

**How to Host a  
Rubik's Cube  
Competition**

[www.YouCanDoTheCube.com](http://www.YouCanDoTheCube.com)



# Getting Started

There will come a time when your students will want to compete:

**YOU CAN DO THE RUBIK'S CUBE COMPETITION GUIDE  
MAKES IT EASY - JUST FOLLOW OUR STEP-BY-STEP GUIDE:**

**STEP 1 - COMPETITION FORMAT**

**STEP 2 - SUPPLIES YOU'LL NEED**

**STEP 3 - HELP YOU'LL NEED**

**STEP 4 - RULES**

**STEP 5 - THE "SOLVED" STATE**

**STEP 6 - SCORE SHEETS**

**STEP 7 - CHECKLIST**

Competitions can be organized just for fun, but can be so much more. What a great idea for a school assembly or a family math night! You can also post your competition on our website and challenge other schools in your area!

[www.YouCanDoTheCube.com/Competitions](http://www.YouCanDoTheCube.com/Competitions)

### SOLO OR TEAM SOLVING?

- **Solo** = Individuals competing against each other for the fastest time. You may have several rounds calculating results either by best or average of "x" number of rounds.
- **Team** = Team solving is members of a team collectively solving a number of Cubes. Teams at official *You CAN Do the Rubik's Cube* Competitions are comprised of 8 students solving 25 Rubik's Cubes.



Teams only need to be able to solve collectively - i.e. all team members do not need to know how to solve all stages. They can pass the Cube to one another and just complete the stages where they are most proficient.



Don't make your teams too large - teams of 6 or 8 are a good size.

### WHO WILL COMPETE?

- Students in your class, the entire school or youth organization, members of a Cubing club? You decide!



Cubing Clubs offer an environment for teamwork as those who are able to solve the Cube teach those who are just learning.

### SHOULD YOU SET A TIME LIMIT?

- You may choose not to set a time limit for the solo rounds thereby encouraging all competitors to complete the solving. Naturally, the first one to solve is the winner, but others could continue and vie for position ranking. You could then hold multiple competitions over time and watch competitors move up the ranking ladder.
- **Solo** - In the beginning consider 5 minutes as a maximum per round for solo solving, but don't be surprised as your students get faster, they will solve in under a minute.
- **Teams** - Increase the time limit exponentially based upon the size of the team and number of Cubes to be solved. Official *You CAN Do the Rubik's Cube* team competitions allow a maximum of 10 minutes for the team rounds.

**VENUE:**

- This could be a classroom, gym, or all-purpose room. You will need several tables (6' or 8' if you are holding a team event) and chairs.

**CUBES:**

- If you are holding a "Solo" competition you need to make sure everyone has a Cube who is competing at the same time.
- A "Team" event requires sufficient Cubes for the number of teams competing.

**Tip**

Use an odd number of Cubes that cannot be divided equally by the number of students on the team - e.g. Teams of 8 collectively solving 25 Cubes.

**TIMERS:**

- You will need at least one stopwatch or other timer that records time in minutes, seconds and milliseconds. Additional timers will be needed for team events - each team will require a separate timer.

**Tip**

Don't forget extra batteries if your timer(s) use them.

**RULES:**

Make up your own Rules or follow our suggestions in Step 4.

**SCORE SHEETS:**

We've provided sample score sheets for "Solo" and "Team" in Step 6.

**PENS & PENCILS:**

Needed to record the scores.

**PRIZES:**

Certificates make great prizes. You can download a variety of Rubik's Cube certificates and badges for free:

[www.YouCanDoTheCube.com/downloads/](http://www.YouCanDoTheCube.com/downloads/)

Or visit our online shop and purchase medals or pins:

[www.YouCanDoTheCube.com/shop/](http://www.YouCanDoTheCube.com/shop/)

**ORGANIZATION:**

You will need someone responsible for making all arrangements and appointing the Competition Officials. This is probably you!

**OFFICIALS:****COMPETITION JUDGE:**

Responsible for overseeing the entire competition; monitoring competition to make sure the rules are followed, making decisions on disqualification, and starting the competition.

**JUDGE(S):**

Responsible for executing competition procedures. For team events, you will need a Judge for each team. This can be the teacher or coach from another team.

**SCRAMBLERS:**

Responsible for scrambling (mixing up) the Cubes.

**SCOREKEEPER:**

Responsible for recording the scores and determining the winners based on the fastest times

**TEACHERS/COACHES:**

Responsible for teaching the team to compete and making sure the competitors are aware of the rules.

**Tip**

One person can act as a Judge, Scrambler and Scorekeeper. Just be sure you have sufficient Officials for your competition to run smoothly.

**All Officials, Teachers, Coaches, and Competitors can help with Judging, Scrambling and Scoring. BUT, competitors should not judge or scramble their own Cubes nor record their own scores.**

**GENERAL RULES:**

1. Your competition should be a fun experience. However, some general rules of conduct should be stated. Most often, your school policy covers what is expected of students in the areas of order and deportment, respect, courtesy and use of profanity. You may wish to restate some of these policies as a reminder.
2. Competitors may talk among themselves, shout and encourage their teammates but should not distract other competitors.
3. No electronic items whatsoever are allowed on the competition table(s) including cell phones, tablets, or any other electronic equipment.
4. Use of notes or any form of reference material can be permitted if you wish. If so, this should be clearly stated in the competition rules. Official *You Can Do the Rubik's Cube* competitions allow elementary students to use Solution Guides or other written notes.

**Tip** To be more inclusive - for students who cannot solve without using the Solution Guide, consider a competition or special round permitting use of the Guide.

5. Competitors may sit or stand during the competition round(s).
6. Disqualification: The Competition Judge may disqualify a team and/or a single competitor or issue a warning for any of the following reasons:
  - Cheating.
  - Competitor fails to comply with School Policy, your competition rules or the rules of the venue.
  - Competitor is disruptive and/or interferes with other competitors.

Any warning may result in a 5 second Competition penalty per incident. In the event of any dispute, competitors must accept the final ruling of the Competition Judge.

# Rules - Cubes & Scrambling

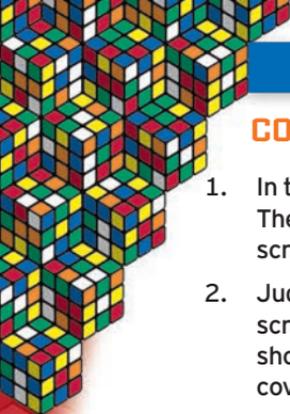


## CUBES:

1. The competition requires the use of Rubik's brand Cubes. You may choose to have 2x2, 3x3 or 4x4 Cube events at your competition.
2. Competitors may use their own Cubes or you can provide the Cubes. If competitors share Cubes with other teams, you will need to schedule the teams so Cubes are available for each team.
3. If desired, team or competitor owned Cubes may be marked on the logo tile only (center white square) with identifying symbol or initials. (Ex: owner's initials) Borrowed Cubes from *You CAN Do the Rubik's Cube's* Lending Program may not be marked.
4. Cubes must be in reasonable working order with no missing tiles. If a tile pops off during the solve, the solver should finish the solve as if the tile was still in place. No penalty is assessed.
5. Lubricating and/or sanding Cubes is acceptable to make the Cubes twist smoothly. However, if for any reason the modified Cube does not function correctly, falls apart or moves out of the solved state accidentally once the timer has stopped, the Cube is considered unsolved and will not justify grounds for a "do over". Note: Borrowed Cubes from *You Can Do the Rubik's Cube's* Lending Program may not be lubricated or sanded.

## SCRAMBLING:

1. A Scrambler mixes up each Cube so it is completely scrambled. The number of moves to scramble a Cube (a scramble sequence) from the solved state to scrambled state must be at least 25 moves. A move is one 90° turn.
2. Cubes must be in a solved state before scrambling begins.
3. If there is any doubt a Cube is sufficiently scrambled, the Judge may ask the Scrambler to re-scramble.



## Rules - Competition Procedure

### COMPETITION PROCEDURE: TEAM

1. In the team round, teams may scramble the Cubes of another team. The Coach should remain with their team's Cubes to supervise the scrambling.
2. Judges do a quick general inspection to ensure thorough scrambling. If in doubt, the scramblers must re-scramble. Judges should also count the Cubes to ensure the correct number and cover the Cubes with a cloth.
3. Competitors must place their hands flat on the table and must not have any physical contact with the cubes before the solving begins. **Penalty for infraction: 5 seconds.**
4. Competition Judge inspects all tables to make sure everyone is ready and when satisfied, tells Teacher/Coach to start their timer when they are ready to begin.
5. As soon as the Teacher/Coach starts the timer, the team removes the cloth and begins the solve. Simultaneously, the Judge assigned to their table should also start their stopwatch.
6. When a team has solved all the Cubes and each team member has released all the Cube(s) and placed their hands flat on the table, the Coach and Judge stop their respective timers.
7. Once the time is stopped, competitors must not touch or move the Cubes or timer until the Table Judge has inspected all the Cubes and the time is recorded together with any penalty on the score card. **Penalty for infraction: 5 seconds.**
8. The Table Judge records the score from the Coach's timer unless there was a malfunction or user error. In that case, the Judge's time (stopwatch) is used.
9. The Coach verifies and signs the score card.
10. If there is a dispute, no moves or alignments may be applied to the Cube(s) until the dispute has been settled by the Competition Judge.

## SOLVED STATE:

1. The solved state is when each of the six faces of the Cube have one solid color per face.
2. A Cube is considered solved if less than a 45 degree move is required to align the colors.
3. If one move is required of more than 45 degrees, there is a 3 second penalty.
4. If more than one move is required, the Cube is considered not solved.
5. Examples:



Solved - No Penalty  
Less than a 45° turn to align



Solved with 3 second penalty  
1 turn more than 45° to align



Solved with a 3 second penalty  
Top row - 1 turn more than 45°  
Bottom row - 1 turn less than 45°



Not Solved  
2 turns more than 45° to align



# SOLO

## scorecard

Circle cube size:

**2x2 3x3 4x4**

**Name:**

**School:**

**Check one:**

Gr K-5	Gr 6-8	Gr 9-12
Div 1	Div 2	Div 3

**Time:** (enter as 00:00.000)

**Judge** (enter time above and initial here)

**Initial here:**

**Competitor signature:** (verify time before signing)



# TEAM scorecard

**School:**

**Team Name:**

**Check one:**

Gr K-5	Gr 6-8	Gr 9-12
Div 1	Div 2	Div 3

**Time:** (enter as 00:00.000)

**Cubes solved:**

**Penalties:**

**Circle cube size:**  
2x2   3x3   4x4

**Final time:**

**Teacher/coach signature:** (check time before signing)

## Step 7

## Checklist

### Venue:

Where: \_\_\_\_\_

When: \_\_\_\_\_

### Competitors:

Solo: How many competitors: \_\_\_\_\_

Teams: # of Teams: \_\_\_\_\_ # per Team: \_\_\_\_\_

### Competition Objective:

# Of cubes to be solved: \_\_\_\_\_ Time Limit: \_\_\_\_\_

### Competition Eligibility Requirements:

### Officials:

Main Judge - Name: \_\_\_\_\_

Other Judges - How many? \_\_\_\_\_

Scramblers - How many? \_\_\_\_\_

Score Takers - How many? \_\_\_\_\_

### Supplies:

Rules

Timers

Pens/Pencils

Cubes

Score Sheets

Prizes