

[Home](#) > [Scales](#) > Major Scale

Do You Know The Answer?

Q. What Scale Should You Play In E?

A. a) A Major b) C# Minor c) G Major

[Click Here For The Correct Answer](#)

The Major Scale on Guitar

The major scale should be one of the first scales you learn on guitar, because it's one of the most commonly referenced in music (especially western music).

As you'll soon discover, it's not just a scale for the purposes of soloing, but a *system* for organising other important musical elements. We'll come to that!

First, we need to understand how the major scale is built. We'll then move on to its primary function - how we can use it to harmonise with (play over) chords so we can [use it confidently in a solo](#). Take your time with this stuff because it's beneficial to have a clear understanding of this elementary scale.

Major scale intervals

So what makes it a *scale*? In a nutshell: a repeating sequence of **intervals**.

Intervals are the distances/gaps between each note in a scale, the separation of a scale's degrees. The major scale has **seven degrees**.

Hopefully, you've taken the [guitar fretboard lessons](#) so you'll know how intervals work on the fretboard, but let's recap specifically for the **major scale**...

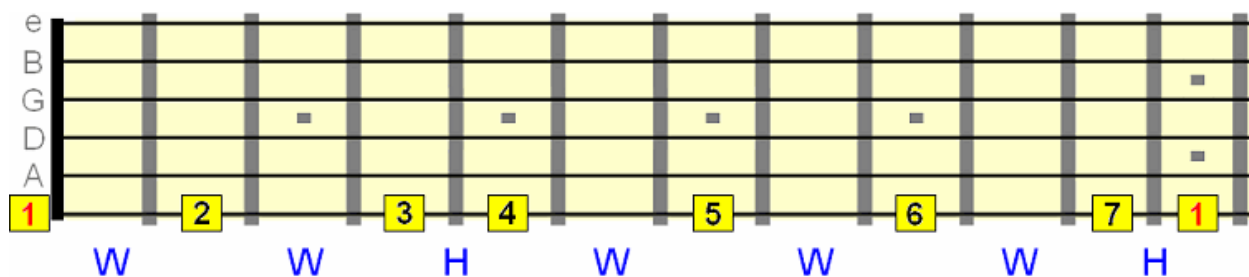
The major scale starts with note number **1** (called the **root note**) and continues in varying whole step and half step intervals up to **7**. The intervals are as follows...

1 W 2 W 3 H 4 W 5 W 6 W 7 H 1

W = whole step (equivalent 2 fret interval)

H = half step (equivalent 1 fret interval)

So if you were to start on the **open low E string** and lay out the intervals of the major scale on just that one string, this is how they would appear (**1** being the open, unfretted string)...



1 = the root note, and in this case the root note is **E**

[Click to hear](#) the above sequence.



Therefore this would be the **E major scale**, since the root lies on the the note **E**. The rest of the scale is built in relation to this root. So...

- **2** is a major 2nd interval in relation to the root.
- **3** is a major 3rd interval in relation to the root.
- **4** is a perfect 4th interval in relation to the root.
- **5** is a perfect 5th interval in relation to the root.
- **6** is a major 6th interval in relation to the root.
- **7** is a major 7th interval in relation to the root.

Once we get to note **7**, the next note is the **octave** (sometimes labelled as **8** but to keep things simple, just call it **1** again) - the same as the root note (E in this case), but higher sounding. The scale sequence begins again an octave higher.

If we'd started from the open **G** string, we'd be playing G major.

If we'd started from the open **B** string, we'd be playing B major.

Same scale, same relative intervals, different root notes.

It's that typical "do-re-mi" scale most of us are familiar with and it's what chords and other scales can be referenced against.

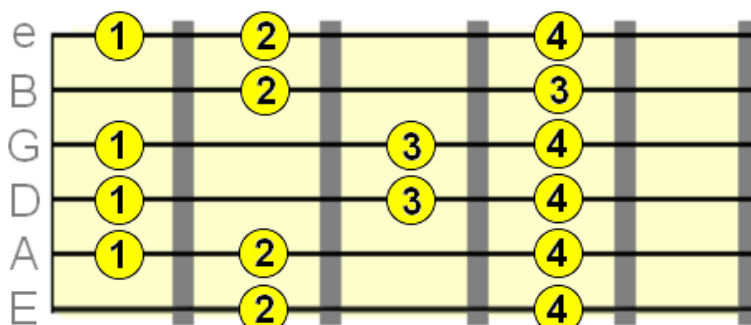
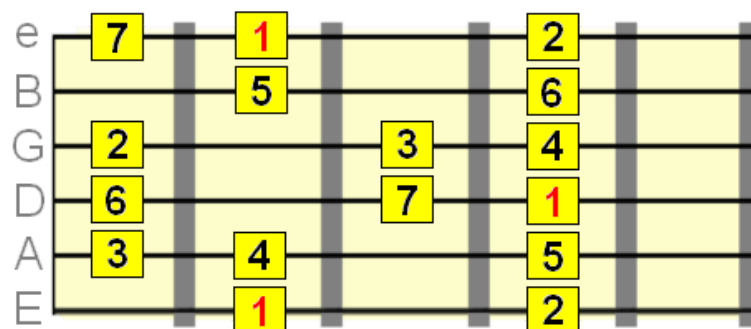
For example, when we talk about a **flat 5th** (abbreviated as **b5**) in a chord or scale, we could see that as the 5th tone in its natural, major scale position flattened one half step. More on sharps and flats in another lesson.

Want to delve deeper? See the [major scale formula lesson](#) (opens in new window) to really cement these interval relationships in your mind. Otherwise, read on to get the scale under your fingers.

Basic major scale guitar patterns

It's necessary to use more than one string most of the time. So we have to map these scale intervals across the six strings of the guitar for a more convenient fingering. We can call these scale formations *patterns*.

The most commonly used pattern for the major scale is its first/root position "box" pattern (intervals followed by fingering)...



Remember, **1**, the first note of the scale, is the **root note**, so if you started the scale at the **3rd fret** on the **low E string**, the 1st note would be **G** so it would be the **G major scale**. The root note defines the key in which we play the scale, in other words.

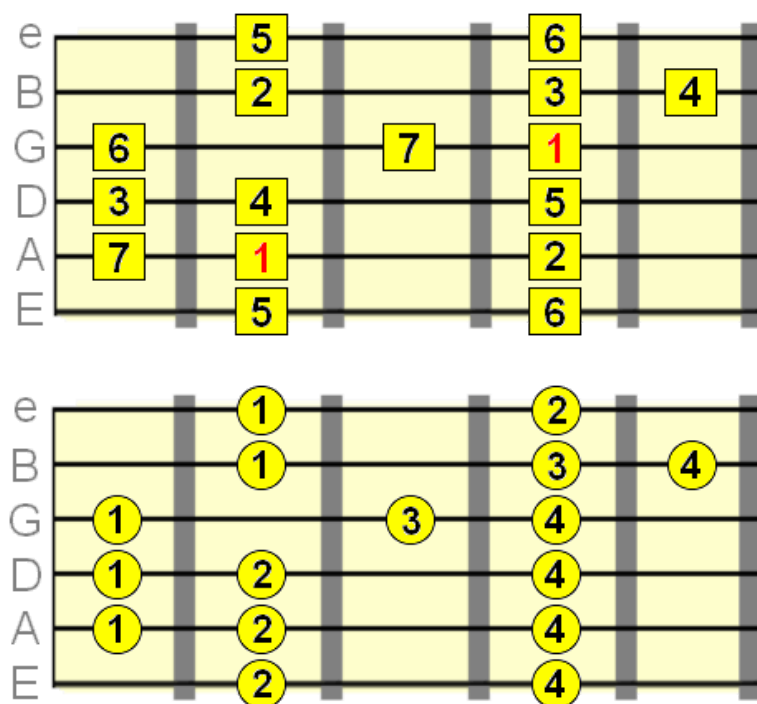
You should learn that major scale pattern above to start with and learn the visual (and auditory) relationships between its intervals.

For example:

- the second occurrence (octave) of the root note appears on the **D string** two frets above the 1st root note.
- the third occurrence (even higher octave) of the root note appears on the **high E string** on the *same fret* as the 1st root note.
- the second occurrence (octave) of the **5th** appears on the **B string** two frets below the 1st occurrence of the 5th note.
- the **3rd** appears one fret left of the lowest root note on the A string AND a higher 3rd (octave) appears one fret left of the root's octave on the G string.

See if there are any other **visual relationships** you can pick out. You'll transfer this knowledge to other scales that share some of the same intervals.

There are other major scale patterns we can use, such as this one, with an **A string bass root note**...



So using the two patterns we've learned, we can now play the major scale in **two positions** for a given root note. For example, if we wanted to play **C** major, we could play the E string box pattern from earlier at the 8th fret, or the A string box pattern above at the 3rd fret.

We'll look more at the different patterns we can use to span more of the fretboard in a separate lesson, but if you want a head start with it, [grab this free cheat sheet](#).

Playing the major scale over chords

Every scale has related chord types, based on the intervals used in the scale. This section will explore the different chords we can build from the scale, so you can confidently connect the two together. A crucial "piece of the puzzle" many scale lessons gloss over.



Here are the major scale's intervals again for reference...

1 2 3 4 5 6 7

The major triad

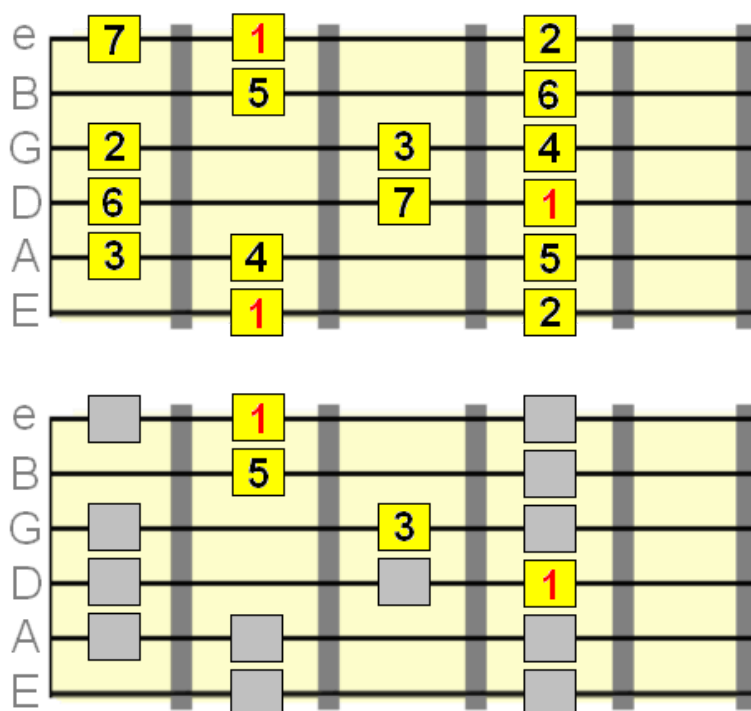
When analyzing the major scale, we can see it contains the root (**1**), major 3rd (**3**) and 5th (**5**). These three intervals make up what is known as the **major triad** - the basis of all major chords.

This means the major scale will work naturally over **major chords** (as if the name wasn't obvious enough!). The other intervals from the scale (**2, 4, 6** and **7**) can be seen as "coloring" that basic major sound.

For example, the A major scale would be the natural (although by no means the *only*) choice over an A major chord.

[Click to hear example](#)

See how many **1 3 5** major triad shapes you can pull out of the below major scale pattern. I've done two for you...



Note: this is a great way to connect chords and scales. Use the scale patterns you learn as the scaffolding for building chord shapes. Then, when you need to get your bearings for a solo, you'll find the chord shape and visualise the pattern around it.

However, that doesn't mean we should use the major scale over *every occurrence* of a major chord in a song. Understanding *when* to use it will come with time, I promise!

For now, we just need to understand how the tones of the major scale interact (harmonise) with major chords.

The major 7th

The major 7th (**7**) can be used over major triads to give them a "dreamier" sound. This also means the major scale will be compatible with **major 7th chords** (**1 3 5 7**), which you'll learn about in the chords section.

However, the major scale won't work over **dominant 7th chords**, because they contain a **flat 7th** (**1 3 5 b7**) which would clash with the major 7th.

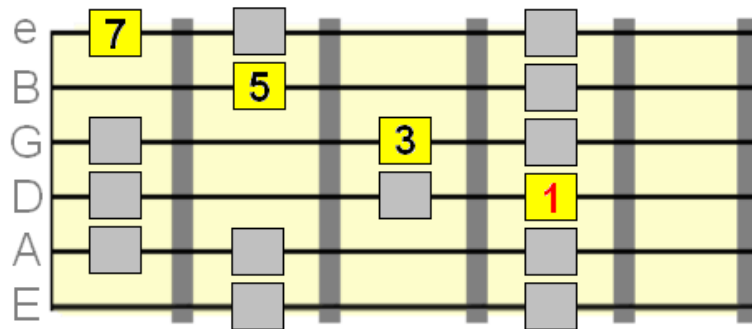


Take a listen to the major 7th being held over a major chord and hear how it harmonises with and adds depth to the major chord...

[Click to hear example](#)

So when building your major scale phrases, try using the major 7th as a **target note** to bring out that major 7th color.

Just as before, we can also visualise major 7th chord shapes within the scale patterns...



The major 7th also functions as a **leading tone**. This means it tends to resolve (lead) up a half step to the **root**...

[Click to hear example](#)

Be careful with the 4th...

The perfect 4th interval in the major scale is most commonly used as a passing tone. It can sound rather dissonant when *held* over a major chord. Instead, we can resolve it to the **major 3rd** one semitone below.

For example, the phrase might be: **1 5 4 3** ... we glance over the 4th and rest on the major 3rd.

[Click to hear example](#)

So the 4th leads to a more neutral, stable tone in the scale. Try not to dwell on or emphasise that 4th over the major chord. Try also to avoid using it as a "landing note" or target note over that root major chord, because it sounds too unresolved for that.

Of course, when the chord changes away from the root major chord, the 4th may play a more harmonious role, but we'll look at soloing over chord *changes* another time.

The 2nd and 6th

The major 2nd and major 6th intervals can also be used to color the basic major triad or major 7th chord. Both the 2nd and 6th of the scale can be held comfortably over a major chord without dissonance. Again, see if you can find some major chord voicings within the scale patterns that use the 2nd and 6th. Some examples would be:

1 3 5 6 - added 6th chord

1 3 5 9 - added 9th chord (the 9th is technically the same as the 2nd, just an octave higher)

1 3 5 7 9 - major 9th chord

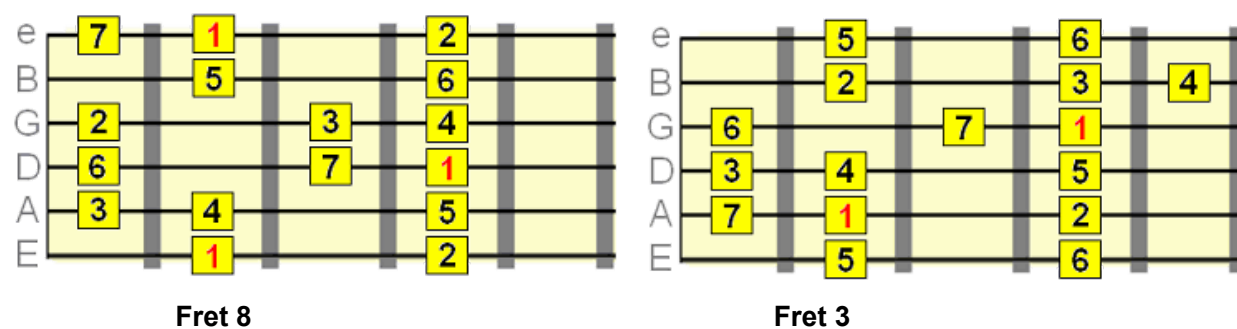
1 3 5 7 13 - major 6th/13th chord (the 13th is the same as the 6th, just an octave higher)

Major scale chord tracks



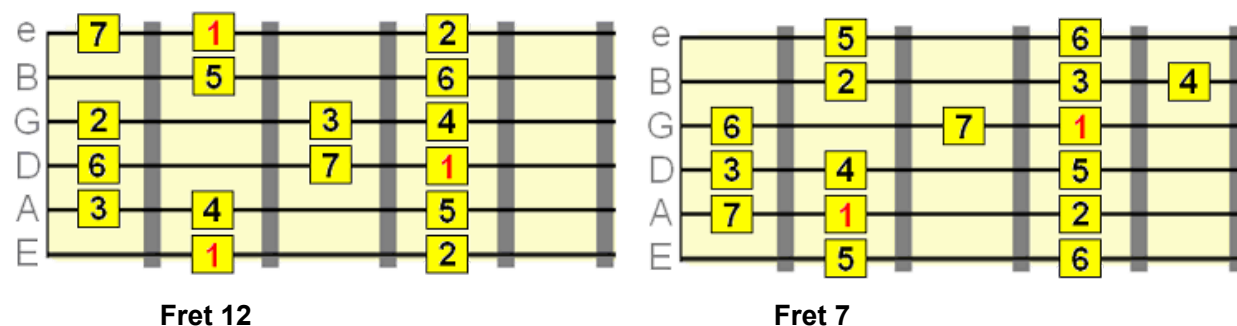
Have a play around with the major scale over the below chord tracks. Don't worry about playing anything too elaborate at the moment. We just want to explore the scale's tones and hear how they color the major chord. This is a good initial ear training exercise, and it'll help you get those patterns under your fingers.

The first is C major, so you'll want to play the patterns from earlier at the following frets, with the root on **C**...



[Download the chord track here](#) (right click and "save as" to download)

The second track is E major, so our root is **E**...



[Download the chord track here](#)

If you want more lessons specifically for the major scale on guitar, see the related links below. Thanks for your time!

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[Best](#) [Newest](#) [Oldest](#)**kamal**

10 years ago

Dear Mike,

i am just began to play guitar . i have read this page and i want to clarify my doubt that suppose we are playing G major scale the notes should be G,A,B,C,D,E,F#,G as per the formula of WWHWWWH .. please clarify .

19

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[Reply](#) • [Share](#) ›**Mike Beatham** Mod[→ kamal](#)

10 years ago

That is correct kamal! However, don't worry so much about the notes in the scale (other than the root). It's much more beneficial to work on learning that interval pattern, no matter which root the scale has.

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11 years ago

Hey Mike...want to make sure I have this right.

Box patterns you can run up and down.

E string root descending...start with the pinky on the high E string.

E string root ascending ... start with the first finger on the low E string.

Etc.

Also is there a D string ascending pattern or do you just reverse the descending ?

Thanks for the great site...I tell at least one person a day about it.

Cheers,

Mark

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[Reply](#) • [Share](#) ›**Mike Beatham** Mod[→ mark](#)

11 years ago

Mark, that's correct. I'm actually due to redo this and some other scale lessons. You could play an ascending D string root pattern, but any chord shapes built from a D string root will be covered by the descending and box patterns. As I said, I'm going to refocus these lessons and patterns will be broken down in a separate lesson.

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[Reply](#) • [Share](#) ›**Peter Tran**

3 years ago

In the write up above (which is excellent), when you wrote "Here are the major scale's intervals again for reference...", it only has the number. Are you intending the copy the top picture with "1 W 2 W 3 H 4 W 5 W 6 W 7 H 1"?

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[Reply](#) • [Share](#) ›**Benjamin Dare**

4 years ago

Hey from a very interesting 2020 everyone, This is a small guitar learning journey testament for ya!

I've been playing guitar for about 6 years now, but in that I've never really made any improvements to my skill and have been stuck in this intermediate level with very little theory knowledge for a long ass time. In that time I'd learnt some basic scales chords and couple riffs; really i spent most of my time noodling over music I liked. This was and still is great fun, and certain

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Hey You! Guitar Quiz!

Do You Know The Answer?

What Chords Belong Together In The Key of A?

a) A, G, E b) A, D, E c) A, B, G d) A, D, C

[Click Here To Find The Correct Answer...](#)



5 years ago

Mike,

I just found your site. This site has clarified a few things for me. You break things down very nicely. Thanks.

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Donald Miller

5 years ago

Love your site. Extremely useful for a beginner like me who wants to work his way up through the abundance of knowledge you have placed on here. I believe, though, that you have small glitch in the above text. "The major scale starts with note number 1 (called the root note) and continues in varying whole step and half step intervals up to 7." The fellow who made the very good video I have linked does a fine job of explaining that he had made a mistake in some of his previous videos by referring to the first note of a scale as a root rather than a tonic, which is the correct term, as he explains in detail.

[▶ Guitar Music Theory - Tonic vs Root Note](#) – disq.us

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Mike Beatham Mod

→ Donald Miller

5 years ago edited

Hi Donald. I have thought about this when creating lessons (I use the term root a lot) and you are right to raise the point, because how we use terms can cause confusion when inconsistencies arise.

What I have found is that the term "root" is used far more commonly than "tonic" when referencing the 1 of a scale, even on high profile sites, with some inconsistency here and there. Now, when I see a particular term being widely favoured over another, I ask the question of whether this is purely semantic or functional. For example, does using the term "root" for the 1 of the scale imply a different function from "tonic"? I've read explanations such as "the tonic is the root of the scale", which makes it even more ambiguous, or explanations implying the tonic as a type of root. If a term is seen to be used incorrectly, especially when it is widely used, there needs to be a clear functional reason why it is deemed incorrect, e.g. if using the term root instead of tonic incorrectly specifies a particular function.

The conclusion I came to was that the term tonic is (today at least) more closely associated with the tonal centre of a key, which does imply a specific function, since the 1 of a scale is not necessarily the same as a key's tonic (the chord-scale system is a demonstration of this). There are historical reasons why the tonic and 1 of a scale have been treated as the same thing. But jazz and other developments in composition created a clear functional distinction between the two and why, I think, today we see the word "root" being used to name the reference note of a scale far more commonly than "tonic".

So, given how scales are used in modern music, I think using the term root as simply a "reference note" allows usage of the word tonic to be more specific in a functional sense. Add to that the general consensus around how the term root is used and understood and there is a strong case for using the word root synonymously with "reference note", which is how I have chosen to use it. The lessons in which I use the word tonic are about key and harmonisation.

However, in a pure scale context I should probably be clearer about how the 1 is simply the "reference note" and mention the other terms you may come across (such as tonic). It's important to be aware of how other teachers and musicians use terms, especially when there are inconsistencies, so I will be more conscious of this going forward.

Thank you.





Donald Miller

→ Mike Beatham

5 years ago

Well, I'm greatly impressed that you would take the time to explain your reasoning as you did - and that you did it so grammatically well, in every way. I think your highly literate explanation is representative of why I mentioned the root V tonic subject.

As an aside, I remember listening (on YouTube) to the philosopher, John Searle. He gave three semesters of lectures on various linguistic subjects. Highly entertaining. He mentioned that he didn't expect his students to be able to write paragraphs (lol) but he drew the line at sentences. Although he did mention one chemistry student who didn't write a single grammatically correct sentence in his final exam. Searle said he failed his driver's license test and it took him nearly an hour to explain why the answers they expected on the test didn't match up with the questions they asked - and this was in California!

I enjoyed listening to Searle tell the many many stories that he interlaced throughout his lectures so much that I didn't learn much about linguistics. LMHO



dieter Hornemann

8 years ago

why didn't you just give us all the major key boxes in one key on the neck instead of just two whose root notes are found on the E and A strings, which we could transpose and use over and over again. I wish to know what all the other patterns are of all the major scale boxes on the neck so that I could interchange their use when convenient. Dieter



Mike Beatham Mod

→ dieter Hornemann

8 years ago

Dieter, this is only the first lesson. I don't want to overwhelm people with too much to learn in one go. The other major scale lessons, including patterns like those you mentioned, are listed below these comments. Cheers.



Erik

8 years ago

Hi Mike. The link that says 'grab your free cheat sheet' at the bottom of the section titled "Basic major scale guitar patterns" goes to www.nanacast.com. Is it supposed to?



Mike Beatham Mod

→ Erik

8 years ago

Thanks Erik. This was an outdated link to Jonathan Boettcher's patterns sheet. I've fixed it. Cheers.



Andrew

9 years ago

I have a question, what determines how a scale starts? I understand it begins with the root but, when you play said scale in different positions it changes. In the picture the G major scale in the second position starts with G. But in any other one it looks to me that it starts differently. This might be a dumb question but it is driving me nuts!

[View](#)

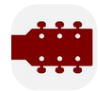


Mike Beatham Mod

→ Andrew

9 years ago

Hi Andrew, the diagram above does look a tad unconventional. Usually the 1st position corresponds to the root as the 1st note in the ascending pattern. However, it doesn't matter so much which position you label as 1, rather that you can visualise how the positions relate to one another and gradually build up a large pattern. The numbering of positions is really just to help you learn a sequence of patterns across the neck. As long as the sequence is numbered in the correct order, it doesn't matter so much which position you label as "1". However, I've always thought it makes sense that position numbering corresponds to the degree number of the scale. Hope that helps.



Bobster

9 years ago

Hi Mike,
thanks for posting this. Perhaps you could clear something up. You say that the major scale won't work over the dominant 7th chords. But in the key of G major you have the D major chord, and you could add the C note, which is a minor 7th (dominant 7th) addition to the chord. This also applies to the A min chord as you can add the G note and B min chord as you can add the A note and the E min chord as you can add the D note. I'd be grateful if you could clear this up,
thanks
Bobster

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Mike Beatham Mod

→ Bobster

9 years ago

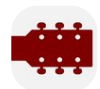
Hey Bobster! You're absolutely correct, but in the key of G major you would most likely just play the G major scale in relation to the Gmaj tonic chord. This will cover all the natural chords in that key - Gmaj, Am, Bm, Cmaj, Dmaj, Em, F#dim.

When thinking in terms of using the same scale root as the chord root, e.g. G major over Gmaj, the major scale has a major 7th, so you won't want to use G major over G7, for example. That's really all I was trying to clarify - look at the intervals used in the scale and see what related tonic chord they build (the chord that shares the same root/1 as the scale). The major scale builds major 7th chords (1 3 5 7), so when the tonic chord is a maj7, the major scale on that same root is a natural fit.

If you were flatten the C# of the D major scale to C, you would theoretically be playing a different scale (or mode to be more accurate) - Mixolydian. Mixolydian is exactly the same as the major scale, but with a b7 instead of a 7.

Hope that helps.

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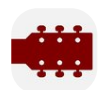


beginner boy

9 years ago edited

Mike sir.....Very helpful lesson... but what about minor?

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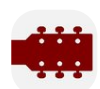


Douglas.allen120@gmail.com chi

9 years ago

great lesson.Need all the help I can get

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B-Love

11 years ago

Maybe someone can help me better understand the ascending and descending scales? Why is it the fingering different for descending even though you are still using the same intervals as ascending pattern? Seems to me they would be the same just moving backwards.

Love this site I use it daily to help with practicing.

Thanks

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Mike Beatham Mod

→ B-Love

11 years ago

Fingering is just about finding the most economical way of navigating a pattern. For example, the lowest root note in a descending pattern will typically be fretted by the 4th (pinky) finger because you'll need your index finger free for the next note if its 3 or 4 frets down. If you're ascending, you'll need your pinky free so you'd typically start with your index.

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