

10-Minute Maker Challenges

Quick, Fun, Failure-Friendly Projects for K-6 Classrooms

These challenges are designed to spark creativity and problem-solving in just 10 minutes. Perfect for transition times, early finishers, or quick maker sessions. All use simple, classroom-friendly materials.

1. Cardboard Creature

Grade Level: K-6 | **Time:** 45-60 min

Materials: Cardboard, tape, scissors

Challenge: Build a moving creature from only cardboard, tape, and scissors.

Full Instructions: maker404.com/404-challenges/cardboard-creature/

2. Balloon-Powered Car

Grade Level: 2-6 | **Time:** 45-60 min

Materials: Balloon, straws, bottle caps, cardboard

Challenge: Create a car that travels using only balloon power.

Full Instructions: maker404.com/404-challenges/balloon-powered-car/

3. Cup Stack Claw

Grade Level: 2-6 | **Time:** 45-60 min

Materials: Cups, string, craft sticks, rubber bands

Challenge: Design a claw mechanism to stack cups without touching them.

Full Instructions: maker404.com/404-challenges/cup-stack-claw/

4. Marble Maze Master

Grade Level: K-6 | **Time:** 45-60 min

Materials: Cardboard, straws, tape, marble

Challenge: Build a maze that guides a marble from start to finish.

Full Instructions: maker404.com/404-challenges/marble-maze-master/

5. Paper Clip Chain Reaction

Grade Level: K-6 | **Time:** 30-45 min

Materials: Paper clips, craft sticks, dominoes

Challenge: Create a chain reaction using simple materials.

Full Instructions: maker404.com/404-challenges/paper-clip-chain-reaction/

6. Straw Tower Challenge

Grade Level: K-6 | **Time:** 30-45 min

Materials: Straws, tape, paper clips

Challenge: Build the tallest free-standing tower using only straws and tape.

Full Instructions: maker404.com/404-challenges/straw-tower-challenge/

Pro Tips:

- Keep materials simple and accessible
- Emphasize the design process over perfect results
- Celebrate creative solutions and "productive failure"
- Let students iterate and improve their designs

Find more challenges at maker404.com/404-challenges