

Rubik's Cube Lesson Plan

- Show students how easy it is to solve the Rubik's cube
- Explain how by using Math, they can calculate the total number of different configurations of the Rubik's cube.
- Before they start, have students guess what the total number will be
- Help students identify the different types of pieces that form the Rubik's cube. Have them figure out how many faces each type of piece has.
- Explain how the center pieces are fixed and do not move. Give students time to figure that out
- Give students time to count how many pieces of each type the Rubik's cube has.
- Explain how a corner piece will always move to the place occupied by another corner piece and how that fact is also true for the edge pieces. Ask students to try to place a corner piece in the place of an edge piece by rotating the faces of the cube. Give students time to figure out that it is not possible.
- Explain how using permutation and combination concepts, they can calculate the exact number of different configurations of the Rubik's cube.