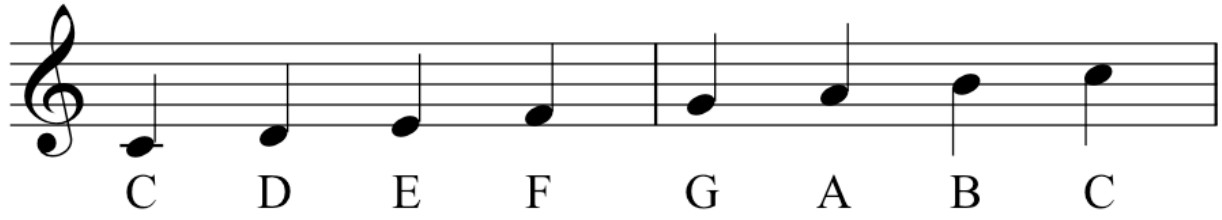
Lever Harp Tunings & Major Keys

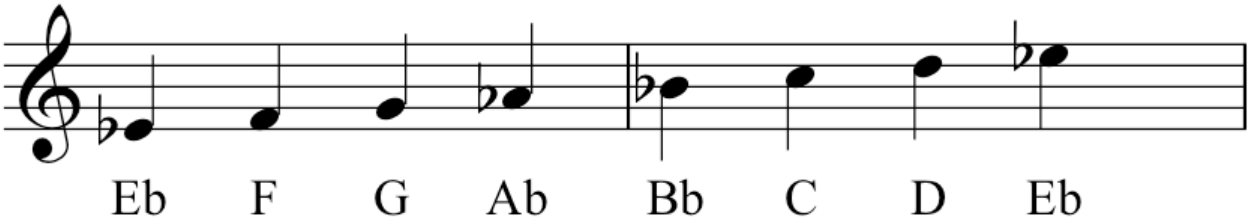
As you probably are aware, the levers on your harp raise the pitch of a given string by one half-step. Unlike the pedal harp, where each string can be played as a flat, a natural, and a sharp, on the lever harp, each string can only be played as the pitch you tune it to, plus the pitch one-half step higher. Therefore, if you tune a string as a natural, the lever will make it sharp. If you tune the string to a flat, the lever will make it a natural.

Most beginners tune their harps to the key of C, meaning all the strings are tuned as naturals, exactly like the white keys on a piano. This gives you the following notes (from the C major scale) with all your levers down:



From here, you may add sharps, but not flats, and therefore you can use your levers only to add sharp keys. Most lever harp players never play in the keys of B major (5 sharps), F# major (6 sharps), or C# major (7 sharps). Even the key of E major (4 sharps) rarely gets used by most lever harpers.

As you can see, tuning a fully-levered harp in C creates a lot of wasted potential, and those levers were expensive. This is why many lever harpers tune their harps with three flats: Bb, Eb and Ab. Doing so creates an Eb major scale with all the levers down:

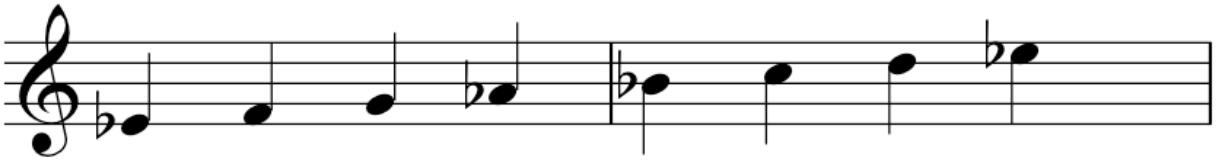


Now we have much better options. From the key of Eb, by removing one flat at a time, we can play in two more flat keys (Bb, with 2 flats, and F, with one). By lifting the A, E and B levers, we arrive back in the key of C. From here, we can still add up to four sharps, giving us the keys of G (1 sharp), D (2 sharps), A (3 sharps), and E (4 sharps). I'll take you through these keys and scales one at a time. (In the UK, harpers typically tune in 4 flats, or the key of Ab, and therefore give up the key of E).

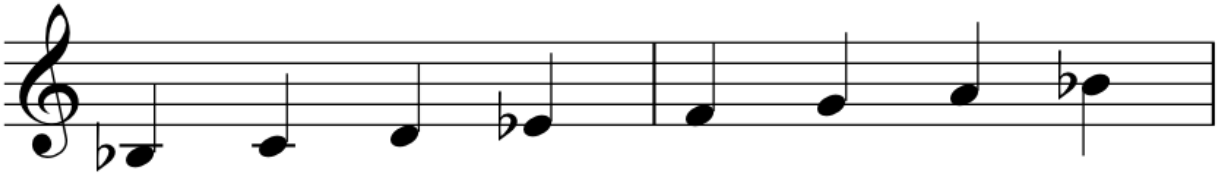
Major Scales For Lever Harps Tuned in Eb

Here are the scales for each key you can play on a lever harp tuned in Eb with all levers down. As we move from one key to the next, we'll be raising a new lever, as well as keeping up any levers we've already raised.

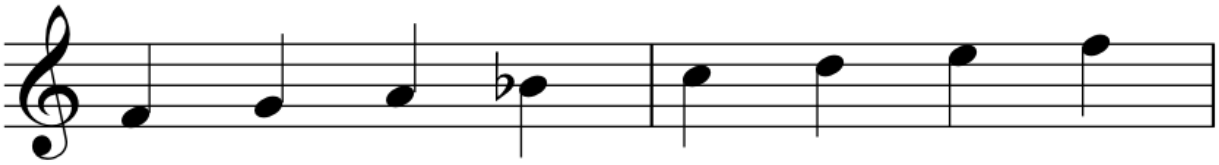
Remember, we start with **Eb majo**r when all our levers are down:



Bb major is next; raise the A levers (from Ab to A). Notice there are still two flats in our scale (Bb and Eb).

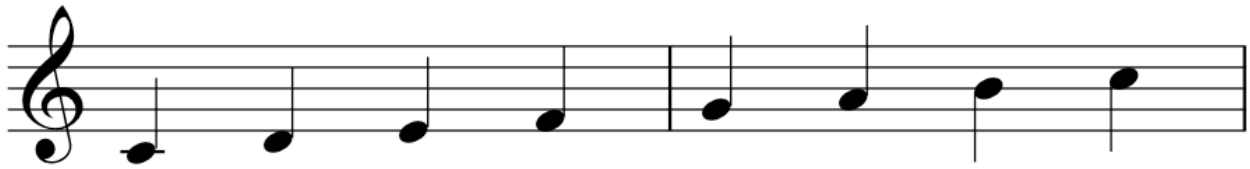


Next we'll visit **F major**, by raising the E levers (from Eb to E).



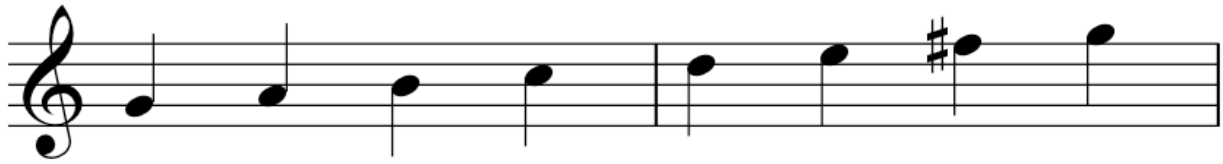
As you can see, there is only one flat left. Can you guess which lever we'll raise next?

Here comes our trusty **C major scale;** all we have to do is remove that last flat by raising the B levers (Bb to B):

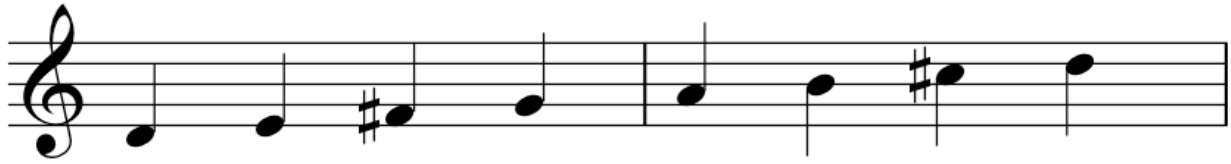


We're out of levers that go with the strings we tuned flat, so now we'll be adding sharps, and moving into sharp keys.

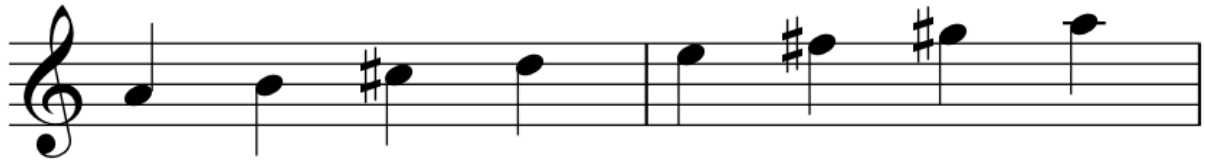
For **G major**, raise the F's to F#



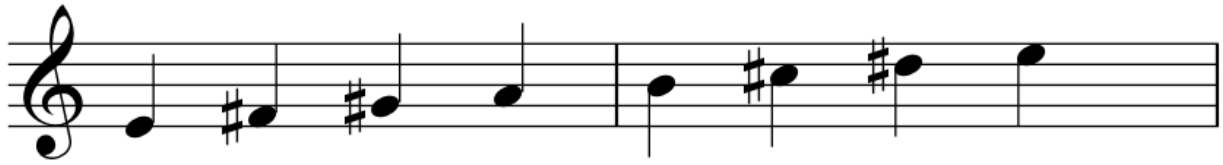
For **D major**, raise the Cs to C#



For **A major**, raise the Gs to G#

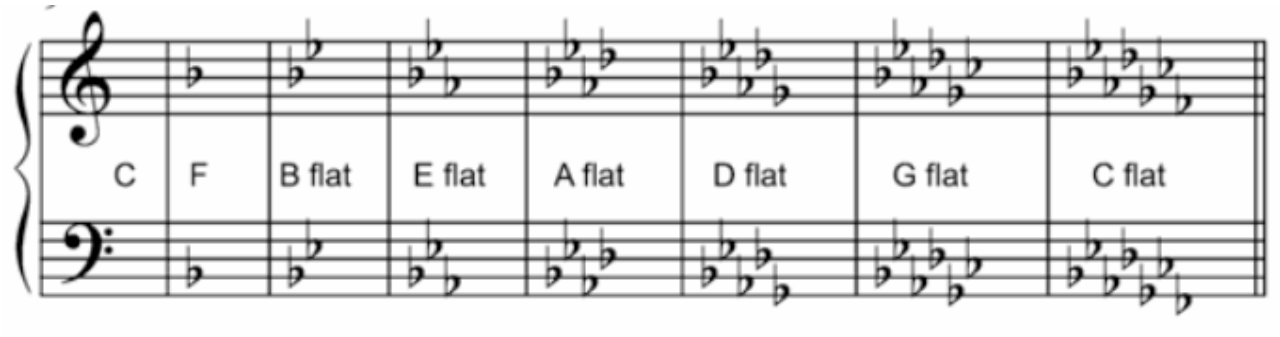


And, finally, for **E major**, raise the Ds to D#



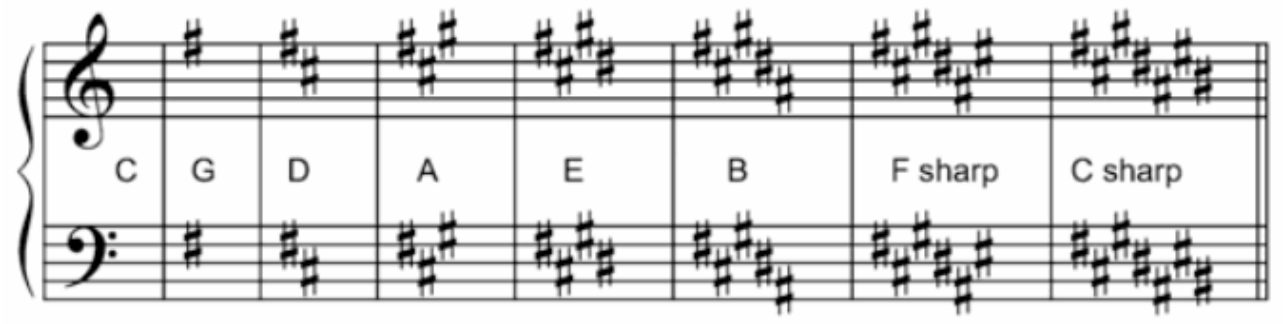
Major Key Signatures

In all the the scales above, I've labelled each note of the scale with it's accidental (sharp or flat) to make them easy to see. Usually, we take care of these accidentals with the key signature. In a key signature, the sharps or flats are always written in the same order. The order of flats is B E A D G C F. Each new flat is a fifth lower than the last one.



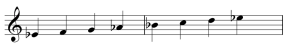
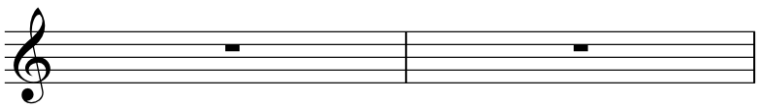
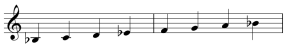
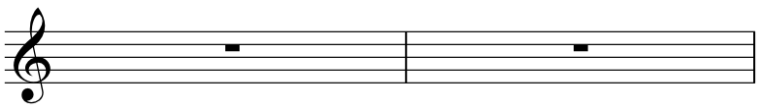
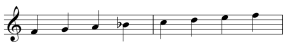
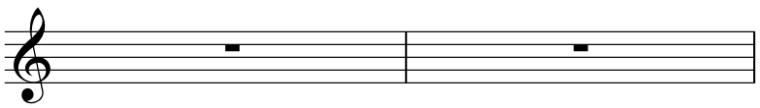
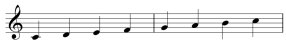
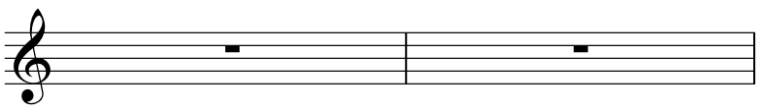
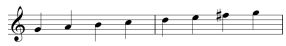
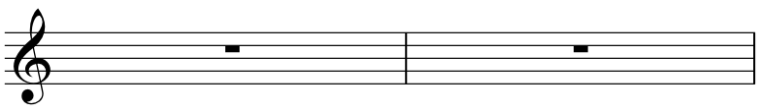
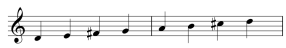
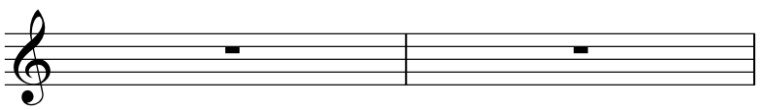
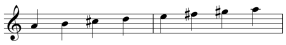
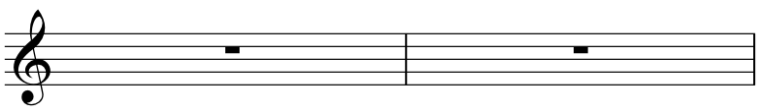
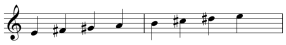
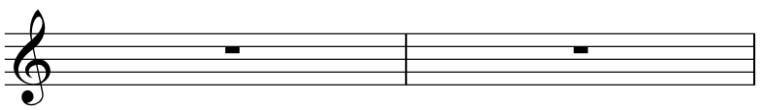
To identify a flat key, look at the second-to-last flat (left to right). This works for all the flat keys except F, which you must just remember has a Bb in it. Even if you never play with four or more flats on your lever harp, it's good to understand the pattern as it continues all the way to C flat.

The order of sharps is F C G D A E B. Each new sharp is a fifth higher than the last one.



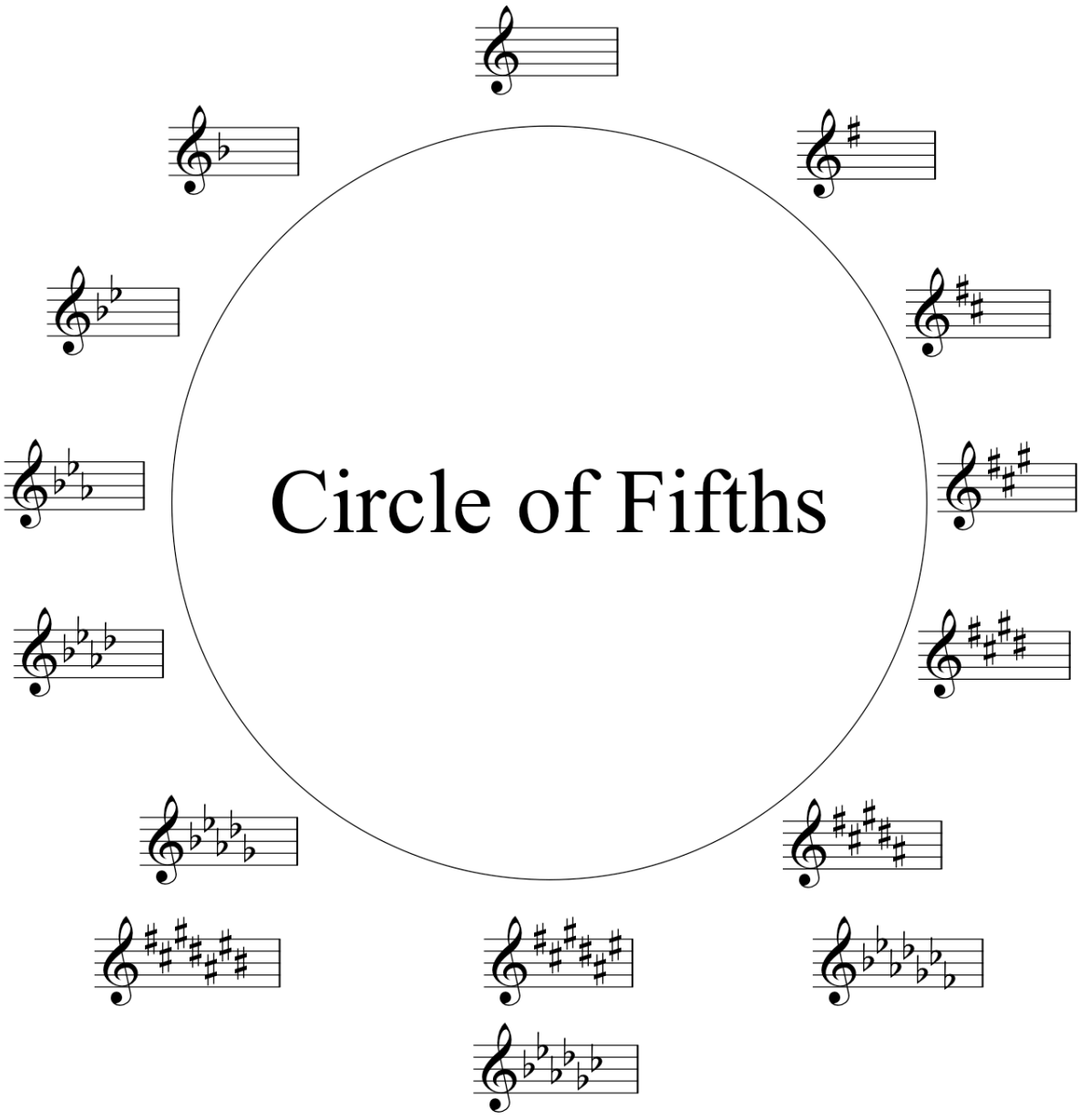
To identify a sharp key, look at the last sharp and go up one line or space (i.e. one half-step). For example, the last sharp in the key of D is C#, one half-step below D. Again, you may never play in many of these keys, but understanding the pattern will make your knowledge of the keys you do play in much more secure.

Now it's your turn. For each scale I gave you with accidentals, write out the scale with a key signature instead. Be sure to add the sharps or flats in the right number and order in the key signature, as illustrated in the key signature charts. Then name the scale (e.g. Eb Major).

Scale with Accidentals	Scale with Key Signature	Name
		
		
		
		
		
		
		
		

The Circle of Fifths

In order to help understand the relationship of keys to one another, we use a tool called the Circle of Fifths. Here is a Circle of Fifths with key signatures, but no labels. Working through the flat keys, and then the sharp keys, can you add the the name of each major key?

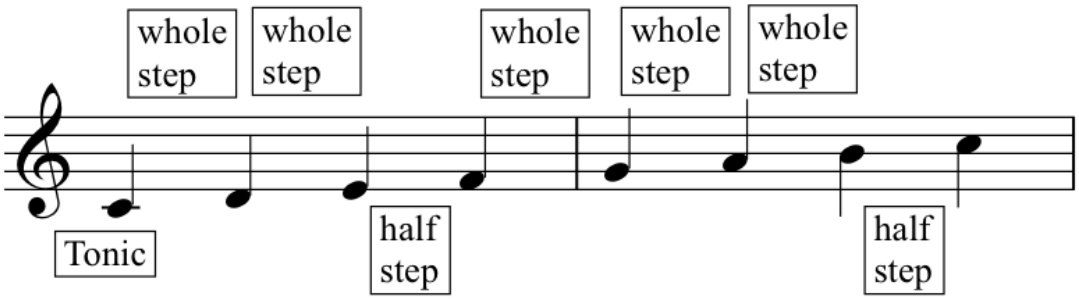


You'll notice that the spots at the bottom of the circle have two key signatures. The notes of each scale sound exactly the same, but are labelled with sharps one way and flats the other. For example, the key of B (5 sharps) sounds the same as the key of Cb (7 flats). These are called "enharmonic" keys.

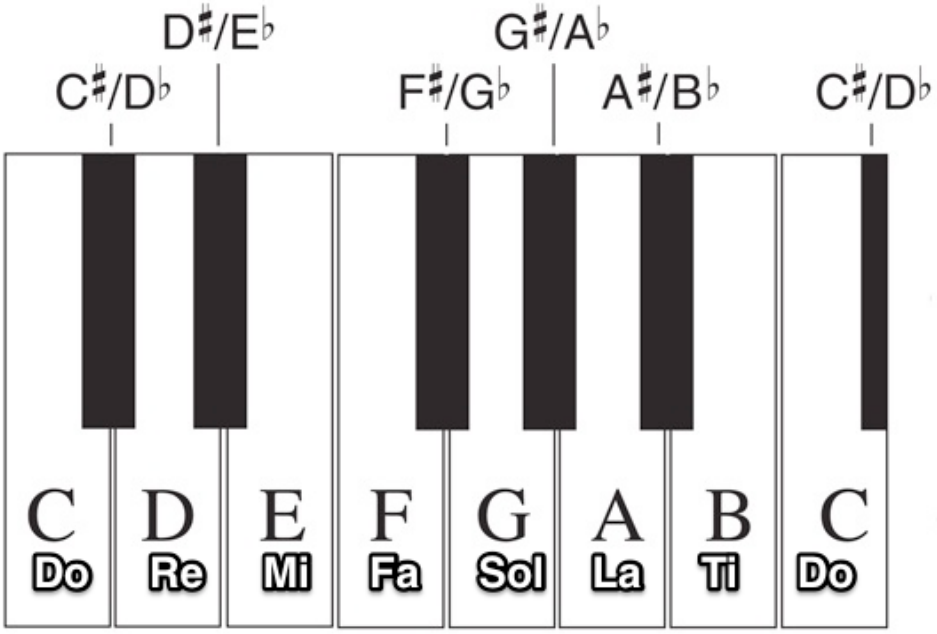
The Circle of Fifths is handy because it makes our music math visual. Start at the key of C (the top of the circle). As you move clockwise, or towards more sharps, notice that each key is one fifth higher than the one before (for example, G is a fifth higher than C). Notice, also, that each new sharp is one fifth higher (for example, C# is one fifth higher than F#).

What is a Major Scale, Anyway?

Let's talk for a minute about that major scale. As you may recall, there are 8 notes in a major scale (the last note is the same as the first note, but an octave higher). From the tonic (starting note), the pattern is whole step, whole step, half step, whole step, whole step, whole step, half step. We recognize this pattern most easily in the key of C:



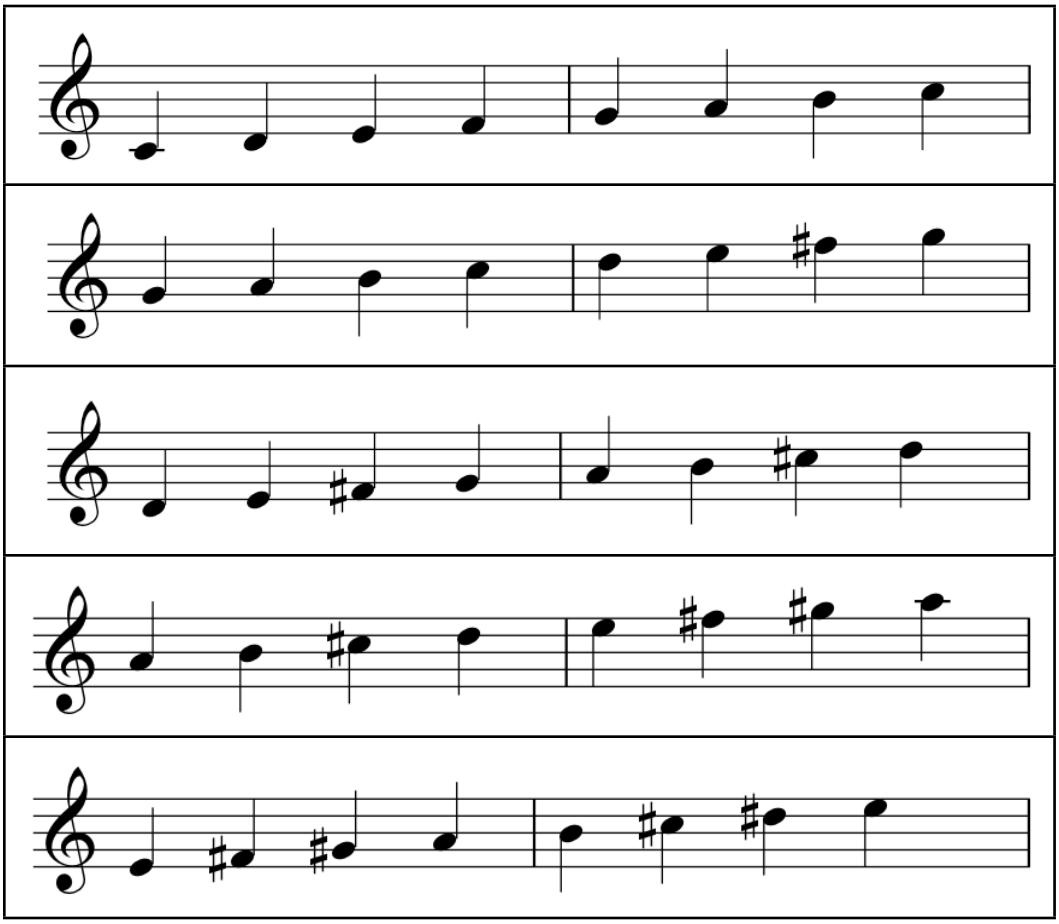
That's because the half-steps are clearly visible on the piano keyboard, as there are no "extra" (black) keys between E and F or B and C:



Moving From One Key to Another on the Harp (and the Circle of Fifths)

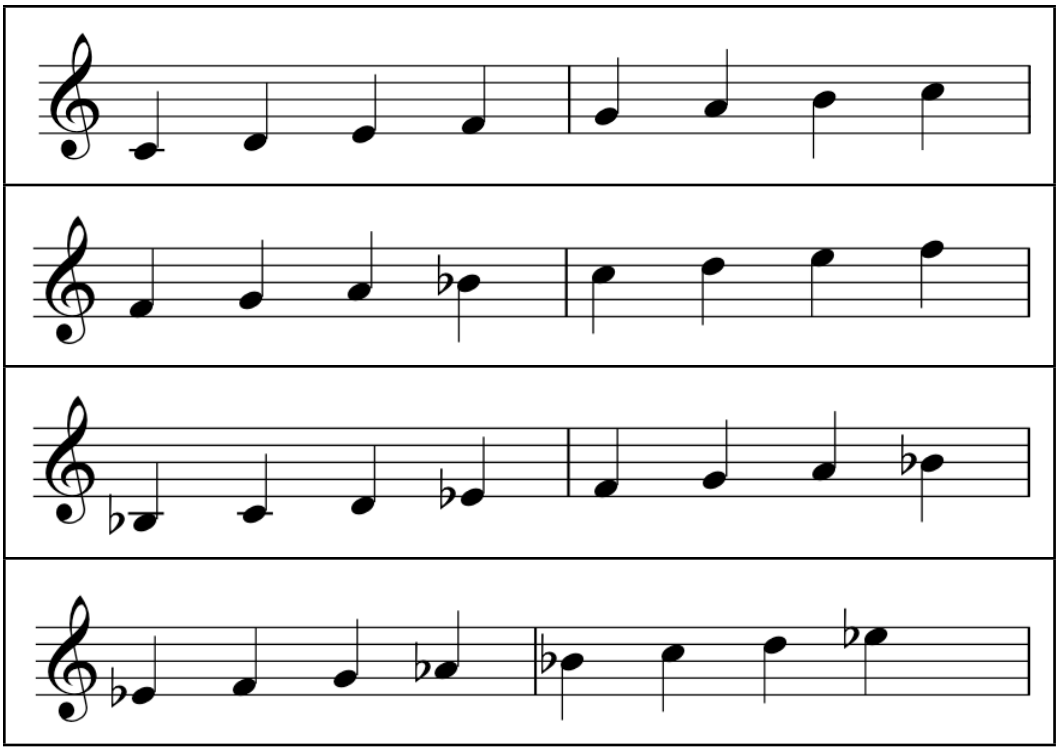
The sound of the major scale is so prevalent in our culture that our ears can also guide us. Try this: put your harp in the key of C. Now start with the C string and count to five: C D E F G. You know that G will be your next key. Before changing anything, play from G to G. Can you hear that the scale doesn't sound "right"? That's because the half-step is between the 6th and 7th scale degrees, instead of the 7th and 8th degrees. This string is F. Flip up your F lever and play from G to G again. "Do re mi" happiness, right? Every time you add that sharp, you are making "Ti" sound right again. In other words, every time we add a sharp, we're raising the seventh note of the scale to make our half-step fall in the right place.

Now it's your turn. Start in the key of C, and work through all the sharp keys by counting up five (including the starting note), and then finding and fixing "Ti" (scale degree 7) in your new scale. Notice that you're working through the sharp keys in the order of our chart from page 5: C, G, D, A and E. Look and the Circle of Fifths on page 10 and you'll see that's the order they fall in going clockwise.



We can work out the flat keys the same way. From the key of C, count down five and you reach F, the first flat key. Play from F to F and you will hear another "wrong" scale. This time, the out of place half-step is between the 4th and 5th degrees, and we want it to be between the 3rd and 4th, so we lower the 4th note. In this case, we make the B a Bb by lowering the lever. Every time you add that flat, you are making "Fa" sound right again.

Now it's your turn. Start in the key of C, and work through all the flat keys by counting down five (including the starting note), and then finding and fixing "Fa" (scale degree 4) in your new scale. Notice that you're working through the flat keys in the **reverse** order of the chart on page 5, or C, F, Bb, Eb. Look and the Circle of Fifths on page 10 and you'll see that's the order they fall in going counter-clockwise.



Of course, you don't have to start with C each time. You can climb back down from the key of E (all your levers up) by counting down five and fixing "Fa"--you will just be removing sharps instead of adding flats. You can climb back up from Eb by counting up five and fixing "Ti", you'll just be removing flats, as we did on pages 1 and 2. In other words, you can go through the whole chart of keys in either direction. Just remember that every time you move clockwise on the circle, you're counting up 5 and fixing "Ti" or scale degree 7. Every time you move counter-clockwise on the circle, you're counting down 5 and fixing "Fa" or scale degree 4.

Charts are useful, in their linear way, but what the Circle of Fifths does is make this whole pattern visually intuitive. It's a tool that serves many other uses as well. Besides key signatures, we can work out primary chords and common chord progressions with the circle, so understanding the basics will give you wings to fly as you deepen with your music. (And here are your answers for page 6).