## The CAGED system of guitar fretboard organisation

The CAGED system is a system of understanding the layout of the guitar fretboard by relating scale fingerings to the standard 'beginners' chord shapes of $C, A, G, E$ and D . It aids in learning the layout of the fretboard, and by learning the relationship of the 5 fingerings to each other, can give a clear visualisation of where all the notes in each particular key can be located in any part of the neck of the guitar.

There are other systems for learning the fretboard - for example, the 'three notes per string' idea is popular, and can help right hand technique by having the same number of notes on each string, making the playing of fast runs and patterns easier to pick. Also popular are fingerings known as 'diagonal' fingerings, which incorporate position shifts in order to be able to repeat fingering - the idea behind this is to play a whole scale on two adjacent strings, so that the same fingering can be used on other pairs of strings, which facilitates artistic phrasing. These options will be covered in a forthcoming article. Both of them are easier to grasp and can be learned much more quickly if the CAGED system is understood.

So - let's look at the CAGED system! It starts with the five basic chord shapes illustrated here:


These 5 shapes, representing the chords of E D C A and G respectively, are well known to beginners, and are routinely learned in the first few months of playing. Let's take the first of the chord shapes as an example - the E chord shape. If all the notes in this chord are moved up a fret, it becomes the chord of F. Note that to do this it is not enough simply to slide the fingers up one fret - the E chord contains open strings, so the notes on these strings, when we make our upward move of one fret, will be replaced by notes on the first fret. We can then slide this F chord to different frets on the neck of the guitar, and it will become a different chord at each fret. Whatever fret we play it on, however, the shape remains the same - it is still the basic beginners E chord shape, adapted for using up and down the fretboard.

We can repeat this process with all 5 basic shapes - moving them up a fret, not forgetting to adjust the notes on the open strings also; in this way, we take the basic chords and use their shapes as movable forms. If you have experience of moving a barre chord shape up the neck of your guitar to form a different chord by playing the same shape at a different fret, the idea here is exactly the same thing. By thinking of all 5 of our basic chords of E D C A and G as movable shapes, we get the following 5 forms:


In these diagrams, the root notes of each chord form are highlighted in red. When you play these at different frets, you would name the chords according to the name of the highlighted notes. For example, let's use again the E form. First, make sure you can see the relationship in terms of shape with the basic E chord - this is essential. You should be able to readily 'see' the E chord within the fingering of the $E$ form. Note next that the three highlighted notes are all ' $G$ ' notes. This tells us that when we play the E form at fret 3 , as in the diagram, we are playing the chord of G. Look at all 5 of the 'form' diagrams - make sure you grasp how they all are related to the basic 5 beginners chords.

The E form is, as already shown, being used to construct a chord of G. By using the root notes in the above diagrams, we can then see that the $D$ form is making an F chord, the C form is making a D chord, the A form is making a C chord, and the G form is making an A chord. Think that through slowly - you can read that statement in seconds, but take your time to make sure you have completely grasped it before moving on to the next phase of understanding the CAGED system.

Hint: If you are finding difficulty in seeing the shape of the basic chords within the forms, imagine that the lowest fret used in each form is an open string, and that the other notes are moved down to correspond with that - you can try this out on your guitar - finger an F chord, say, then slide it down a fret so that your first finger comes off the fretboard - you are now fingering an E chord. It's as simple as that, don't go looking for complexity here, there is none!

Now let's move on to the scale fingerings themselves.
The diagrams below are the basic 5 fingerings associated with the 5 CAGED system forms explained above. The root notes are again in red, and by locating the red notes on the root note of the scale you want to play, you can use these fingerings to play any major scale in 5 different positions on the fretboard. Start by picking one key - let's once again pick $G$ to demonstrate this point. The first diagram below is the E fingering, and simply by playing it at fret 3 , as per the diagram, you have a G major scale. The fingering relates to the standard E chord shape - see if you can locate it's shape within the scale fingering, imagining the Root note on string 6 as an open string.


With all of these fingerings, it is a good idea to practise playing them as follows; start with the lowest root note, play all the notes in order up to the highest note, then all the way down to the lowest note, then back up to come to rest on the root note again. The point of starting and finishing on the root, and not simply playing from lowest to highest and back, is to keep the sound of the key in your mind. As well as giving you scale practice, this also serves as a kind of subliminal aural training. Work through each of the five fingerings in the same way; locate the roots to find your key, using a fretboard diagram if necessary. Try to locate the basic chord shapes within each scale. If you don't have a fretboard diagram, go back to the Free Lessons page and download the one from there.

Test yourself - pick a key, and try to work out all 5 ways of playing it, one for each of the 5 forms. Or play any of the fingerings at a random fret, and then using a fretboard diagram, work out what the key is for scale you have just played. Aim to do away with the diagram in due course - if you test yourself as I have described, you'll find that a knowledge of the names of the notes of your fretboard will come fairly quickly.

To sum up - start with the 5 basic chord shapes. Adapt them to the 5 forms, by imagining moving them up the neck of the guitar (or actually playing them, if you find that helpful to get them clear in your mind), not forgetting to deal with the open strings. Then, when the idea of the forms has been grasped, go to the scales. The idea, remember, is to relate scale fingerings to basic chord shapes. This will increase your functional knowledge of the layout of the neck, and will also facilitate soloing and improvising, as it will give you a visual idea of how scale fingering relate to the chords that are going on behind your solo.

I've only dealt with major chords and major scales here of course; the system is easily adapted to other chords and other scales, however. The intervals within scales are routinely identified by using the major scale as our reference point, so when the system is understood in terms of major scales, it is really not at all complex to quickly use it in understanding other scales, and their fingerings. For example - the harmonic minor scale has, in relation to the major scale, a flattened 3rd and a flattened 6th. By taking a CAGED scale form - any of them - and playing the 3rd and 6th notes above the root note a fret lower, you now have a harmonic minor scale. Sometimes you may need to change an altered note on to a different string, but the principle holds good in all situations. Another example - the major pentatonic scale, common in Western Swing music, has the 1st, 2nd, 3rd, 5th and 6th notes of a major scale. By simply omitting, therefore, the 4th and 7th notes of the major scale, you have a pentatonic major.

If you learn and understand the material in this primer, you will have the knowledge you need to 'unlock' the notes on your guitar. Just take it slowly, and make sure you have understood one part of this explanation before moving on to the next, and it will come.

If you have problems understanding anything about this tutorial, leave any questions you have on the contact site and I'll get back to you with an answer.

