



## Solving the White Corners - Songs & Chants for Learning

Elementary



**Purpose:** The aim of this lesson is to make the algorithms necessary to solve the white corners of the Rubik's cube accessible to all elementary students through the use of a chant and kinesthetic hand movements.

**Background:** Students who are unable to solve the white cross in 25-30 seconds should continue practicing before moving onto the white corners.

**Opening:** *Today we are going to finish solving the white top layer of the cube by solving the white corners. For today's lesson, the white center piece will still be the top of our cube, so you will always keep this piece facing up. To solve the white corners, you first need to have the white cross solved. Once you've solved the white cross, fold your hands and look at me. (Give students time to solve the white cross. Check for students who will need extra practice.)*

**Lesson:** Have students stand to chant with you. *Today's chant is quite simple. There are four moves that will be repeated one or more times to solve the white corners.*

### The White Corners Chant

*This is a repeat after me chant (students repeat)*

*That means you say what I say and you do what I do. (repeat)*

***Right down (repeat)***

***Bottom Left (repeat)***

***Right Up (repeat)***

***Bottom Right (repeat)***

\*see the [video](#) for coordinating hand movements for this chant.

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

Have students practice the chant a few times, then have a few different volunteers lead the other students in the chant. For added support, students can write the words to the four moves on a white board before they practice.

**Practice:** Before students practice, they need to know that the corner piece needs to be positioned directly above or below its 'street corner' for this move to work. For example, if a student is looking at the white/blue/red corner piece, it needs to be positioned between the red and blue center pieces (on its 'street corner'). Students need to hold the corner they are working on in their right hand with the corner being worked on nearest to their right thumb. Before they begin, demonstrate the correct way to perform the four moves. Demonstrate the incorrect way to complete this move: some students leave a white corner on top even when it doesn't match its 'street corner'. This will not solve the top layer of the cube. *Remember, keep performing the move with the white 'button' on top and the corner you are working on in your right hand until the corner is on top in the correct position.*

**Troubleshooting:** Make sure students have the corners in the proper positions, so that the corners match the center pieces.

**Independent:** Have students practice solving the top white corners of the cube 5x daily for one week before moving onto the next layer. Stronger students can be paired with struggling students from time-to-time. Students who wish to participate in a challenge can participate in beat the teacher challenges, beat the clock challenges, and white cross or white layer competitions against one another.

### YouTube links:

Entire playlist: <http://tinyurl.com/ElemVideos>

Videos for this lesson:

[https://youtu.be/Yvwl\\_lkmOH4](https://youtu.be/Yvwl_lkmOH4) and <https://youtu.be/rzsrlYjzKh4>