Math Olympics

Mission: the thief turned the case into a contest and locked the mascot behind a number code. Win the events, crack the code on the whiteboard, whisper it, open the box, free the mascot. Character trait today: **Responsible Decisions**.

1 · Estimation Station (5–16 min) — closest smart guess scores

How many 24 detectives × 10 fingers = **240** (within 20). 20 chairs × 4 legs = **80** (within 10).

How long count 1 to 30 out loud ≈ **15 sec** (time a volunteer). One walk around the tape square, time it live, closest wins.

Total 34 + 29 + 41 = **104** (within 8). 6 × 24 = **144** (within 15). Reason, don't count it out.

Diff TK–2: tiny estimates, coach helps, closest reasonable answer cheered. 3–8: harder (18 × 21 ≈ **378**, seconds in an hour = **3600**, 497 + 288 = **785**), must say the reasoning, visible timer, a student MC runs it.

2 · Mental Math Medley (16–31 min) — three events, point per correct fastest answer

Add 8+7=**15**, 13+9=**22**, 24+17=**41**, 35+28=**63**, 46+39=**85**.

Double 6=**12**, 14=**28**, 23=**46**, 35=**70**, 48=**96**.

Missing __+6=14→**8**, 5+__=12→**7**, __−4=9→**13**, 15−__=6→**9**, __×3=21→**7**.

Diff Wrong shout, other team steals on a two-count. TK–2: add within 10, double small, missing within 10, both teams answer. 3–8: two-step (25+17−6=**36**, double 14 then +5=**33**, __×2+3=17→**7**), faster clock, a student judge checks and calls who was first.

3 · Crack the Number Code (31–45 min) — each answer is one digit, top to bottom

651 3 + 3 (= 6) / 4 + 1 (= 5) / 6 − 5 (= 1). Read top to bottom: 6, 5, 1.

927 5 + 4 (= 9) / 8 − 6 (= 2) / 4 + 3 (= 7). Read top to bottom: 9, 2, 7. Fresh values, not the codes from Days 33, 39, 43, or 52.

Diff TK–2: 2-digit code **46** ("2+2"=4, "5+1"=6), blank line per digit, coach helps. 3–8: order-of-operations **83915** [(1) 4+2×2=**8**, (2) 15÷3−2=**3**, (3) 1+2×4=**9**, (4) 10−3×3=**1**, (5) 2×4−3=**5**], timer + wrong-guess lockout (20 sec). Each team writes a code for a rival and referees it, proving its own key first.

4 · Finale + Wristband (45–60 min)

Open Winning team announces the code to the room, coach turns the key or dials it, mascot lifts out, big cheer. Optional "thief's note" inside: "You checked every digit and beat my code. I surrender!"

Award the **Responsible Decisions** trait wristband to detectives who checked before they committed ("I checked it first", "I picked my best answer on purpose").

3–8 For older kids and the two middle schools, run the whole hour competitive: fixed teams, score every event 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.