The number system opens the door to the benefits of using patterns to help you always know your way around the fingerboard. The number system expresses any note or chord in relation to the 1 (the root). Learn scales using this system.

**Major scale pattern:** This pattern works when starting on E or A string.

G scale:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>D</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1ST fret</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>3</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>5th</td>
<td>2</td>
<td>5</td>
<td>8</td>
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</tbody>
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Practice going up and down the scale: 1 2 3 4 5 6 7 8, 7 6 5 4 3 2 1

Practice intervals: where each note is in relation to 1. 1 2 1 3 1 4 1 5 1 6 1 7 1 8 1, 7 1 6 1...

Thirds exercise: 1 3 2 4 3 5 4 6 5 7 6 8 7 9 (whole step above 8) 8, 8 6 7 5 6 4 5 3 4 2 3 1 2 lower 7 1

Practice major arpeggio: 1 3 5 8 5 3 1

Arpeggios are chords played on note at a time.
When you know where everything is in relation to “1”, you can find anything. 1 3 5 8 is used with major chord, so when you need to play along with a minor 7th chord, simply flat the 3 and the 7th.

If a chord has a flat 5 or a sharp 9 or whatever, you can find it in relation to the 1. The 1 is your anchor. And if you need to transpose to another key, move the 1 to the new key and work from there.

As you can see, we are following chord progressions just like guitarists or keyboardists, so it’s really important to learn some chord theory—what notes make up different chords and how they sound different.

<table>
<thead>
<tr>
<th>Major</th>
<th>Dominant 7th</th>
<th>Minor 7th</th>
<th>Augmented</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 3 5 8</td>
<td>1 3 5 flat 7 8</td>
<td>1 flat 3 5 flat 7 8</td>
<td>1 3 sharp 5 8</td>
</tr>
</tbody>
</table>

**Diminished**

1 flat 3 flat 5 flat flat 7

**Mixolydian scale**, used with Dominant Seventh chord. Simply lowers the seventh note of the scale by ½ step. Arpeggio is 1 3 5 flat 7 8 flat 7 5 3 1
Dorian Scale, use with Minor Seventh chord. Lowers the 3rd and 7th notes of the scale by ½ step. Minor seventh arpeggio is 1 flat 3 5 flat 7 8 flat 7 5 flat 3 1

Practice Major, Mixolydian and Dorian scales and arpeggios up and down in all 12 keys in order of the Cycle of Fifths:

Start on C, next to F and so on. This moves you around the fingerboard in a more musical way.
With these three scale modes, you can create bass lines for just about any song. You’ll notice that you’re probably already using them in your playing without really thinking about it.

Once you master these, move on to expanding to two octaves and branching out to other patterns which will become more apparent.

As you practice and play, try to notice the relationships between notes in relation to the root note (1).

The 3rd is one fret down and one string over from the 1
The 6th is two frets down and two strings over
The 5th is two frets up and one string over
The 4th is straight across and one string over, etc.

Knowing these intervals and the location of your root, you can’t get lost. Patterns are moveable, they work everywhere on the fingerboard. Use them to your advantage.

If you come across something you need to ask a question about, email me at ...

Thanks for your interest and your time. Now get to work!

Mark Lowe