

Play the Electric Bass by the Number System

Background

There are 7 tones (or notes) in a major scale (or key).

Key of C C D E F G A B C (Notice the first and last note is the same.)
Key of D D E F G A B C D
Key of E E F G A B C D E
Key of F F G A B C D E F
Key of G G A B C D E F G
Key of A A B C D E F G A
Key of B B C D E F G A B

Do you see a pattern here? The order of the notes are always the same, ie., G always follows F, C is always before D, etc.

There is another rule that applies to major scales. Look at the C scale again below in **bold**.

C# D# F# G# A#
C D E F G A B C

There is an extra note between C & D, D & E, F & G, G & A, and A & B, but no extra note between E & F and B & C.

This is mind-boggling -- count all the notes above (count the C only once and you'll get twelve) ***These are all the notes in the world!!!!*** Think about that!

Note: The # symbol is called a sharp. It represents a tone or note that is slightly above the regular note. From C to C# is what we call a half step. From C# to D is a half step. From C to D are two half steps so we call it a whole step.

There is another symbol called a flat. It looks like a small ^b. It represents a tone or note that is slightly below the regular note. So C# could also be called D^b.

If we number the notes in the C scale, it would look like this:

C	D	E	F	G	A	B	C
1	2	3	4	5	6	7	1

Now stay with me here! No matter what scale you play, there is always an extra note between 1 & 2, 2 & 3, 4 & 5, 5 & 6, and 6 & 7, but no extra note between 3 & 4 and 7 & 8.

Let's apply this to the D scale:

D	E	F[#]	G	A	B	C[#]	D
1	2	3	4	5	6	7	1

Notice I had to use F[#] and C[#] to stay in the pattern.

Here's the E scale:

E	F[#]	G[#]	A	B	C[#]	D[#]	E
1	2	3	4	5	6	7	1

See if you can fill in the notes for the F scale:

F	—	—	—	—	—	—	F
1	2	3	4	5	6	7	1

(Answer on next page.)

F Scale Answer:

F G A B^b C D E F
1 2 3 4 5 6 7 1

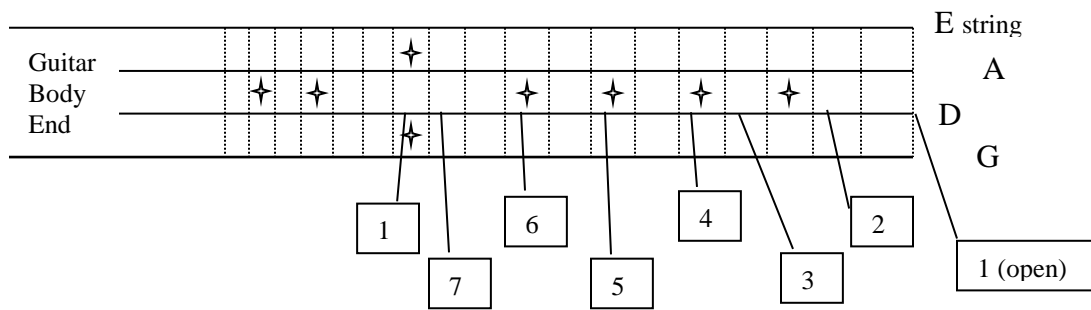
Did I fool you on the B^b? Remember B^b and A[#] is the same note.

Bass Guitar

Now let's apply this to the bass guitar.

The four strings of a bass are G, D, A, and E, from the highest pitched to the lowest pitched. Or if you are looking at the guitar neck with the head to the right and body to the left, the bottom string is G and the top string is E.

The picture below represents the horizontal strings and vertical frets of a bass guitar neck.



If we use the D scale below, then the 2nd string from the bottom would be D or 1 if plucked in the open position.

Fret the D string on the second fret and the note would be E or 2. (The first fret is skipped, this note would be D[#] which is not part of the D scale.)

D E F[#] G A B C[#] D
1 2 3 4 5 6 7 1

Most songs are based around 3 notes of a scale, i.e., every note in the song will sound in harmony with the 1 (D), the 4 (G), or the 5 (A).

The **purpose** of the bass guitar is to *provide the rhythm and foundation notes of a song*. That means the bass guitar will normally sound the 1, 4, or 5 note at specific times (according to the song's pattern). Let's look at an example:

This little light of mine,	I'm gonna let it shine
1 1	1 1

This little light of mine,	I'm gonna let it shine
4 4	4 1

This little light of mine,	I'm gonna let it shine
1 1	1 1

Let it shine, let it shine, let it shine
1 5 1 1 (end)

On your bass guitar, pluck the 1, 4 or 5 as indicated as you sing this little song. How did that sound?

Now try something. Pat your foot or get a friend to clap their hands as you sing and play.

This little light of mine,

1 1
clap clap clap clap

I'm gonna let it shine

1 1
clap clap clap clap

This little light of mine,

4 4
clap clap clap clap

I'm gonna let it shine

4 1
clap clap clap clap

This little light of mine,

1 1
clap clap clap clap

I'm gonna let it shine

1 1
clap clap clap

Let it shine, let it shine, let it shine

1 5 1 1 (end)
clap clap clap clap clap clap clap clap (end)

Now try something else, on the clap immediately following the 1, 4 and 5, pluck the indicated note below. (Emphasize the bold number.)

This little light of mine,

1 5 1 5
clap clap clap clap

I'm gonna let it shine

1 5 1 5
clap clap clap clap

This little light of mine,

4 1 4 1
clap clap clap clap

I'm gonna let it shine

4 1 1 5
clap clap clap clap

This little light of mine,

1 5 1 5
clap clap clap clap

I'm gonna let it shine

1 5 1
clap clap clap

Let it shine, let it shine, let it shine

5 1 5 5 2 1 5 1 (end)
clap clap clap clap clap clap clap clap (end)

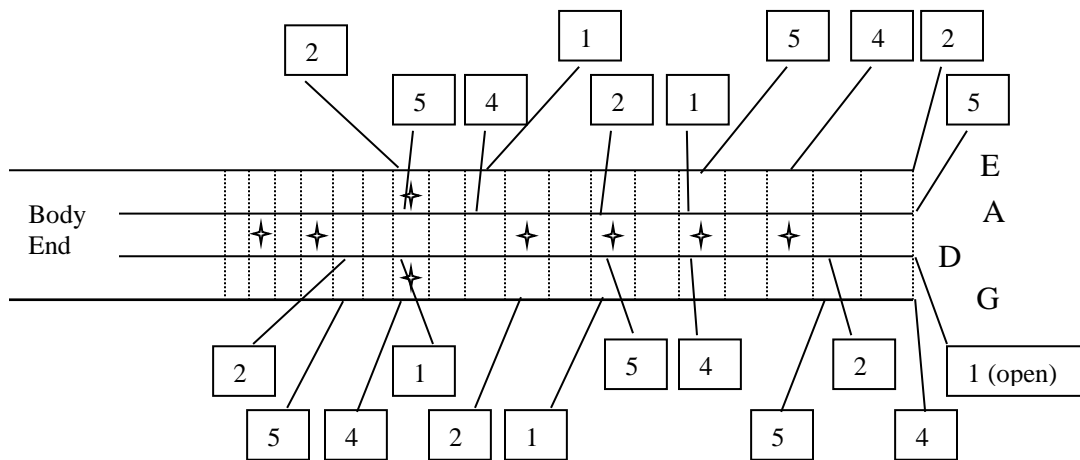
You are surely playing bass now!!!

Did you have trouble moving back and forth from 1 to 5, 4 to 1, and 5 to 2?

Let's begin using more than one string!

In the picture below, I have labeled the D scale on the A string, G string and E string. Now you have so many more choices to play 1, 2, 4 and 5.

Use the position that is easiest for you or sounds the best. Mix it up to make it interesting. It's up to you!



Now go back and play "This Little Light of Mine" using some different positions of 1, 2, 4 and 5.

Do you notice that the more you play, the easier it gets and the better it sounds? (That's called practice...but it's fun!!)

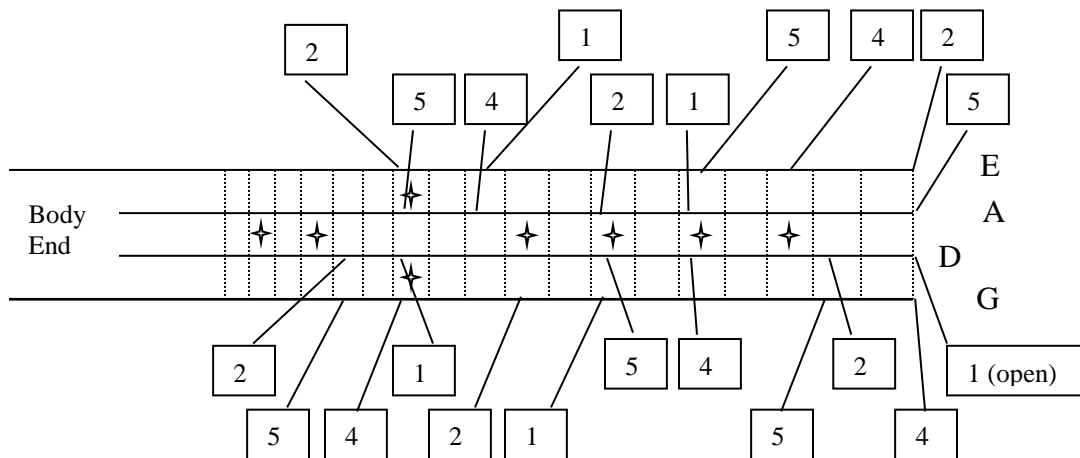
Reference: D scale

D	E	F#	G	A	B	C#	D
1	2	3	4	5	6	7	1

"Rocking" the bass guitar

Doesn't the song seem to have more rhythm if you play the 5 after the 1, the 1 after the 4, and the 2 after the 5? I call this "rocking the bass".

Every main note of a song, played by the bass guitar for rhythm or harmony purposes, has a "rock" note (unless the song is waltz time, more about this later).



Notice that 5 is always on the string directly above 1... and on the string below 1, the 5 is two frets forward toward the body of the guitar? (5 is the "rock" note of 1.)

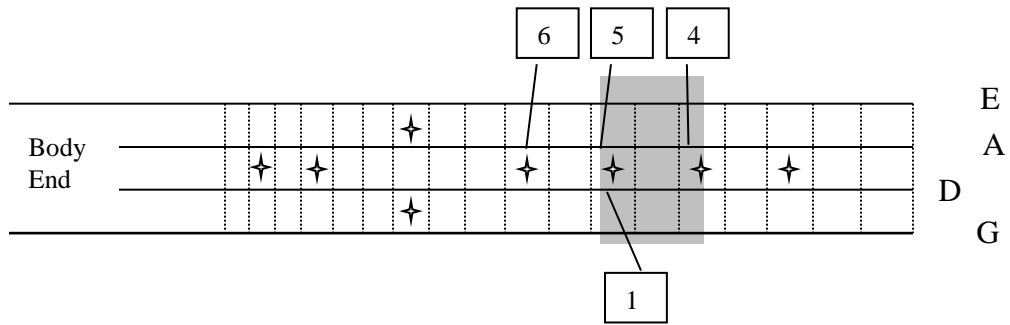
Notice that 1 is always on the string directly above 4... and on the string below 4, the 1 is two frets forward toward the body of the guitar? (1 is the "rock" note of 4.)

Notice that 2 is always on the string directly above 5... and on the string below 5, the 2 is two frets forward toward the body of the guitar? (2 is the "rock" note of 5.)

Do you see the pattern? *The "rock" note is always on the string directly above the main note or two frets forward on the string below the main note.*

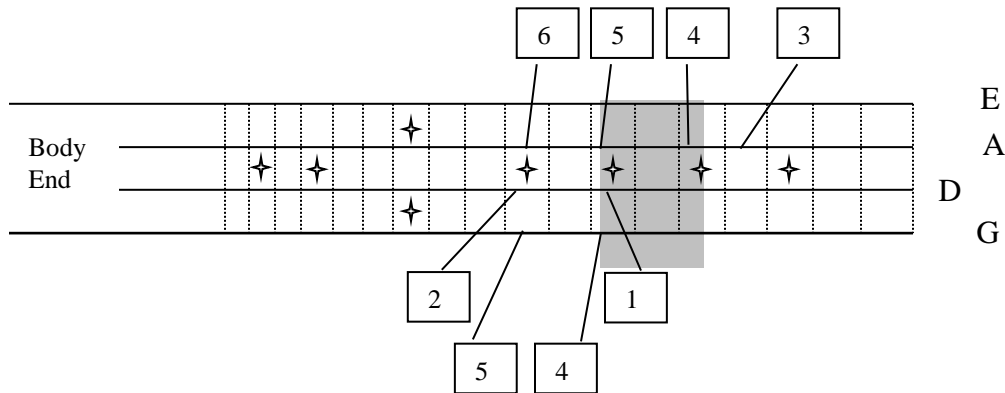
The "Box"

"A" Scale



The "Box"

"A" Scale



Off Chords

There are some songs that use more than just 1, 4 and 5 as the main notes. Imagine that!!

There may be a 2, 3, 6 or 7 stuck in there somewhere.

A	B	C[#]	D	E	F[#]	G[#]	A
1	2	3	4	5	6	7	1

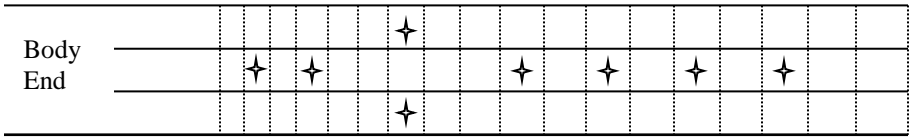
If the song is in the key of A, and someone tells you to go to B, well, look at the A scale above. They are telling you to go to 2, which is two frets up the neck from 1 (wait a minute, you already know where 2 is!!). In this situation, 2 is a main note and has a "rock" note of its own, 6.

If the song is in the key of A, and someone tells you to go to C[#], well, look at the A scale above. They are telling you to go to 3, which is two frets up the neck from 2, or one fret down the neck from 4.

Maybe you need to use an F[#] minor. Looking at the A scale, that would be 6. Where is 6 you say? It's two frets up from 5, or 3 frets down from 1.

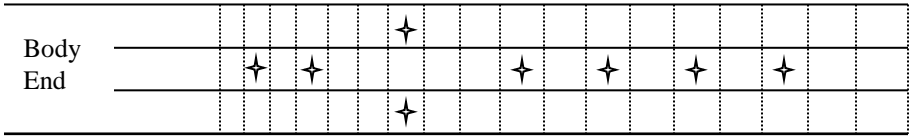
Sometimes you can hear those "off" notes, sometimes you may need to ask someone who knows how to play the song. Don't be afraid to experiment. (If you play the wrong note, I guarantee you, someone will let you know.)

Body
End



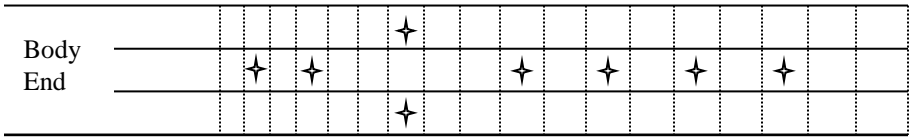
A handwriting practice row consisting of a top solid line, a middle dashed line, and a bottom solid line. The row is divided into 12 vertical columns by dotted lines. The word "Body" is written on the top line, and "End" is written on the bottom line. Stars are placed in the following columns: column 2 (top), column 3 (top), column 4 (bottom), column 5 (top), column 6 (top), column 7 (top), and column 8 (top).

Body
End



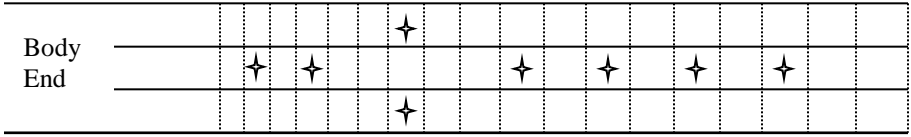
A handwriting practice row consisting of a top solid line, a middle dashed line, and a bottom solid line. The row is divided into 12 vertical columns by dotted lines. The word "Body" is written on the top line, and "End" is written on the bottom line. Stars are placed in the following columns: column 2 (top), column 3 (top), column 4 (bottom), column 5 (top), column 6 (top), column 7 (top), and column 8 (top).

Body
End



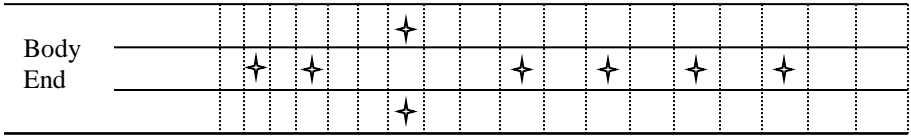
A handwriting practice row consisting of a top solid line, a middle dashed line, and a bottom solid line. The row is divided into 12 vertical columns by dotted lines. The word "Body" is written on the top line, and "End" is written on the bottom line. Stars are placed in the following columns: column 2 (top), column 3 (top), column 4 (bottom), column 5 (top), column 6 (top), column 7 (top), and column 8 (top).

Body
End



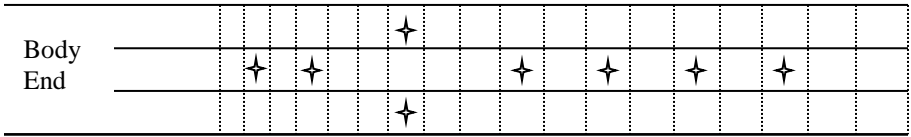
A handwriting practice row consisting of a top solid line, a middle dashed line, and a bottom solid line. The row is divided into 12 vertical columns by dotted lines. The word "Body" is written on the top line, and "End" is written on the bottom line. Stars are placed in the following columns: column 2 (top), column 3 (top), column 4 (bottom), column 5 (top), column 6 (top), column 7 (top), and column 8 (top).

Body
End

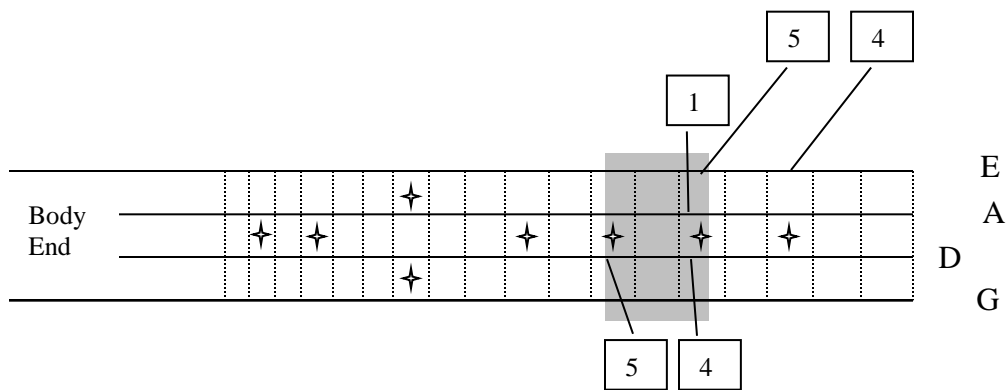
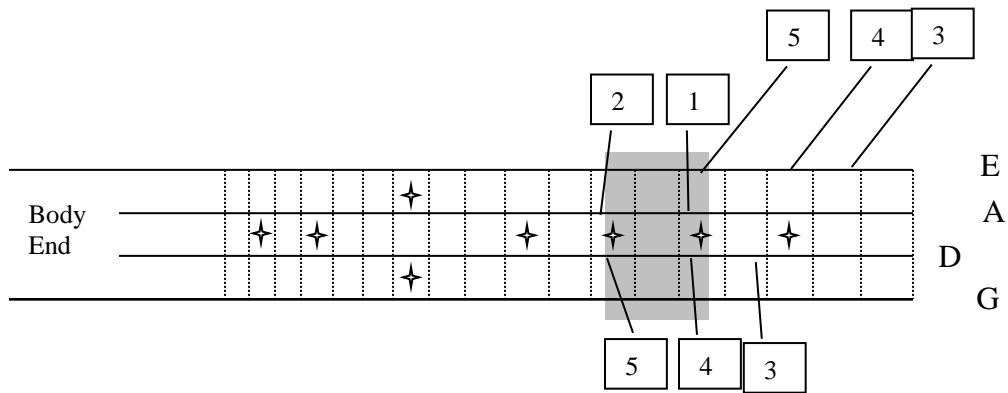


A handwriting practice row consisting of a top solid line, a middle dashed line, and a bottom solid line. The row is divided into 12 vertical columns by dotted lines. The word "Body" is written on the top line, and "End" is written on the bottom line. Stars are placed in the following columns: column 2 (top), column 3 (top), column 4 (bottom), column 5 (top), column 6 (top), column 7 (top), and column 8 (top).

Body
End



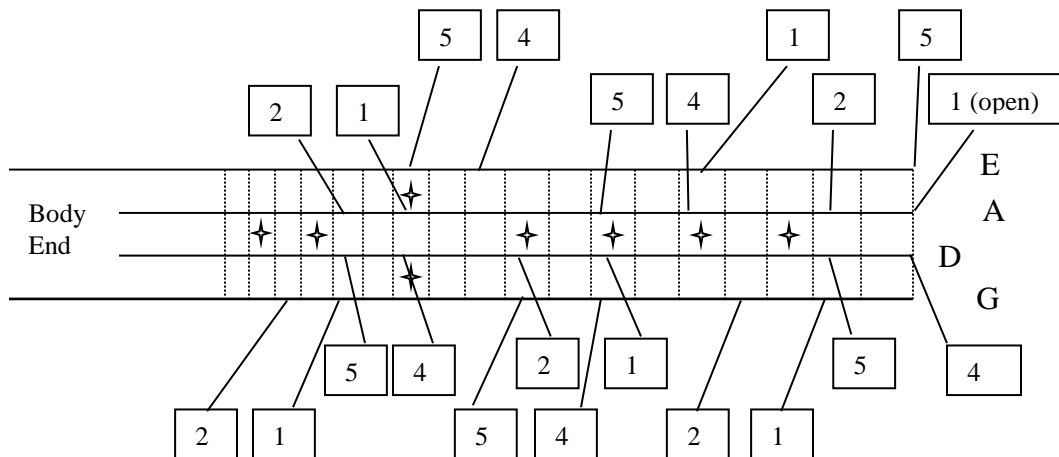
A handwriting practice row consisting of a top solid line, a middle dashed line, and a bottom solid line. The row is divided into 12 vertical columns by dotted lines. The word "Body" is written on the top line, and "End" is written on the bottom line. Stars are placed in the following columns: column 2 (top), column 3 (top), column 4 (bottom), column 5 (top), column 6 (top), column 7 (top), and column 8 (top).



Okay, what about playing in a different key?

Let's examine the key of A. (which happens to be 5 in the key of D, ref. page 6)

A	B	C[#]	D	E	F[#]	G[#]	A
1	2	3	4	5	6	7	1



Look at all those boxes!!

Box #1 is made up of the open strings and the first two frets.

Box #2 includes the fifth, sixth and seventh frets.

Box #3 is made up of the seventh, eighth and ninth frets.
 (You can combine Box #2 and #3 for an easy way to mix your playing up.)

Box #4 includes the twelfth, thirteenth and fourteenth frets. (This is actually a repeat of Box #1. Check that out!)

Remember, we are talking about the key of A here.

Let's look at the idea of boxes in a different way.

On page 6, in the key of D, the box made up of the open strings and frets one and two, is exactly the same pattern as box #3 in the key of A.

Let's apply this in another way.

If you want to play in the key of G, take the picture on the preceding page and slide everything down two frets (toward the head of the guitar).

Slide everything up two frets (toward the body of the guitar) if you want to play in the key of B.

Back on page 6, if you want to play in the key of E, slide everything up two frets (toward the body of the guitar).

Slide everything down two frets (toward the body of the guitar) if you want to play in the key of C.

Are you getting the idea that once you learn the pattern, you can move all over the guitar neck and play in any key? Good!

(even B^b? Yes!)

Off Chords

There are some songs that use more than just 1, 4 and 5 as the main notes. Imagine that!!

There may be a 2, 3, 6 or 7 stuck in there somewhere.

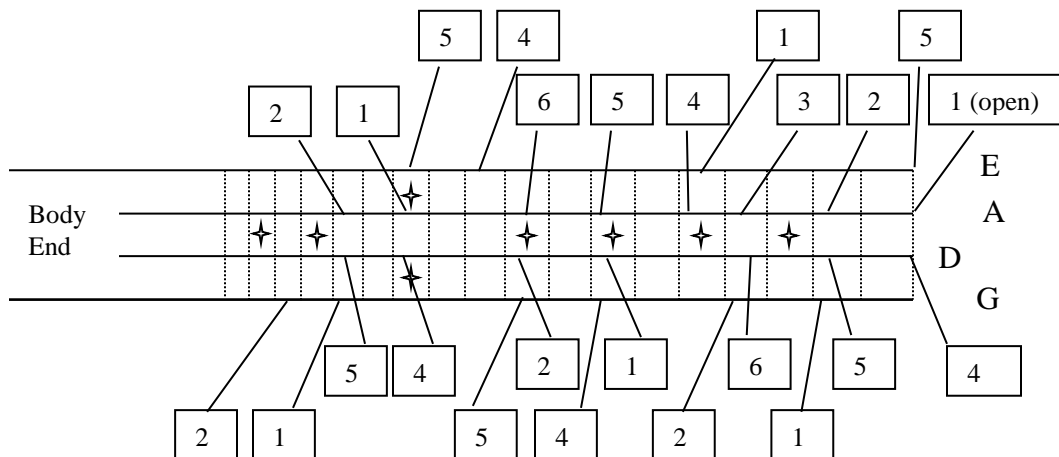
A	B	C[#]	D	E	F[#]	G[#]	A
1	2	3	4	5	6	7	1

If the song is in the key of A, and someone tells you to go to B, well, look at the A scale above. They are telling you to go to 2, which is two frets up the neck from 1 (wait a minute, you already know where 2 is!!). In this situation, 2 is a main note and has a "rock" note of its own, 6.

If the song is in the key of A, and someone tells you to go to C[#], well, look at the A scale above. They are telling you to go to 3, which is two frets up the neck from 2, or one fret down the neck from 4.

Maybe you need to use an F[#] minor. Looking at the A scale, that would be 6. Where is 6 you say? It's two frets up from 5, or 3 frets down from 1.

Sometimes you can hear those "off" notes, sometimes you may need to ask someone who knows how to play the song. Don't be afraid to experiment. (If you play the wrong note, I guarantee you, someone will let you know.)



Lead-In or Passing Notes

There are some extra notes you can play to add some spice or variety to the sound of the bass guitar line in a song.

Caution: Use these extra notes sparingly. The bass guitar is not a lead instrument (except on rare occasions). To repeat, *the job of the bass guitar is to keep the rhythm going and lead the song in changing to different foundation sounds.*

Okay, here's a common lead-in run to 1 (*Remember 1 is the main note that a song is built around. A song usually starts and stops on 1 and comes back to 1 many times during the song. So when you start hearing this run, you can use it many places in a song.*)

This little light of mine,				I'm gonna let it shine				
5	6	7	1	5	1	5	1	5
			clap	clap	clap	clap	clap	clap

This little light of mine,				I'm gonna let it shine					
4	1	4	1	4	1	1	5	6	7
	clap		clap		clap		clap		clap

This little light of mine,				I'm gonna let it shine			
1	5	1	5	1	5	1	5
	clap		clap		clap		clap

Let it shine, let it shine, let it shine

6	7	1	5	5	5	6	7	1	5	1	(end)
	clap		clap		clap		clap		clap		clap

You can use this same **pattern** as a passing note from 1 to 4.

This little light of mine,				I'm gonna let it shine						
5	6	7	1	5	1	5	1	1	2	3
			clap	clap	clap	clap	clap	clap	clap	clap

This little light of mine,				I'm gonna let it shine.....					
4	1	4	1	4	1	1	5	6	7
	clap		clap		clap		clap		clap

Okay, one more passing note pattern. This takes you from 1 to 5, or you can use it to go from 4 to 5. (Look in the last line.)

This little light of mine, I'm gonna let it shine
5 6 7 1 5 1 5 1 5 1 1 2 3
clap clap clap clap clap clap clap clap

This little light of mine, I'm gonna let it shine
4 1 4 1 4 1 1 5 6 7
clap clap clap clap clap clap clap clap

This little light of mine, I'm gonna let it shine
1 5 1 5 1 5 1
clap clap clap clap clap clap clap

Let it shine, let it shine, let it shine
5 1 3 4 4½ 5 2 1 5 1 (end)
clap clap clap clap clap clap clap clap clap (end)

Reminder: You can use these lead-in or passing notes at any time and in any combination. *Just remember what the main purpose of the bass guitar is!! (That's right, rhythm and foundation notes.)*

Waltz or 3/4 Time

Some songs have a different rhythm. Waltz time has 3 beats to a measure.

Example: Waltz Across Texas

I'll waltz across Texas with you in my arms

1 clap clap 1 clap clap 5 clap clap 5 clap...

I'll waltz across Texas with you

clap 5 clap clap 5 clap clap 1 clap clap 1 clap...

Like a story book ending, I'm lost in your charms

clap 1 clap clap 1 clap clap 5 clap clap 5 clap...

And I could waltz across Texas with you

clap 5 clap clap 5 clap clap 1 clap clap 1 (end)

Notice there is no "rock" note. Typically, a bass player will play the main notes only and let the notes ring in between. (In this case, the drums or mandolin chop will help carry the rhythm duties.)

Some bass players play the "rock" note on the second clap. Be careful with this pattern, it can sound cluttered and off-time.

Each method sounds good for different songs. Experiment and see what you think.

Walking the Bass

Walking the bass guitar is simply playing one note on every beat.

Try playing and singing the song below in the key of G. Start on the fourth string (open E), third fret.

This little light of mine, I'm gonna let it shine
1 3 5 6 1 6 5 3 1 3 5 6 1 6 5 3
clap clap clap clap clap clap clap

This little light of mine, I'm gonna let it shine
4 6 1 2 4 2 1 6 4 6 1 6 1 6 5 3
clap clap clap clap clap clap clap clap

This little light of mine, I'm gonna let it shine
1 3 5 6 1 6 5 3 1 3 5 6 1 6
clap clap clap clap clap clap clap

Let it shine, let it shine, let it shine
5 3 1 3 5 6 5 7 2 5 1 3 5 3 1 (end)
clap clap clap clap clap clap clap clap clap clap clap clap (end)

Notice the pattern of the second line. It is the same as the first line, except it is in the key of C. You started on the third string, third fret. (In the key of G, 4 is C.)

In the last line, you played part of the pattern for D starting on the second "shine", then reverted back to the pattern for G on the third "shine".

Feedback

I have had fun writing this number system for playing the bass guitar.

It's amazing how logical music is when you begin to analyze it, but how diverse and emotional it is when you play it or hear it played.

I used this system to teach someone near and dear to me how to play the bass guitar, someone who had no prior knowledge of a stringed instrument. So, I know it works.

If you find a mistake, or find something that does not make sense to you, please let me know.

If you have an improvement suggestion, please let me know.

If this helps you to learn to play or improves your playing, please let me know.

Thanks in advance!!

Mike Tucker

Email: mtuckbanjo@yahoo.com

If you ever have a chance to hear *East Mountain Bluegrass Gospel*, I'm the guy playing the banjo. (Please come and introduce yourself.)

For more info on *East Mountain* - www.eastmountainbluegrass.com