

Extensions. These extension ideas can provide on-going student opportunities for solving the 2x2 Rubik's Cube.

- **Develop a game.** Allow students to create a game with the 2x2 Rubik's Cube. Example: Solve for any color the fastest. How many letters of the alphabet can be made using any one 2x2 Rubik's Cube face? Think creatively and determine how many other letters can be made with multiple cubes.
- **Art.** Using the 2x2 Rubik's Cubes you have available, either as a group or class, design, draw, and create a work of art. Share pictures of Rubik's mosaics.
- **Create Your Own Directions.** Create your own written directions and steps for solving any portion or color face of the cube. Include step by step directions and visuals. Share your directions with a friend and see if they can follow them successfully.

Notes to Teacher:

- **Model.** Become familiar with being able to solve the cube yourself as the teacher, either using the Rubik's solution guide or from memorization of algorithms. Don't hesitate to share with students what worked for you and what didn't work for you when solving the cube.
- **Inspire.** While students are solving, provide inspirational music and videos if possible. Example:
Rubik's cube world records New Edit by Xael 98 [link](#) (YouTube)
- **Differentiate.** Help students understand that there is more than one way to learn how to solve the 2x2 Rubik's Cube. Share and compile strategies. Examples: Peer to peer, written solution guides with visuals, online videos (ex. YouTube), etc.
- **Celebrate:** Create a poster for students who complete the cube to sign. This gives students recognition while also providing a peer contact for other students to learn from.
- **Don't force it.** Ask students to try the cube for at least 15 minutes. If you have students who are continually frustrated beyond this point, consider providing an alternative activity.
- **Practice.** Provide opportunities for students to continue to learn how to solve the cube. These could be unstructured times in your classroom (ex. when students complete their work), break times, etc.
- **Explore Resources.** Explore engaging lessons available at:
<https://www.youcandothecube.com/educators/rubiks-cube-units-and-lessons>

This lesson created by: Colby Counter – Matt Elementary STEM Teacher in Cumming, GA