

Rock Guitar - Lesson 1

Introduction:

Welcome to the first lesson in this introductory series to playing rock guitar. There won't be any guitar playing in this lesson, but we'll look at some important aspects of music in general that'll help make things easier to understand down the track. Don't fret though... After just one month of lessons, you'll be able to have a stab at playing many of your favorite rock tunes.

Which Instrument?

The type of guitar you use it entirely up to yourself. If you don't currently own a guitar, my advice would be to purchase the best you can afford. This will most likely put you in the \$400.00 dollar bracket, although build quality of even the cheapest guitars is at an all time high. If you're going electric, you'll need an amplifier also. Which amplifier you choose is probably less important than the guitar, but remember it defines what you'll hear. The bottom line is, you don't want your equipment to discourage you from playing.

Music Theory:

Yes, this is a very important part of any music, but what is music theory? It's the system of music, the set of rules that guide you on how to construct musical pieces. In short, music theory is what you learn in order to understand the science of music. We're going to look at some basic music theory now, and with that knowledge, I'll be able to show you more and more things and it'll make sense to you as this series is played out.

Musical Notes:

Music consists of notes, played at various speeds and for various lengths of time. A note is simply a frequency that we can hear. Notes can be combined to form chords and intervals. A chord needs at least three combined notes, an interval is any two notes. The notes are named from the alphabet and range from A to G, giving a possible seven unique names. Most of these notes can be altered in pitch slightly, to give even more notes. More on this later.

note: An interesting thing about notes is how they repeat themselves as their pitch doubles. For instance, a note may have a frequency of say, 440Hz. This would be an 'A' note. If you double this frequency to 880hz, you arrive at 'A' again! The only difference is it will sound higher in pitch, but will be the same note. In the alphabet, the next letter after A is B. It works the same for the note names. The note 'B' is higher in frequency than 'A' (B is 493.88Hz). So these letters just keep wrapping around, for example:

C - D - E - F - G - A - B - C - D

The last two notes in this group of notes are twice as high in frequency as the first two notes respectively. The pattern can continue indefinitely, either way.

Tones and Semi-tones:

The smallest increment in our Western musical system is called a 'semi-tone' and it's half of a 'tone'. A tone is the difference between say, A and B as shown above. A semi-tone is half this difference. A tone comes between most of the notes, but some naturally have only a semi-tone between them. These notes are B, C and E, F. The musical gap between these notes is always a semi-tone.

Semi-tones and tones translate nicely to the frets on a guitar. A tone is equal to moving up or down two frets from any position and a semi-tone is a movement of one fret.

Have a look at some notes if you're still not sure about the whole tone, semi-tone business:

A tone B semi-tone C tone D tone E semi-tone F tone G tone A tone B semi-tone C tone D etc

Musical Keys:

Notes exist in the 'ether'. They belong to no one! To be useful though, we need to define groups of notes that possess certain qualities and follow certain rules. That way, we can achieve the sounds we want without resorting to trial and error. This is where musical keys come into play, and in this lesson, we're going to look at Major keys and how to find them.

Think of a musical key as an artist's palette. The artist has a selection of colors she can use to create her masterpiece. But the selection is limited to those on her palette. Because of this limitation, the final piece of artwork will have a character based on the colors in the palette. If only dark, stormy colours were available, the artwork will relay this feel to the viewer. In the same way, we can follow rules in order to select notes to combine into a musical key. Well, this is not entirely accurate. You see, all the notes are always there. They're just frequencies after all. Their range is on the electro magnetic radiation scale and they start at a frequency below our hearing threshold and continue above it. A musical key simply guides us as to which notes will go together to achieve a 'correct' sounding piece of music. Once you have decided on which key you will use, you can select notes from this key with predictable results. Just remember, all the notes are always there. You can always use any of them you wish, it's just that certain combinations lend themselves to specific moods and styles.

A key will be named after the note it begins on and the type of key it is. Each type of key describes a pattern or template for constructing the consecutive notes within it. This template describes the gaps between each note. If you remember back to an earlier section, I described tones and semi-tones. This is where they really come into play. The following is the pattern for the Major key:

NOTE Tone NOTE Tone NOTE Semi-tone NOTE Tone NOTE Tone NOTE Tone NOTE Semi-tone

This means, you start with a note. Any note. The next note needs to be one tone higher in pitch. You would follow this pattern until you have seven notes. That's all you need, because then you'd start again with the first note, but it would be double the pitch. The note names are simply recycled. Let's see this pattern in action with the key of C Major:

C D E F G A B C D E F G A B C D E F G etc.

Easy! We can see that these notes follow our Major key pattern. The first note is C. Looking at the pattern, we need a tone then another note. That's where D comes into it. I described above how the notes have a 'tone' between them, with the exception of B-C and E-F that only have a semi-tone. So D fits the pattern. We then need another tone and E will give us that gap. After E, we need a semi tone. Because F is the next note alphabetically, and it naturally has a semi-tone between itself and E, it fits the pattern! And if you continue along this tone, semi-tone pattern with the notes, you'll find all the notes in the C Major key.

Let's look at another Major key. We'll try G Major this time.

G A B C D E F G A B C D E F G A B C D E F G etc

The first note is G, followed by a tone. Because G is the highest letter we can use from the alphabet, we simply 'wrap' around to A. And thinking back to the gaps between the notes, we discover that we will get our required tone between G and A. Wonderful! Moving right along, we need another tone and B will give us that. This is easy! Could be trouble now... We need a semi-tone between B and C, but wait! It's naturally occurring, so no need to worry... D TONE E, no worries there! E TONE F, bugger! There is naturally a semi-tone between these two, but in order to follow our pattern, we need a tone. What can we do to change this gap???

Enter the sharp! If you make a note sharp, you increase it's pitch by one semi-tone. On a guitar, this would mean moving the current note you're playing up one fret. In order for our G Major key to work, we need a gap of one tone between E and F. Normally, in nature, these two notes have a gap of one semi-tone. If you made F 'sharp' you would increase it's pitch by one semi-tone. Two semi-tones don't make a right, but they do make one 'tone'. Problem solved! Let's look at what we have so far:

G A B C D E F#

The hash symbol is used to show that a note is made 'sharp'. Can you think of any problems with moving the F note up as we did? The answer is... Hang on! You have to have a go first. Got it? Ok... When you move one note, the others are unaffected. By making F into F#, we effectively moved it 'closer' to the next note, G. This also affects the gap between F and G. It used to be a tone, as naturally occurs. But now, it's a semi-tone. Looking to our Major key tone, semi-tone template, we find that this is exactly what we want! Phew... That was lucky...

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

To complete our first look at notes, let's look at degree numbers. Each note in any key has a number associated with it. The first note is 1 and so on.

1 2 3 4 5 6 7 8
A B C D E F G A

1 2 3 4 5 6 7 8
C D E F G A B C

1 2 3 4 5 6 7 8
F G A B C D E F

Later, we'll see how the degree numbers have other names, but for now, note that the eighth degree note is the same as the first. Another name for this note is the 'octave'. It's the same note, but twice as high in pitch/frequency. But that's enough for now.

EXERCERCISE 1.1

Using the pattern for the Major, write out the A Major key. Remember, start with A and ascend alphabetically, repeating once you get to G. You might need to make a note or notes 'sharp' to get them to follow the pattern, but remember, making a note sharp will move it away from it's preceding note and closer to it's following note, thus affecting the gap on both sides.

The Fretboard:

We've seen a lot in this first lesson. It can get boring, I know. I am very bored right now, that's why I'm writing this... Just kidding! But to wrap up this lesson, I'm going to take what we've learnt so far and apply it to the guitar. The guitar has six strings (can have twelve, I know) and each string is named after a musical note. The lowest string on a guitar is note E. The rest are named below:

E Highest

B

G

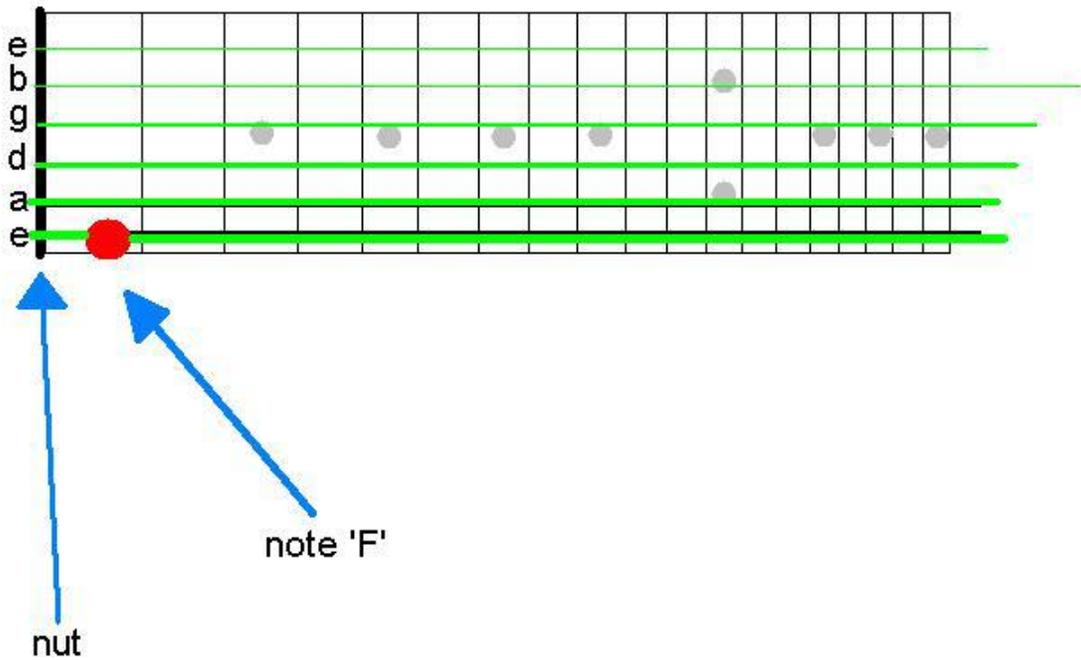
D

A

E Lowest

The naturally occurring gaps between notes apply everywhere, on every tuned instrument. Most consecutive notes have a tone between them, but B-C and E-F have a semi-tone. Because tones consist of two semi-tones, and a semi-tone is the smallest increment in pitch in the Western music system, the guitar uses frets with semi-tones between them. So, knowing this, we can find any note on the guitar fretboard!

How? Let's look at the lowest string on a guitar. It's an E note. Alphabetically, F is next, and there is a natural gap of one semi-tone between E and F. One semi-tone is physically one fret on a guitar. The part of the guitar where the strings are stretched over from the tuning pegs is called the 'nut'. This is like fret zero. So moving from this 'fret' up one fret we get to the first fret. This is where you'll find the note, F.
See
below:



After note F, comes G. This will be two frets up from F because of the naturally occurring tone.

Exercise 1.2:

Using a diagram similar to that above, fill in all the notes on a guitar fretboard, up to the twelfth fret! It's easier than it sounds if you use the basic rules we've been learning about so far.

End Lesson1:

That's more than enough for a first lesson in Rock Guitar! You know how to contact me if you need any further advice relating to this lesson. Also, if you do the exercises, send them to me for correction or help. nickeax@internode.on.net