HOW TO USE THIS GUIDE

- You will be learning the layered method to solve the Rubik’s® Mini. This layered method is also used to solve the Rubik’s Cube (original 3x3) and the Rubik’s Master (4x4).

- Throughout the guide you will see this symbol to indicate helpful tips. Take the time to read the tips closely.

- The gray areas on the Rubik’s Mini mean that at the stage you are working on, the color of the gray pieces doesn’t matter.
TIPS FOR SUCCESS

- Learning to solve the Rubik’s Mini is easier than solving the Rubik’s Cube (original 3x3), but still a challenge.
- The Rubik’s Mini is solved using sequences of moves known as algorithms.
- Your Rubik’s Mini will be solved using a layered method, so you may want to try re-scrambling your Rubik’s Mini and practicing multiple times before moving on to the next layer. Soon these steps will become muscle memory.
- Keep the Rubik’s Mini on a table or use a mat like the one on www.YouCanDoTheCube.com to maintain the same front face for an entire algorithm.
- Learn songs and chants to help you memorize the algorithms.
- Place a small sticky note on the piece of the Rubik’s Mini you are moving so you can follow its path. Consider taking a video while you do this and then watch the video.
- Use this guide along with You CAN Do the Rubik’s Cube’s corresponding resources such as videos, solving checklist, and teacher guides.
- Mindset is critical. If you persevere, you CAN solve the Rubik’s Mini.
GET TO KNOW YOUR RUBIK’S MINI

LAYERS

There are two horizontal LAYERS in a Rubik’s Mini.

TOP LAYER

BOTTOM LAYER
GET TO KNOW YOUR RUBIK’S MINI

**GET TO KNOW YOUR RUBIK’S MINI**

**FACES**

Each flat surface is a face.

There are 6 faces on a Rubik’s Mini.

The UP face is on the Top Layer.

The DOWN face is on the Bottom Layer.

**CORNERS**

The Rubik’s Mini is made up of 8 corner pieces.

Corner pieces have three colored tiles.

When correctly solved:

- **WHITE** is opposite **YELLOW**
- **BLUE** is opposite **GREEN**
- **ORANGE** is opposite **RED**

You can place your palm flat on a FACE.

You use three fingers to touch all sides of a CORNER piece.
GET TO KNOW YOUR RUBIK’S MINI

FACE KEY

Each face is represented by a letter.

ALGORITHM KEY

Moves used in this guide.

U = UP FACE

D = DOWN FACE

MOTIONS

Think of the movements of these objects when you turn the faces.
Each face is represented by a letter. Moves used in this guide.

**FACE KEY**

- **L** = LEFT FACE
- **R** = RIGHT FACE

**ALGORITHM KEY**

- **L**
- **L’**
- **R**
- **R’**

**MOTIONS**

Think of the movements of these objects when you turn the faces.
Each face is represented by a letter.

<table>
<thead>
<tr>
<th>FACE KEY</th>
<th>ALGORITHM KEY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Moves used in this guide.</td>
</tr>
</tbody>
</table>

**FACE KEY**

- **F** = FRONT FACE
- **B** = BACK FACE

**ALGORITHM KEY**

<table>
<thead>
<tr>
<th>F</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Diagram of F" /></td>
<td><img src="image" alt="Diagram of B" /></td>
</tr>
</tbody>
</table>

**MOTIONS**

Think of the movements of these objects when you turn the faces.
An **ALGORITHM** is a sequence of moves that you need to do in a specific order.

Think of the algorithms as moving a piece out of the way, setting up its correct position, and then moving the piece into that place.

When following the algorithms in this guide, it is important to maintain the **FRONT** face of your Rubik’s Mini so it stays the **FRONT** through all of the turns.

If there is a 2 next to the algorithm letter, turn the face twice.

A turn is clockwise when looking at that face directly. A letter with an apostrophe (‘) after it means to make an inverse or counterclockwise turn of the face.
Now... let’s get solving!

RUBIK’S MINI SOLUTION GUIDE
This solution guide is divided into two stages as seen below.

SOLVE THE TOP LAYER

SOLVE THE SECOND LAYER
BEGIN by holding your Rubik’s Mini so the WHITE tile with the Rubik’s logo is facing the ceiling. This is the top layer.

• The WHITE tile will be on the UP face.
• The RED tile will be on the FRONT face.
• The BLUE tile will be on the RIGHT face.

**Action 1**

Find the corner piece that has a WHITE tile, a BLUE tile and an ORANGE tile.

- If your Rubik’s Mini looks like this, then the 2nd corner is placed. Go to page 15.

- If it is in the top layer, it will be in one of the locations here. You will be moving this corner to the bottom layer so that you can then place it correctly in the top. Go to **Action 2** on page 12.

- If the corner piece with WHITE-BLUE-ORANGE corner is in the bottom layer, go to **Action 3** on page 13.
Action 2

Hold your Rubik’s Mini to match one of the pictures below (with the WHITE-BLUE-ORANGE corner on the right).

Follow this algorithm to move the WHITE-BLUE-ORANGE corner from the top layer to the bottom layer. Then move to Action 3 on page 13.

HOLDING YOUR RUBIK’S MINI

Now hold your Rubik’s Mini so the white tile with the Rubik’s logo is facing the ceiling and the WHITE-BLUE-RED corner is on the LEFT.
### Action 3

Twist the DOWN face until your Rubik’s Mini matches one of the pictures below.

<table>
<thead>
<tr>
<th><strong>CUBE ONE</strong></th>
<th>Holding the FRONT facing you, make this turn:</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Cube One Diagram" /></td>
<td><img src="image2" alt="R Turn" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>CUBE TWO</strong></th>
<th>Holding the FRONT facing you, follow this algorithm:</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3" alt="Cube Two Diagram" /></td>
<td><img src="image4" alt="R' D' R" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>CUBE THREE</strong></th>
<th>Holding the FRONT facing you, follow this algorithm:</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5" alt="Cube Three Diagram" /></td>
<td><img src="image6" alt="D R2" /></td>
</tr>
</tbody>
</table>

You’ve solved the second corner!
HOLDING YOUR RUBIK’S MINI

Begin by holding your Rubik’s Mini so the WHITE-BLUE-ORANGE corner is on the LEFT. The logo is still facing the ceiling.

Action 1

Find the corner piece that has a WHITE tile, a GREEN tile and an ORANGE tile.

- If your Rubik’s Mini looks like this, then the 3rd corner is placed correctly. Go to page 18.
- If it is in the top layer, go to Action 2.
- If the WHITE–GREEN–ORANGE corner is in the bottom layer, go to Action 3.
Action 2

Hold your Rubik’s Mini to match one of the pictures below and follow the directions to move the WHITE-GREEN-ORANGE corner to the bottom layer.

**CUBE ONE**

Holding the FRONT facing you, make this turn:

Now go to Page 17.

**OR**

**CUBE TWO**

**CUBE THREE**

Holding the FRONT facing you, follow this algorithm:

Now go to Action 3.

**OR**

**CUBE FOUR**

**CUBE FIVE**

Holding the FRONT facing you, follow this algorithm:

Now go to Action 3.
**Action 3**

Twist the DOWN face until your Rubik’s Mini matches one of the pictures below.

### CUBE ONE

Holding the FRONT facing you, make this turn:

![Diagram of CUBE ONE](image1)

### CUBE TWO

Holding the FRONT facing you, follow this algorithm:

- R’
- D’
- R

### CUBE THREE

Holding the FRONT facing you, follow this algorithm:

- D
- R²

You’ve solved the third corner!
SOLVE THE TOP LAYER

4TH CORNER

HOLDING YOUR RUBIK’S MINI

Begin by holding your Rubik’s Mini so the WHITE-GREEN-ORANGE corner is on the LEFT. The logo is still facing the ceiling.

Action 1

Find the corner piece that has a WHITE tile, a GREEN tile and a RED tile.

- If your Rubik’s Mini looks like this then the 4th corner is placed correctly. Go to page 20.
- If it is in the top layer, go to Action 2 on page 18.
- If the WHITE-GREEN-RED corner is in the bottom layer, go to Action 3 on
Action 2

Hold your Rubik’s Mini to match one of the pictures below and follow the directions to move the WHITE-GREEN-RED corner to the bottom layer.

CUBE ONE          CUBE TWO
FRONT FACE        FRONT FACE

Holding the FRONT facing you, follow this algorithm:

Now go to Action 3.

Action 3

Twist the DOWN face until your Rubik’s Mini matches one of the pictures on page 19.
CUBE ONE

Holding the FRONT facing you, follow this algorithm:

Now go to CUBE TWO.

CUBE TWO

Holding the FRONT facing you, follow this algorithm:

CUBE THREE

Holding the FRONT facing you, follow this algorithm:

You’ve solved the top layer!
SOLVE THE SECOND LAYER
MAKE THE YELLOW FACE

HOLDING YOUR RUBIK’S MINI

Begin by holding your Rubik’s Mini so the WHITE face is on the bottom (DOWN face).

Action 1 Match the UP face to one of the pictures below:

If **1 Yellow** tile is on the UP face

This saying may help: ‘Top one’

If **no Yellow** tiles are on the UP face

This saying may help: ‘None left!’

None = no Yellow on top. Left = Yellow on LEFT face.

If **any 2 Yellow** tiles are on the UP face

This saying may help: ‘I see two, my left thumb is on you.’

You can put your left thumb on the Yellow tile on the FRONT face.
Action 2 Follow this algorithm:

**CHANT**

The words underneath the turns are a chant to help you remember the algorithm.

Notice the RIGHT face turns in opposite directions every other time and the UP face always turns clockwise.
**Action 3**

If you do not have all YELLOW tiles on the UP face, rematch your Rubik’s Mini to one of the pictures in **Action 1 on page 20** and repeat the algorithm in **Action 2**. You may need to do this 2 or 3 times.

If you have all Yellow on the UP face, go to the next page.

Continue to the next step ‘Place the Yellow Corners Correctly’ on the following page.
Look at the faces of your Rubik’s Mini. Are all the colors like this?

SOLVE THE SECOND LAYER
PLACE THE YELLOW CORNERS CORRECTLY

HOLDING YOUR RUBIK’S MINI

Begin by holding your Rubik’s Mini with YELLOW on the UP face.

Action 1

Twist the top layer until the colored tiles of two corners match the bottom layer.

If your Rubik’s Mini is not solved then go to Action 2 on page 24.

Yeah! You’ve solved the Rubik’s Mini!
Hold your Rubik’s Mini so it matches one of the pictures.

*Red arrows show the corners that need to swap.*
Action 3  Follow this algorithm.

After you make these turns, the top (U) of your Rubik’s Mini will look like this:

Action 4  If your Rubik’s Mini is not solved, you need to repeat Actions 1-3.
CONGRATULATIONS!

You have solved the Rubik’s Mini!
TRY A DIFFERENT CHALLENGE

Available at: RUBIKS.COM

More resources available on YouCanDoTheCube.com

Videos for each stage / solution checklist / songs and chants / teacher guides

www.youcandothecube.com/educators/teach-to-solve/

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