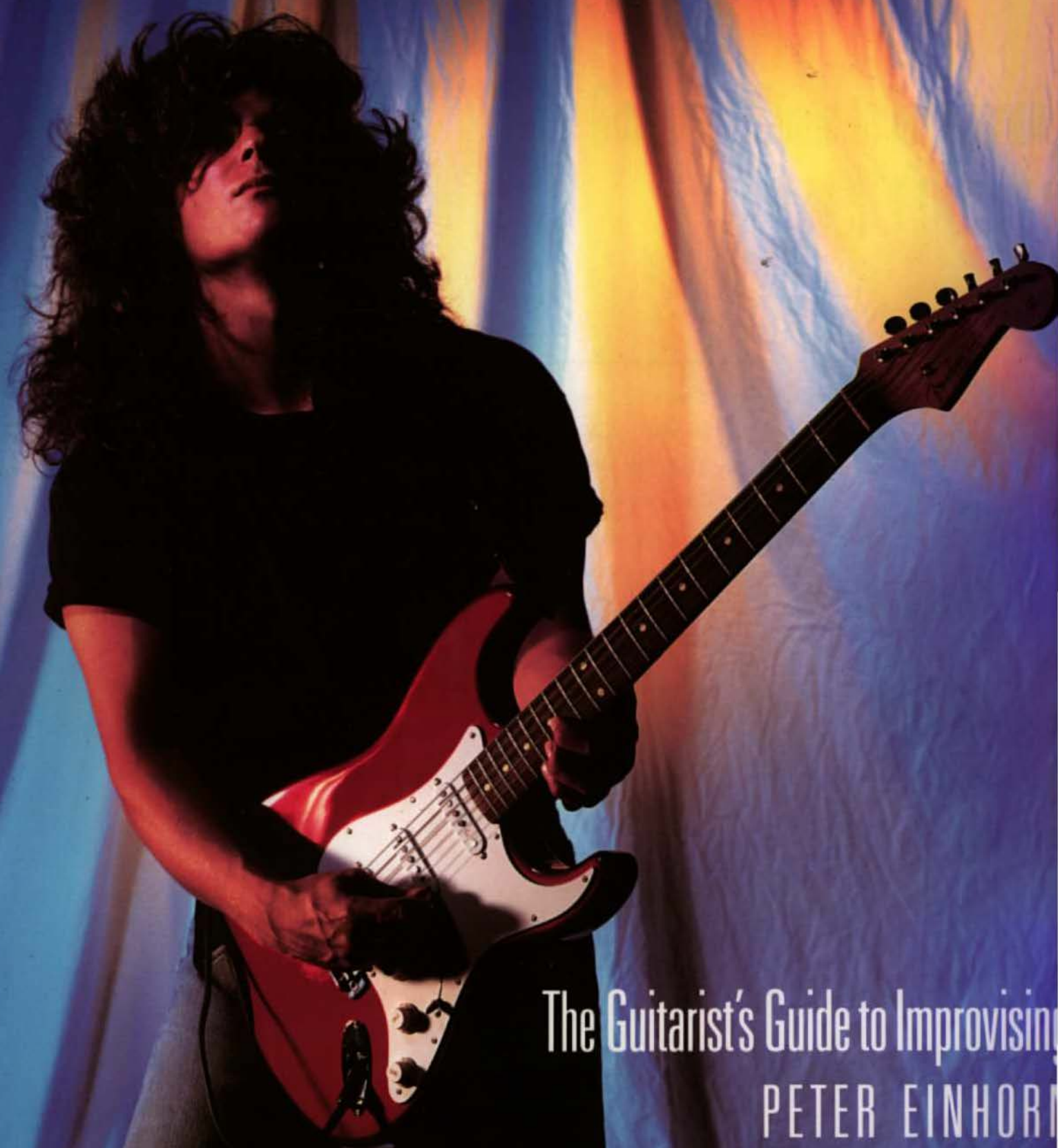


INTRODUCING

A NATIONAL GUITAR WORKSHOP PUBLICATION

The Dorian Mode



The Guitarist's Guide to Improvising
PETER EINHORN

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INTRODUCTION

This book will acquaint you with the Dorian mode and show you how to use it. You will be shown how to recognize it all over the neck and in any key. There is an important section about how to practice the Dorian mode in ways that will readily apply to songs, and how to apply it in a variety of musical situations.

There is a tape available for this book that demonstrates all the musical examples. In addition, the tape includes play-along chord progressions described in the book so that you can practice what you are learning.

The Dorian mode is a much used minor scale. The player must be able to hear and apply this mode in order to be fluent in many styles ranging from rock, blues and fusion to jazz, Latin and swing.

Carlos Santana's solo on "Evil Ways" is a classic example of Dorian rock playing. Santana used this mode in many of his other solos, such as "Black Magic Woman." In the 1960's, Van Morrison's tune "Moondance" was among numerous songs based on the Dorian mode. Miles Davis changed the course of jazz with Dorian-based songs like "So What" and "Milestones." In a contemporary vein, listen to Steve Vie's solo on "Big Trouble" from the David Lee Roth album "Eat 'Em and Smile."

This book is designed to be read and interacted with sequentially from beginning to end, but it can also be used as reference material.

Enjoy!

ACKNOWLEDGMENTS

Special Thanks to Jeff McErlain, Nat Gunod, Beth, Dave Smolover and all my colleagues at the National Guitar Summer Workshop.

DORIAN THEORY

The Dorian mode is a scale that is used in playing and composing music. It is most easily understood as a scale. A scale is a group of eight notes in alphabetical order. The arrangement of scale tones creates a particular sound or tonal center. For instance, here is a scale beginning on the note C.

EXAMPLE 1

C D E F G A B C

T
A
B 3 5 7 8 10 12 14 15

THE MAJOR SCALE

As you will soon discover, the Dorian mode is derived from the major scale. Scales are categorized according to their arrangement of whole steps and half steps. A whole step is equal to the distance between C and D, or any two notes that are two frets apart on the guitar. A half step is equal to the distance between C and D^b, or any two notes that are on adjacent frets. The arrangement of whole steps and half steps comprises a formula that produces the characteristic sound of each scale. For instance, the scale in Examples 1 and 2 is a major scale because its formula is:

W W H W W W H

↘ and W = whole step
 ⤵ and H = half step

C Major Scale

EXAMPLE 2

Interval: W W H W W W H

T
A
B 3 5 7 8 10 12 14 15

Note: C D E F G A B C

Scale step: root 2nd 3rd 4th 5th 6th 7th root

This formula will result in a major scale no matter where it begins. Here is an E Major scale constructed with the major scale formula.

E Major Scale

EXAMPLE 3

Note:	E	F#	G#	A	B	C#	D#	E
Scale step:	root	2nd	3rd	4th	5th	6th	7th	root

Scales can be built this way in any key.

INTERVALS

An interval is the distance between any two notes. In fact, the terms "whole steps" and "half steps" are just different ways to refer to major 2nd and minor 2nd intervals. Example 4 shows all the basic intervals up from the note C.

The example below identifies the interval of each note, and the fret distance, measured from the first note (C).

EXAMPLE 4

Interval:	min2	aug2	maj3	aug4	P5	min6	min7	Octave							
Interval:	maj2	min3	P4	dim5	aug5	maj6	maj7								
Frets:	1	2	3	3	4	5	6	6	7	8	8	9	10	11	12

Here is a table of interval abbreviations.

min2 = minor 2nd	P4 = perfect 4th	min6 = minor 6th
maj2 = major 2nd	aug4 = augmented 4th	maj6 = major 6th
aug2 = augmented 2nd	dim5 = flatted 5th	min7 = minor 7th
min3 = minor 3rd	P5 = perfect 5th	maj7 = major 7th
maj3 = major 3rd	aug5 = augmented 5th	

You may have noticed that some intervals, such as the dim5 (G^b) and the aug4 (F[#]), have the same fret distance. When two different notes are played on the same fret and have the same pitch, they are said to be enharmonic.

The interval between the root and the 3rd of a major scale, which is two whole steps or four frets on the guitar, is crucial. This interval is called a major 3rd and is important because it is one of the primary differences between a major scale and the Dorian mode.

FOUR PERSPECTIVES ON THE DORIAN MODE

INTERVAL FORMULA

The Dorian mode is a minor scale because it has a minor 3rd, which is a whole step plus a half step from the root (three frets on the guitar). Its formula is:

W H W W W H W

D Dorian Scale

EXAMPLE 5

Interval: W H W W W H W

T 5 7 8 5 7 9 5 7

A

B

Note: D E F G A B C D

Scale degree: root maj2 min3 P4 P5 maj6 min7 root

This formula will result in a Dorian mode scale regardless of the note on which you begin. Here is an example beginning on E and resulting in an E Dorian scale.

E Dorian Scale

EXAMPLE 6

Interval: W H W W W H W

Note: E F# G A B C# D E root

Scale degree: root 2nd 3rd 4th 5th 6th 7th root

RELATIVE TO THE MAJOR SCALE

The Dorian mode begins on the second scale degree of the major scale, which is another way of defining the Dorian mode. Like the major scale beginning on C, there are no sharps or flats in the Dorian mode beginning on D. It has a unique sound and characteristic set of intervals because it begins on a different note and therefore follows a different pattern of whole steps and half steps. In this perspective the C Major scale can be called the "parent" scale of the D Dorian mode.

EXAMPLE 7

2-Octave C Major Scale (parent scale)

D Dorian Mode

Interval: W H W W W H W

8 5 7 8 5 7 9 5 7 5 6 8 5 7 8

ALTERING THE MAJOR SCALE

Another difference between the major and Dorian scales is that the Dorian has a lowered, or flatted, seventh degree relative to the major scale. In other words, the Dorian mode seventh scale degree is a half step or one fret lower than the major scale seventh degree. The Dorian scale, therefore, is said to have a minor 7th interval from the root to the seventh scale degree. Musicians often use a convenient numbering system for identifying various scales. This is a quick way of communicating how different scales and modes compare to the major scale. The numbers refer to the scale degree, or distance from the root, of each note. For instance:

The major scale = 1 2 3 4 5 6 7 (1)

The Dorian mode = 1 2 \flat 3 4 5 6 \flat 7 (1)

This calls for another definition: the Dorian mode is a major scale with lowered third and seventh scale degrees.

Let's compare the two scales from the same root.

EXAMPLE 8

C Major Scale major 3rd major 7th

T							
A							
B	3	5	2	3	5	2	4 5

C Dorian Scale minor 3rd minor 7th

T							
A							
B	3	5	1	3	5	2	3 5

COMPARED TO THE MINOR PENTATONIC SCALE

If you can play a pentatonic minor scale, you have only to add the second and sixth scale degrees to complete the Dorian mode. The pentatonic minor scale consists of:

Root	min3	P4	P5	min7
or				
1	$\flat 3$	4	5	$\flat 7$
or				
WH	W	W	WH	

EXAMPLE 9

	C	D	E \flat	F	G	A	B \flat	C
	root	maj2	min3	P4	P5	maj6	min7	root
T								
A								
B	3	5	6	8	10	12	13	15

SUMMARY

Here are four ways of thinking about the Dorian mode:

1. The formula in whole steps and half steps is W H W W W H W.
2. It contains the same notes as the parent major scale beginning and ending on the second scale degree.
3. In comparison to a major scale starting on the same note it is 1 2 $\flat 3$ 4 5 6 $\flat 7$ (1).
4. It is the same as the minor pentatonic scale with added second and sixth scale degrees.

You can see there are different ways of looking at the Dorian mode. Next, we will examine various ways of viewing the mode and explore possibilities for its use.

MAKING THE DORIAN MODE COME ALIVE ON THE GUITAR

In this section, we are going to gradually build up from the three-note minor triad to the full seven-note Dorian mode scale. This is a good approach to learning the mode because you will learn the chordal skeleton on the fingerboard first, and then fill in with the less weighty scale tones.

THREE NOTE SKELETON — THE MINOR TRIADS

A triad is a three-note chord. A chord is a vertical arrangement of notes from a scale. Since the Dorian mode is a minor scale, it is important to have a clear understanding of the minor triad which will form its chordal skeleton on the guitar fingerboard.

It is easiest to understand minor triads when we know how they relate to major triads.

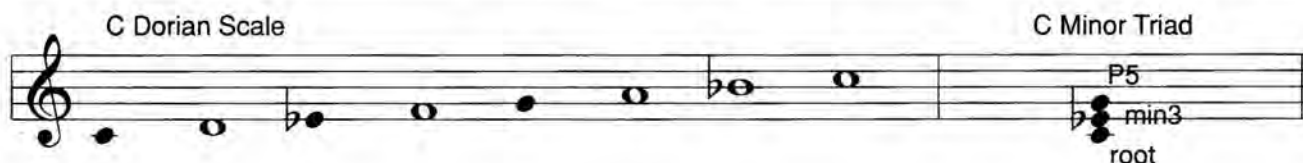
Major triads are built with major 3rd (four frets) and perfect 5th intervals above the root.

EXAMPLE 10



Minor triads have minor 3rd (three frets) and perfect 5th intervals built above the root.

EXAMPLE 11



Notice that you can always arrive at a minor triad by constructing a major triad and lowering, or flattening, the 3rd.

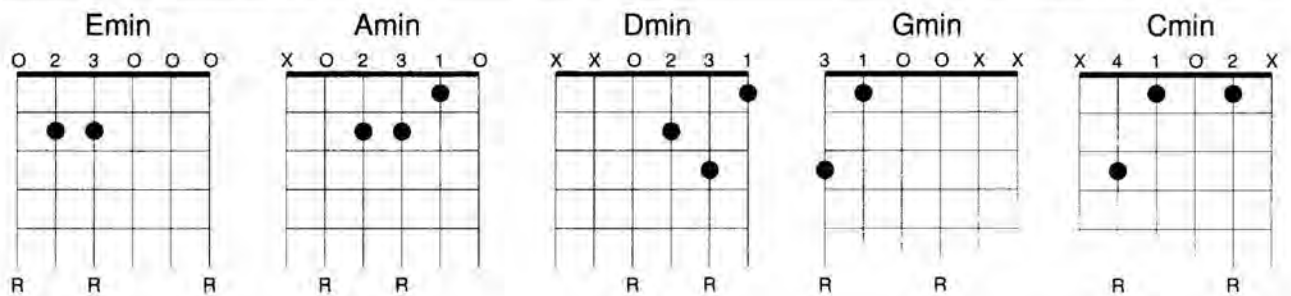
Guitarists usually play more than three notes when playing chords. Most often, we play at least four notes at a time and we will often play five or six note chords. We arrive at these bigger chords by simply doubling, or repeating, notes from the triads. It is typical to play chords with the root doubled or even tripled. The 5th is often doubled, too.

Any type of first position E chord is home base on the guitar. Because of the way they are tuned, guitars resonate to these chords. The E minor chord along with the Amin, Dmin, Gmin, and Cmin chords make up the first position triads that relate to the Dorian mode. All other minor chord fingerings are derivatives of these, so we can consider each of them to represent a minor chord "type". These are also referred to as "voicings".

It makes sense then to base our further exploration of the fingerboard on these chords, particularly because you probably already know some of them.

First position minor chords

EXAMPLE 12

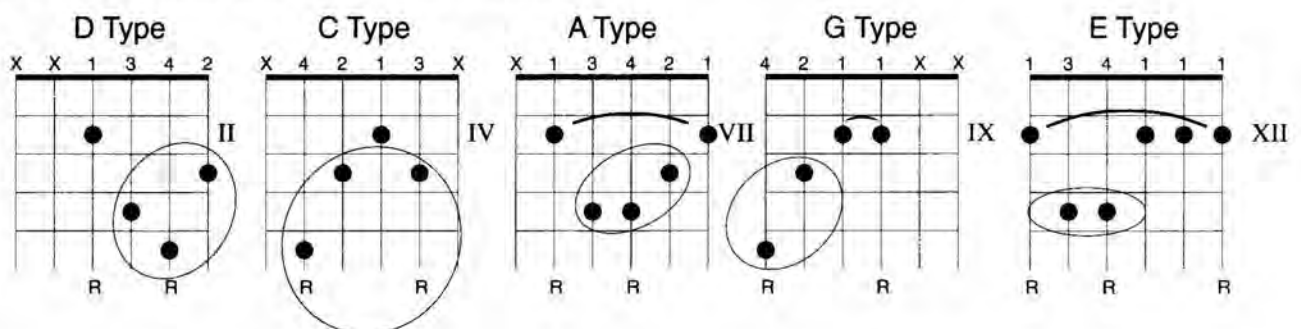


- x = Do not play this string. Dampen it with the left hand or do not strum that string.
- o = Open string
- 1, 2, 3, 4 = Left hand fingers
- R = Root

Five E Minor chords

EXAMPLE 13

If we consider each of the chords from Example 12 to represent a "type" of minor chord fingering, we can move that fingering up the neck until the root is an E note. Notice that the five minor chord types span the length of the neck, and that strings that were open are now closed. As a result, the A, G and E type minor chords are barre chords.

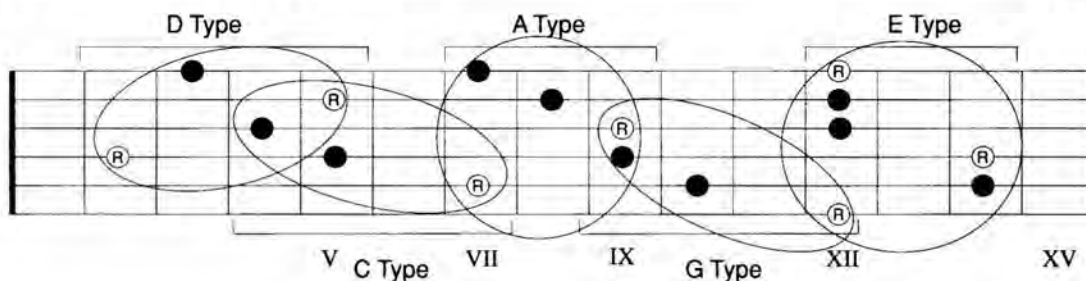


These chords form the beginning of the skeleton we need in order to visualize the mode throughout the fingerboard. Again, these fingering types or chord voicings contain repeated notes and are designed to make visualizing easy.

The next example shows all these chord types positioned on the guitar neck in the key of E. Notice that all of the roots are positioned on E notes.

E Minor chords up the neck

EXAMPLE 14



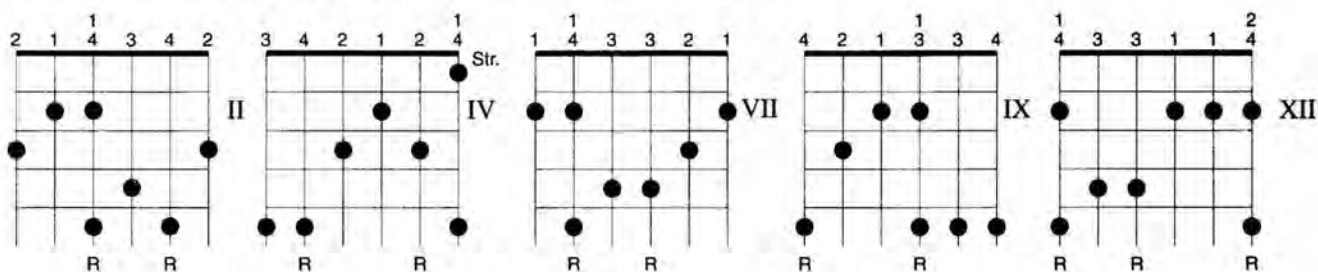
It is important to see how the triads interlock. Try to memorize a visual image of the triads on the neck of the guitar. This kind of visualization is important for mastering the fingerboard. Notice the location of the roots. These are your guides through the maze of strings and frets when you play these chords up the neck and in various keys.

BEGINNING TO FILL THE SKELETON — ARPEGGIATED TRIADS

Let's expand our chord boxes to include every repetition of each note in the triad in each of the five positions. We will play these notes in succession as arpeggios rather than all together as block chords.

EXAMPLE 15

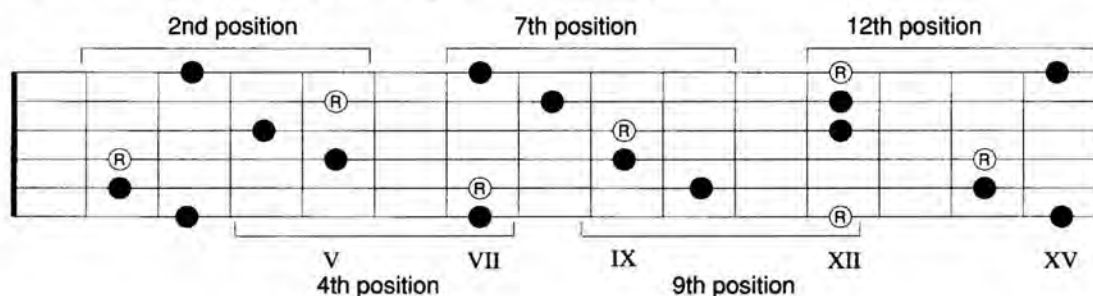
Here are E Minor triad arpeggios filling out each of the five positions of the original minor chord types. Remember, if you keep track of the root locations in these arpeggios, you can transpose them to any key.



Str. = stretch

EXAMPLE 16

Here is what they look like all together on the fingerboard.



EXAMPLE 17

Written out in music, you can see exactly how to play each arpeggio.

The musical notation shows the Dorian mode arpeggios in positions 2, 4, 7, 9, and 12. The notation includes treble and bass staves with fingerings and a 'Str.' marking. The fingerings are as follows:

- 2nd Position:** Treble: 2, 3, 4, 5, 6, 7, 8, 9; Bass: 3, 2, 1, 1, 4, 3, 4, 2.
- 4th Position:** Treble: 4, 5, 6, 7, 8, 9, 10, 11; Bass: 7, 7, 5, 4, 5, 3, 7.
- 7th Position:** Treble: 7, 8, 9, 10, 11, 12, 13, 14; Bass: 7, 7, 10, 9, 9, 8, 7.
- 9th Position:** Treble: 9, 10, 11, 12, 13, 14, 15, 16; Bass: 12, 10, 9, 9, 12, 12, 12.
- 12th Position:** Treble: 12, 13, 14, 15, 16, 17, 18, 19; Bass: 12, 15, 14, 14, 12, 12, 15.

Treat these fingerings as suggestions. Experiment with others. The important thing is that your fingerings are consistent. Try to avoid unconsciously changing fingerings when playing because this will lead to sloppy technique in the future. Of course, you may consciously decide to use another fingering in a given position. This is fine, but then stick with the new fingering!

HAND POSITIONS

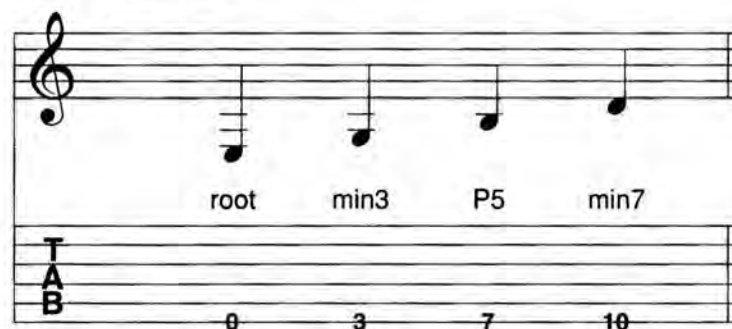
Learning the concept of the hand position will help you play more efficiently. Also, it will help you organize the fingerboard. A hand position assigns one fret per finger. The number name of a hand position (e.g. third position) corresponds to the fret with which the first finger is aligned. So, if you are playing a note on the fifth fret with your second finger, you are in the fourth position because your first finger would be aligned with the fourth fret. The fourth finger on the eighth fret is in the fifth position because the first finger is aligned with the fifth fret, and so on. The first and fourth fingers can also stretch one more fret so a hand position effectively covers a six fret range. It is very important to be aware of the position in which you are playing because moving up or down even one fret changes every note your four fingers will play.

MEAT ON THE BONES — MINOR 7TH ARPEGGIOS

Now we will fill in the octave (the interval between one E and the next E) with four notes. By adding the seventh scale degree, we create the commonly used minor 7th chord.

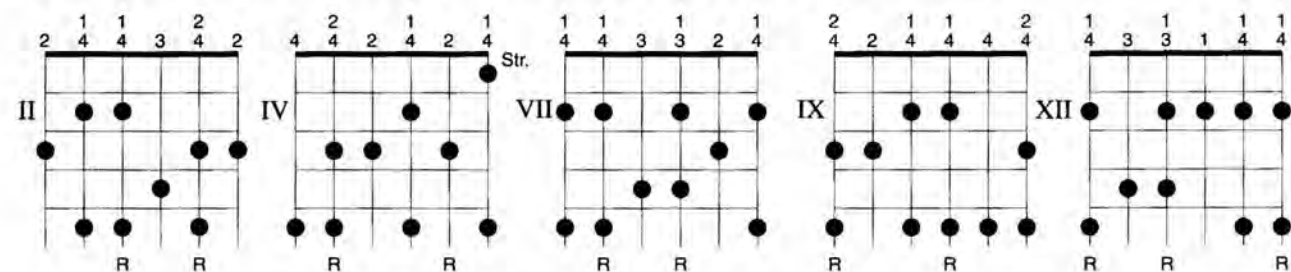
Emin7 Arpeggio

EXAMPLE 18



EXAMPLE 19

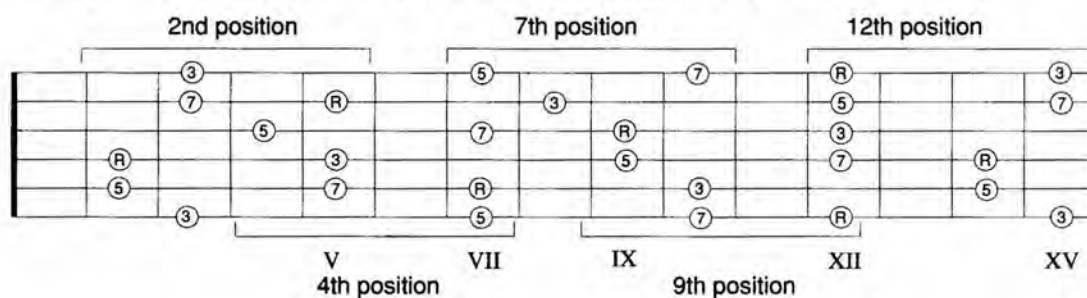
To prepare to play these as arpeggios, let's look at every note in each position.



Str. = stretch

EXAMPLE 20

Arranged over the entire neck, E Minor 7th arpeggios look like this.



EXAMPLE 21

It might help to look at them as music and TAB.

The diagram shows the E Minor 7th arpeggio (E, G, B, D) across the guitar neck, presented as music and TAB. It is divided into six sections, each representing a different position:

- 2nd Position:** Shows the arpeggio shape on the first four frets. The TAB includes fingerings (1-4) and a corresponding musical notation (E, G, B, D).
- 4th Position:** Shows the arpeggio shape on the fifth fret. The TAB includes fingerings (1-4) and a corresponding musical notation (E, G, B, D).
- 7th Position:** Shows the arpeggio shape on the seventh fret. The TAB includes fingerings (1-4) and a corresponding musical notation (E, G, B, D).
- 9th Position:** Shows the arpeggio shape on the ninth fret. The TAB includes fingerings (1-4) and a corresponding musical notation (E, G, B, D).
- 12th Position:** Shows the arpeggio shape on the twelfth fret. The TAB includes fingerings (1-4) and a corresponding musical notation (E, G, B, D).

The TAB is written in standard notation (T, A, B) and includes fingerings (1-4) for each note. The musical notation is written in standard notation (E, G, B, D) and includes a corresponding musical notation (E, G, B, D).

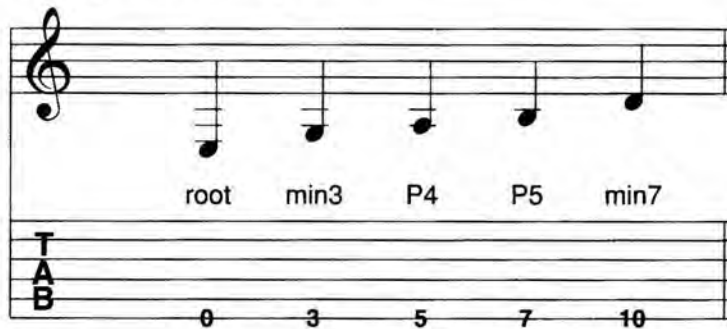
ADDING SOME MUSCLE — MINOR PENTATONICS

We will now add a fifth note to our Dorian structure. By adding the 4th scale degree to a minor 7th arpeggio, you will have the pentatonic scale.

E Minor Pentatonic Scale

EXAMPLE 22

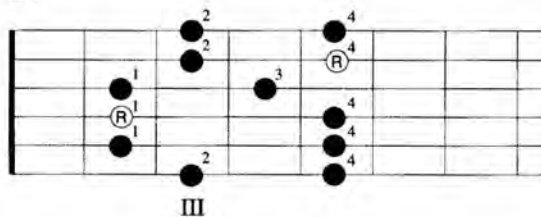
Pentatonic scale literally means five note scale. It is used in rock, blues, jazz, country and other styles.



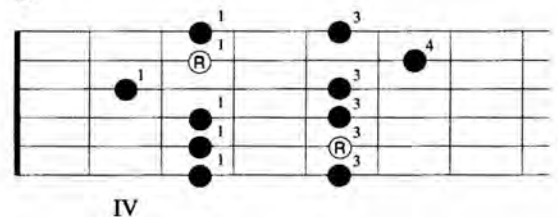
EXAMPLE 23

Here are five pentatonic scale fingerings.

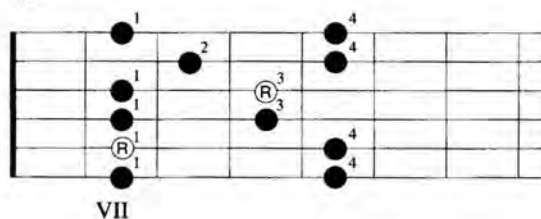
#1



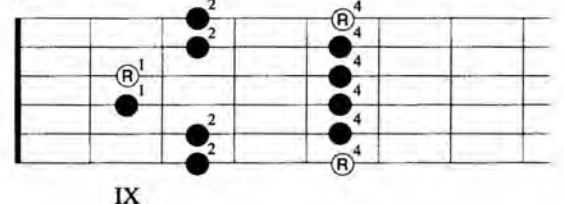
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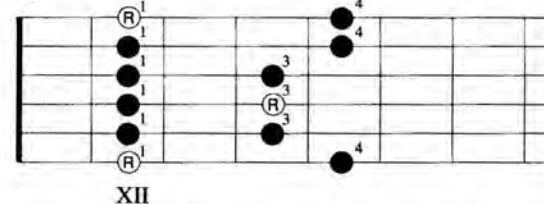
#3



#4



#5



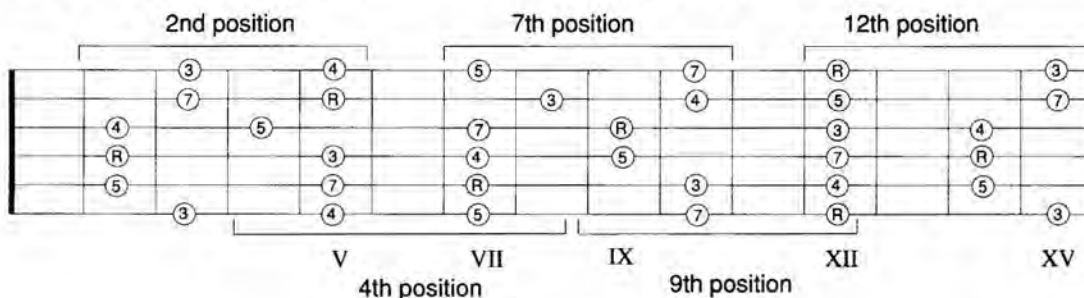
Notice that pentatonic fingering #2 (fifth position) requires a stretch to play the B at the fourth fret, third string. Be sure to maintain your hand position when playing the note after the stretch. In this case, the D is played with the

third finger. If you play the D note with the fourth finger, you will have moved to the fourth position! Be aware of when you are stretching and when you are changing hand positions because every fingering changes when you move hand positions. This is probably the greatest single source of mistakes on the guitar. Beware!

For more discussion of finger stretches, see the Position Practicing section of Practicing the Dorian Mode on page 21.

EXAMPLE 24

Here are the minor pentatonic scales over the whole neck of the guitar.



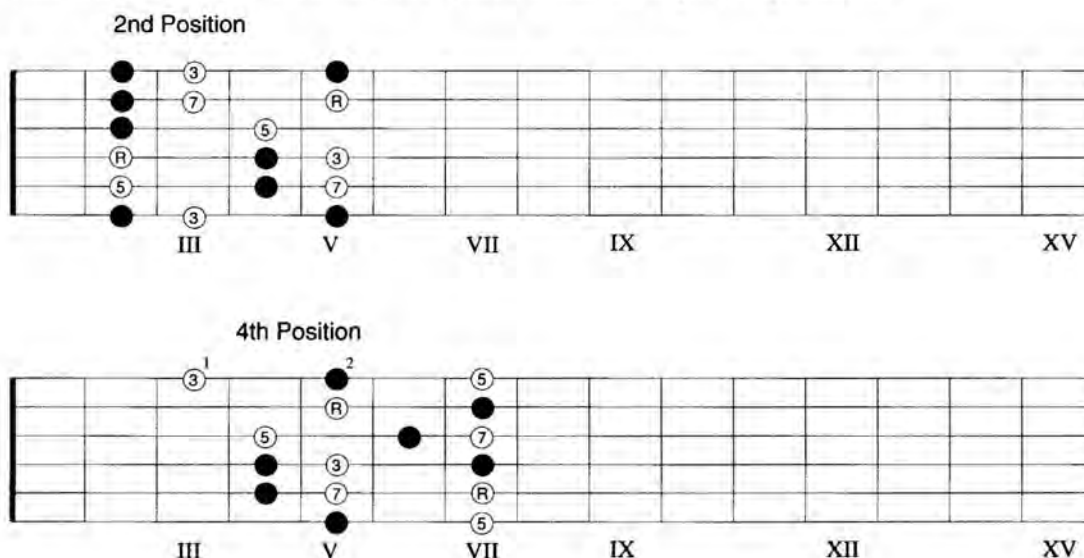
Don't lose sight of the root locations when applying pentatonics to the neck.

ALL SEVEN NOTES IN THE FLESH — THE DORIAN MODE SCALE

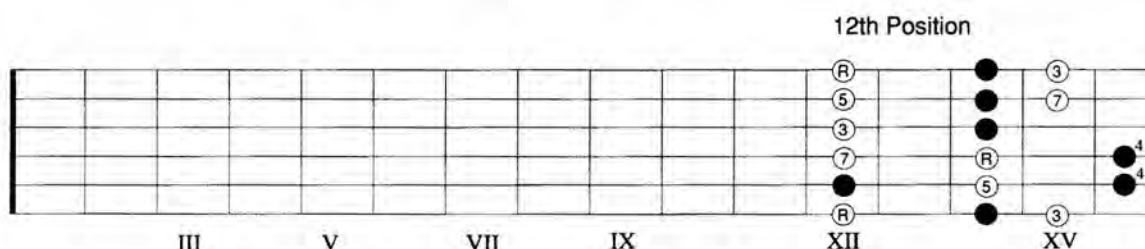
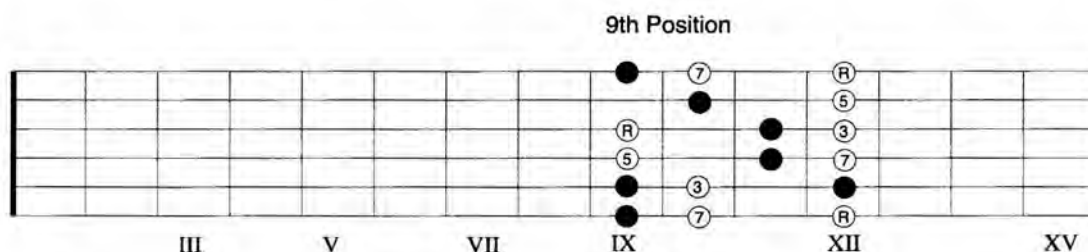
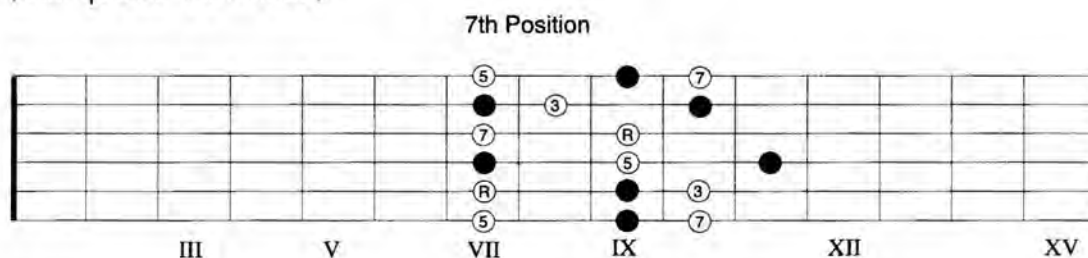
Now let's complete the Dorian mode and look at it in five positions on the neck. First we will look at them separately.

EXAMPLE 25

This is a good picture of how the whole neck is fairly evenly divided.

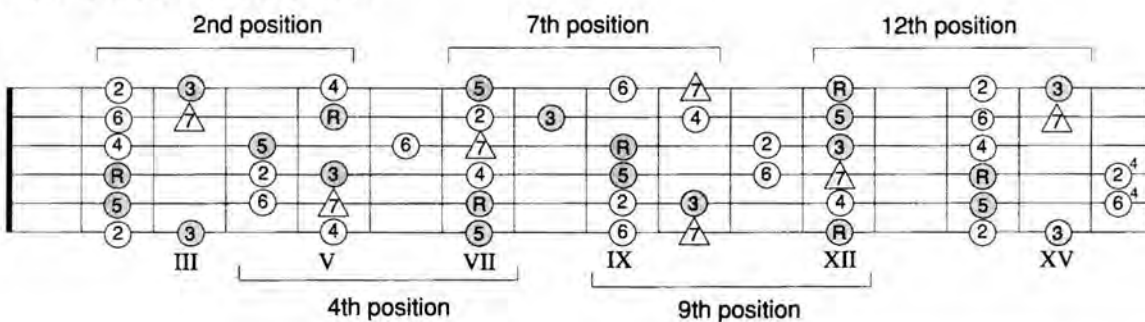


(Example 25 Continued)



EXAMPLE 26

Here is the continuous view.



- ② ③ ⑤ = the notes of the triads
- △ = the 7 of the minor 7th chords
- ② ④ ⑥ = the remaining notes of the mode

Yes, that is a lot of notes but can you see the Dorian skeletal structure? Remove the ② and the ⑥ and you are seeing the minor pentatonic scale. Remove the ④ and you are left with the minor 7th arpeggios. Leave out the △ and the basic minor triads remain. Look at the shape made by the ②, ③ and ⑤ in the second position fingering. What triad shape does it suggest? It is still the "D type" formation, isn't it? And no matter how harmonically complex we get, those basic triads and their roots will always be there as your anchors.

PRACTICING THE DORIAN MODE

POSITION PRACTICING

First, play up and down each position like you did in the last section. We are not using open strings because we want every note in each position to be transposable to other keys.

Work out your stretches in situations such as Example 27. When stretching, you have a choice between the fourth and first fingers. It is best to use the finger that is not playing any of the adjacent notes rather than using the same finger repeatedly. This is because when you have one finger sliding up or down a string the tendency is toward hand movement rather than finger movement. You should maximize finger movement and minimize hand movement. There are two reasons for this. First, hand movement tends toward accidental shifting of position, leading to mistakes. Second, you can play much faster with your fingers than your hands. Try playing four adjacent notes with one finger. Now play them with four fingers. Which is faster?



PHOTO COURTESY POLYGRAM

Carlos Santana. Many of Santana's best solos are based on the Dorian mode. Check out "Evil Ways" and "Black Magic Woman."

CONNECTING POSITIONS

Once you feel comfortable in each position, try connecting them. Play up one position from the sixth to the first string. Now, shift up the neck to the next position and play down from the first string to the sixth. Play up the next position, shift and play down the next, and so on.

E Dorian Up One Position, Down the Next

EXAMPLE 27

Be aware of how many frets (positions) your hand moves at each connection. Practice this until you are comfortable playing up and down the entire neck. You will eventually want to do this in every key.

2nd Position

4th Position

Str.

0 1 2 4 1 3 4 1 3 4 1 3 1 2 4 1 2 4 | 4 2 1 4 2 4 3 1 4 2 1 4 2 1 4 2

7th Position

9th Position

Str.

7 9 10 7 9 10 7 9 11 7 9 7 8 10 7 9 10 | 12 10 9 12 10 12 11 9 12 11 9 12 10 9 12 10

12th Position

Str.

12 14 15 12 14 16 12 14 16 12 14 12 14 15 12 14 15

I suggest doing this with a metronome at a slow tempo. The metronome will help you to practice evenly giving each note equal emphasis. This is very important because gaps in your learning lead to inexplicable mistakes later on that can be hard to trace. Also, the metronome helps quantify your learning so you can have a sense of exactly what you have accomplished. This becomes more and more important over time.

Play legato, letting each note ring until the next is struck. This is how you build speed. Remember that each of those fingers have little memory banks in them and they are always learning, whether you make a mistake or not. Strive to play cleanly and correctly so those little guys don't have to unlearn each scale before finally relearning them correctly.

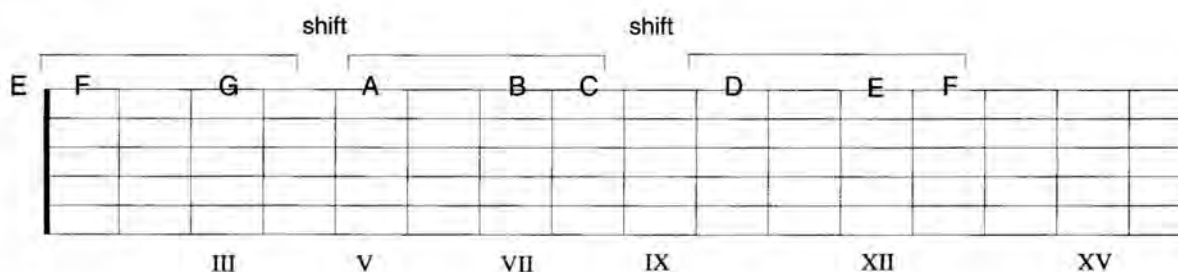
PRACTICING ON ONE STRING

In position practicing, we work across the neck. When practicing on one string, we work up and down the neck. Try practicing the D Dorian mode on the first string only. Since it is not possible to start with the root note, just play all the notes from the mode that are available on that string.

In the following exercise, you will play D Dorian beginning on E, up to F and back to E. It is important to be disciplined about position shifts. You must think ahead and be keenly aware of the difference between hand motion and finger motion. Play legato and strive to make your hand position shifts sound as smooth as your finger movement. Avoid sounding choppy when shifting positions.

EXAMPLE 28

Play through all the Dorian modes on the E string. Play every note on the string in each key beginning with the lowest note possible. Be sure to sing the root of the key in which you are playing.



EXAMPLE 29

Note that these are fingered for a maximum of finger motion and a minimum of hand motion. You should always be able to play a one octave scale up one string with only two hand shifts. This can be applied to the B, G, D and A strings, as well.

The image displays five musical exercises for the Dorian mode, each consisting of a treble clef staff with a key signature of one sharp (F#) and a corresponding fretboard diagram. The fretboard diagrams show fingerings for the T (Treble), A (Anchor), and B (Base) strings. The scales are: E Dorian, A Dorian, D Dorian, G Dorian, and C Dorian. The fretboard diagrams are arranged in three rows. The first row contains E Dorian and A Dorian. The second row contains D Dorian. The third row contains G Dorian, C Dorian, and 'etc...'. Each scale is shown with its name, a treble clef staff, and a fretboard diagram with fingerings.

E Dorian scale

0 2 3 5 7 9 10 12 | 12 10 9 7 5 3 2 0 | 0 2 3 5 7 8 10 12

1 2 4 1 3 4 4 | 4 4 3 1 4 2 1 | 1 2 4 1 2 4 4

A Dorian scale

12 10 8 7 5 3 2 0 | 0 1 3 5 7 8 10 12 | 12 10 8 7 5 3 1 0

4 4 2 1 4 2 1 | 1 3 1 3 4 2 4 | 4 2 4 3 1 1 3 1

D Dorian scale

0 1 3 5 6 8 10 12 | 12 10 8 6 5 3 1 0 | 1 3 5 6 8 10 11 13 | 13 11 10 8 6

1 3 1 2 4 2 4 | 4 2 4 2 1 3 1 | 1 3 1 2 4 1 2 4 | 4 2 1 4 2

G Dorian scale

C Dorian scale

etc...

Continue this exercise with the following keys: F, B^b, E^b, A^b, D^b, G^b (F[#]) and B. You may have noticed that all of these keys are a fourth apart. This is called the "cycle of fourths."

THREE NOTES PER STRING

Applying three fingers to a string tends to take the hand across and up and down the neck. For example, try starting on D on the fifth string, fifth fret. Play up the scale, three notes per string. You begin in the fifth position and should end in the seventh position on the D note two octaves above.

EXAMPLE 30

The diagram illustrates the Dorian mode scale on the guitar, starting on D5 (5th string, 5th fret). The scale is played in three-note-per-string groups. The fingering for the ascending scale is: 5th string (5, 7, 8) with fingers 1, 3, 4; 4th string (5, 7, 9) with fingers 1, 2, 4; 3rd string (5, 7) with fingers 1, 2; 2nd string (9, 6, 8, 10) with fingers 4, 1, 2, 4; and 1st string (7, 8, 10) with fingers 1, 2, 4. The descending scale is not shown.

Playing scales this way is easy for the fingers and therefore good for speed development. It is also good for working out in-between-position areas on the neck. The five positions we are learning are a good starting point but, in reality, there are as many positions as there are frets on the guitar. Eventually, you will know every scale in every position.

*Wes Montgomery.
Wes did a dynamite
cover of legendary
John Coltrane's
Dorian tune,
"Impressions."*



PHOTO • INSTITUTE OF JAZZ STUDIES

DORIAN HARMONY

CHORDS TO USE WITH THE DORIAN MODE

The most common use for the Dorian mode is to improvise over a minor chord or a minor 7th chord. You might see the chord symbol "Emin7." The "E" refers to the root, the little "min" refers to the minor 3rd and the "7" refers to the minor 7th. Chord symbols are not standardized so you might see various symbols which all mean the same thing.

CHORD SYMBOLS FOR E MINOR:

Em
E-
Emi
Emin

You may also encounter chord symbols that include upper extensions, such as "Em7," "Em9," "Em11," or "Em13." Here is a chart that includes some variations you might run across:

E Minor	E minor 7	E minor 9	E minor 11	E minor 13
Em	Em7	Em9	Em11	Em13
E-	E-7	E-9	E-11	E-13
Emi	Emi7	Emi9	Emi11	Emi13
Emin	Emin7	Emin9	Emin11	Emin13

You can improvise with the same E Dorian scale over any of these chords.

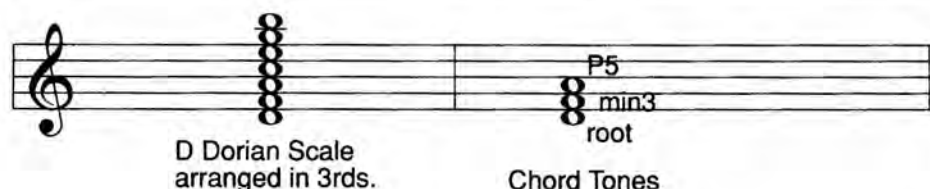
In this section, we will look at various chords for various purposes. The guitar is a versatile instrument so players benefit from learning the chords to play in a power trio, as well as for accompanying a singer, or playing duo with a bass.

Chords come from scales. They are just another arrangement of the scale they come from. In order to understand them, we often look at scales as beginning and ending on the root, but in reality they go infinitely high and low in pitch. Scales are tonal areas and can be arranged in many different ways.

THE DORIAN SCALE ARRANGED AS CHORDS

We arrange scales sequentially, step by step, horizontally across the page. However, a scale can be arranged vertically, so that many notes are played at the same time. One way would be to stack the notes in thirds, or every other note of the scale, as in the first measure of Example 31.

EXAMPLE 31

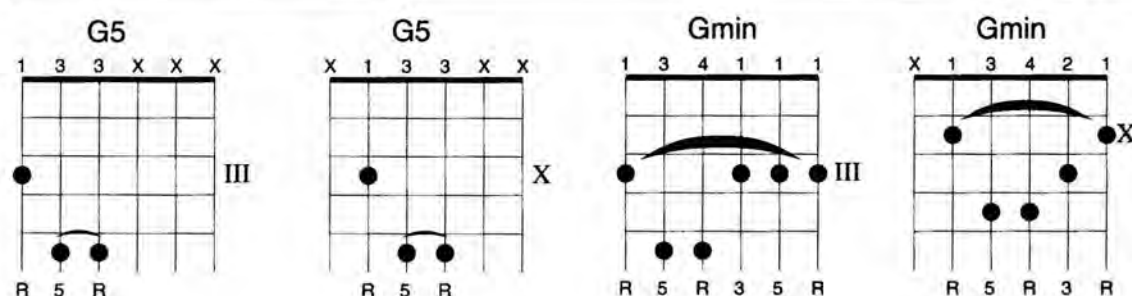


Here we have all the notes in a one octave D Dorian mode scale. The way we arrange these notes vertically is said to be the voicing of the chord. In this example, we have voiced the chord in thirds. The chord tones of the mode are illustrated in the second measure. From D to F is the minor 3rd of the chord and from D to A is the perfect 5th of the chord.

DORIAN CHORD VOICINGS

We will start with some two note "power chord" voicings and three note triads.

EXAMPLE 32



EXAMPLE 33

Here is a common rock progression based on the A Dorian mode. You can play the A Dorian scale over all three chords.



Next, we will add the 7th of the chord but take away the less important 5th to come up with some lean Gmin7 voicings. Notice that the root is on the E, A or D strings. That means you can play these chords in three places on the neck.

Gmin7 Voicings

EXAMPLE 34

These are particularly good for accompaniment because they are sparse, which reduces the chance of conflicting with the melody instrument or voice. Muffle the internal open string by lightly touching it with the first finger as it reaches over to the bass string.



Looking again at our D Dorian scale arranged in 3rds, let's focus on the top four notes of the chord. These are called upper extensions. They further color, or "Dorianize," the chord tones of the Dorian mode.

EXAMPLE 35

As you can see, the 9th is really a 2nd plus an octave, the 11th is a 4th plus an octave and the 13th is a 6th plus an octave.



It would be difficult to voice chords that have these extensions with all the tones that lead up to them. Fortunately, it's not necessary. Upper extensions may be used singularly or in pairs, or all three at once... any way that sounds good. As you will see in Example 36, upper extensions are supported by one or more chord tones below, generally the third and seventh.

EXAMPLE 36

These are full four and five note voicings that are most commonly found in pop, fusion or jazz. They make use of multiple upper extensions. A chord is commonly named by its highest upper extension. These are colorful chords and imply aspects of the Dorian mode you might otherwise not have heard. The Dorian scale can be played over all of these voicings.

EXAMPLE 37

Try playing D Dorian over this common pop progression.

position: III I V

DIATONIC HARMONY

Diatonic means "within the key." The Dorian mode results when a major scale is begun on its second scale step. The Dorian mode, therefore, is part of the major scale key. That is why we often refer to the major scale as the "parent" scale of the modes.

To best understand how to use the Dorian mode, we need to go back and look at the major scale. The example below arranges the notes of the major scale in a series of seven chords, one for each scale degree.

The Diatonic Chords

EXAMPLE 38

These diatonic chords are categorized by Roman numerals so they can be used in any key. The upper and lower case Roman numerals refer to the type, or quality, of the chords. Upper case Roman numerals indicate a major chord. Lower case numerals indicate minor or diminished. A small "°" is also often used to indicate diminished. All three of these basic chord types occur in a major key. The quality of the major and minor chords is defined by the third of the chord, and the diminished chord gets its sound from a minor 3rd and flatted 5th.

	I	ii	iii	IV	V	vi	vii°
Chord Type:	major	minor	minor	major	major	minor	diminished

THE DIATONIC SYSTEM FOR ALL MAJOR KEYS

I IV VMajor Chords
 ii iii vi.....Minor Chords
 vii°Diminished Chord

EXAMPLE 39

Here is an example in the key of E major. Eventually, you should work this out in every key.

E	F#m	G#m	A	B	C#m	D#dim
I	ii	iii	IV	V	vi	vii°

WHEN IS A CHORD PROGRESSION DORIAN?

Because the Dorian mode is simply a major scale beginning on the second degree, the major scale can be said to be the parent key of the Dorian mode. So, all of the chords from the major diatonic system are also Dorian chords.

The next logical step is to learn to recognize diatonic chord progressions when we see them, and to become familiar with typical chord progressions that lend themselves to Dorian mode improvisation.

This is easier than it sounds. If you have memorized the diatonic system as illustrated in Examples 38 and 39, all you need to do is ask yourself some simple questions to find out whether a progression will work for the Dorian mode.

1. What are the chords in the progression, and where do they fit into the diatonic system?

To answer this question you need to consider what type of chords they are (major, minor or diminished) and how their roots relate to each other (are the roots a 5th apart? a whole step apart?, etc.). You will need to establish what Roman numeral to assign to each chord, which will involve the next question:

2. What major key (or parent scale) contains these chords?

It helps to learn all the major keys and be familiar with their diatonic harmonies.

3. What note is being treated as the root in this progression?

Most progressions will start and end on the same chord, and gravitate towards that chord throughout. We will think of the root of this chord as being the key center. If the key center of the progression is the second note of the parent scale you arrived at in question #2, use the Dorian mode to improvise. If the key center is not the second scale degree of the parent scale it is time to learn another mode!

The chords in the next example are Dmin7 and Emin7. Since we want to improvise and we need to know what scale to use, we need to go through the thought process outlined above.

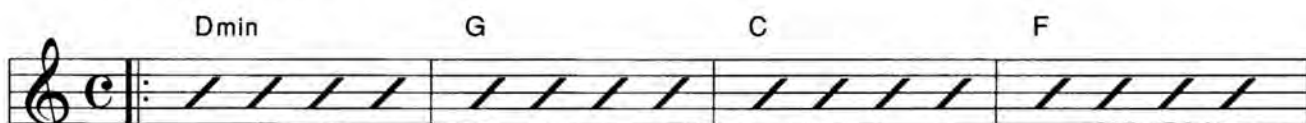
1. Where in the diatonic system do we find two minor chords in a row? If you think about it, and refer to Example 38 just to make sure, you will come up with only one possible answer: only between the ii and iii chords in the diatonic system.
2. The Dmin7 and Emin7 are the ii and iii in the key of C Major.
3. In this progression, the chords are centered around the note D, making D the root. Since the chords are part of the C Major diatonic system but the notes center around a D root, which is the second note of the C Major (parent) scale, we can use the D Dorian mode to improvise over the progression.

EXAMPLE 40**EXAMPLE 41**

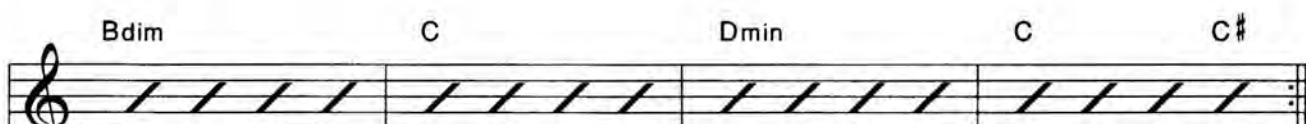
The next example is a commonly used rock progression. You can play D Dorian over the whole progression because the chords are the ii, I, and V of the key.

**EXAMPLE 42**

Sometimes this concept can be used for an entire tune or section of a tune. Below are chord changes related to "Autumn Leaves" or "Europa"—a common progression used in many tunes.



Diatonic chord: ii V I IV



vii° I ii I #I

D Dorian can be played over all of those chords! So learning to recognize key centers can make complicated looking chord progressions easy to play over.

SOLOING WITH THE DORIAN MODE – PATTERNS AND INTERVALS

DORIAN MODE PATTERNS

Playing scale or arpeggio patterns will help form the building blocks for your improvisations. Here are a few ideas. Try to come up with some of your own, also.

The classic "up 4, down 3" climbs up the scale. Repeating a pattern of notes, such as "up 4", but starting on a different note each time is called "sequencing." "Down 4, up 3" is a descending sequence.

EXAMPLE 43

Ascending

etc...

T	A	B
	5	7 8
		5 7 8
		5 7 8
		5 7 9
		5 7 9
		5 7 9
		5 7

[illegible]

EXAMPLE 44

Some patterns just seem to lay well on the guitar. Here is a variation of the above example for traveling up and down the neck quickly.

Ascending

etc...

Descending

etc...

EXAMPLE 45

This one mixes arpeggios and scales together (3rds and 2nds). Be aware of the chord you are outlining when playing the 3rds.

INTERVAL PLAYING

Intervals within the scale can be played simultaneously, as double stops, or consecutively, as scale patterns. At a National Guitar Summer Workshop clinic, guitar great John Scofield revealed that he practiced scale intervals frequently, which is very evident in his playing.

THIRDS

D Dorian scale in thirds

EXAMPLE 46

Notice that the third and fourth notes, E to C, as well as A to F and B to G are major thirds, while the rest are minor thirds. Similar interval changes occur all through these interval studies. Be aware of them.

etc...

Thirds on the fingerboard

EXAMPLE 47

Be aware of the "G and B string line." All of your interval shapes change when you cross it. This is because these two strings are tuned a major third apart, and all the other adjacent string sets are tuned in perfect fourths.

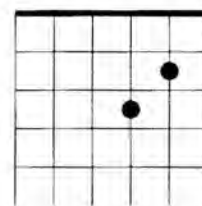
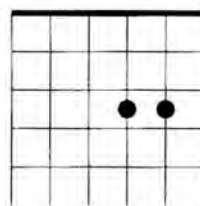
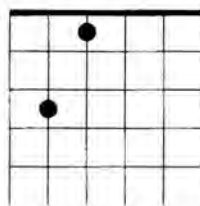
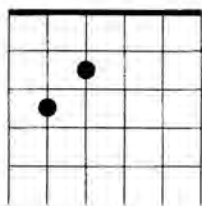
Across the G and B String Line:

maj3

min3

maj3

min3



EXAMPLE 48

Try alternating between descending and ascending thirds for a melodic effect. This is written for one octave but you can play it for two octaves or, better yet, the length of the fingerboard! This goes for all of the examples that follow, too.

etc...

T	A	B
5	3	5
7	5	7
8	7	8
7	4	5
5	7	5
7	9	5
5	5	6
6	7	7

3 1 1 3 3 2 1 2 3 1 1 3 1 2 2 3

FOURTHS AND BEYOND

Fourths give a nice open, modern sound.

EXAMPLE 49

This example has ascending 4ths.

aug4

T	A	B
5	5	7
7	7	8
8	9	5
5	5	7
7	7	4
5	5	6
6	7	8
8	9	10

1 2 1 2 3 4 1 2 3 4 1 2 1 2 3 4 1 1

EXAMPLE 50

You can also play descending 4ths. Here is the Dorian scale in 4ths with alternating ascending and descending 4ths.

etc...

T
A
B

5 5 7 7 8 9 5 5 7 7 5 4 5 6 8 7

1 1 3 3 3 4 1 1 3 3 2 1 1 2 4 3

EXAMPLE 51

Learn how 4ths look on the fingerboard. Again, notice how things change when you cross the "G and B string line".

Across the G and B String Line:

P4 aug4 P4 aug4

Space prohibits writing out exercises for every interval in the octave but you can apply the same type of studies to 5ths, 6ths and 7ths. Each has its own characteristic sound so check them out and see what you gravitate towards.



Steve Vai. Check out Steve Vai's Dorian based solo in "Big Trouble" from David Lee Roth's "Eat 'Em and Smile" album.

LICKS, IDEAS AND PRACTICE EXAMPLES

Here are some musical examples to summarize, review and expand upon the practice exercises.

Fusion style lick based on three notes per string

EXAMPLE 52

Dmin

TAB

2 4 1 2 4 1 2 4 1 4

Rock lick with arpeggiated triads

EXAMPLE 53

Dmin

TAB

1 3 2 1 1 3 4 1 3 1 2 3

A basic blues lick

EXAMPLE 54

Latin lick

EXAMPLE 55

Dmin

TAB

10 10 9 (9) 10 (10) 9 (9) 10 (10) 7 (7) 10 10 10 10

1 2 1 2 1 2 1 2 3

Rock lick

EXAMPLE 56

The first system of music for 'Dmin' is shown. The treble clef staff begins with a whole rest, followed by a quarter note G4, a quarter note A4, and a quarter note B4. The bass clef staff has a whole rest, followed by a quarter note G2, a quarter note A2, and a quarter note B2. Fingerings are indicated by numbers 1, 2, and 3 above the notes. The bass clef staff also has a 'P' (Palm Mute) marking above the first two notes.

Dorian based blues solo

EXAMPLE 57

The blues is a very personalized idiom so a sample solo will speak louder than words. Most bluesy ideas are based on the pentatonic scale, which can be found within the Dorian scale. Copy them and then try to come up with your own variations. It would be a good idea to “swing the eights” in this example (play them unevenly).

Dmin7

1/2

1/2

2 5 3

(5) 3 5 3 5 3

2 5 3

1 4 2 3 1 3 1 3 1 1 4 2

1

3 5 6 7 6 7 9

8 9 8 7 8

8 10 9 8 10 8 7

1 1 2 3 2 1 2 3 4 3 2 3 2 4 3 2 4 2 1

3

P

10 7 10 7 8

7 10 9 (9) 7 9 7 (7)

4 1 4 1 2 1 4 3 1 3 1

No matter what you are practicing, it's a good idea to break it down into small, easily digestible pieces. Practice these small segments sequentially over a period of time. A week is generally a good amount of time to spend on a practice segment. Try to set obtainable goals for each day. A string of small successes eventually adds up to a big success. Have fun!

Interval based jazz lick

EXAMPLE 58

Dmin

P

P

T
A
B

3 4 2 1 2 4 2 1 1 3 2 1 2

A la The Allman Brothers

EXAMPLE 59

This lick is based on the idea of melodic patterns.

Dmin

1

1

T
A
B

1 3 1 3 4 3 4 1 4 1 3 1 3 1 3 1 2 1 2 2

Dmin

T
A
B

3 1 4 1 4 1 4 2 3 1 3 1 4 1 4 1 3

Melodic pattern down the neck with a blues tag

Dmin

T
A
B

1 2 3 1—1 4 2 1—1 1 3 1—1 3 1 3 1

PHOTO COURTESY MUSE RECORDS



Pat Martino.

Jazz great Pat Martino is known for playing in minor tonalities, which often leads him into the Dorian mode.

A sample lick for Example 40

EXAMPLE 62

Dmin7 Dmin7 Dmin7 Emin7

T A B
 7 9 10 8 10 8 10 7 10 9 10 10 9 8 10 9 9 10 10 9 8 10 9 3 4 2 4 4 1 4 3 — 3 4 2 1 3 1

A sample lick for Example 41

EXAMPLE 63

Dmin7 C G

T A B
 14 13 15 13 15 13 15 15 15 13 14 15 13 13 12 15 13 13 12 1 4 2 3 2 4 2 4 2 3 3 1 2 1 4 2

1/2

Dmin

1

G

1/2

P

1

12 12 10 10 13 10 14

(14)

3 1 1 4 1 3

1

C

1

F

1

10 10 8 8 10 8 10

(10)

3 1 1 3 1 3

1/2

Bdim

1/2

H

1

C

1

Dmin

1

8 8 6 7 9 8 10 8 10 8 10 13 12 10 13

3 1 2 4 1 1 2 1 3 1 1-1 4 3 2 3

HOW TO READ MUSIC

PITCH

Learning to read music will help you to get the most out of your National Guitar Workshop and Alfred instructional books. It will make you a better musician, too, because you will be able to communicate more easily with other musicians. What follows is a discussion of music reading basics. Remember that practice makes perfect! The more you practice reading, the easier it will become.

Staff

A staff containing five lines and four spaces is used in the writing of music. Notes are alternately written on the lines and spaces in alphabetical order.



Clef

The clef indicates which notes coincide with a particular line or space. Different clefs are used for different instruments. Guitar music is written in G clef. The inside curl of the G clef encircles the line which will be called "G". When the G clef is placed on the second line, as in guitar music, it is called the treble clef.



Using the G clef the notes are as follows:*



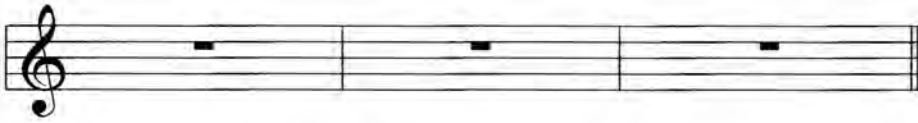
Ledger Lines


These are lines that are used to indicate pitch above and below the staff.



* In standard notation the guitar sounds an octave lower than written.

The staff is divided by vertical lines called **bar lines**. The space between two bar lines is a measure. Each measure (bar) is an equal unit of time.



Double bar lines () mark the end of a piece.

Every piece of music has numbers at the beginning that tell us how to count the time.

Examples:

$\frac{4}{4}$ $\frac{3}{4}$ $\frac{6}{8}$

The top number represents the number of beats or counts per measure.
The bottom number represents the type of note receiving one count.
Example: 4 = quarter note 8 = eighth note


Sometimes a **C** is written in place of 4/4 time. This is called **common time**.

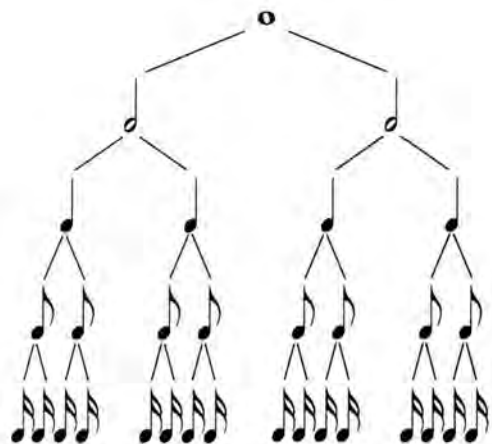
A whole note  = four beats

A half note  = two beats

A quarter note  = one beat

An eighth note  = 1/2 beat

A sixteenth note  = 1/4 beat



A GUIDE TO NATIONAL GUITAR WORKSHOP TABLATURE

Tablature, when combined with standard music notation, provides the most complete system for communicating the many possibilities in guitar playing.

In our TAB system, as in most, **rhythm** is not notated. For that, you will have to refer to the standard notation. Six lines are used to indicate the six strings of the guitar. The **top line** is the high E string (the string closest to the floor) and the **bottom line** is the low E string. **Numbers** are placed on the strings to indicate **frets**. If there is an "0", play that string open.

Fingerings are often included in TAB. You will find them just under the bottom line. A "1" indicates your left first or index finger. A "4" indicates your left fourth or pinky finger.

In the following example, the first note is played with the first finger on the first fret. The next note is played with the second finger on the second fret, then third finger plays the third fret, and the fourth finger plays the fourth fret.

The image shows a musical staff in 4/4 time with a treble clef. The first four notes are quarter notes: G2 (first fret), A2 (second fret), B2 (third fret), and C3 (fourth fret). Below the staff is a six-line guitar tablature. The first four lines are labeled 'T', 'A', 'B', and 'B' from top to bottom. The fret numbers 1, 2, 3, and 4 are placed on the first four lines respectively. Below the tablature, the numbers 1, 2, 3, and 4 are aligned with the fret numbers.

A **tie** in the music is indicated in TAB by placing the tied note in parentheses.

The image shows a musical staff in 4/4 time with a treble clef. The first four notes are quarter notes: G2 (first fret), A2 (second fret), B2 (third fret), and C3 (fourth fret). The first two notes are tied together, and the last two notes are tied together. Below the staff is a six-line guitar tablature. The first four lines are labeled 'T', 'A', 'B', and 'B' from top to bottom. The fret numbers 10, (10), 12, and (12) are placed on the first four lines respectively. Below the tablature, the numbers 1 and 3 are aligned with the first and third fret numbers.

Hammer-ons and pull-offs are indicated with slur marks, just like in standard notation. Our TAB also includes an "H" for hammer-ons and a "P" for pull-offs. These are found just above the TAB.

The example shows a musical staff in 4/4 time with a treble clef. The melody consists of eighth notes with slurs indicating hammer-ons and pull-offs. Below the staff is a three-line guitar tablature with fret numbers. Above the fret numbers, 'P' (pull-off) and 'H' (hammer-on) are written above the corresponding fret numbers. The first four measures show a sequence of pull-offs (P) between frets 8 and 5. The next four measures show a sequence of hammer-ons (H) between frets 5 and 8.

Upward **bends** are marked with upward **arrows**. Downward arrows are used to show a bend being released. A number above the arrow indicates how far to bend (1 = a whole step, 1/2 = a half step, etc.). Remember that the TAB will show the fret number on which your finger should be placed. The standard notation corresponds with the fret shown in the TAB. In the following example you will also find a **tap** (T) and a **slide** (S and \diagup). Also, notice that if more than one note are played with one bend, they appear in parentheses in the TAB. Some notes are actually represented by the arrows themselves, as in the second note of the triplet in this example.

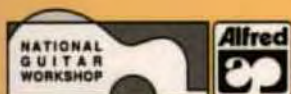
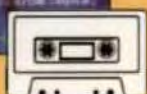
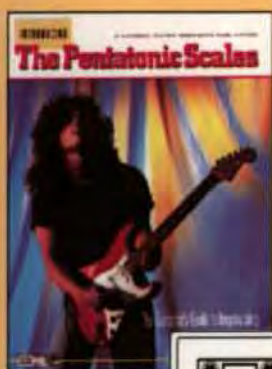
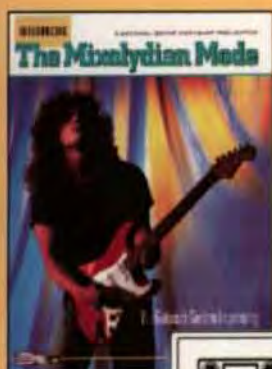
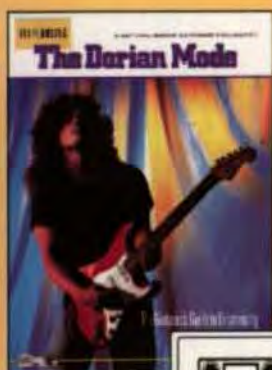
The example shows a musical staff in 4/4 time with a treble clef. The melody includes a triplet of eighth notes with upward arrows indicating bends. Below the staff is a three-line guitar tablature. Above the fret numbers, '1' is written above the first arrow, and '3' is written above the second arrow. A 'T' (tap) is marked above the staff. A 'S' (slide) is marked above the staff. The fret numbers in the TAB are 12, 17, 12, (12), 10, and 17. The first four measures show a sequence of bends (1 and 3) and a tap (T). The next measure shows a slide (S) and a tap (T). The final measure shows a tap (T) and a fret number 17.

In the following example you will find several more symbols. The sign for **vibrato** (~~~~~), and the signs for **picking down** (▣) and the sign for **picking up** (V).

The example shows a musical staff in 4/4 time with a treble clef. The melody includes a triplet of eighth notes with upward arrows indicating bends. Below the staff is a three-line guitar tablature. Above the fret numbers, 'V' (picking up) and '▣' (picking down) are written above the corresponding fret numbers. A wavy line (~~~~~) indicates vibrato. The fret numbers in the TAB are 8, 7, 5, 5, 5, 5, 7, 8, 8, 8, 8, 8. The first four measures show a sequence of bends (1 and 3) and a tap (T). The next measure shows a slide (S) and a tap (T). The final measure shows a tap (T) and a fret number 17.

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