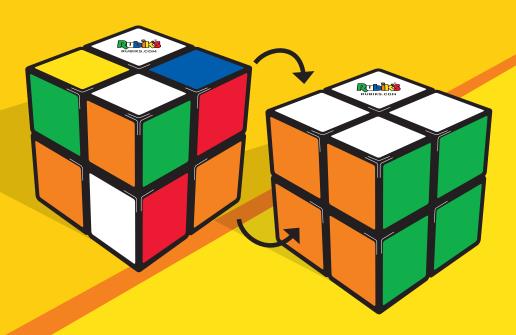


# YOU CAN DO THE RUBIK'S MINI

# **Solution Guide**







#### 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.



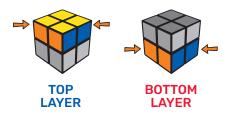
#### **TIPS FOR SUCCESS**

- 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.



# **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.

When correctly solved:



You can place your palm flat on a FACE.





BLUE is opposite GREEN



ORANGE is opposite RED



# CORNERS

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

Corner pieces have three colored tiles.



You use three fingers to touch all sides of a CORNER

# GET TO KNOW YOUR RUBIK'S MINI

#### **FACE KEY**

Each face is represented by a letter.

U = UP FACE



D = DOWN FACE



# **MOTIONS**

Think of the movements of these objects when you turn the faces.



#### **ALGORITHM KEY**

Moves used in this guide.









L = LEFT FACE



R = RIGHT FACE



F = FRONT FACE



B = BACK FACE

























Each move is a ¼ TURN.







- 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.











# RUBIK'S MINI SOLUTION GUIDE

This solution guide is divided into two stages as seen below.

SOLVE THE TOP LAYER

SOLVE THE SECOND LAYER

Now... let's get solving!

# **SOLVE THE TOP LAYER**

# **1ST AND 2ND CORNERS**

#### **HOLDING YOUR RUBIK'S MINI**

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

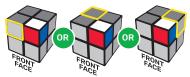
Find the corner piece that has a WHITE tile, a BLUE tile and an ORANGE tile.



If your Rubik's Mini looks like this, then the 2nd corner is placed. Go to page 6.



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.

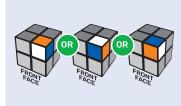


If the corner piece with WHITE-BLUE-ORANGE corner is in the **bottom** layer, go to **Action 3**.



# Action 2

Hold your Rubik's Mini to match one of the pictures below (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.



### **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.

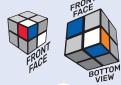


# Action 3

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



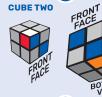
#### **CUBE ONE**



Holding the FRONT facing you, make this turn:



#### UF



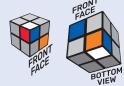
Holding the FRONT facing you, follow this algorithm:







# CUBE THREE



Holding the FRONT facing you, follow this algorithm:





You've solved the second corner!



# **3RD 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 8.



- 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** on the next page.



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 laver.

#### **CUBE ONE**



Holding the FRONT facing vou, make this turn:





Now go to page 8.

OR



Holding the FRONT facing you, follow this algorithm:





Now go to Action 3.

**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.

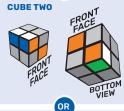






Holding the FRONT facing you, make this turn:





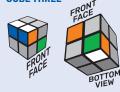
Holding the FRONT facing you, follow this algorithm:







**CUBE THREE** 



Holding the FRONT facing you, follow this algorithm:





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 10.

- If it is in the top layer, go to Action 2.
- If the WHITE-GREEN-RED 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-RED corner to the bottom layer.

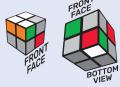


# Action 3

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



#### **CUBE ONE**



Holding the FRONT facing you, follow this algorithm:









Now go to **CUBE TWO**.

## OR

OR





Holding the FRONT facing you, follow this algorithm:









#### **CUBE THREE**





Holding the FRONT facing you, follow this algorithm:







You've solved the top 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



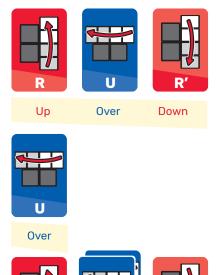




This saying may help: 'I see two, my left thumb is on you.'

You can put your left thumb on the Yellow tile on the FRONT face.





Over, over



#### **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

Uр

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 10 and repeat the algorithm in Action 2. You may need to do this 2 or 3 times.

Down

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



# 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.



Look at the faces of your Rubik's Mini. Are all the colors like this?

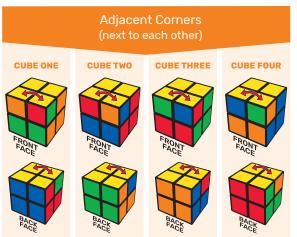


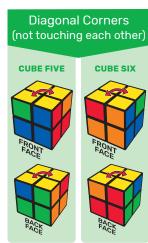
Yeah! You've solved the Rubik's Mini!

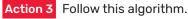
If your Rubik's Mini is not solved then go to Action 2.

## Action 2

Hold your Rubik's Mini so it matches one of the pictures. *Red arrows show the corners that need to swap.* 















After you make these turns the top (U) of your Rubik's Mini will look like this;



R'un to me

Fast

R'un to me

Back Back









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



Run away

F'ast

R'un to me

Back Back

Run Run

away





**U'**p

CHANT

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

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



You have solved the Rubik's Mini!





## 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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