5 STEPS TO COLORMUSIC

You can hear good music in your head. So you want to share your songs with others. But the trouble is that it can be difficult to translate your ideas into structured sound.

So here, we'll walk through the five steps it takes to arrive at the solution: by learning to visualize music through color. And in the process, you'll discover the essential patterns that are at the very heart of music theory.

In a nutshell, these are the steps we'll follow:

FIVE BASIC STEPS

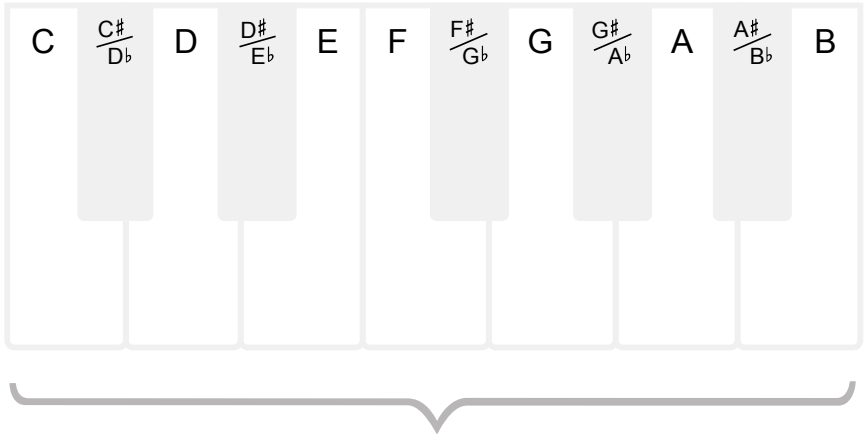
1 – Start with the chromatic scale
2 – Play the major scale
3 – Create the circle of fifths
4 – Add the color wheel
5 – Return to the chromatic scale

Step 1 – Start with the chromatic scale

All music can be boiled down to a group of 12 notes called the "chromatic scale." It is, in essence, the mother of all note patterns—serving as the source of all melodies, chords, progressions, and entire songs. And these notes (or "pitches") are traditionally labeled using letter names:

C C♯/D♭ D D♯/E♭ E F F♯/G♭ G G♯/A♭ A A♯/B♭ B

These symbols can be confusing on their own. But really, these names follow the black-and-white pattern of notes on the piano—where the white notes are labeled by letters alone (using letters A through G), and the black notes are marked by letters with extra sharp (♯) or flat symbols (♭).



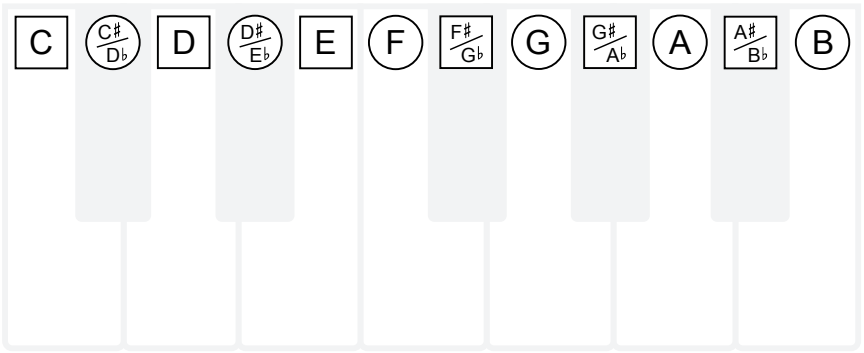
Step 2 – Play the major scale

The chromatic scale includes every note in music. That is, all 12 pitches laid out in order. So as you move from one pitch to the next, they gradually rise going up the scale … and fall moving down the scale.

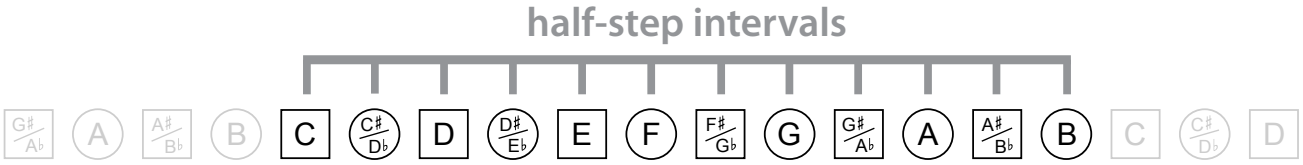
But while the chromatic scale forms the *complete* set of notes, this pattern actually doesn't sound very musical on its own. So musicians use it more like a painter's palette—to pick out smaller groups of notes that sound especially good together.

And these smaller patterns (like melodies and chords) are made by playing only some notes of the chromatic scale, while skipping others—using what musicians call "intervals," which are the spaces or gaps between notes.

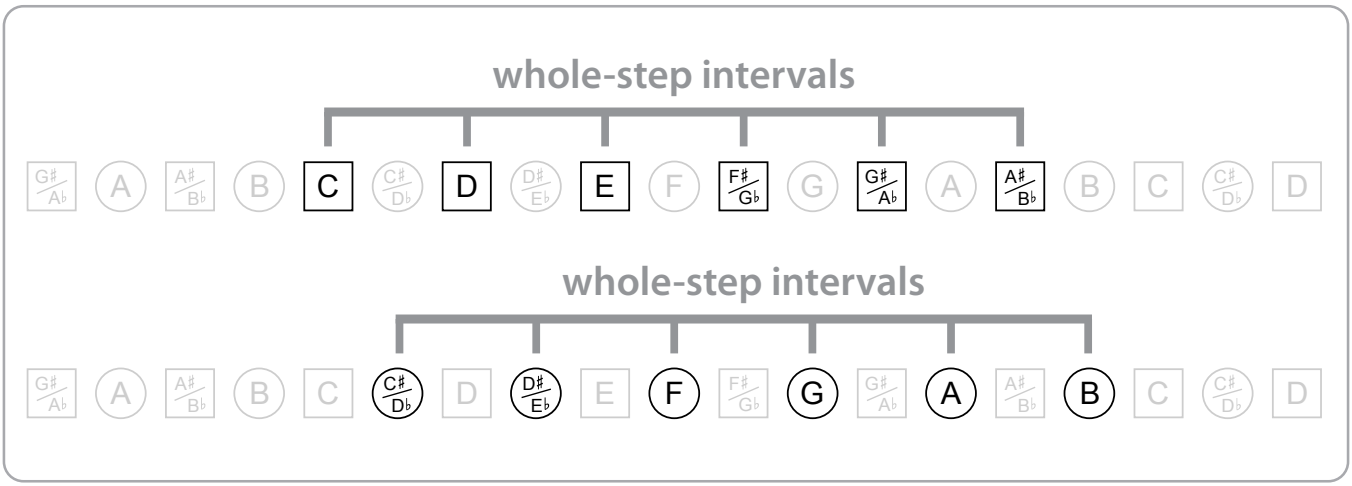
At the most basic level, there are two main types: *half-steps* and *whole-steps*, which we'll illustrate using squares and circles:



A **half-step** separates any two notes that are adjacent. So as you move from one note to the next in the chromatic scale, you pass through a series of half-step intervals: square … circle … square … circle … and so on.



A **whole-step** interval, in contrast, is just a combination of two half-steps. So you play a whole-step by skipping every other note. And with the alternating shapes, this is easy to see as well—since all of the square notes are spaced at whole-step intervals … as are the circles too.

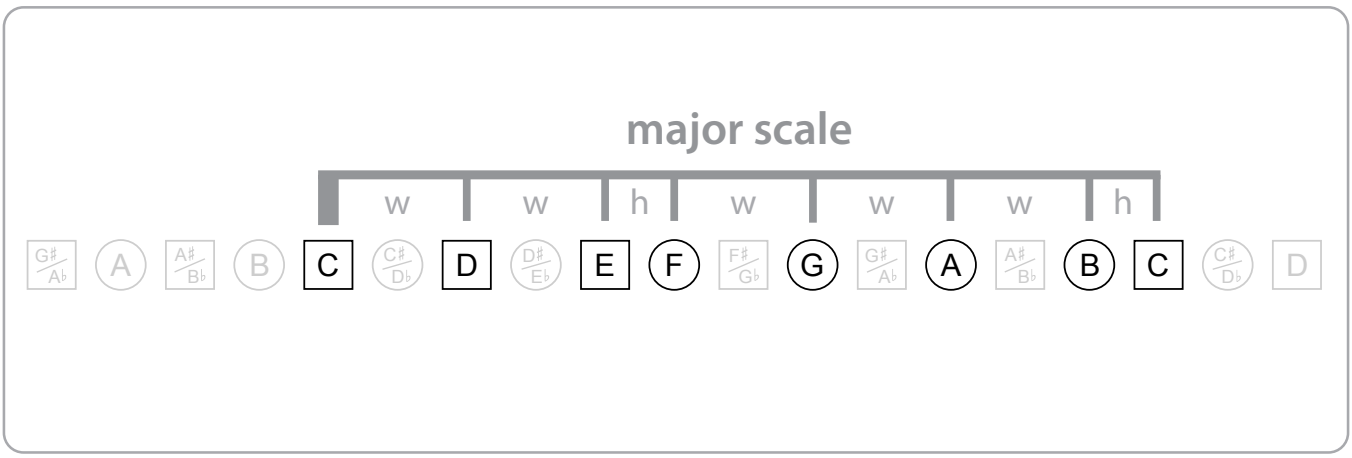


Half-steps and whole-steps are both very simple. And with the shapes as a visual aid, they're especially easy to understand.

But the power of these intervals really comes into play when you combine them into new and interesting patterns. Because these combinations derived from half-steps and whole-steps are what music is really about.

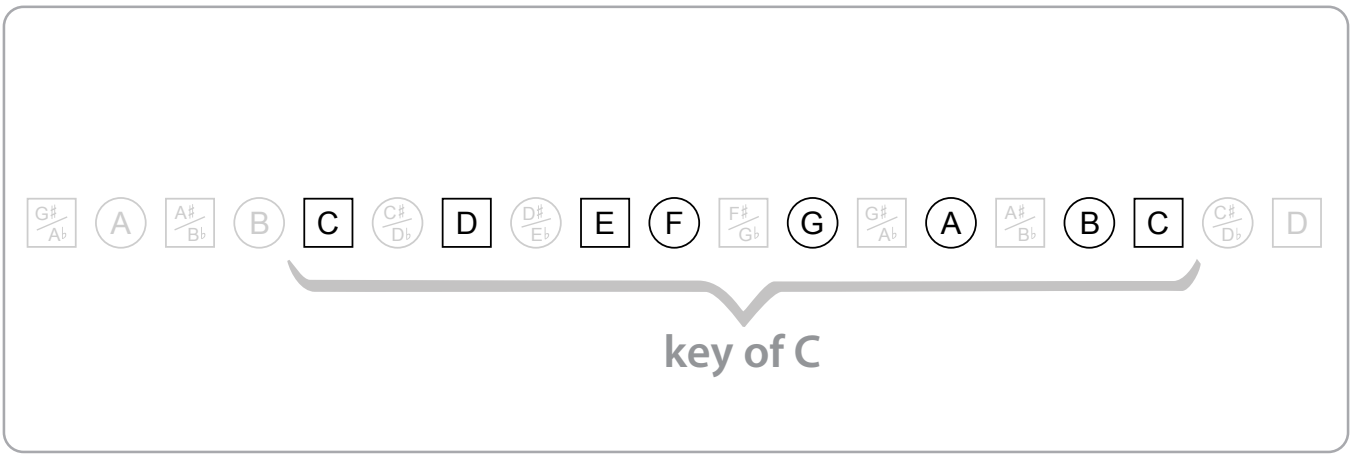
And by far the most popular interval pattern of all in music is a sequence called the "major scale." You've heard it before—it goes "*do-re-mi-fa-sol-la-ti-do*." And it sounds so good that it could have been crafted by angels.

But really, this scale is made by simply combining whole-step (w) and half-step (h) intervals like this:



Starting on the C note, for example, this "C major scale" sounds awesome, and much better than the chromatic scale alone, due to the way it injects a sense of movement into the notes.

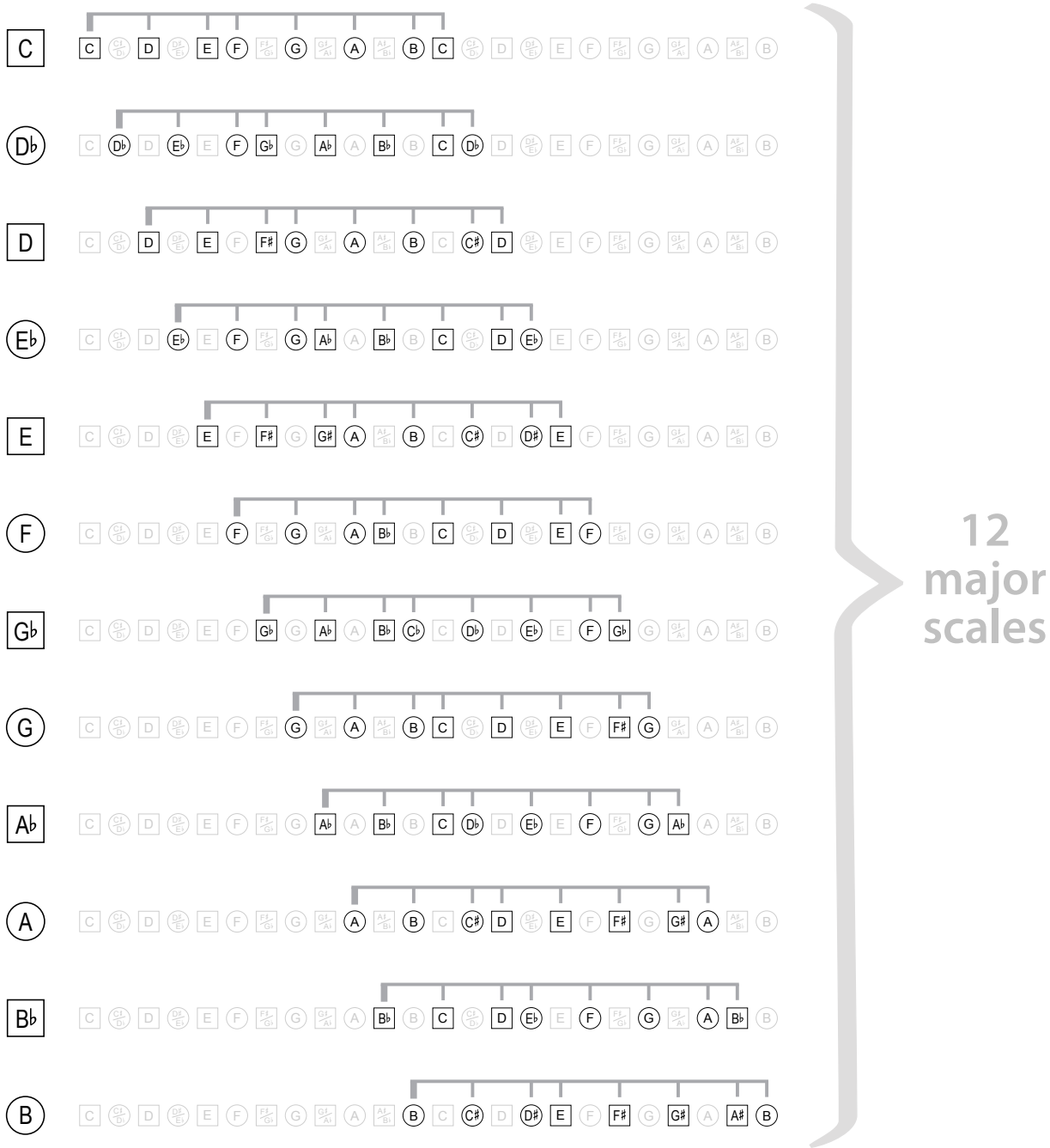
And it does this by carving out its own section of the broader, more neutral-sounding chromatic scale through the use of intervals that establish C as the tonal home base for all the other notes in the key.



In music, the concept of a "key" refers to a group of notes that share an audible home base, so to speak, or tonal center established by the first and last notes of the major scale—like the key of C, for example, defined by the C major scale.

What's more is that you can actually play this same sequence of intervals starting on *any note* of the chromatic scale—such as D♭ (to make a D♭ major scale), for example … or D (to make a D major scale) … or E♭, or E, or F, etc.

As a result, you can chop up the chromatic scale into 12 different major scales, with each starting on a different pitch, as shown on the next page.



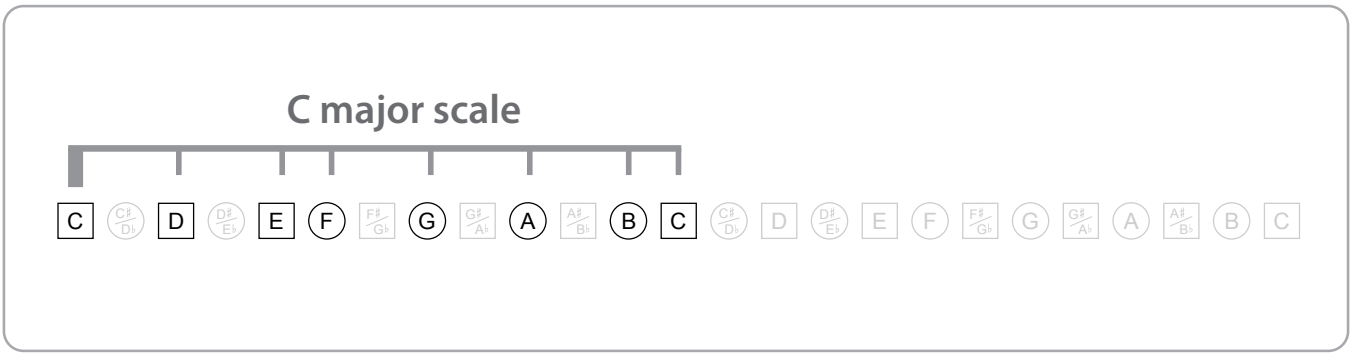
In this way, you can see that there are 12 major scales in music—where each one shifts the tonal center just enough to create a different key. Which is beautiful … and significant too in our next step toward seeing sound.

Step 3 – Create the circle of fifths

Using intervals, the major scale turns the chromatic scale into something more musical. By simply starting this pattern on each separate note, you can create a total of 12 major scales. It's awesome.

But for as good as the major scale sounds, and how prominent it is in music, there's an even more powerful pattern, as it turns out. One that outshines the major scale by far in terms of its beauty, elegance, and overall influence. And this pattern is called the "circle of fifths."

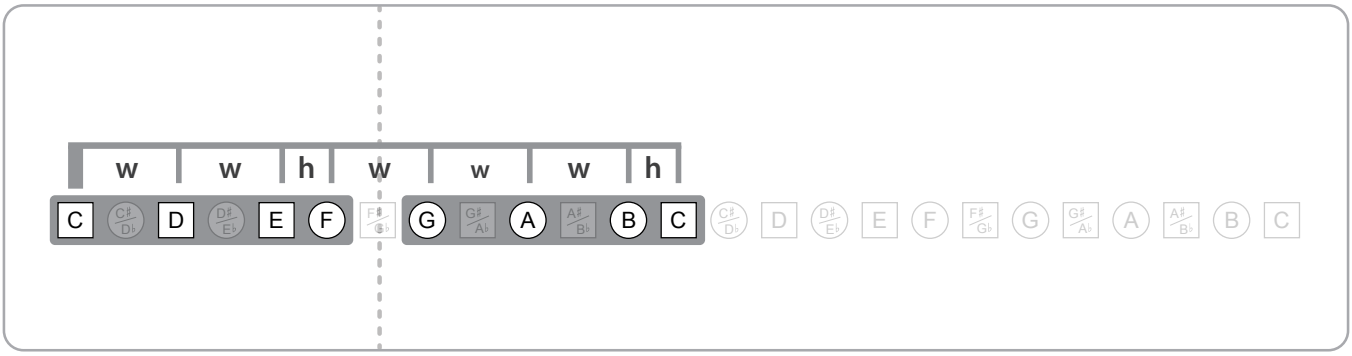
This pattern is powerful because it's essentially a super-mega major scale on steroids … comprised of all 12 scales wrapped into one. And to see how it's constructed, we'll begin with the C major scale as the first segment of this pattern.



As you know, this scale is a subset of the chromatic scale, formed by a sequence of whole-steps and half-steps that sound good together.

And because of how it's capped by C notes at each end, this pattern feels complete too; as if it were a single unit—self-contained and independent. Yet when you look carefully, you'll see that this scale is actually just a small part of a bigger, overlapping web of pattens.

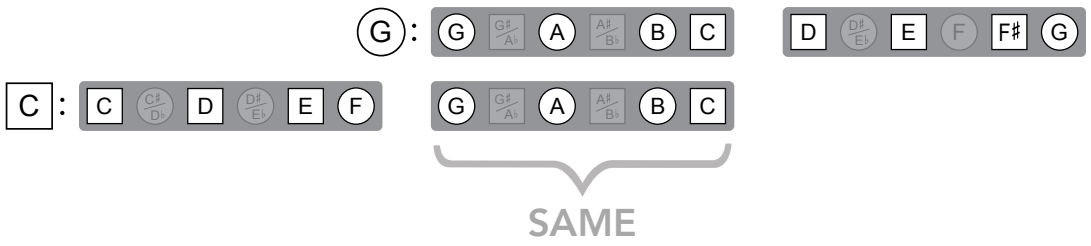
And the way it works is this: When you split the major scale down the middle, you'll see that it's made up of *two equal halves*—where each half is an identical group of two whole-steps (w) followed by a half-step (h), like this:



This repetition explains why the major scale sounds so nice: because it exhibits a natural symmetry, which also happens to reveal a special link between scales … where some of the same note patterns appear in multiple keys; and specifically that each half of a given scale straddles two keys in particular.

For example, when you look at the C major scale, you can see that this pattern is comprised of two parts: C D EF … G A BC.

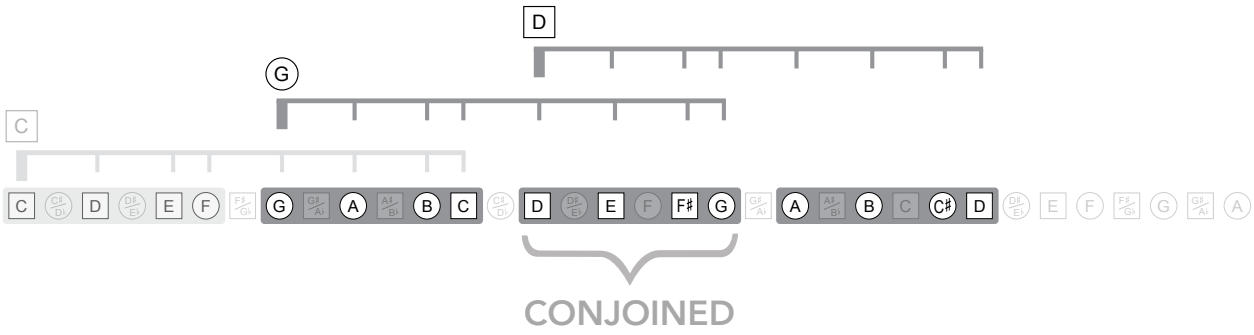
And when you sort through all the other major scales, you'll find that another one—G major—shares four of the same notes (G A BC), but as the first half of that scale instead of the second.



This group of notes is identical. In C major, it's the second half, while in G major, it's the first. But the pattern is the same: G A BC.

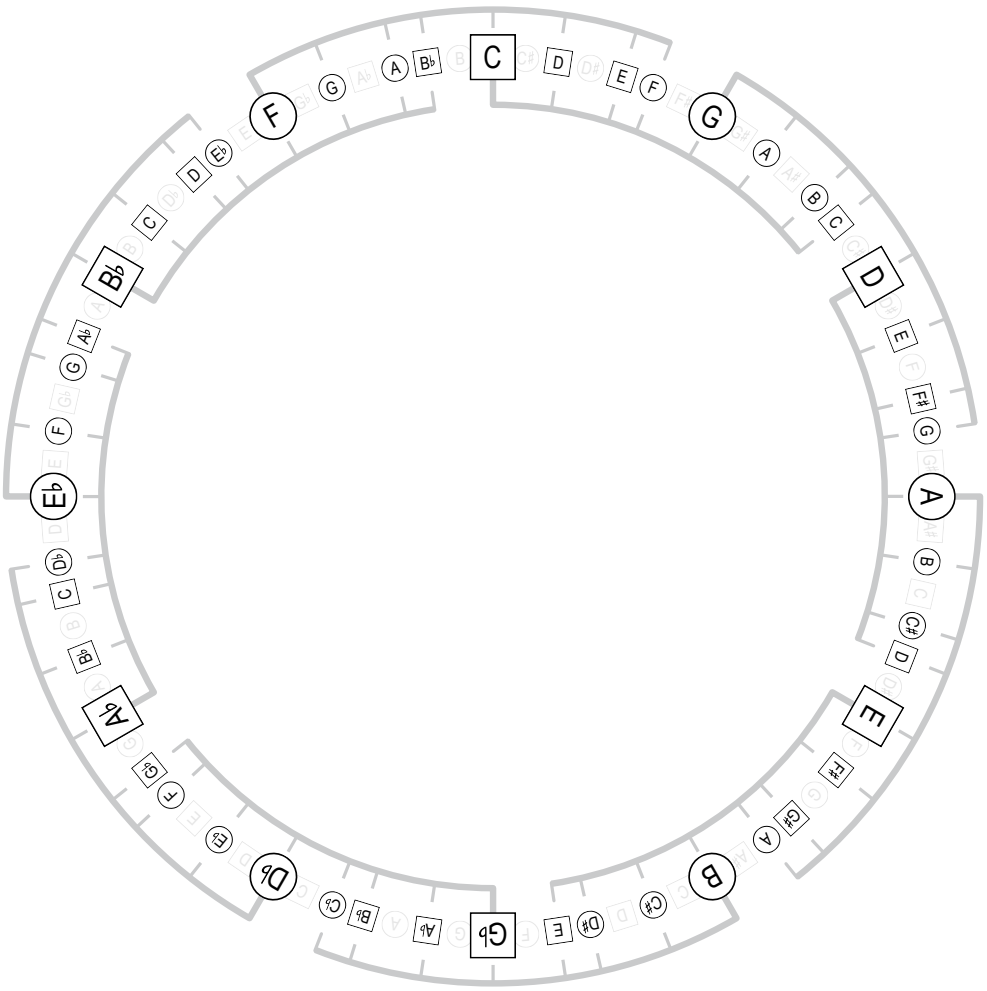
As a result, you could say these two scales sort of bleed into each other. Like conjoined twins in a way—interconnected with tonal centers that are closely related.

And what's cool is that it doesn't stop there because the G major scale likewise overlaps with another scale—D major—like this:



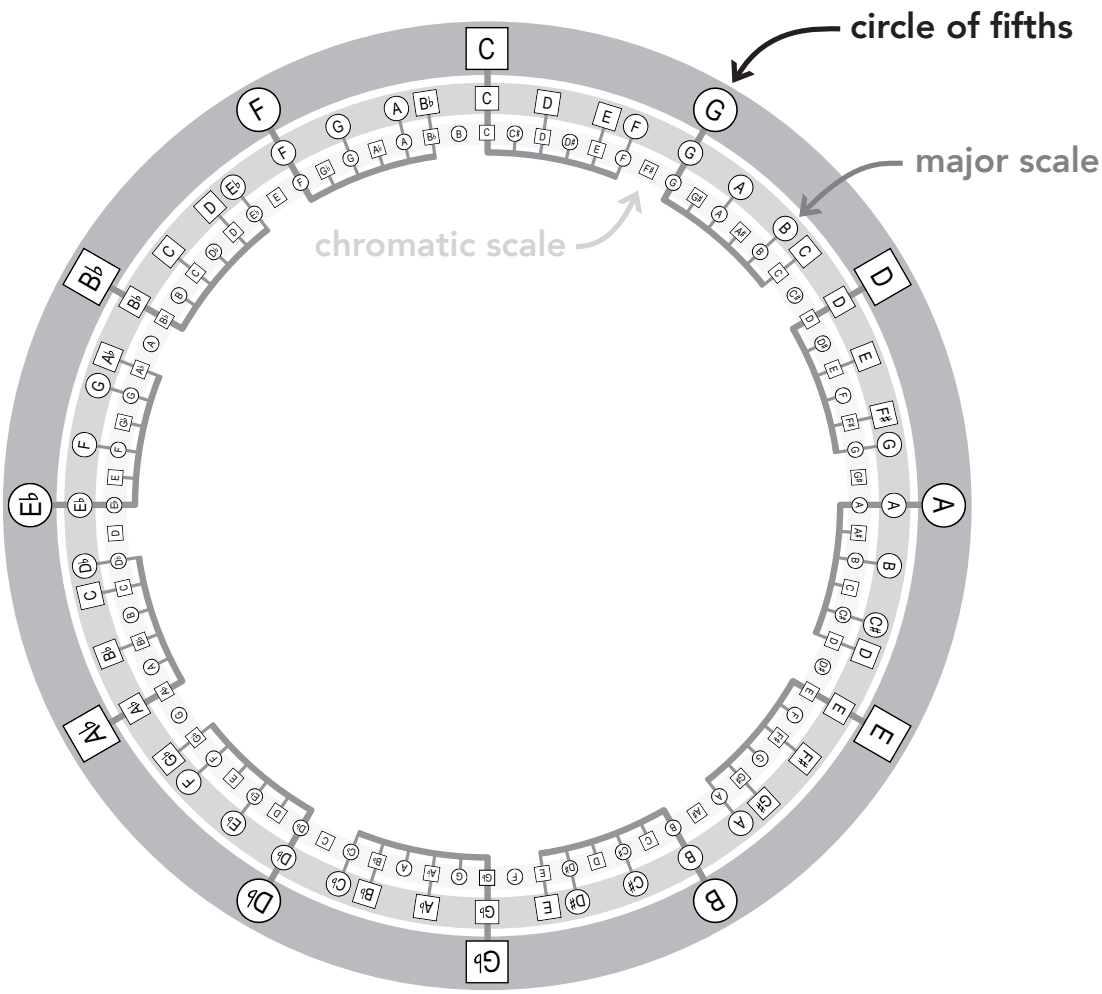
By extension, D major also overlaps with A major, and so on … where each scale naturally leads to the next in a continual chain. And by "continual," I really mean it's endless … as this sequence cycles through all 12 keys over and over again, linking them in a single pattern that goes on forever.

To illustrate this cycle in a concise way, we can just show it like this—as one big ring of interlocking scales that repeats to infinity:



And the daisy chain sequence that results explains where this pattern got its name: because each new scale starts on the *fifth* note of the previous scale. Which is why it's called the "circle of fifths."

So while the chromatic scale is the mother of all note patterns, and the major scales are like its children, the circle of fifths is more like the *mother lode*—as the source of all meaningful patterns in music, which will inform everything you see going forward.

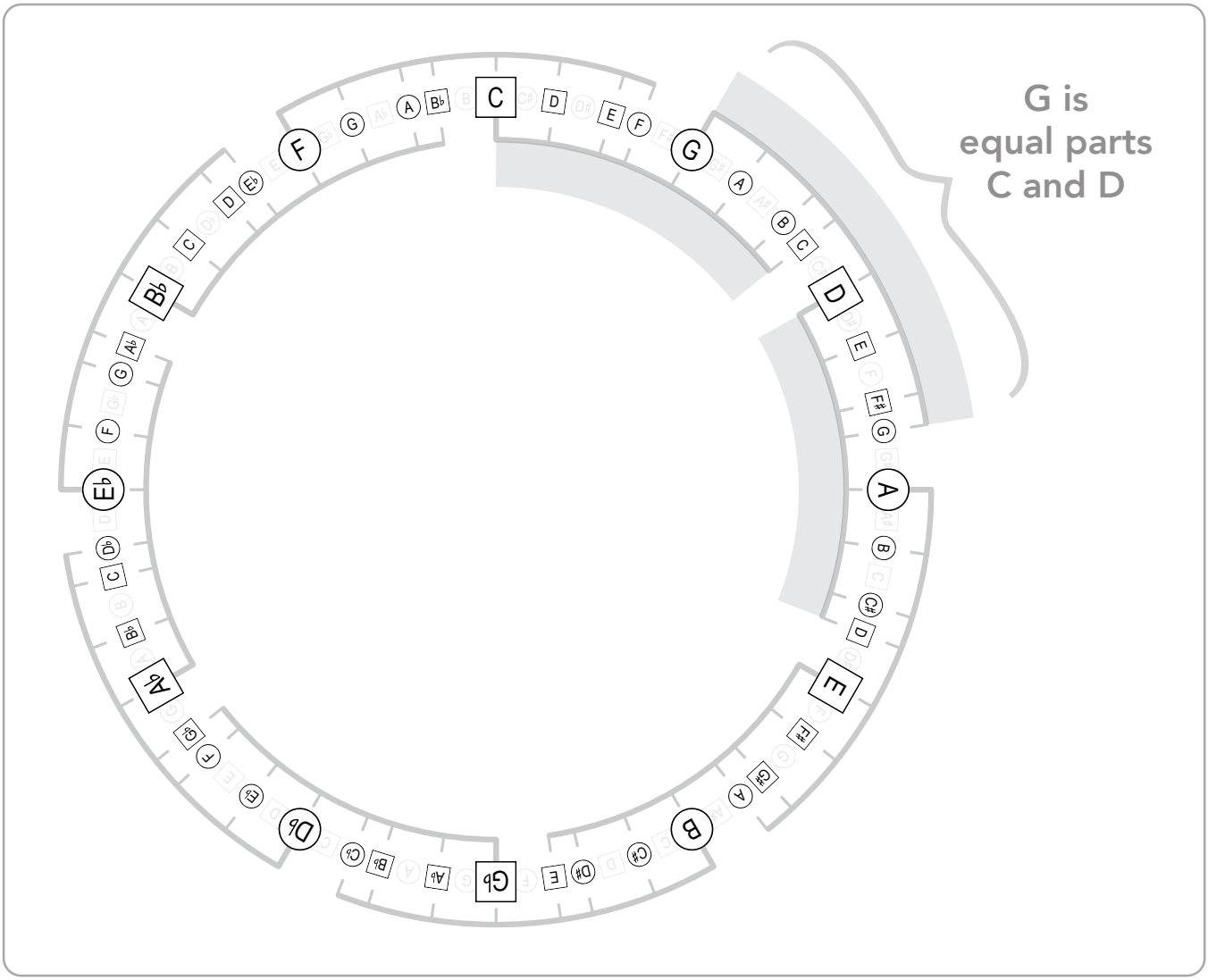


Step 4 – Add the color wheel

The circle of fifths is beautiful because it shows how music works, in the sense that it's a system of relationships—of various notes and intervals—that intertwine to form a web of organized sound.

But for as revealing as it is into the intricate and symmetrical nature of music, this structure is still difficult to discern—because it's still seen through a veil of abstract symbols that obscures our view and slows our understanding.

For example, although we know that the G major scale is equal parts C and D, and we can actually see this overlap in the circle of fifths, this link is still not immediately obvious. At least not by looking at the letters alone.

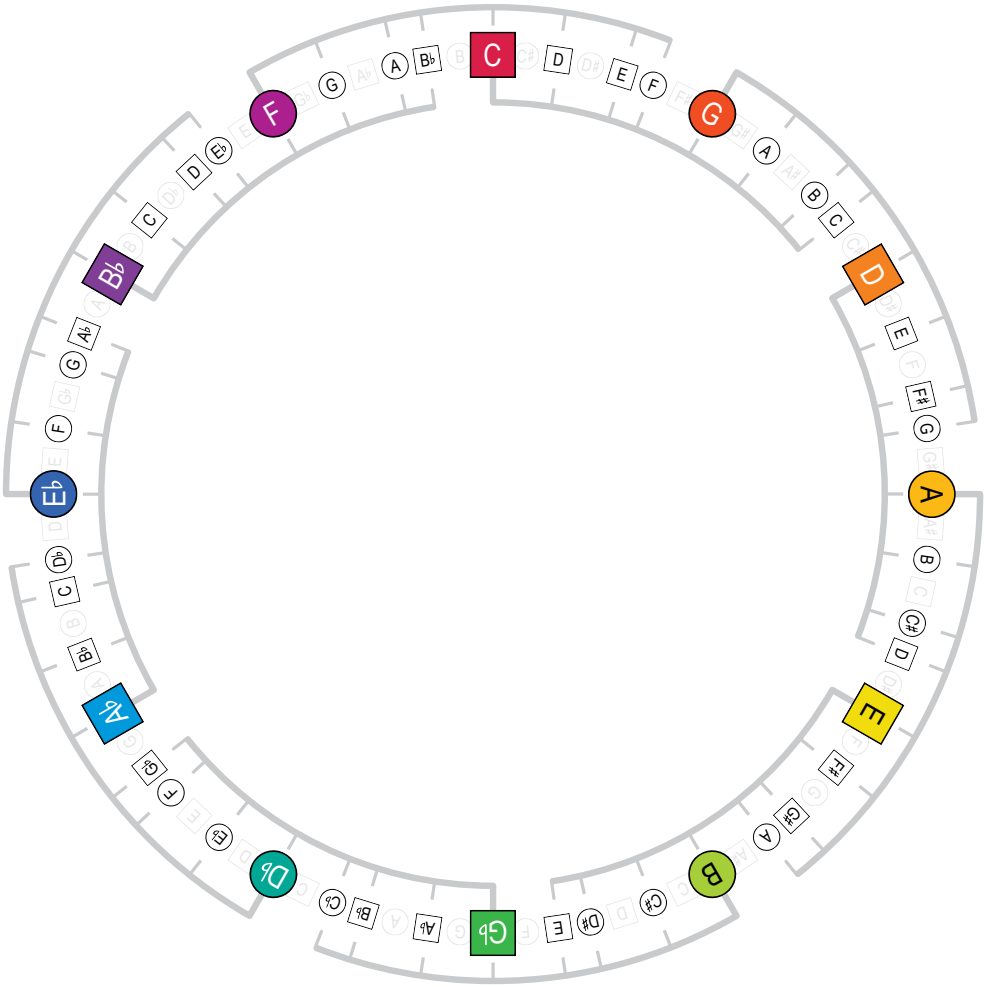


After all, why should “G” be related to “C” or “D”? There’s nothig intuitive about that … or, for that matter, about the order of any letter names in the circle of fifths.

On their own, the letters don’t clearly reveal these connections. And with the sharps and flats mixed in, this whole pattern looks less like music and more like a scrambled bowl of alphabet-symbol soup.

So to really understand this pattern (which is fundamental to music), we need something better … something more intuitive to illustrate the connections between notes, and intervals, and keys. We need symbols that are more natural than these letters, sharps, and flats.

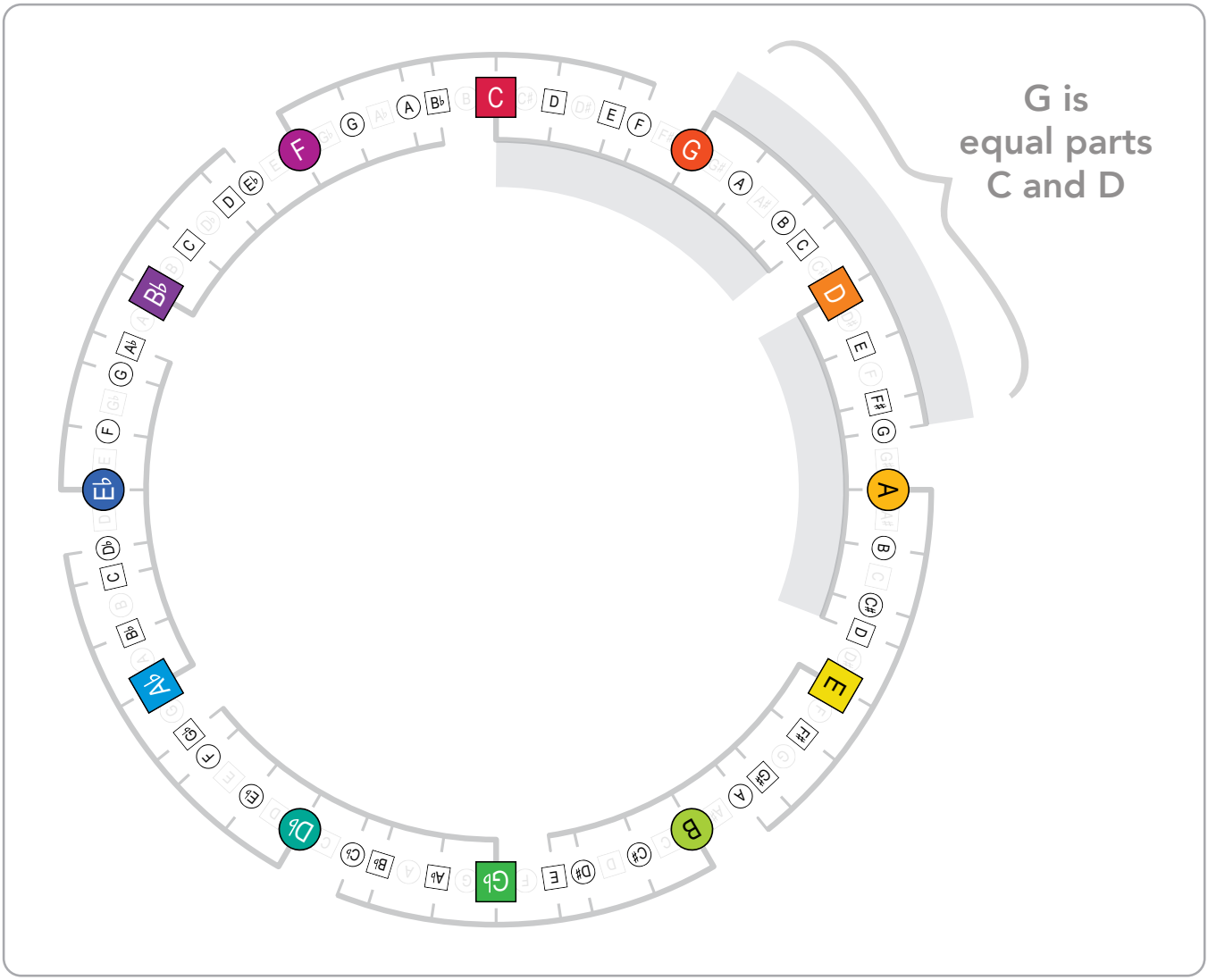
And the answer is to picture the nature patterns of sound (music) using the natural patterns of sight (color); and specifically the **color wheel**, as it turns out—because this pattern happens to mirror the way notes relate in music.



In fact, the match is exact—conceptually as well as visually—in the way that all the colors bleed seamlessly into one another just as all the keys overlap as well.

Both systems—color and music—are structured in the same way. And as a result, it's now easy to see how all the keys relate.

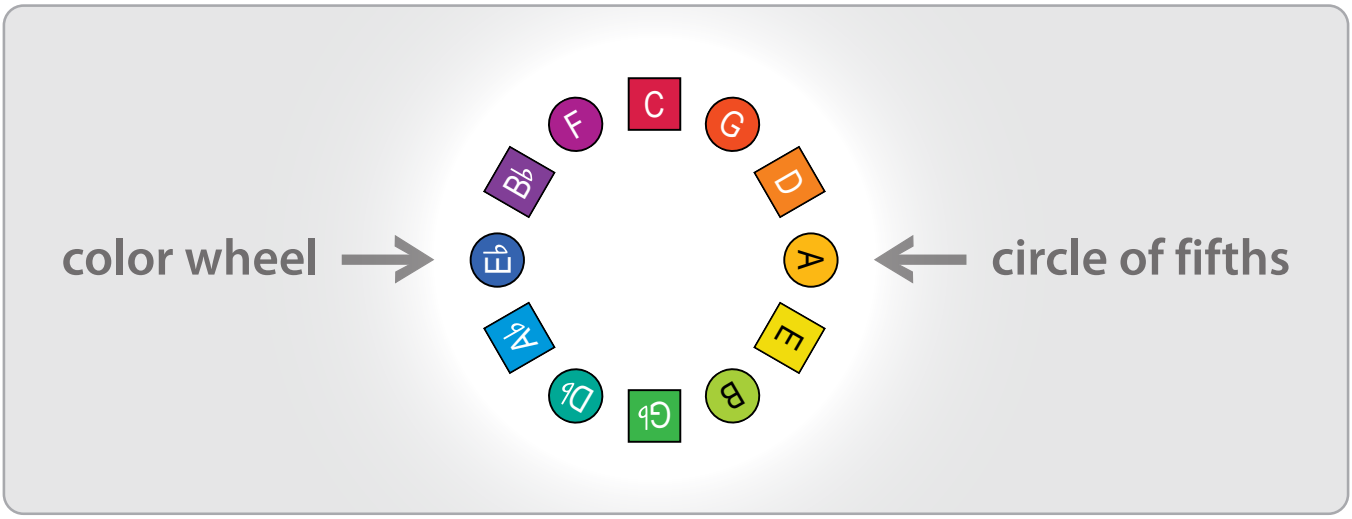
For example, it's now clear how keys G, C, and D are connected … since red-orange (G) is made of equal parts red (C) and orange (D).



Likewise, you can also see at a glance that:

- orange D is equal parts red-*orange* G and *orange*-yellow A
- orange-yellow A is equal parts orange D and yellow E
- and so on

So what you hear is what you see, since the color wheel and circle of fifths follow the very same pattern. Indeed, they **ARE** the same pattern … only one is audible while the other is visible. But like two languages that tell the same story, they are essentially one.



And now that we've merged sound with sight in this way, we can start to make better sense of music … by returning full circle to the chromatic scale.

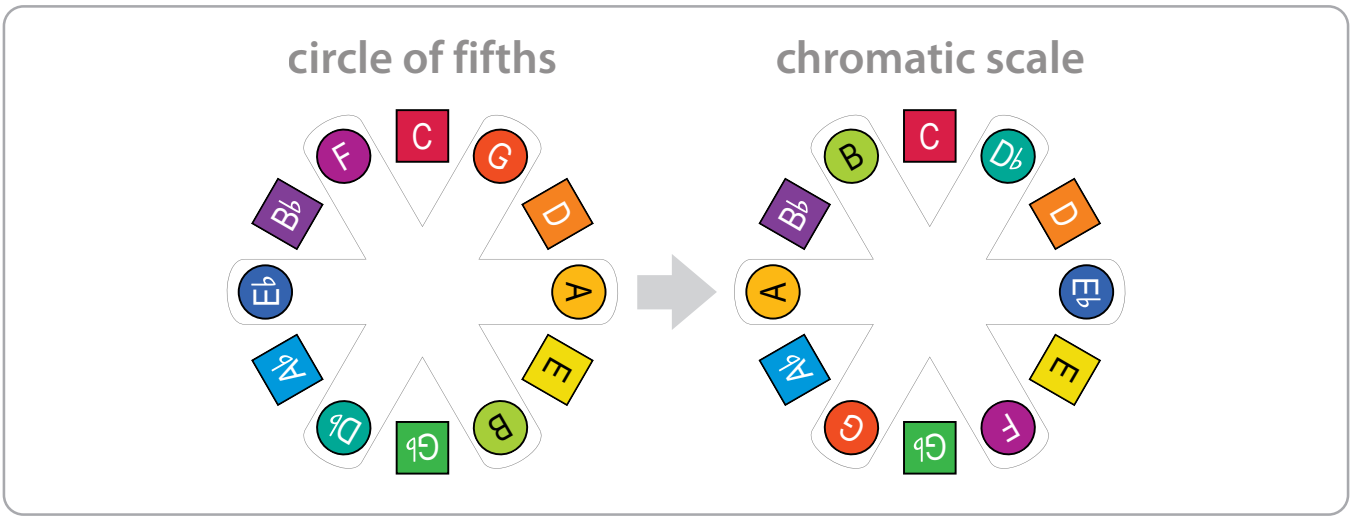
Step 5 – Return to the chromatic scale

The circle of fifths is beautiful because it shows how all the keys are related. Like a concise dashboard of musical connections, it reveals the essential patterns and logic of music theory.

And now that we can see sound (which is the very definition of music theory), we can make use of these insights to master the guitar and songwriting. Or at least that's where we're headed now that our path is illuminated by color.

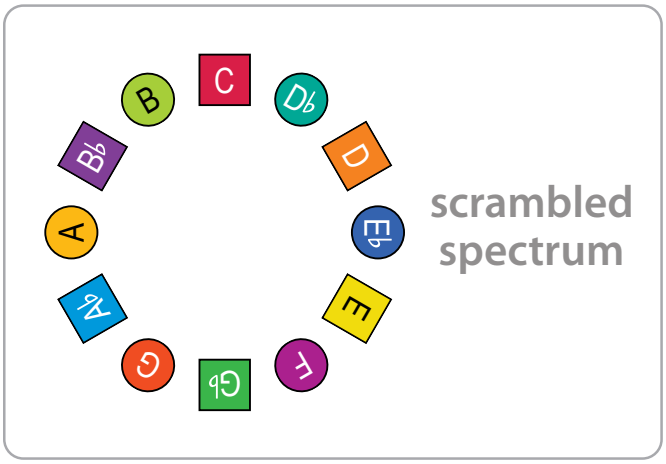
But to get there, we have one more step to take in the process of visualizing music. And that is to convert the circle of fifths back into the chromatic scale—since that's the pattern we use to make music on an instrument—and then we can picture any other patterns we might possibly play.

To make this conversion, all we have to do is take every other key in the circle of fifths (like all the circles, for example), and then rotate them 180 degrees … so that each pair of complementary colors swaps places … and like magic, we're suddenly looking at the chromatic scale again, with all the notes laid out in sequence (C, D♭, D, E♭, E, etc.).



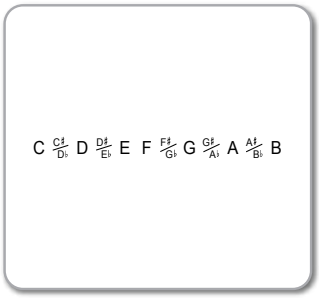
It's amazing, actually—the way these patterns can morph into each other so elegantly. But it's real, and insightful too. Because now, the chromatic scale springs to life as well … all in vivid color so we can start to see how its notes are connected.

And what's clear is that the chromatic scale is just a twisted color wheel, that's all (as a rearrangement of the circle of fifths). Which, in turn, explains why its sequence looks so strange. Like a scrambled spectrum of sorts, you could say—because it really is.



Only now that we know the logic behind this pattern (or how it was formed and what it means), we can advance with true vision.

Of course, we've covered a lot of ground here, navigating our way through a series of patterns to arrive at visible sound. So as a quick recap, the following is a summary of the five steps we've followed:

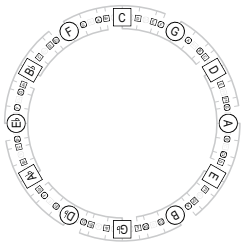


STEP 1. Start with the chromatic scale

Music is made up of 12 basic notes. These notes are arranged into what's called the "**chromatic scale**," which is the mother of all note patterns.

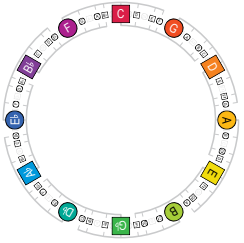
STEP 2. Play the major scale

The chromatic scale, however, doesn't sound very good on its own. So musicians use it to play smaller note patterns. And by far the most popular pattern is the "**major scale**."



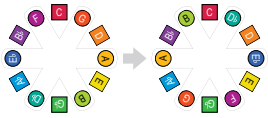
STEP 3. Create the circle of fifths

You can actually play *12* major scales in music, and they're all interconnected. Together, these scales form one big overlapping sequence called the "**circle of fifths**."



STEP 4. Add the color wheel

The circle of fifths reveals how all keys relate. And you can see these relationships clearly using color. That's because the circle of fifths and the **color wheel** follow the same pattern.



STEP 5. Return to the chromatic scale

Once you can see sound using color, you simply rotate the circle of fifths back into the **chromatic scale**. Only now, you can easily see all musical relationships *baked into* the notes.