-head judged by the watching kids, a student designs and directs.

2 · Pass the Power (16–31 min) — circle of hands, squeeze the current around, time the loop

Setup circle holding hands, one kid squeezes right to send the current, each person squeezes the next the instant they feel it. Time the full loop, try to beat it.

Changes layer one at a time: a reverse switch, then a shortcut across the circle, then a second current the other way. "Keep your part steady and ready, the whole circuit depends on you."

Diff TK–2: one gentle squeeze one direction, coach counts aloud, no timer. 3–8: multiple currents at once, live switches and shortcuts, two team circuits race the clock (dropped or faked squeeze resets their clock), students run the switches and time it themselves.

3 · Fix the Machine (31–45 min) — scrambled steps, the right cause-and-effect order spells the password

GEAR four steps scrambled: push the button (G) → motor spins (E) → belt turns (A) → arm lifts (R). Right cause-and-effect order reads G-E-A-R. A rushed team grabs letters left-to-right and gets junk.

ON two steps: flip the switch (O) before the light glows (N). Order reads O-N. Good for a first round or younger team.

Diff TK–2: short 2-step ON chain, coach acts out each step. 3–8: 6-step machine, longer word (POWER, MOTOR), branching dependencies plus a decoy step, beat-the-clock (3 pts fastest, 1 pt second, wrong guess = 30-sec penalty). Older kids design a broken machine for a rival team and referee it.

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 rebuilt my machine and it turned on me. I surrender!"

Award the **Self-Management** trait wristband to detectives who kept their own part steady and changed it on purpose ("I held my gear", "I saw my part change the whole thing").

3–8 For older kids and the two middle schools, run the whole hour competitive: fixed teams, score every game on the whiteboard, visible timer each round, crown a champion here. Games bank adds **Detective Mafia** (2–3 Culprits + a Detective, 5–7 min rounds) — the one middle schoolers ask to replay.

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.