



**Orange County Math Council
2012 Rubik's Challenge**

RULES

GETTING STARTED

Competition Dates:

North County: Saturday, May 12, 2012

South County: Saturday, May 19, 2012

The Challenge will consist of teams of eight, who will be competing for the fastest time to collectively solve 11 Rubik's Cubes.

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Tip: To print Tournament Rules on letter size paper, select File - Print- Page Scaling = Fit to Printable Area, from Printer Options.

Eligibility

1. Open to any Orange County Elementary School who has registered a team for the Orange County Math Field Day.
2. Each entity may enter one (1) team of eight (8) competitors
3. A competitor may only be a member of one team.
4. Any questions regarding eligibility should be directed to the **You CAN Do The Rubik's Cube** representative - Sue Seider - Telephone: 805 527 2651 or email sues@seventowns.com

Registration:

1. Registration is free. Each entity must complete and submit a registration form for each team by the deadline to be eligible to participate in the competition.
2. Registrants must provide all required information.
3. To register an entity must designate a teacher/coach. The teacher/coach must be over 21 years of age and will be the team contact.
4. Failure to assemble a team by the deadline, or failure to attend the Tournament will result in automatic disqualification.
5. Registration is limited to the first 20 schools who register.

Registration Deadline: March 19, 2012
Team Names Due by April 16, 2012

Prizes:

1. Winning team receives "Did It" T-shirt and Medal.
2. All team members receive a Certificate.

Organization Team:

1. You CAN Do The Rubik's Cube representatives will be responsible for making arrangements before and during the tournament and ensuring that all participants have access to either electronic or printed versions of these regulations.
2. You CAN Do The Rubik's Cube representatives will be responsible for ensuring that any changes in the rules are made available to all registered competitors.
3. You CAN Do The Rubik's Cube representatives will be responsible for appointing all Officials for the tournament.
4. Teachers, Coaches and Competitors will be required to assist with Judging, Scrambling and Scoring. Competitors will not judge or scramble their own cubes nor record their own scores.

Officials:

Main Judge:

- Responsible for overseeing the entire tournament; making sure the rules are followed, making decisions on penalties and disqualification, and starting the tournament.

Team Judge(s):

- Responsible for executing the tournament procedures. These officials will be a Teacher/Coach from another team.

Scramblers:

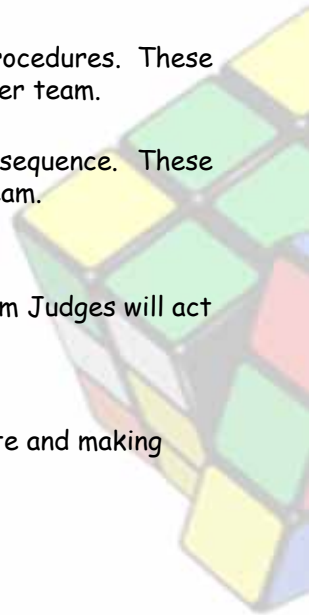
- Responsible for applying the scrambling sequence. These officials will be Competitors from another team.
(Scrambling = mixing up the cubes)

Score Takers:

- Responsible for registering the results. Team Judges will act as Score Takers.

Teacher/Coaches:

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



GENERAL RULES:

1. The Competitors should be a fun experience and all students, teachers and parents are expected to conduct themselves in a manner considerate of others at all times during the competition.
2. Competitors may talk among themselves, shout and encourage their team mates but should not distract other competitors.
3. Teacher/coaches are not permitted to assist team, either through instruction or by physically solving the cubes.
4. No items whatsoever are allowed on the competition table(s) including cell phones, pagers, or any other electronic equipment.
5. Use of notes or any form of reference material is not permitted unless specifically stated.
6. Competitors may sit or stand during the competition round(s).
7. 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 will 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.

CUBES:

1. The tournament requires the use of 3x3x3 Rubik's brand Cubes.
2. **Competitors should bring and use their own cubes.** Cubes will be available for loan if needed or if any of your cubes do not meet the with the competition rules.
3. Cubes must be in reasonable working order, so that normal Cubes should not be damaged, marked, or otherwise altered. It is acceptable to allow a small marking on the center cube with the Rubik's logo, so a personal cube can be identified. By small, we mean a colored dot, other symbol or initials.
4. Lubricating and/or sanding cubes is acceptable to make the cubes twist smoothly. However, if or any reason the 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".
5. Competitors are not allowed to bring any cubes into the competition area. Teacher/Coach maintains custody of cubes.



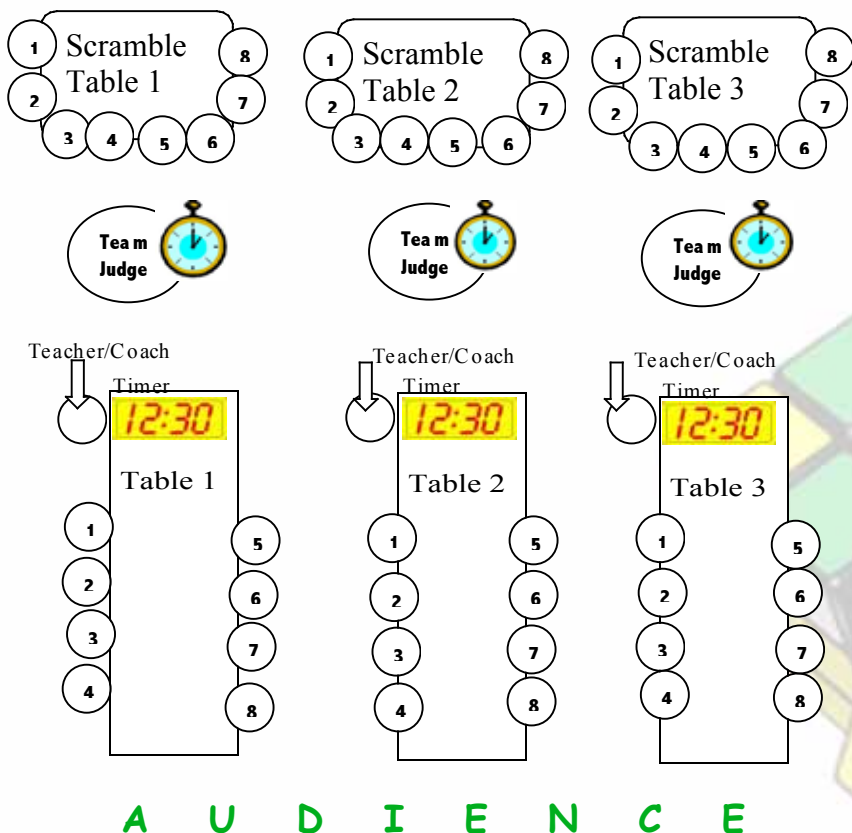
COMPETITION PROCEDURE:

1. Team Judges make sure the procedures of the competition are followed. A Judge must call "PENALTY" at the time of the infraction and such penalty should be noted.
2. Scramblers scramble the cube(s) according to Scrambling procedure on Page 7.
3. Timers are tested.
4. Team Judges do a quick cube count and general inspection to ensure thorough scrambling. If in doubt, scramblers must re-scramble.
5. Event Judge calls teams to "get ready". All members of the competing team must place their hands flat on the table. Team must not have any physical contact with the cubes until Teacher/Coach starts timer. **Penalty for infraction: 2 seconds.**
6. Team Judges cover the cubes and places the covered scrambled cubes on competition table.
7. Event 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.
8. As soon as the Teacher/Coach starts the timer, the team removes the cover and begins the solve. **Penalty for infraction: 2 seconds.** Simultaneously, the Team Judge should also start their stopwatch.
9. When a team has solved all cubes and each team member has released all the cube(s) and placed their hands flat on the table, the Teacher/Coach and Team Judge stop their respective timers. **Penalty for infraction: 2 seconds**
10. Once the time is stopped, competitors must not touch or move the cubes or timer until the Team Judge has inspected all the cubes and the time is recorded together with any penalty on the score card. **Penalty for Infraction: Disqualification.**
11. The Team Judge records the score. Time is taken from the Teacher/Coach timer. However, if the Teacher/Coach timer has run out (Teacher/Coach Timers run for a total of 10 minutes), then the Team Judge time is used. Teacher/Coach is responsible for telling Team Judge to stop timer.
12. The Teacher/Coach verifies the scores and initials the score card. Team Judge takes the score card to the Event Judge for recording.
13. If there is a dispute, no moves or alignments must be applied to the cube until the dispute has been settled. **Penalty for Infraction: Disqualification.**

SCRAMBLING:

1. A Scrambler mixes up the cubes so they are completely scrambled.
2. 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.
3. Cubes must be scrambled from the solved position, with the logo on top (that is the white face).
4. If there is any doubt a cube is sufficiently scrambled, the scrambler may re-scramble.

TOURNAMENT LAYOUT



SOLVED STATE:

1. The solved state is when each of the six sides of the cube have one solid color per side.
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 5 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 5 second penalty
1 turn more than 45° to align



Solved with a 5 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



Not Solved
2 turns more than 45° to align

TEACHING TIPS FOR SUCCESS

- At least one person should learn or know how to solve the cube before introducing it to the group.
- Sessions work best if solving the cube is the only activity occurring during that time.
- Session times work best when conducted for at least 90-120 minutes per session.
- Dividing large groups into smaller groups of 5-10 work best.
- Instruct children to mix-up their cubes to feel how the parts move.
- Encourage following the Solution Guide Step-by-Step for best results.
- Identify importance of center piece representing color of each side.
- When white cross is solved, mix-up the cube and do it again - practice makes perfect!
- Once solving the white cross is mastered move on the next stage.
- Encourage perseverance and patience throughout the process.
- Encourage successful cube solvers to help others in the group.
- Every member of your team does not need to be able to solve the cube. You may have team members only doing a certain stage. Or, you may have a team member responsible for ensuring all cubes are solved correctly.
- You should make sure all your team members know and understand the rules and the consequences of any violations.
- At first your team may struggle solving the cube. This is normal. However, with practice they will soon be solving fast and having fun.
- Memorizing the 6 stages will improve solving time. We think a very competitive speed is under 2 minutes.
- Rubik's cubes included in the You CAN Do The Rubik's Cube Math Education Kit are identified by this logo:





MATH EDUCATION KIT

The You CAN Do The Rubik's Cube provides a Math Education Kit available at www.YouCanDoTheCube.com at a special discounted price (1 kit - \$49.99, 2 - \$79.99 and 3 - \$99.99) for Registrants of the Tournament. The kit includes 12 Rubik's Cubes, Solution Guides, and an instructional CD with math lessons and activities that have been designed and piloted by teachers and educational consultants for classroom use at varying grade levels. These lessons are aligned with national standards, curriculum frameworks in 50 States and 21st Century Skills. Kit materials can be downloaded (without cubes) for free. Kits can be ordered online at www.YouCanDoTheCube.com using promo code **OCMC2012 to receive special pricing!**



www.YouCanDoTheCube.com

You Can Do The Rubik's Cube

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