

Common Core Standards:	Kindergarten Geometry: Describe objects in the environment using names of shapes and describe the relative positions of these objects using terms such as <i>above, below, beside, in front of, behind,</i> and <i>next to</i> .
Objectives:	<ol style="list-style-type: none"> 1. Learn and practice relative positions terms. 2. Develop familiarity with the properties of a Rubik's Cube 3. Practice using position terms that are relative to a Rubik's Cube
Materials:	1. □2x2 Rubik's Cube
Background Knowledge:	In order to solve a Rubik's Cube students need to have a good understanding of the terms <i>right, left, top, up, down, front</i> and <i>back</i> .
Procedure:	<p>Before class: Decide whether your students will work one-on-one or in partners with their Rubik's Cube.</p> <p>With students:</p> <ol style="list-style-type: none"> 1. Give each student or partner group a 2x2 Rubik's Cube. Allow students 2-3 minutes to become familiar with the Cube. Students should practice gently twisting the faces of the Cube. 2. Begin by showing students the top and bottom of a Rubik's cube. Explain to students' that these faces are referred to as the "Up Face" and "Down Face". 3. Model how to turn the "Up Face" clockwise and counter clockwise (inverse). Have students practice moving the "Up Face" of the Rubik's Cube clockwise and inverse. You may want to relate the motion to the twisting on and off of a jar lid. 4. Have students turn to a partner and show their partner how to turn the "Up Face" of the Cube clockwise and inverse. 5. Repeat steps 3 and 4 using the "Down Face" of the Cube. 6. Once students have mastered rotating the "Up" and "Down" Faces of the Rubik's Cube, both clockwise and inverse, model how to turn the "Front" and "Back" faces of the Rubik's cube in a clockwise and inverse direction. You may want to relate the motion to the turning of a doorknob. 7. Once your students have practiced turning all of the faces of the Rubik's Cube in a clockwise and inverse motion have students practice moving all of the different faces. Call a face (ex. "Front Face") and direction (inverse). Monitor students to be sure they are turning the correct face in the correct direction.
Notes to Teacher:	Monitor students' use of vocabulary as they turn the correct faces of the Rubik's Cube.

