## Guitar Theory: the Circle of Fifths

The circle of fifths helps us identify that key and those chords. Of course the charts above do also. But the circle of fifths provides us other insights as well.
LESSON 1: SHARPS


C has no sharps CDEFGAB<br>G has 1 sharp GABCDEF\#<br>D has 2 sharps DEF\#GABC\#<br>A has 3 sharps ABC\#DEF\#G\#<br>E has 4 sharps EF\#G\#ABC\#D\#<br>B has 5 sharps<br>BC\#D\#EF\#G\#A\#

F\# has 6 sharps
F\#G\#A\#BC\#D\#E\#

With this side of the Circle of 5ths, you can see how many sharps each key or major scale contains. Each key as you go down adds the 7th degree sharp: G adds 1 sharp, the F\#...D adds another sharp in addition to the $\mathrm{F} \#$, the $\mathrm{C} \#$.

Each of these new sharps just happens to be a perfect 5th from the first sharp, F\# ... $\mathrm{f} \# \mathrm{~g} \mathrm{ab}$ c de To remember the order of these, remember this quote or make up your own, "Cool Guitarists Do Absolutely Everything Better ... freak"We're going to look at the right side of the circle first.


# C has no flats CDEFGAB 

F has $\mathbf{1}$ flat FGABbCDE<br>Bb has 2 flats BbCDEbFGA

Eb has 3 flats EbFGAbBbCD

# Ab has 4 flats A bBbCDEbFG 

Db has 5 flats
DbEbFGbAbBbC
Gb has 6 flats
GbAbBbCbDbEbF

This is basically a continuation from the sharps side. Gb and $\mathrm{F} \#$ are the same notes, just different names. We switch to flats to make life simpler, because we'd get into double sharps and all that nonsense.
So instead of adding more sharps we take away flats. Let's look at F\# and Gb
F\# ... F\#G\#A\#BC\#D\#E\#
Gb ... GbAbBbCbDbEbF
See, they're all the same notes.

- Now go up a 5th from Gb to Db.

Now we take the flat 7th away, which would be "Cb."

- Next we move up another 5th from Db to Ab and take away the 7th flat, which is Gb
- Next we move up another 5th from Ab to Eb and take away the 7th flat, which is Db
- Next we move up another 5th from Eb to Bb and take away the 7th flat, which is Ab
- Next we move up another 5th from Bb to F andtake away the 7th flat, which is Eb. That leaves us with Bb only.
To be honest with you we could analyze the hell out of this thing for hours and hours and still be digging deeper and deeper. We'll look at this a few more times in its entirety and make a few observations.

Now for another cheezy little quote to remember the order of the flats from the c counter-clockwise, "Cool freakin' BEAD g" Yeah, I know, but it helps me to remember so maybe it'll help you too. If not just make something up.

## Guitar Theory: Uses of the Circle of 5ths

1. Find out how many sharps and flats are in each key: ALWAYS START on the F and REMEMBER THE ORDER
OF THE NOTES ON THE CIRCLE
Sharps: Take your key and the sharps will be each of the notes leading to that key from F. Include F

EXAMPLE: Key of A (we know that A has 3 sharps)
From F we have F, C and G (counting 3 from F) so the sharps $=\mathrm{F} \#, \mathrm{C} \#, \mathrm{G} \#$
Flats: Take your key and the flats will be the notes leading to that key from F again plus the next note. Don't include F

EXAMPLE: Key of Db (we know that Db has 5 flats)
From F we have $\mathrm{B}, \mathrm{E}, \mathrm{A}, \mathrm{D}, \mathrm{G}$ so those will be the flats $\mathrm{Bb}, \mathrm{Eb}, \mathrm{Ab}, \mathrm{Db}, \mathrm{Gb}$

## SIMPLE RIGHT?

2. Find out what chords are in a key and what their flavor is.

Take the G major key. In that key we know that there is one sharps and that is F\#. We know that F\# is the 7th of
the G because it's the letter that precedes the G alphabetically. So it is diminished. But which are the major and minor chords in the key?
Looking at the Circle of Fifths: the left and right hand man of the key you want are major. After that, the next 3 chords are minor.Then you arrive at the 7 th, which we know is diminished. There you go.

So for $G=(G C D)(A E B)(F \#)$ are what we get $\ldots$ G C D are Major, A E B are minor, and F\# is diminished.

Put them in order $=\mathrm{GabCD}$ e F\#

| G | a | b | C | D | e | F\# |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Major | minor | minor | Major | Major | minor | diminished |
| I | ii | iii | IV | V | vi | VII |

remember that the outer circle is major


Gb


## Guitar Theory: Summary of Circle of Fifths

So now we know that the circle of fifths shows us:

1) the notes in every major scale and minor scale
2) how many flats and sharps are in each key signature
3) what keys share key signatures
4) how to quickly see what relative minor belongs to what key
5) what the dominant and subdominant of every chord / key and consequently where each dominant resolves
6) the more we study it, the more we will understand the movement and relationship between chords and notes

So where do we start?!! That's a ton of info!

1. Let's start with memorizing the notes and where they are on the Circle of Fifths:

MAJOR KEYS: STARTING WITH C
KEYS WITH SHARPS: down the right side CGDAEBF
KEYS WITH FLATS: down the left CFBbEbAbDbGb
2. Memorize how many sharps and flats each gets: 0123456 (respectively)
3. Memorize how to remember what's flat and sharp:

START WITH F ...
Sharps = count the number of sharps your note has clockwise and those are your sharps. Include F as a sharp.
Flats = count the number of flats your note has counterclockwise from F and those are your flats. Don't count F as a flat.
4. Where the relative minor is in relation to the MAJOR keys and consequently what Keys share Key Signatures.

| C | G | D | A | E | B | F | MAJOR KEYS and KEY SIGNATURE |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| a | e | b | f\# | c\# | g\# | d\# | minor keys that share key sig. above |

5. Where the minor keys lie in the Circle of Fifths:

## MINOR KEYS: STARTING WITH Am

KEYS WITH SHARPS:
down the right side: Am ... Em ... Bm ... F\#m ... C\#m ... G\#m ... D\#m
KEYS WITH FLATS:
down the left side: Am ... Dm ... Gm ... Cm ... Fm ... Bbm ... Cbm
6. Memorize how many sharps and flats each gets:

0 ... 1 ... 2 ... 3 ... 4 ... 5 ... 6 (respectively)
7. Where the tonic, supertonic, mediant, subdominant, dominant, submediant and leading tones occur on the
circle and what their flavor is for Minor keys and Major keys. (major / minor / diminished)
8. Realize where tonic category chords are, subdominant chords are and dominant chords are on the circle.


Gb
CLOCKWISE: every degree separated by 5 ths
COUNTERCLOCKWISE: every degree separated by 4ths
OUTSIDE: major scale, major chords forms, major keys, key signatures
INSIDE: minor scale, minor chord forms, relative minor to key chords

OUTSIDE

| 1 LEFT | 4th | sbdominant | Major chord |
| :--- | :--- | :--- | :--- |
| 1 RIGHT | 5th | dominant | Major chord |
| 2 RIGHT | 2nd | supertonic | minor chord |
| 3 RIGHT | 6th | submediant | relative minor chord |
| 4 RIGHT | 3rd | mediant | minor chord |
| 5 RIGHT | 7th | leading tone | diminished chord |
| across | b5th | tritone |  |

INSIDE

| 1 LEFT | 4th | sbdominant | minor chord |
| :--- | :--- | :--- | :--- |
| 1 RIGHT | 5th | dominant | minor chord |
| 2 RIGHT | 2nd | supertonic | diminished chord |
| 3 RIGHT | 6th | submediant | Major chord |
| 4 RIGHT | 3rd | mediant | minor chord |
| 5 RIGHT | 7th | leading tone | Major chord |
| across | b5th | tritone |  |

