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Guitar **ALL-IN-ONE** FOR **DUMMIES®**

**by Jon Chappell, Mark Phillips, Dave Austin,
Mary Ellen Bickford, Holly Day, Scott Jarrett,
Jim Peterik, and Michael Pilholfer**



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Introduction

So you want to play guitar, eh? No one can blame you. The guitar isn't just a beautiful, soulful, and versatile instrument. For about 75 years now, it has also set the standard for *coolness* in the music world. Not a bad combination!

Though the guitar as we know it is only about a century and a half old, its roots as a plucked stringed instrument go back deep into history. Many ancient folk instruments have followed the basic strings-stretched-over-fretboard-and-played-with-fingers design for thousands of years, and the guitar is in some ways the culmination of that legacy. It seems humans have always had something like the guitar in mind.

After the guitar was electrified in the 1930s — that is, when it went from soft backup instrument to a forceful and expressive vehicle for soloing — its popularity skyrocketed, and its intrinsic qualities and sound changed popular music forever. But its softer side didn't go away. When Bob Dylan famously “plugged in” at the 1965 Newport Folk Festival and was booed by outraged folk fans, it became clear that the electric guitar had entered its own universe.

Guitar All-in-One For Dummies covers both the acoustic and the electric universes — as well as the older classical guitar one, which has its own language, techniques, and musical pedigree.

About This Book

First, here's what this book is not: It's not a textbook, nor a long-winded history, nor a rote learning tool. Lots of those kinds of books are on the market, if that's what you're looking for — but beware, they are often dry and assume underlying knowledge.

Guitar All-in-One For Dummies is a generous conglomeration of material from several *For Dummies* guitar and music books. It aims to cover the guitar gamut, from what those thingies are called that wind the strings (tuning machines) to how Stevie Ray Vaughan got his incredible sound (by tuning lower, among other tricks) to which chords just plain sound good together when writing songs (depends — see Chapter 4 in Book VII).

Much of the material is relevant to any style of guitar playing. But three popular guitar genres each get their own book: rock guitar, blues guitar, and classical guitar. You also find chapters on learning to read music, on building your chord repertoire, on amps, scales, songwriting . . . let's just say there's a lot here. And don't forget the CD!

Conventions Used in This Book

Important words are defined in *italics*. Key words in lists that bring important ideas to your attention are in **bold**. And all Web addresses are in `monospace` to set them apart.

Here are a few other conventions to help you navigate this book:

- ✓ **Right hand and left hand:** Instead of using “strumming hand” and “fretting hand,” this book uses “right hand” for the hand that picks or strums the strings and “left hand” for the hand that frets the strings (it's easier and shorter that way). Sincere apologies to those left-handed readers who are using this book; you folks should read “right hand” to mean “left hand” and vice versa.
- ✓ **Up and down, higher and lower, and so on:** If you're asked to move a note or chord up the guitar neck or to play it higher on the neck, it means higher in pitch, or toward the body of the guitar. If you're asked to go down or lower on the neck, it means toward the headstock, or lower in pitch. (Those of you who hold your guitar with the headstock tilted upward may need to do a bit of mental adjustment whenever you see these terms. Just remember that these terms are about pitch, not position, and you'll do just fine.)
- ✓ **Dual music notation:** Songs and exercises are arranged with the standard music staff on top and the tablature staff below. You can use either of these methods, but you don't need to look at both at the same time. In many cases, the music under scrutiny also is on the CD, so look for black boxes that point you to specific tracks on the CD and then follow along.

What You're Not to Read

There are many sidebars (in shaded gray boxes) in this book that you don't really need to read in order to follow the chapter text. They contain extra information or background stories and history that you may be interested in, or not. Feel free to skip anything marked with the Technical Stuff icon, too.

Foolish Assumptions

Guitar All-in-One For Dummies doesn't assume you know anything about playing guitar or reading music. It starts from zero and builds from the ground up — and then keeps going and going. It contains straightforward, informal explanations of how guitars work, what the different kinds are, how to get started playing, how to form chords and strum and fingerpick, and then proceeds to help deepen your knowledge in several directions.

This book is designed for just about anyone who loves guitar. It is as useful for people who have barely touched a guitar as it is for those who have fiddled around with one for years but would like to get more serious. Even advanced players — such as those who would like to try a different genre than they're used to, or who specifically need to work on, say, their outside chord inversion patterns — will find plenty of valuable information in these pages.

No matter your situation, experience, or motives, this book's goal is to give you enough information so that ultimately you can explore the guitar on your own. Discovering what the instrument can do, finding ways to make new sounds, suddenly grasping a better way to fret notes or chords that just minutes ago seemed impossible — these are tremendously exciting and satisfying experiences. Such magic awaits *you* if you're willing to put in some time and effort.

How This Book Is Organized

Guitar All-in-One For Dummies is sorted into eight books so you can find what you need to know quickly.

Book 1: Guitar 101

The first book begins with the basics by looking at how guitars are constructed, what the different parts are, and how to go about acquiring a guitar that suits your style and budget. The mechanics of getting up and running are covered here, such as stringing and tuning the instrument, and the basic how-to of playing it. A chapter in this book also tackles reading music — a skill which isn't required to play guitar, but is helpful in many ways.

Book 11: Sounds and Techniques

This book gets you going in playing guitar, starting with basic major and minor chords. Did you know you can play probably half of the most famous songs ever by knowing just three or four chords? It's true. Of course, after

you get a taste of E minor, you're going to want to try E7 . . . and that's how you get hooked. This book also discusses strumming, plucking, and picking techniques. By the time you finish this book, you should have all the knowledge you need to play, in basic form, loads and loads of songs on guitar.

Book III: Rock Guitar

Nowadays, when people think of a guitar, they usually picture someone in tight pants and insufficiently trimmed hair coaxing unholy sounds out of it. That's because rock 'n' roll really brought the guitar to the forefront of popular culture, beginning in the middle of the last century. This book focuses on All Things Rock: the nitty-gritty of amplifiers, playing hot licks and sweet leads, and checking out just how the greatest guitar heroes do what they do. From Chuck Berry to Keith Richards, from Jimi Hendrix to The Edge, this book is your key to unlocking what makes rock guitar so exciting.

Book IV: Blues Guitar

A basic guitar is cheap to buy (or make), and it's perfect for strumming while you sing — which meant it was the ideal instrument for African Americans to entertain themselves and their neighbors in the rural South during hard times. The result: a unique musical genre that's as full of emotion and passion as it is easy to play. But the blues didn't stop at the porch — it migrated to various parts of the U.S. (and eventually Great Britain and elsewhere) and developed into many distinct styles. It also helped birth rock 'n' roll. This book explores all aspects of the blues, from picking styles to signature riffs, from the evolution of different song forms to the achievements of the great blues guitarists in history.

Book V: Classical Guitar

The other iconic image of a guitar player is a romantic-looking fellow, seated and holding a humble acoustic guitar, playing gorgeous and complicated instrumental music. This book makes it clear that rock and blues are the new kids on the block. Classical guitar figured out early on that the great Baroque, Classical, and Romantic compositions weren't just for violin and cello after all. This book delves into the history and development of classical guitar, both as an instrument and a style. It contains lots of music to play, too, including standards that are surprisingly easy to play and more challenging, complex pieces that vividly separate the virtuosos from the noodlers.

Book VI: Exercises: Practice, Practice, Practice

How do you get to Carnegie Hall? Practice, and lots of it, is the only way you'll ever stand on stage with confidence, poised to amaze and delight a crowd. Many guitarists find that after several months or even years of playing, their abilities plateau — they don't get worse, but they don't get better. They have reached stasis in their playing. And that may be fine, depending on commitment level. But at that point, one sure-fire way to keep improving is to repeatedly work the fingers through rigorous practice exercises. In this book you find lots and lots of moderate and advanced scales, chords, and arpeggio training designed to correct deficiencies and rev up stalled skills.

Book VII: Writing Songs and Music

Picking up a guitar and playing songs and compositions written by your favorite artists is fun, no question about it. But there may well come a point when you feel the urge to contribute something original of your own. How exactly do you go about that? Well, you could stumble around trying out random chords as you think up things that rhyme (please don't rhyme "fire" with "desire" again, okay, please?) — or you could approach the challenge armed with some wisdom from people who do it for a living. It turns out that writing songs is both an art and a science. This book is chock-full of tips and tricks to use when writing music, such as using the inherent melodies in scales and chords and putting chords together in proven progressions that evoke precisely the mood and feeling you're after.

Book VIII: Appendixes

Guitar All-in-One For Dummies ends with the Mother of All Guitar Chord Charts — a reference that should come in mighty handy when trying to recall how to form E $\flat$ dim7 — and an appendix on using the CD.

Icons Used in This Book

You'll see four icons scattered around the margins of the text. Each icon points out a certain type of information about guitars and guitar playing. They go as follows:



This icon notes something you should keep in mind. It may refer to something covered earlier in the book, or it may highlight something you ought to remember in the future.



This icon flags the boring (but sometimes helpful) stuff. Feel free to skip text with this icon. On the other hand, you may be interested to know extra details or little-known trivia about the topic at hand, in which case by all means, read away.



Information marked with this icon usually tells you how to play something better, faster, or easier. Sometimes it refers to especially helpful ideas and advice that can enrich your guitar experience.



This icon points out stuff you should avoid. Guitar players often pick up bad habits that can limit their playing — watch out for this icon so you can head off trouble at the pass.

Where to Go from Here

Where to go depends on your level of skill. You may as well start with Chapter 1 in Book I if you know nothing about guitars, to lay a solid foundation for what comes later — after all, if you don't know what we're talking about later on, the book isn't of much use. If you have a little experience with guitar, try beginning with Book II for a brush-up on the basics and then move on from there. If you know guitar basics but are interested in finally trying to read music, head straight to Chapter 4 in Book I.

If you're already okay on guitar, and you know how to do things like form 7th chords and use a pick to make a controlled, bouncy rhythm, head to the chapters in the book about your favorite genre and dive in — Books III, IV, and V. We guarantee you'll learn something new and probably encounter some challenges.

If you're already a good guitar player, well . . . the thing is, you know in your heart you're not as good as you *could* be. Make for Book VI to really give those fingers a workout. And if you have the flickering of a new song in your heart, first find a voice recorder (or pen and paper if you can write music) and record your idea while it's still in your head. *Then* head to Book VII to check out a ton of ideas on how to develop your soon-to-be hit song.

All right then — it's time to get going. Good luck and much success in your playing!

Book I

Guitar 101

The 5th Wave

By Rich Tennant



"Gee thanks, but I don't think a gingham neck cozy and peg board bonnet really goes with the rest of my guitar."

In this book . . .

We start by checking out how guitars are built and how to tune them so they sound just right. We go into buying a guitar (or two) that fits your wallet and lifestyle. We also wade into beginning to actually play the things — settling into position, forming simple chords, and strumming. Finally, because we are sadists, we give you a chapter on reading music, something that's not necessary but can come in handy and will help you get more out of this book.

Here are the contents of Book I at a glance.

Chapter 1: Guitar Anatomy and Tuning	9
Chapter 2: Developing Basic Playing Skills	23
Chapter 3: Buying and Stringing Guitars	35
Chapter 4: Deciphering Music Notation and Tablature	59

Chapter 1

Guitar Anatomy and Tuning

In This Chapter

- ▶ Identifying the different parts of the guitar
- ▶ Understanding how the guitar works
- ▶ Keeping track of strings and frets
- ▶ Using one string to tune the rest
- ▶ Tuning to a fixed reference

All guitars — whether painted purple with airbrushed skulls and lightning bolts or finished in a natural-wood pattern with a fine French lacquer — share certain physical characteristics that make them behave like guitars and not violins or tubas. If you're confused about the difference between a headstock and a pickup, this chapter is for you. It describes the differences among the various parts of the guitar, tells you what those parts do, and explains why the guitar sounds the way it does.

This chapter also describes several different methods to get your guitar in tune. *Tuning* is to guitarists what parallel parking is to city drivers: an everyday and necessary activity that can be vexingly difficult to master. And the task is *never* fun. Unlike the piano, which a professional tunes and can't be adjusted until the next time the professional tuner comes to visit, the guitar is normally tuned by its owner — and it needs constant adjusting.

The Anatomy of a Guitar

Guitars come in two basic flavors: *acoustic* and *electric*. From a hardware standpoint, electric guitars have more components and doohickeys than do acoustic guitars. Guitar makers generally agree, however, that making an acoustic guitar is harder than making an electric guitar. That's why, pound for pound, acoustic guitars cost just as much or more than their electric counterparts.

Acoustic and electric guitars have very similar constructions, despite a sometimes radical difference in tone production (unless, of course, you think that Segovia and Metallica are indistinguishable). Figures 1-1 and 1-2 show the various parts of an acoustic and electric guitar.

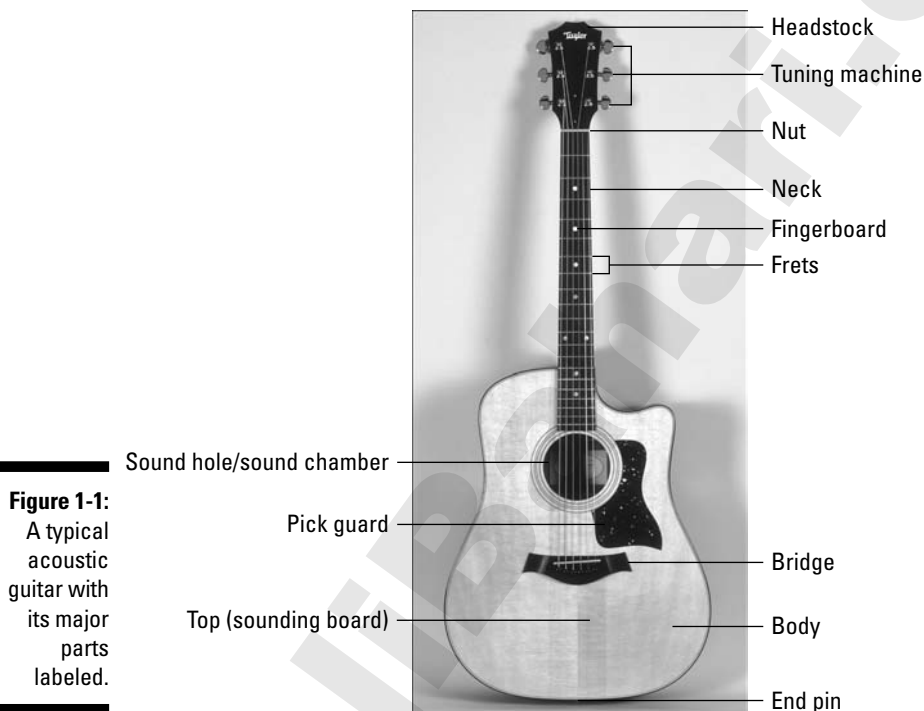


Figure 1-1:
A typical
acoustic
guitar with
its major
parts
labeled.



Here are the functions of the various parts of a guitar:

- ✓ **Back (acoustic only):** The part of the body that holds the sides in place; made of two or three pieces of wood.
- ✓ **Bar (electric only):** A metal rod attached to the bridge that varies the string tension by tilting the bridge back and forth. Also called the tremolo bar, whammy bar, vibrato bar, and wang bar.
- ✓ **Body:** The box that provides an anchor for the neck and bridge and creates the playing surface for the right hand. On an acoustic, the body includes the amplifying sound chamber that produces the guitar's tone. On an electric, it consists of the housing for the bridge assembly and electronics (pickups as well as tone and volume controls).
- ✓ **Bridge:** The metal (electric) or wooden (acoustic) plate that anchors the strings to the body.

- ✓ **End pin:** A metal post where the rear end of the strap connects. On *acoustic-electrics* (acoustic guitars with built-in pickups and electronics), the pin often doubles as the *output jack* where you plug in.
- ✓ **Fingerboard:** A flat, plank-like piece of wood that sits atop the neck, where you place your left-hand fingers to produce notes and chords. The fingerboard is also known as the *fretboard*, because the frets are embedded in it.
- ✓ **Frets:** Thin metal wires or bars running perpendicular to the strings that shorten the effective vibrating length of a string, enabling it to produce different pitches.
- ✓ **Headstock:** The section that holds the tuning machines and provides a place for the manufacturer to display its logo. Not to be confused with Woodstock, a famous upstate New York concert in 1969.
- ✓ **Neck:** The long, clublike wooden piece that connects the headstock to the body.
- ✓ **Nut:** A grooved sliver of stiff nylon, brass, bone, or other synthetic substance that stops the strings from vibrating beyond the neck. The strings pass through the grooves on their way to the tuners in the headstock. The nut is one of the two points at which the vibrating area of the string ends. (The other is the bridge.)
- ✓ **Output jack (electric only):** The insertion point for the cord that connects the guitar to an amplifier or other electronic device.
- ✓ **Pickup selector (electric only):** A switch that determines which pickups are currently active.
- ✓ **Pickups (electric only):** Barlike magnets that create the electrical current, which the amplifier converts into musical sound.
- ✓ **Sides (acoustic only):** Separate curved wooden pieces on the body that join the top to the back.
- ✓ **Strap pin:** Metal post where the front, or top, end of the strap connects. (Note that not all acoustics have a strap pin. If the guitar is missing one, tie the top of the strap around the headstock.)
- ✓ **Strings:** The six metal (for electric and steel-string acoustic guitars) or nylon (for classical guitars) wires that, drawn taut, produce the notes. Although not strictly part of the actual guitar — you attach and remove them at will on top of the guitar — strings are an integral part of the whole system, and a guitar's entire design and structure revolves around making the strings ring out with a joyful noise. (You can find out more about strings and tuning later in this chapter.)
- ✓ **Top:** The face of the guitar. On an acoustic, this piece is also the *sounding board*, which produces almost all the guitar's acoustic qualities. On an electric, the top is merely a cosmetic or decorative cap that overlays the rest of the body material.

- ✓ **Tuning machines:** Geared mechanisms that raise and lower the tension of the strings, drawing them to different pitches. The string wraps tightly around a post that sticks out through the top, or face, of the headstock. The post passes through to the back of the headstock, where gears connect it to a tuning key. Also known as tuners, tuning pegs, tuning keys, and tuning gears.
- ✓ **Volume and tone controls (electric only):** Knobs that vary the loudness of the guitar's sound and its bass and treble frequencies.



Figure 1-2:
A typical
electric
guitar with
its major
parts
labeled.

How Guitars Work

After you can recognize the basic parts of the guitar, you may also want to understand how those parts work together to make sound (in case you happen to choose the “Parts of a Guitar” category on *Jeopardy!* or get into a heavy argument with another guitarist about string vibration and string length). This information is presented so you know why your guitar sounds the way it does, instead of like a kazoo or an accordion. The important thing to remember is that a guitar makes the sound, but you make the music.

String vibration and string length

Any instrument must have some part of it moving in a regular, repeated motion to produce musical sound (a sustained tone, or *pitch*). In a guitar, this part is the vibrating string. A string that you bring to a certain tension and then set in motion (by a plucking action) produces a predictable sound — for example, the note A. If you tune a string of your guitar to different tensions, you get different tones. The greater the tension of a string, the higher the pitch.

You couldn't do very much with a guitar, however, if the only way to change pitches was to frantically adjust the tension on the strings every time you pluck a string. So guitarists resort to the other way to change a string's pitch: shortening its effective vibrating length by *fretting* — pacing back and forth and mumbling to themselves. Just kidding; guitarists never do *that* kind of fretting unless they haven't held their guitars for a couple of days. In guitar-speak, *fretting* refers to pushing the string against the fretboard so it vibrates only between the fingered fret and the bridge. This way, by fretting the left hand up and down the neck (toward the bridge and the nut, respectively), you can change pitches comfortably and easily.



The fact that smaller instruments such as mandolins and violins are higher in pitch than are cellos and basses (and guitars, for that matter) is no accident. Their pitch is higher because their strings are shorter. The string tension of all of these instruments may be closely related, making them feel somewhat consistent in response to the hands and fingers, but the drastic difference in string lengths results in the wide differences of pitch among them. This principle holds true in animals, too. A Chihuahua has a higher-pitched bark than a Saint Bernard because its strings — er, vocal cords — are much shorter.

Using both hands to make a sound

The guitar normally requires two hands working together to create music. If you want to play, say, middle C on the piano, all you do is take your index finger, position it above the appropriate white key under the piano's logo, and press it down: *donnnng*. A preschooler can sound just like Vladimir Horowitz if playing only middle C, because just one finger of one hand, pressing one key, makes the sound.

The guitar is somewhat different. To play middle C on the guitar, you take your left-hand index finger and *fret* the 2nd string — that is, the 2nd string counting from the bottom as you hold the guitar — at the 1st fret. This action, however, doesn't produce a sound. You must also strike or pluck that 2nd string with your right hand to audibly produce the note middle C.



Music readers take note: The guitar sounds an octave lower than its written notes. For example, playing a written, third-space C on the guitar actually produces a middle C.

Frets and half steps

The smallest *interval* (unit of musical difference in pitch) of the musical scale is the *half step*. On the piano, every adjacent key is a half step apart, regardless of whether it's black or white. To proceed by half steps on a keyboard instrument, you move your finger up or down to the next available key. On the guitar, *frets* represent these half steps. To go up or down by half steps on a guitar means to move your left hand one fret at a time, higher or lower on the neck.

Pickups

Vibrating strings produce the different tones on a guitar. But you must be able to *hear* those tones, or you face one of those if-a-tree-falls-in-a-forest questions. For an acoustic guitar, that's no problem, because an acoustic instrument provides its own amplifier in the form of the hollow sound chamber that boosts its sound . . . well, acoustically.

But an electric guitar makes virtually no acoustic sound at all. (Well, a tiny bit, like a buzzing mosquito, but nowhere near enough to fill a stadium or anger your next-door neighbors.) An electric instrument creates its tones entirely through electronic means. The vibrating string is still the source of the sound, but a hollow wood chamber isn't what makes those vibrations audible. Instead, the vibrations disturb, or *modulate*, the magnetic field that the *pickups* — wire-wrapped magnets positioned underneath the strings — produce. As the vibrations of the strings modulate the pickup's magnetic field, the pickup produces a tiny electric current that exactly reflects that modulation.



If you remember from eighth-grade science, wrapping wire around a magnet creates a small current in the wire. If you then take any magnetic substance and disturb the magnetic field around that wire, you create fluctuations in the current itself. A taut steel string vibrating at the rate of 440 times per second creates a current that fluctuates 440 times per second. Pass that current through an amplifier and then a speaker and — *voilà* — you hear the musical tone A. More specifically, you hear the A above middle C, which is the standard absolute tuning reference in modern music — from the New York Philharmonic to the Rolling Stones to Metallica (although we've heard that Metallica sometimes uses a tuning reference of 666 — oh no, wait, that was Iron Maiden). You find out more about tuning later in this chapter.



Guitars, therefore, make sound either by amplifying string vibrations *acoustically* by passing the sound waves through a hollow chamber, or *electronically* by amplifying and outputting a current through a speaker. That's the physical process anyway. How a guitar produces *different* sounds — and the ones that you want it to make — is up to the way you control the pitches that those strings produce. Left-hand fretting is what changes these pitches. Your right-hand motions not only help produce the sound by setting the string in motion, they also determine the *rhythm* (the beat or pulse), *tempo* (the speed of the music), and *feel* (interpretation, style, spin, magic, mojo, *je ne sais quoi*, whatever) of those pitches. Put both hand motions together and they spell guitar music.

Counting Your Strings and Frets

One of the great injustices of life is that, before you can even play music on the guitar, you must endure the painstaking process of getting your instrument in tune. Fortunately for guitarists, you have only six strings as opposed to a few hundred in a piano. Before you can tune your guitar, you need to know how to refer to the two main players — strings and frets.

- ✓ **Strings:** Strings are numbered consecutively 1 through 6. The 1st string is the skinniest, located closest to the floor when you hold the guitar in playing position. (See Chapter 2 in Book 1 for details on playing positions.) Working your way up, the 6th string is the fattest, closest to the ceiling. This may seem counterintuitive, because when you look down at the strings, the first one you see is actually the 6th string, not the 1st. There's nothing to be done about this except remember it.



It's a good idea to memorize the note names of the open strings (E, A, D, G, B, E, from 6th to 1st) so you're not limited to referring to them by number. An easy way to memorize the open strings in order is to remember the phrase “Eddie Ate Dynamite; Good-Bye, Eddie.”

- ✓ **Frets:** *Frets* can refer to either the spaces where you put your left-hand finger or to the thin metal bars embedded in the fingerboard. Whenever you deal with guitar fingering, *fret* means the space in between the metal bars — where you can comfortably fit a left-hand finger.

The 1st fret is the region between the *nut* (the thin, grooved strip that separates the headstock from the neck) and the first metal bar. The 5th fret, then, is the fifth square up from the nut — technically, the region between the fourth and fifth metal fret bars.



Most guitars have a marker on the 5th fret, either a decorative design embedded in the fingerboard or a dot on the side of the neck, or both.

You can always check out the diagram on the Cheat Sheet at the front of the book while you get comfortable with these naming conventions.



One more point of business to square away. You'll come across the terms *open strings* and *fretted strings* from this point on in the book:

- ✓ **Open string:** A string that you play without fretting it at all.
- ✓ **Fretted string:** A string that you play while pressing down on it at a particular fret.

Everything's Relative: Tuning the Guitar to Itself

Relative tuning is so named because you don't need any outside reference to which you tune the instrument. As long as the strings are in tune in a certain relationship with each other, you can create sonorous and harmonious tones. Those same tones may turn into sounds resembling those of a catfight if you try to play along with another instrument, however; but as long as you tune the strings relative to one another, the guitar is in tune with itself.

To tune a guitar using the relative method, choose one string as the starting point — say, the 6th string. Leave the pitch of that string as is; then tune all the other strings relative to that 6th string.

The *5th-fret method* derives its name from the fact that you almost always play a string at the 5th fret and then compare the sound of that note to that of the next open string. You need to be careful, however, because the 4th fret (the 5th fret's jealous understudy) puts in a cameo appearance toward the end of the process.

Here's how to get your guitar in tune by using the 5th-fret method (check out Figure 1-3, which outlines all five steps):

- 1. Play the 5th fret of the 6th (low E) string, which is the fattest one, closest to the ceiling, and then play the open 5th (A) string, the one next to it.**

Let both notes ring together. Their pitches should match exactly. If they don't seem quite right, determine whether the 5th string is higher or lower than the fretted 6th string.

- If the 5th string seems lower, or *flat*, turn its tuning key to raise the pitch.
- If the 5th string seems *sharp*, or higher sounding, use its tuning key to lower the pitch.



You may go too far with the tuning key if you're not careful; if so, you need to reverse your motions. In fact, if you *can't* tell whether the 5th string is higher or lower, tune it flat intentionally (that is, tune it too low) and then come back to the desired pitch.

2. Play the 5th fret of the 5th (A) string and then play the open 4th (D) string.

Let both of these notes ring together. If the 4th string seems flat or sharp relative to the fretted 5th string, use the tuning key of the 4th string to adjust its pitch accordingly. Again, if you're not sure whether the 4th string is higher or lower, "overtune" it in one direction — flat, or lower, is best — and then come back.

3. Play the 5th fret of the 4th (D) string and then play the open 3rd (G) string.

Let both notes ring together again. If the 3rd string seems flat or sharp relative to the fretted 4th string, use the tuning key of the 3rd string to adjust the pitch accordingly.

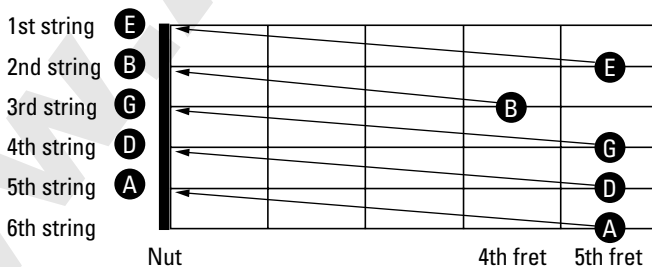
4. Play the FOURTH (*not* the 5th!) fret of the 3rd (G) string and then play the open 2nd (B) string.

Let both strings ring together. If the 2nd string seems flat or sharp, use its tuning key to adjust the pitch accordingly.

5. Play the 5th (yes, back to the 5th for this one) fret of the 2nd (B) string and then play the open 1st (high E) string.

Let both notes ring together. If the 1st string seems flat or sharp, use its tuning key to adjust the pitch accordingly. If you're satisfied that both strings produce the same pitch, you've now tuned the upper (that is, "upper" as in higher-pitched) five strings of the guitar relative to the fixed (untuned) 6th string. Your guitar's now in tune with itself.

Figure 1-3: Place your fingers on the frets as shown and match the pitch to the next open string.



You may want to go back and repeat the process, because some strings may have slipped out of tune.



When you tune in the normal way, you use your left hand to turn the tuning peg. But after you remove your finger from the string that you're fretting, it stops ringing; therefore, you can no longer hear the string you're trying to tune to (the fretted string) as you adjust the open string. However, there's a way to tune the open string while keeping your left-hand finger on the fretted string: Simply use your right hand! After you strike the two strings in succession (the fretted string and the open string), take your right hand and reach over your left hand (which remains stationary as you fret the string) and turn the tuning key of the appropriate string until both strings sound exactly the same.

In Deference to a Reference: Tuning to a Fixed Source

Getting the guitar in tune with itself through the relative method in the preceding section is good for your ear, but isn't very practical if you need to play with other instruments or voices that are accustomed to standard tuning references. If you want to bring your guitar into the world of other people, you need to know how to tune to a fixed source, such as a piano, pitch pipe, tuning fork, or electronic tuner. Using such a source ensures that everyone is playing by the same tuning rules. Besides, your guitar and strings are built for optimal tone production if you tune to standard pitch.

The following sections describe some typical ways to tune your guitar by using fixed references. These methods not only enable you to get in tune, but also to make nice with the other instruments in the neighborhood.

Taking a turn at the piano

Because it holds its pitch so well (needing only biannual or annual tunings, depending on the conditions), a piano is a great tool for tuning a guitar. Assuming that you have an electronic keyboard or a well-tuned piano around, all you need to do is match the open strings of the guitar to the appropriate keys on the piano. Figure 1-4 shows a piano keyboard and the corresponding open guitar strings.

Tuning your guitar with a pitch pipe

Obviously, if you're off to the beach with your guitar, you're not going to want to put a piano in the back of your car, even if you're really fussy about tuning. So you need a smaller and more practical device that supplies

standard-tuning reference pitches. Enter the *pitch pipe*. The pitch pipe may evoke images of stern, matronly chorus leaders who purse their prunelike lips around a circular harmonica to deliver a sharp squeak that instantly marshals together the reluctant voices of the choir — yet it does serve a worthy purpose.

For guitarists, special pitch pipes exist consisting of pipes that play only the notes of the open strings of the guitar (but sounding in a higher range) and none of the in-between notes. The advantage of a pitch pipe is that you can hold it firmly in your mouth while blowing, keeping your hands free for tuning. The disadvantage to a pitch pipe is that you sometimes take a while getting used to hearing a wind-produced pitch against a struck-string pitch. But with practice, you can tune with a pitch pipe as easily as you can with a piano.

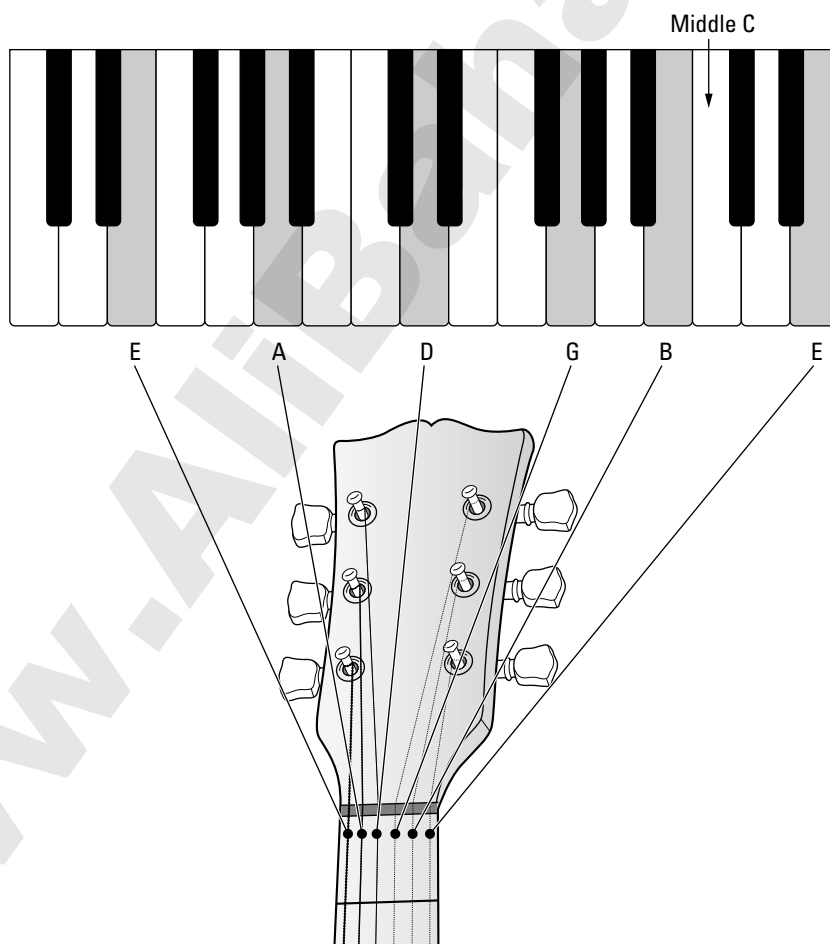


Figure 1-4:
A view of
the piano
keyboard,
highlighting
the keys
that corre-
spond to the
open strings
of the guitar.

Sinking your teeth into the tuning fork

After you get good enough at discerning pitches, you need only one single-pitched tuning reference to get your whole guitar in tune. The tuning fork offers only one pitch, and it usually comes in only one flavor: A (the one above middle C, which vibrates at 440 cycles per second, commonly known as A-440). But that note's really all you need. If you tune your open 5th string (A) to the tuning fork's A (although the guitar's A sounds in a lower octave), you can tune every other string to that string by using the relative tuning method outlined earlier in this chapter.

Using a tuning fork requires a little finesse. You must strike the fork against something firm, such as a tabletop or kneecap, and then hold it close to your ear or place the stem or handle — *not* the tines or fork prongs — against something that resonates. This resonator can be the tabletop again or even the top of the guitar. (You can even hold it between your teeth, which leaves your hands free! It really works!) At the same time, you must somehow play an A note and tune it to the fork's tone. The process is kinda like pulling your house keys out of your pocket while you're loaded down with an armful of groceries. The task may not be easy, but if you do it enough, you eventually become an expert.

Experiencing the electronic tuner



The quickest, most accurate way to get your guitar in tune is to employ an *electronic tuner*. This handy device seems to possess witchcraft-like powers. Newer electronic tuners made especially for guitars can usually sense what string you're playing, tell you what pitch you're nearest, and indicate whether you're flat (too low) or sharp (too high). About the only thing these devices don't do is turn the tuning keys for you (although we hear they're working on that). Some older, graph-type tuners feature a switch that selects which string you want to tune. Figure 1-5 shows a typical electronic tuner.

You can either plug your electric guitar into the tuner or use the tuner's built-in microphone to tune an acoustic. In both types of tuners — the ones where you select the strings and the ones that automatically sense the string — the display indicates two things: what note you're closest to (E, A, D, G, B, E) and whether you're flat or sharp of that note.

Electronic tuners are usually powered by 9-volt batteries or two AAs that can last for a year with regular usage (up to two or even three years with only occasional usage). Many electronic tuners are inexpensive (as low as \$20 or so) and are well worth the money.

Figure 1-5:
An electronic tuner makes tuning a snap.



Using your CD

Lest we forget, you have one more fixed source as a tuning reference: your *Guitar All-in-One For Dummies* CD.

For your tuning convenience, the open strings are played on Track 1 of the audio CD that comes with this book. Listen to the tone of each open string as they sound slowly, one at a time (from the 1st to the 6th, or skinniest/highest to fattest/lowest) and tune your guitar's open strings to those on the CD. Use the track skip button on the CD player to go back to the beginning of Track 1 to repeat the tuning notes as often as necessary to get your strings exactly in tune with the strings on the CD.

Unlike a cassette tape — or any analog tape system, for that matter — a CD always plays back the exact pitch that it records and never goes sharp or flat, not even a little bit. So you can use your *For Dummies* CD on any CD player at any time to get perfectly tuned notes.

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Chapter 2

Developing Basic Playing Skills

In This Chapter

- ▶ Sitting and standing with the guitar
 - ▶ Positioning the hands
 - ▶ Reading chord diagrams and tablature
 - ▶ Playing chords
-

Guitars are user-friendly instruments. They fit comfortably into the arms of most humans, and the way your two hands fall on the strings naturally is pretty much the position in which you should play. In this chapter, you find out all about good posture techniques and how to hold your hands — just as if you were a young socialite at a finishing school.

We jest because we care. But you really do need to remember that good posture and position, at the very least, prevent strain and fatigue and, at best, help develop good concentration habits and tone. After you're positioned correctly with the guitar, you read about some basic music-deciphering skills and get the chance to play your very first chord.

Hand Position and Posture

You can either sit or stand while playing the guitar, and the position you choose makes virtually no difference whatsoever to your tone or technique. Most people prefer to practice while sitting but perform publicly while standing. The one exception to the sit or stand option is the classical guitar, which you normally play in a sitting position. This practice doesn't mean that you *can't* play a classical-style guitar or classical music while standing, but the serious pursuit of the classical guitar requires that you sit while playing. (Flip to Book V for the full scoop on playing classical guitar.)

Settling in to a sitting position

To hold the guitar in a sitting position, assuming you're right-handed, rest the waist of the guitar on your right leg. (The *waist* is the indented part between the guitar's upper and lower *bouts*, the protruding curved parts that look like shoulders and hips.) Feet slightly apart, balance the guitar by lightly resting your right forearm on the bass bout, as shown in Figure 2-1. Don't use the left hand to support the neck. You should be able to take your left hand completely off the fretboard without the guitar dipping toward the floor.



Figure 2-1:
Typical sitting position
for playing
guitar.

Classical guitar technique, on the other hand, requires you to hold the instrument on your *left* leg, not on your right. This position puts the center of the guitar closer to the center of your body, making the instrument easier to play, especially with the left hand. That's because your wrist is straighter, so you can better execute the difficult fingerings of classical-guitar music in that position. You also elevate the classical guitar, which you can do either by raising the left leg with a specially made *guitar foot stool* (the traditional way) or by using a *support arm*, which goes between your left thigh and the guitar's lower side (the modern way). This device enables your left foot to remain on the floor and instead pushes the guitar up in the air.

Standing position

To stand and play the guitar, you need a strap that is securely fastened to both strap pins on the guitar (or otherwise tied to the guitar). Then you can stand in a normal way and check out how cool you look in the mirror with the guitar slung over your shoulder. You may need to adjust the strap to get the guitar at a comfortable playing height.



If your strap slips off a pin while you're playing in a standing position, you have about a fifty-fifty chance of catching your guitar before it hits the floor (and that's if you're quick and experienced with slipping guitars). So don't risk damaging your guitar by using an old or worn strap or one with holes that are too large for the pins to hold securely. Guitars aren't built to bounce, as Pete Townshend has demonstrated so many times.

Your body makes a natural adjustment in going from a sitting to a standing position. So don't try to overanalyze where your arms fall, relative to your sitting position. Just stay relaxed and, above all, *look cool*. (You're a guitar player now! Looking cool is just as important as knowing how to play . . . well, *almost*.) Figure 2-2 shows a typical standing position.



Figure 2-2:
Typical
standing
position
for playing
guitar.

Left-hand position: Fretting made easy

To get an idea of correct left-hand positioning on the guitar, extend your left hand, palm up, and make a loose fist, placing your thumb roughly between your first and second fingers. All of your knuckles should be bent. Your hand should look about like that after you stick a guitar neck in there. The thumb glides along the back of the neck, straighter than if you were making a fist but not rigid. The finger knuckles stay bent whether they're fretting or relaxed. Again, the left hand should fall in place very naturally on the guitar neck, as if you were picking up a tool that you've been using all your life.



To *fret* a note, press the tip of your finger down on a string, keeping your knuckles bent. Try to get the fingertip to come down vertically on the string rather than at an angle. This position exerts the greatest pressure on the string and also prevents the sides of the finger from touching adjacent strings — which may cause either buzzing or *muting* (deadening the string, or preventing it from ringing). Use your thumb from its position underneath the neck to help “squeeze” the fingerboard for a tighter grip.



When playing a particular fret, you don't place your finger directly on the metal fret, but *in between* the two frets (or between the nut and 1st fret). For example, if you're playing the 5th fret, place your finger in the square between the 4th and 5th frets, not in the middle but closer to the higher fret. This gives you the clearest sound and prevents buzzing.

Left-hand fretting requires strength, but don't be tempted to try to speed up the process of strengthening your hands through artificial means. Building up the strength in your left hand takes time. You may see advertisements for hand-strengthening devices and believe that these products may expedite your left-hand endurance. Although we can't declare that these devices never work (and the same goes for the homegrown method of squeezing a racquet ball or tennis ball), one thing's for sure: Nothing helps you build your left-hand fretting strength better or faster than simply playing guitar.



Because of the strength your left hand exerts while fretting, other parts of your body may tense up to compensate. At periodic intervals, make sure you relax your left shoulder, which has a tendency to rise up as you work on your fretting. Take frequent “drop-shoulder” breaks. Make sure as well that your left elbow doesn't stick out to the side, like that of a rude dinner guest. You want to keep your upper arm and forearm parallel to the side of your body. Relax your elbow so it stays at your side.



The important thing to remember in maintaining a good left-hand position is that you need to keep it comfortable and natural. If your hand starts to hurt or ache, *stop playing and take a rest*. As with any other activity that requires muscular development, resting enables your body to catch up.

Electric endeavours

Electric necks are both narrower (from the 1st string to the 6th) and shallower (from the fingerboard to the back of the neck) than acoustic necks. Electric guitars are, therefore, easier to fret. But the space between each string is smaller, so you're more likely to touch and deaden an adjacent string with your fretting finger. The biggest difference, however, between fretting on an electric and on a nylon or steel-string acoustic is the action.

A guitar's *action* refers to how high above the frets the strings ride and, to a lesser extent, how easy they are to fret. On an electric guitar, fretting strings is like passing a hot knife through butter. The easier action of an electric enables you to use a more relaxed left-hand position than you normally would on an acoustic, with the palm of the left hand facing slightly outward. Figure 2-3 shows a photo of the left hand resting on the fingerboard of an electric guitar, fretting a string.

Figure 2-3:
The electric guitar neck lies comfortably between the thumb and the first finger as the first finger frets a note.



Classical conditions

Because nylon-string guitars have a wide fingerboard and are the model of choice for classical music, their necks require a slightly more (ahem) formal left-hand approach. Try to get the palm side of your knuckles (the ones that connect your fingers to your hand) to stay close to and parallel to the side of the neck. This allows the fingers to run perpendicular to the strings and puts all the fingers the same distance away from the neck. (If your hand isn't perfectly parallel, the little finger "falls away" or is farther from the neck than your index finger.) Figure 2-4 shows the correct left-hand position for nylon-string guitars.



Figure 2-4:
Correct
left-hand
position for
a classical
guitar.

Right-hand position

If you hold a guitar in your lap and drape your right arm over the upper bout, your right hand, held loosely outstretched, crosses the strings at about a 60-degree angle. This position is good for playing with a pick. For fingerstyle playing, you want to turn your right hand more perpendicular to the strings. For classical guitar, you want to keep the right hand as close to a 90-degree angle as possible.

If you're using a pick

You do almost all of your electric guitar playing with a pick, whether you're belting out rock 'n' roll, blues, jazz, country, or pop. On acoustic guitar, you can play either with a pick or with your fingers. On both electric and acoustic, you play most *rhythm* (chord-based accompaniment) and virtually all *lead* (single-note melodies) by holding the pick, or *plectrum* (the old-fashioned term), between the thumb and index finger.

Figure 2-5 shows the correct way to hold a pick — with just the tip sticking out, perpendicular to the thumb.



If you're *strumming* (playing rhythm), you strike the strings with the pick by using wrist and elbow motion. The more vigorous the strum, the more elbow you must put into the mix. For playing lead, you use only the more economical wrist motion. Don't grip the pick too tightly as you play — and plan on dropping it a lot in the first few weeks that you use it.



Figure 2-5:
Correct
pick-holding
technique.



Picks come in various gauges. A pick's *gauge* indicates how stiff, or thick, it is. Thinner picks are easier to manage for the beginner. Medium picks are the most popular, because they're flexible enough for comfortable rhythm playing, yet stiff enough for leads. Heavy-gauge picks may seem unwieldy at first, but they're the choice for pros, and eventually all skilled instrumentalists graduate to them (although a few famous holdouts exist — Neil Young being a prime example).

If you're using your fingers

If you eschew such paraphernalia as picks and want to go *au naturel* with your right hand, you're fingerpicking (although you can fingerpick with special individual, wraparound picks that attach to your fingers — called, confusingly enough, *fingerpicks*). *Fingerpicking* means that you play the guitar by plucking the strings with the individual right-hand fingers. The thumb plays the *bass*, or low, strings, and the fingers play the *treble*, or high, strings. In fingerpicking, you use the tips of the fingers to play the strings, positioning the hand over the sound hole (if you're playing acoustic) and keeping the wrist stationary but not rigid. Maintaining a slight arch in the wrist so the fingers come down more vertically on the strings also helps.



Because of the special right-hand strokes that you use in playing classical guitar (the *free stroke* and the *rest stroke*), you must hold your fingers almost perfectly perpendicular to the strings to execute the correct technique. A perpendicular approach enables your fingers to draw against the strings with maximum strength.

Understanding Guitar Notation

Although you don't need to read music to play the guitar, musicians have developed a few simple tricks through the years that aid in communicating such basic ideas as song structure, chord construction, chord progressions, and important rhythmic figures. Pick up on the shorthand devices for *chord diagrams*, *rhythm slashes*, and *tablature*, and you're sure to start coppin' licks faster than Roy Clark after three cups of coffee.



You don't need to read music to play the guitar. With the help of the chord diagrams, rhythm slashes, and tablature that's explained in the following sections, plus hearing what all this stuff sounds like through the magic of CD technology, you can pick up on everything you need to understand and play the guitar, even if you can't tell a quarter note from an eighth rest. Listen closely to the CD and follow the corresponding written examples throughout the rest of this book to make sure you understand how the two relate.

Getting by with a little help from a chord diagram

Don't worry — reading a chord diagram is *not* like reading music; it's far simpler. All you need to do is understand where to put your fingers to form a chord. A *chord* is defined as the simultaneous sounding of three or more notes.

Figure 2-6 shows the anatomy of a chord chart, and the following list briefly explains what the different parts of the diagram mean:

- ✓ The grid of six vertical lines and five horizontal ones represents the guitar fretboard, as if you stood the guitar up on the floor or chair and looked straight at the upper part of the neck from the front.
- ✓ The vertical lines represent the guitar strings. The vertical line at the far left is the low 6th string, and the right-most vertical line is the high 1st string.
- ✓ The horizontal lines represent frets. The thick horizontal line at the top is the *nut* of the guitar, where the fretboard ends. So the 1st fret is actually the second vertical line from the top. (Don't let the words here confuse you; just look at the guitar.)
- ✓ The dots that appear on vertical string lines between horizontal fret lines represent notes that you fret.

- ✓ The numerals directly below each string line (just below the last fret line) indicate which left-hand finger you use to fret that note. On the left hand, 1 = index finger; 2 = middle finger; 3 = ring finger; and 4 = little finger. You don't use the thumb to fret, except in certain unusual circumstances.
- ✓ The X or O symbols directly above some string lines indicate strings that you leave open (unfretted) or that you don't play. An X (not shown in Figure 2-6) above a string means you don't pick or strike that string with your right hand. An O indicates an open string that you do play.

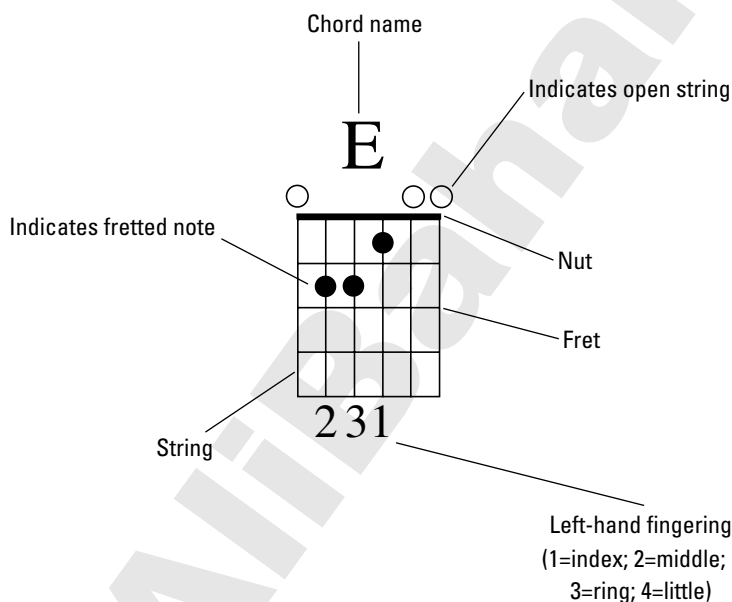


Figure 2-6:
A standard
chord dia-
gram for an
E chord.



If a chord is to be played somewhere beyond the first four frets, a numeral appears to the right of the diagram, next to the top fret line, to indicate in which fret the diagram actually starts. (In such cases, the top line is *not* the nut.) In most cases, however, you deal primarily with chords that fall within only the first four frets of the guitar. Chords that fall within the first four frets typically use open strings, so they're referred to as *open* chords.

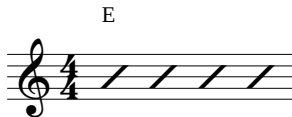
Reading rhythm slashes

Musicians use a variety of shorthand tricks to indicate certain musical directions. They use this shorthand because, although a particular musical concept itself is often simple enough, to notate that idea in standard written

music form may prove unduly complicated and cumbersome. So they use a “crib sheet” or a “road map” that gets the point across yet avoids the issue of reading (or writing) music.

Rhythm slashes are slash marks (/) that simply tell you *how* to play rhythmically but not *what* to play. The chord in your left hand determines what you play. Say, for example, you see the diagram shown in Figure 2-7.

Figure 2-7:
One
measure of
an E chord.



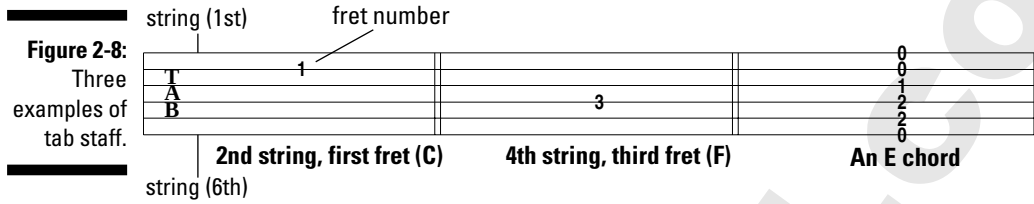
If you see such a chord symbol with four slashes beneath it, as shown in Figure 2-7, you know to finger an E chord and strike it four times. What you don't see, however, is a number of differently pitched notes clinging to various lines of a music staff, including several hole-in-the-center half notes and a slew of solid quarter notes — in short, any of that junk you needed to memorize in grade school just to play “Mary Had a Little Lamb” on the recorder. All you need to remember on seeing this particular diagram is to “play an E chord four times.” Simple, isn't it?

Taking a look at tablature



Tablature (or *tab*, for short) is a notation system that graphically represents the frets and strings of the guitar. Whereas chord diagrams do so in a static way, tablature shows how you play music over a period of time. For all the musical examples that appear in this book, you see a *tablature staff* (or *tab staff*, for short) beneath the standard notation staff. This second staff reflects exactly what's going on in the regular musical staff above it — but in *guitar language*. Tab is guitar-specific — in fact, many call it simply *guitar tab*. Tab doesn't tell you what *note* to play (such as C or F# or Eb). It does, however, tell you what *string* to fret and where exactly on the fingerboard to *fret* that string.

Figure 2-8 shows you the tab staff and some sample notes and a chord. The top line of the tab staff represents the 1st string of the guitar — high E. The bottom line of the tab corresponds to the 6th string on the guitar, low E. The other lines represent the other four strings in between — the second line from the bottom is the 5th string, and so on. A number appearing on any given line tells you to fret that string in that numbered fret. For example, if you see the numeral 2 on the second line from the top, you need to press down the 2nd string in the 2nd fret above the nut (actually, the space between the 1st and 2nd metal frets). A 0 on a line means you play the open string.



How to Play a Chord

Chords are the basic building blocks of songs. You can play a chord, which is the simultaneous sounding of three or more notes, several ways on the guitar — by *strumming* (dragging a pick or the back of your fingernails across the strings in a single, quick motion), *plucking* (with the individual right-hand fingers), or even smacking the strings with your open hand or fist. (Okay, that's rare, unless you're in a heavy metal band.) But you can't just strike *any* group of notes; you must play a group of notes organized in some musically meaningful arrangement. For the guitarist, that means learning left-hand chord forms.

Fingering a chord

After you think you understand (somewhat) the guitar notation described in the preceding sections, your best bet is to just jump right in and play your first chord. You can start with E major, because it's a particularly guitar-friendly chord and one that you use a lot.

After you get the hang of playing chords, you eventually find that you can move several fingers into position simultaneously. For now, however, just place your fingers one at a time on the frets and strings, as the following instructions indicate (you can also refer to Figure 2-6):

1. **Place your first (index) finger on the 3rd string, 1st fret (actually between the nut and 1st fret but closer to the fret).**

Don't press down hard until you have your other fingers in place. Apply just enough pressure to keep your finger from moving off the string.

2. **Place your second (middle) finger on the 5th string (skipping over the 4th string), 2nd fret.**

Again, apply just enough pressure to keep your fingers in place. You now have two fingers on the guitar, on the 3rd and 5th strings, with an as-yet unfretted string (the 4th) in between.

3. Place your third (ring) finger on the 4th string, 2nd fret.

You may need to wriggle your ring finger a bit to get it to fit in there with the first and second fingers and below the fret wire. Figure 2-9 shows a photo of how your E chord should look after your fingers are positioned correctly.

Now that your fingers are in position, strike all six strings with your right hand to hear your first chord, E.

Figure 2-9:
Notice how the fingers curve and the knuckles bend on an E chord.



Avoiding buzzes



One of the hardest things to do in playing chords is to avoid buzzing. *Buzzing* results if you're not pressing down quite hard enough when you fret. A buzz can also result if a fretting finger accidentally comes in contact with an adjacent string, preventing that string from ringing freely. Without removing your fingers from the frets, try "rocking and rolling" your fingers around on their tips to eliminate any buzzes when you strum the chord.

Chapter 3

Buying and Stringing Guitars

In This Chapter

- ▶ Developing a buying strategy
- ▶ Knowing what you want in a guitar
- ▶ Matching music styles to guitar models
- ▶ Understanding quality
- ▶ Restringing guitars

Buying a new guitar is an exciting proposition. You go to the music store and immediately face a world of possibilities, a supermarket of tantalizing choices. Every guitar on the wall seems to scream, “Pick me! Pick me!” Should you resist, exercise restraint, and avoid the models you know you can’t afford?

Heck, no. Be bold and try any model that strikes your fancy. You’re not asking to test-drive a Ferrari; you’re simply asking the salesperson to see how different guitars feel and sound. And you’re not being frivolous either. Playing a range of guitars helps you understand the differences between high-quality, expensive guitars and acceptable but affordable guitars.

So indulge yourself. Even if you don’t have enough experience to recognize the subtle differences between a good guitar and a great guitar, at least expose yourself to them. And don’t wait until the day you decide to buy to pick one up for the first time. Make several visits to the music store before you’re ready to buy and then take the time to absorb your experiences. Visit several different stores if you can. Some may be the exclusive dealer of a specific brand in your region; others may not be able to sell that brand of guitar. The info in this chapter can make picking out a guitar an even better experience.

After you buy a guitar (or two or three), restringing is a necessary task. Many people seem reluctant to tune their strings, let alone change them. Although you should be careful not to drop or scratch your guitar (and setting guitars afire à la Jimi Hendrix generally causes *significant* damage), you needn’t worry about causing damage by changing, tuning, or overtightening guitar strings. Guitars are incredibly rugged and can deal with hundreds of pounds of string tension while enduring the playing of even the most heavy-handed guitarists. Changing strings isn’t something you should be shy about: You

can jump into it with both feet. It improves the sound of the guitar, helps prevent broken strings at inopportune moments, and aids you in identifying other maintenance problems. (During periodic string changing, for example, you may discover a gouged bridge slot or a loose tuning post.) This chapter explains what you need to know.

Before You Break Out Your Wallet

Before you walk into your local music store ready to plop down your hard-earned dough on a new guitar, you need to take stock of what you're doing. Ask yourself some tough questions about your pending purchase — and you need to do so *now*. Don't wait until you get to the store to develop a buying strategy. The two most important factors in making any purchasing decision — especially concerning a guitar, where passions run high — are to develop a plan and to gather all the information you need to make the best choice.

Start developing your purchasing plan by answering specific questions about exactly what you want in a guitar — and how much you can spend to attain it. Narrowing your scope doesn't mean you can't change your mind after you get to the store and see all the nifty instruments available, or that you can't let on-the-spot inspiration and whim play a significant part in your final decision. ("I just *can't* decide between these two guitars . . . oh, what the heck! Just give me *both* of them!") But you do need a point from which to depart.



Ask yourself the following questions:

- ✓ **What's my level of commitment?** Regardless of your current ability, do you realistically envision yourself practicing every day for the next five years, pursuing a dedicated program of guitar excellence? Or do you first want to see whether this whole "guitar thing" is going to stick? Just because you can *afford* a \$1,000 guitar doesn't mean you should buy it. Before plunking down cash, honestly determine the importance of the guitar in your life and act responsibly according to that priority.
- ✓ **What's my spending limit?** The answer to this question is critical because, often, the more expensive the guitar, the greater its appeal. So you need to balance your level of commitment and your available resources. You don't want to have to give up food for six months and live in a cardboard box just because you got carried away at the music store. Set a limit on how much you can spend and don't exceed it.
- ✓ **Do I buy retail or online or mail order?** If you know exactly what you want — down to the color and options — you may consider buying a guitar through mail order or online; you often get the best deal and may even avoid paying sales tax (if the music company is out of state). Buying sight unseen is common with many products, such as automobiles and computers. But if you can't cotton to buying something as

personal as a guitar without falling in love with it first — and you want to “date” your guitar before “marrying” it — stick with retail. A retail outlet usually comes with an official service agreement and unofficial, friendly cooperation from the staff that’s worth its weight in gold. Music stores know they’re competing with online and mail-order services, and they make up for it in spades with service.

- ✓ **Am I a “new-guitar person” or a “used-guitar person”?** You’re going to have a much easier time comparing attributes among new guitars. And all the retail and discount prices of new instruments are pretty much standardized — which is not to say that all the prices are the same; stores usually discount at different rates. Expect to pay between 10 and 35 percent off the “list” price (manufacturer’s suggested retail price) at a music store and even less online or via mail order. Big chains offer better discounts than smaller mom-and-pop stores because they buy in quantity and get a better price from the manufacturer.

Retail, online, and mail-order operations also offer a warranty against any manufacturer defects on new instruments. You don’t find any comparable protection if you’re buying a guitar from a newspaper ad (although music stores also sell used instruments, usually with warranties). But on the other hand, you *can* sometimes get a really good deal on a used instrument if you know what to look for. If you want a vintage instrument, you’re looking at a used guitar by definition.

As a rule, most asking prices in newspaper ads are too high. Be ready to dicker to get a better price for such a guitar — even if it’s exactly what you’re looking for.



After you have satisfactory answers to the preceding questions, proceed to the second prong of your guitar-purchasing attack plan: gathering information on the specific guitar for you. The following section helps you become more knowledgeable about guitar construction, materials, and workmanship. Remember, being an informed buyer is the best defense against making a bad deal in the retail arena.

Beginner Guitars

If you’re just starting out as a novice guitarist, you may ask the musical question, “What’s the minimum I need to spend to avoid winding up with a piece of junk?” That’s a good question, because modern manufacturing practices now enable *luthiers* (the fancy term for guitar makers) to turn out some pretty good stuff for around \$200 — and even less sometimes.



If you’re an adult (older than 14), and you’re looking to grow with an instrument, plan to spend between \$200 and \$250 for an acoustic guitar and a little less for an electric. (Electric guitars are easier to build, so they usually cost a bit less than comparable acoustics.)

Consider the following criteria:



✓ **Appearance:** You must like the way a particular guitar looks, or you're never really happy with it. So use your eye and your aesthetic taste to select possible candidates. A red guitar isn't inherently better or worse than a green one, but you're perfectly free to base your decision to buy simply on whether you like the look of the guitar.

✓ **Playability:** Just because a guitar is relatively inexpensive doesn't necessarily mean it's difficult to play (although this correlation was often the case in the past). You should be able to press the strings down to the fretboard with relative ease. And you shouldn't find the up-the-neck frets unduly difficult either, although they're sometimes harder to play than the lower frets are.

Here's a way to get some perspective on playability. Pick up a more expensive guitar and see how it plays. Then return to the more affordable instrument you're considering. Is the playability wildly different? It shouldn't be. If it doesn't feel comfortable to you, move on.

✓ **Intonation:** A guitar must play in tune. Test the intonation by playing a 12th-fret harmonic (just barely touch the fret instead of pressing it down) on the 1st string and match that to the fretted note at the 12th fret. Although the notes are of a different tonal quality, the pitch should be exactly the same. Apply this test to all six strings. Listen especially to the 3rd and the 6th strings. Those strings often go out of tune first. If in doubt, enlist the aid of an experienced guitarist on this issue; it's *crucial*.

✓ **Solid construction:** If you're checking out an acoustic, rap gently on the top of the instrument (like your doctor does to check your ribs and chest) to make sure it's rattle-free. Peer inside the hole, looking for gobs of glue and other evidence of sloppy workmanship. Rough-sanded braces are a big tip-off to a hastily constructed instrument. On an electric, test that the metal hardware is tightly secured and rattle-free. Without plugging into an amp, strum the open strings hard and listen for rattling. Running your hand along the edge of the neck to check that the frets are smooth and filed correctly is another good test. If you're not sure what you should be feeling, consult an experienced guitarist on a "fret check."

Models for a Particular Style

Asking for a type of guitar by musical style is completely legitimate. Ask for a heavy metal guitar, for example, and the salesperson will nod knowingly and lead you to the scary-looking stuff. Ask for a jazz guitar, and you'll wind up down toward the guys with berets and "Bird lives!" buttons.

Figure 3-1 shows popular models. Note the diversity in shape and style.



Figure 3-1:
Different
down-
strokes for
different
folks.

Now, some musical styles do share guitar models. You can play both blues and rock, for example, on a Fender Stratocaster. And a Gibson Les Paul is just as capable of a wailing lead as a Strat. (As a rule, however, the tone of a Les Paul is going to be fatter and less jangly than that of a Strat.) Making your own kind of music on the guitar of your choice is part of the fun.



Following are some popular music styles and classic guitars that many people associate with those styles. This list is by no means exhaustive but does include recognized standard bearers of the respective genres:

- ✓ **Acoustic blues:** National Steel, Gibson J-200
- ✓ **Bluegrass:** Martin Dreadnought, Taylor Dreadnought, Collings Dreadnought, Santa Cruz Dreadnought, Gallagher Dreadnought
- ✓ **Classical:** Ramirez, Hopf, Khono, Humphrey, Hernandez, Alvarez
- ✓ **Country:** Fender Telecaster, Gretsch 6120, Fender Stratocaster
- ✓ **Electric blues:** Gibson ES-355, Fender Telecaster, Fender Stratocaster, Gibson Les Paul
- ✓ **Folk:** Dreadnoughts and Grand Concerts by Martin, Taylor, Collings, Larrivée, Lowden, and Guild; Gibson J-200; Ovation Adamas
- ✓ **Heavy metal:** Gibson Explorer, Flying V, and SG; Fender Stratocaster; Dean; Ibanez Iceman; Jackson Soloist
- ✓ **Jazz:** Gibson ES-175, Super 400 L-5, and Johnny Smith; archtops by D'Angelico, D'Aquisto, and Benedetto; Epiphone Emperor Regent; Ibanez signature models

- ✓ **New age, new acoustic:** Taylor Grand Concert, Ovation Balladeer, Takamine nylon-electric
- ✓ **R&B:** Fender Stratocaster, Gibson ES-335
- ✓ **Rock:** Fender Stratocaster, Gibson Les Paul and SG, Ibanez RG and signature series, Paul Reed Smith, Tom Anderson



Although the preceding list contains guitars that people generally associate with given styles, don't let that limit your creativity. Play the music you want to play on the guitar you want to play it on, no matter what some chart tells you. In other words, after you study this list, go pick out the guitar you want and play the music you want. These guitars are all super-sweet, and the price tag reflects the quality as well as the heritage of these guitars.

Choosing a Good Guitar

You may decide, if you can afford it, to start off on the right foot and pony up for a quality instrument. If you go cheap at first and fall in love with the guitar, sooner or later you *will* be back for a better one. What do you need to know when selecting a better guitar?



If you already have one guitar, consider the following three common approaches to choosing another guitar:

- ✓ **The contrasting and complementary approach:** If you own an acoustic, you may want to consider getting an electric (or vice versa), because having different guitars in your arsenal is always nice. Diversity is very healthy for a person seeking to bolster a collection.
- ✓ **The clone approach:** Some just want to acquire as many, say, Les Pauls as they can in a lifetime: old ones, new ones, red ones, blue ones . . . hey — it's *your* money. Buy as many as you want and can afford.
- ✓ **The upgrade approach:** If all you ever want to do is master the Stratocaster, just get a better version of what you had before. That way, you can use the new guitar for important occasions, such as recording and performing, and the old ax for going to the beach.



How much should you spend on your better instrument? One guideline is to go up into the next spending bracket from your old guitar. This way, you don't end up with many similar guitars. Plan on spending about \$200 more than the current value (not what you paid) of the guitar you own. By doing so, you ensure that even if you stick with a certain model, you're getting a guitar that's categorically different from your initial instrument.

When should you stop? When the money runs out, of course. Actually, no hard-and-fast rules dictate how many guitars are "enough." These days, however, a reasonably well-appointed guitar arsenal includes a single-coil

electric (such as a Fender Strat), a humbucker electric (such as a Gibson Les Paul), a semihollow-body electric, a hollow-body jazz (electric), an acoustic steel-string, an acoustic 12-string, and a nylon-string classical. Maybe you can add one or two more guitars in a given specialty, such as a guitar set up especially for playing slide, a 12-string electric, or an electric bass. (Then you can start collecting mandolins, banjos, ukuleles, Dobros . . .)



In upgrading, the issue again becomes one of *quality*. But instead of just making sure the instrument plays in tune, frets easily, and doesn't collapse if you breathe on it, you also need to *make informed decisions*. Don't worry — that's not as grave as it sounds. Consider the following pillars for judging quality in an instrument:

- ✓ **Construction:** How the guitar is designed and put together
- ✓ **Materials:** Mainly woods and metals (hardware, pickups, electronics)
- ✓ **Workmanship:** The quality of the building

Construction

How a guitar is built defines what type of guitar it is and (generally) what type of music it's used for. The following sections cover the three most important issues regarding guitar construction.

Solid wood versus laminated wood

A solid-wood acoustic guitar is better than a *laminated* acoustic guitar — where, instead of using a solid, thicker piece of top-wood, the guitar maker uses several layers of inexpensive wood pressed together and covered with a veneer. Guitars made completely out of solid wood cost at least \$1,000.



The acoustic guitar's top is the most critical element in sound production; the back and sides primarily reflect the sound back through the top. So, if you can't pick up the tab for a solid-wood acoustic guitar, look to various configurations in which the top is solid and various other parts are laminated. A good choice is a solid-top guitar with laminated back and sides, which can cost as little as \$400.

Another very popular configuration, just a step higher in quality, is a guitar with a solid top, a solid back, and laminated sides. You can find acoustics constructed this way at around the \$1,200 mark or even slightly less. Because the sides have a negligible effect on the sound, and because laminates are structurally stronger than solid woods, this setup is a win-win situation for manufacturer and buyer.



If you're unsure as to whether a guitar has solid or laminated wood, ask the dealer or consult the manufacturer.

Body caps

In the electric realm, one big determinant of price is whether the top has a cap. A *cap* is a decorative layer of fine wood — usually a variety of *figured* maple (having a naturally occurring decorative grain pattern) — that sits on top of the body without affecting the sound. Popular cap woods include flame maple and quilted maple. Figured-wood tops usually come with clear, or see-through, finishes to show off the wood's attractive grain pattern.



Neck construction

The following list describes the three most common types of neck construction, from the least expensive to the most:

- ✓ **Bolt-on:** The neck attaches to the back of the guitar at the heel with four or five bolts (although a heel plate sometimes covers the bolt holes). Fender Stratocasters and Telecasters have bolt-on necks.
- ✓ **Set-in (or glued-in):** The neck joins the body with an unbroken surface covering the connection, for a seamless effect from neck to body. The joint is glued. Gibson Les Pauls and Paul Reed Smiths have set-in necks.
- ✓ **Neck through body:** A high-end construction where the neck is one long unit (although usually consisting of several pieces of wood glued together) that doesn't stop at the body but continues all the way through to the tail of the guitar. This type of neck is great for getting maximum sustain. A Jackson Soloist has a neck-through-body design.



Just because a construction technique is more advanced or expensive doesn't mean it's necessarily better. Could you "improve" the sound of Jimi Hendrix's Strat by modifying its neck to a glued-in configuration? *Sacrilege!*

Materials

A guitar isn't limited by what it's made of any more than a sculpture is. Michelangelo's *David* and your Aunt Agnes's candy dish are both made of marble, but which one would you travel to Paris to see? So don't judge a guitar *only* by its materials, but consider that a guitar with better materials (abalone inlays as opposed to plastic ones) tends to have commensurately better workmanship — and therefore be a better guitar — than a model that uses inexpensive materials.

Woods

As you may expect, the more expensive or rare a wood, the more expensive the guitar you construct from that wood. Guitar makers break woods down into categories, and each has a bearing on the guitar's overall expense.



Following are the three criteria used for classifying wood:

- ✓ **Type:** For example, mahogany, maple, or rosewood. Rosewood tends to be the most expensive wood used in the construction of acoustic-guitar bodies, followed by maple, and then mahogany.
- ✓ **Style:** You can classify woods further by looking at the wood's region or grain style. Brazilian rosewood is redder and wavier than East Indian rosewood and is also more expensive. The figured maples, such as quilted and flame, are more expensive than rock or bird's-eye maples.
- ✓ **Grade:** Guitar makers use a grading system, from A to AAA (the highest), to evaluate woods based on grain, color, and consistency. High-quality guitars get the highest-grade wood.

Hardware: Tuners and bridge assemblies

In more expensive instruments, you see upgrades on all components, including the *hardware*, or the metal parts of the guitar. Chrome-plated hardware is usually the cheapest, so if you begin looking at more expensive guitars, you start to see gold-plated and black-matte-finished knobs, switches, and tuning machines in place of chrome.



The actual hardware the manufacturer uses — not just the finishes on it — changes, too, on more expensive instruments. High-quality, name-brand hardware often replaces the guitar maker's less prestigious, generic brand of hardware on high-end axes. For example, manufacturers may use a higher-grade product for the tuning machines on an upscale guitar — such as *locking Spurzels* (a popular third-party tuner type and brand), which lock the string in place as opposed to forcing the user to tie the string off at the post.

The bridge is an important upgrade area as well. The so-called *floating bridge* (so designated because you can move it up and down by means of the whammy bar) is a complicated affair of springs, fine-tuning knobs, and anchors. The better floating assemblies, such as the Floyd Rose system or systems manufactured under a Floyd Rose license, operate much more smoothly and reliably than do the simple three-spring varieties found on low-cost guitars. (The strings spring right back to pitch on a Floyd Rose system, even after the most torturous whammy bar abuse. You can find out more about the Floyd Rose bridge later in this chapter.)

Pickups and electronics (electrics only)

Unless a guitar manufacturer is also known for making great pickups, you see more and more use of third-party pickups as you go up the quality ladder. In the electric arena, Seymour Duncan, DiMarzio, Bartolini, Bill Lawrence, Lace, and EMG are examples of high-quality pickup brands that guitar makers piggyback onto their models. Fishman and L.R. Baggs are two popular acoustic pickup systems found on many well-known guitars.

Although they're not known by name brands, the electronics in guitars also improve along with the other components as you venture into more expensive territory. You can see a greater variety, for example, in pickup manipulation. Manufacturers can provide circuitry that changes double-coil, or humbucker, pickups into single-coils, enabling them to emulate the behavior of Stratlike pickups. Having one guitar that can imitate the pickup behavior of other guitar types provides you with a tonally versatile instrument. You also see more manipulation in wiring schemes. For example, guitar makers may reverse the *polarity* of a pickup — the direction the signal flows — to make the guitar sound softer and more swirly.



With more expensive guitars, you may also encounter improved volume and tone controls, resulting in better taper. *Taper* is the gradualness or abruptness of change (also called *response*) of a signal's characteristics (in this case, volume and tone) as you turn a knob from its minimum value to its maximum. A knob exhibiting a smoother taper is evidence of a higher grade of electronics. Really cheap guitars give you no sound at all until turned up to 3; then you get a swell of sound from about 4 to about 7 and no change at all between 7 and the knob's maximum value, 10 — or, on those really rare, loud guitars, 11. (And if you don't get that last joke, go out and rent *This Is Spinal Tap*. It's required viewing for all guitarists.)

Workmanship

For more expensive guitars, you can really bring out the white glove and get fussy. We've seen prospective buyers bring in a dentist's mirror to inspect the interior of an acoustic guitar.



For acoustic guitars beyond the \$600 range, you should expect to find *gapless joints* — solid wood-to-wood connections between components, especially where the neck meets the body. You should also expect clean and glob-free gluing (in the top and back bracing), a smooth and even finish application, and strings at the right height with no buzzing, the neck warp- and twist-free, and the intonation true. You can glean all of this information by simply playing the guitar and noting your impressions. Like traveling in a Rolls-Royce or Bentley, playing a quality guitar should be one smooth ride.

Buying an Ax to Grind

Buying a guitar is similar to buying a car or house (okay, it's a *little* less monumental than buying a house) in that it's lots of fun, but you must exercise caution and be a savvy customer, too. Only you know the right guitar for you, what the right price is for your budget and commitment level, and whether

a deal feels right. Don't deny your natural shopping instincts, even if you're new to guitar shopping. Look, listen, consider, go have lunch before the big buy, and talk it over with your sweetie.

Bringing along an expert

A certain saying goes, "An expert is someone who knows more than you do." If you have such a friend — whose guitar knowledge and experience exceeds your own — bring the friend along, by all means. This friend not only knows about guitars, but also knows *you*. A salesperson doesn't know you, nor does he necessarily have your best interests in mind. But a friend does. And another opinion never hurts, if only to help you articulate your own.



Enlist your guitar teacher (if you have one) to help you navigate through the guitar buyer's jungle, especially if he's been with you awhile and knows your tastes and playing style. Your teacher may know things about you that you may not even realize about yourself — for example, that you've gotten sidetracked in the steel-string section although your interests lie in nylon-string guitar music. A good teacher asks questions, listens to your answers, and gently guides you to where *you* want to go.

Your expert is also likely to bring along an electronic guitar tuner to tune potential guitars to standard pitch. This is an excellent idea. A shop may tune a guitar slightly lower to make it seem easier to play; then when you get it home and tune it properly, you find out it doesn't play like it did in the store.

Meeting the salesperson

Dealing with a salesperson doesn't need to be a stressful, adversarial affair, but some people get pretty anxious about the entire situation. If you establish your priorities before you enter the store, you don't come off as vague and unprepared as he begins his salvo of questions. A typical first question from a salesperson may be "How much do you want to spend?" In essence, the question means "What price range are you looking at so I know which end of the store to take you to?" It's a fair question, and if you can answer directly, you can save a lot of time. He may also ask about your playing ability and style preferences, so be ready for those questions, too.



Be prepared to answer the salesperson's questions succinctly — for example, "I prefer Strat-style guitars, although not necessarily by Fender, and I'm an intermediate blues player — not a shredder — and I'd like to keep costs at less than \$600." Answers such as these make you sound decisive and thoughtful, and the salesperson would have plenty to go on. But if you say, "Oh, for the right guitar, price is no object; I like the one that what's-his-name plays on MTV," you won't be taken seriously — nor are you likely to end up

with the instrument you need. As the salesperson speaks, listen carefully and ask questions. You're there to observe and absorb, not impress. If you decide you're not ready to buy, tell him that. Thank him for his time and get his card. You're free to go elsewhere and investigate another store.

The art of the deal



You can find out the *retail*, or *list*, *price* of an instrument before you walk into the store. The manufacturer presets these numbers, and they're public knowledge (look at ads in magazines or visit the manufacturer's Web site). As of this writing, a Gibson Les Paul Standard lists for \$3,899, and a Fender American Standard Stratocaster lists for \$1,680 (see Figure 3-2).

Gibson Les Paul

Fender Stratocaster



Figure 3-2:
Two standards by which players judge most of the electric guitars on the market.

Again, the preceding numbers are *list* prices. Music stores offer discounts, and the range can vary greatly. Big, urban-based stores that buy mass quantities of instruments can usually offer greater discounts than can smaller (mom-and-pop) stores in outlying or remote areas. Mail-order and online outlets can match and sometimes beat big-store prices, because they don't have the overhead of maintaining a retail facility.



In deciding where to buy, don't neglect the value of service. Retail and mom-and-pop stores — unlike online and mail-order houses — are in a better position to devote close, personal service to a new guitar customer. Perhaps as a result of stiff competition from the booming online and mail-order biz, many stores are upping their service incentives. Service includes anything from fixing minor problems and making adjustments to providing periodic *setups* (sort of like a tune-up and oil change for your guitar).

Remember, however, that list prices are public knowledge, and salespeople from all types of vendors must tell you their selling price with no conditions. The vendor can rightfully charge up to list price; you must wrangle the maximum discount yourself. How you do that is as old as bargaining itself, but a reasonable haggling range is somewhere between the cut-rate quote of an online or mail-order outfit and 10 percent off list.

Knowing When to Change the Strings

Old guitars improve with age, but old strings don't. The first time you play new strings is the best they ever sound. Strings gradually deteriorate until they either break or you can't take the dreary sounds they produce. Old strings sound dull and lifeless, and they lose *tensility* (ability to hold tension), becoming brittle. This condition makes them feel stiffer and harder to fret, and because the strings no longer stretch to reach the fret, they get tighter, causing your notes to go sharp, particularly up the neck.



You should replace all the strings at once, unless you break one and must replace it quickly. Strings tend to wear at the same rate, so they start the race against time on equal footing.

You should probably replace your strings if

- ✓ They exhibit visible signs of corrosion or caked-on dirt or grime.
- ✓ They don't play in tune or fret sharp, especially in the upper register.
- ✓ You can't remember the last time you changed them and you have an important gig (and don't want to chance any breakage).



Strings build up dirt and skin from your fingers, making them sound dull. The old boiling trick removes this gunk and can bring temporary new life to old strings. Simply fill a large pot with water, coil up your strings in it (be careful — strings tend to want to jump out of pots), and bring to boil for five minutes or so. Boiled strings really do sound better for a short time. Do this if you have a gig or jam on short notice and no way to get new strings. But then go get new strings.

Off with the Old: Removing Stressed Strings

Obviously, to put on a new string you have to remove the old one. Unless you're really in a hurry (such as in the middle of the first verse), you can take off any string by turning the tuning machine or peg to loosen the string

enough that you can grab the string from the center and pull it off the post. You don't need to unwind it completely off the post using the peg. Or simply snip off the old string with wire cutters. It seems weird and brutal to snip off a string, but neither the sudden release of tension nor the cutting itself hurts the guitar.



The only reason *not* to cut a string is to save it as a spare, in case the new one breaks while putting it on (rare, but it happens). An old B string is better than no B string.

A common belief is that you should maintain constant string tension on the guitar neck at all times, and that you should replace the strings one at a time because removing all the strings at once is bad for the guitar. Every guitar expert has an opinion on this issue. Some say it's fine to remove all the strings and put new ones back on one at a time because guitars are actually tougher than you think. Others point out that changing strings one at a time is a safer way to go. Replacing strings one at a time is actually convenient for tuning, but whether it's healthier for the guitar is debated.

However you remove the old string, after it's off, you're ready to put on a new one. The methods for stringing a guitar diverge slightly, depending on whether you're stringing a steel-string acoustic, a classical, or an electric guitar. The remaining sections in this chapter describe these methods in detail.

Stringing a Steel-String Acoustic Guitar

Generally, steel-string acoustic guitars are probably easier to string than classicals or electrics (which are covered later in this chapter).

Changing strings step by step

Following are step-by-step instructions on restringing your guitar. You have two places to attach your new string: the bridge and the headstock. Start by attaching the string to the bridge, which is a pretty straightforward task.

Step 1: Attaching the string to the bridge

Acoustic guitars have a bridge with six holes leading to the inside of the guitar. To attach a new string to the bridge, follow these steps:

1. Remove the old string and pop out the bridge pin.

Bridge pins sometimes stick, so you may need to use needle-nose pliers to pry them out. Always pull straight up.



2. **Place the end of the new string that has a little brass ring (called a *ball*) inside the hole that held the bridge pin.**

Just stuff it down the hole a couple of inches. (How far isn't critical, because you're going to pull it up soon.)

3. **Wedge the bridge pin firmly back in the hole with the slot facing forward (toward the nut).**

The slot provides a channel for the string to get out. Figure 3-3 shows the correct disposition for the new string and the bridge pin.



Figure 3-3:
How to
place the
new string
in the bridge
and position
the bridge
pin.



4. **Pull gently on the string until the ball rests against the bottom of the pin. Keep your thumb or finger on the pin so it doesn't pop out.**

Be careful not to kink the string as you pull it.

5. **Test the string by gently tugging on it.**

If you don't feel the string shift, the ball is snug against the bridge pin, and you're ready to secure the string to the tuning post.

Step 2: Securing the string to the tuning post

After securely attaching the string to the bridge pin, you can focus your attention on the headstock. The steps are slightly different for the treble strings (G, B, E) and the bass strings (E, A, D). On a typical guitar, you wind treble strings clockwise and bass strings counterclockwise.

To attach a treble string to the tuning post, follow these steps:

1. Pass the string through the hole in the post.

Leave enough slack between the bridge pin and the tuning post to enable you to wind the string around the post several times.

2. Kink (or crease) the metal wire toward the inside of the guitar.

Figure 3-4 shows how to kink the string to prepare it for winding.



Figure 3-4:
String
kinked to
the inside
of the head-
stock, with
slack for
winding.

3. While keeping the string tight against the post with one hand, wind the tuning peg clockwise with the other hand.

This step is a bit tricky and requires some manual dexterity. Keep your eye on the post to ensure that as the string wraps around the post, it winds *down, toward the headstock surface*. Figure 3-5 shows how the strings wrap around the posts. Be sure that the strings go into the correct slot in the nut. Don't get discouraged if you can't get your windings to look exactly like the strings shown in Figure 3-5. Getting everything to go smoothly takes a bit of practice.

Winding the string downward on the post increases what's called the *breaking angle*. The breaking angle is the angle between the post and the nut. A sharper angle brings more tension down onto the nut and creates better *sustain*, the length of time the note continues. To get the maximum angle, wind the string so it sits as low as possible on the post. (This fact is true for all guitars, not just acoustics.)

Figure 3-5:

The treble strings wrap downward around the posts in a clockwise direction; the bass strings wrap around the posts in a counterclockwise direction.



To attach a bass string, you follow the preceding steps *except* that you wind the strings *counterclockwise* in Step 3 so the string goes up the middle and goes over the post to the left (as you face the headstock).



TIP

If you find that you've left too much slack, unwind the string and start again, kinking the string farther down. If you don't leave enough slack, your winding doesn't go all the way down the post, which may result in slipping if the string doesn't have enough length to grab firmly around the post. Neither situation is tragic. You simply undo what you've done and try again. As may happen in trying to get the two ends of a necktie the same length, you may need a couple of tries to get it right.

Tuning up

After you secure the string around the post, you can begin to hear the string come up to pitch. As the string draws tight, place it in its correct nut slot. If you're changing strings one at a time, you can just tune the new one to the old ones, which, presumably, are relatively in tune. (Check out Chapter 1 in Book I for the nuts and bolts of tuning your guitar.)

After you get the string to the correct pitch, pull on it in various places up and down its length to stretch it out a bit. Doing so can cause the string to go flat — sometimes drastically if you left any loose windings on the post — so tune it back up to pitch by winding the peg. Repeat the tune-stretch process two or three times to help the new string hold its pitch.



Using a *peg winder* to quickly turn the tuning pegs reduces your string-winding time considerably. A peg winder also features a notch in one side of the sleeve that can help you pop a stuck bridge pin. Just make sure you don't lose the pin when it comes flying out!



After the string is up to pitch and stretched out, you're ready to remove the excess length of string that sticks out from the post. You can snip this excess off with wire cutters (if you have them) or bend the string back and forth over the same crease until it breaks. Whatever you do, don't leave the straight string length protruding. It could poke you or someone standing next to you (such as the bass player) in the eye or give you a sharp jab in your fingertip.

Stringing Nylon-String Guitars

Stringing a nylon-string guitar is different from stringing a steel-string acoustic because both the bridge and the posts are different. Nylon-string guitars don't use bridge pins (strings are tied off instead) and their headstocks are slotted and have rollers, as opposed to posts.

Changing strings step by step

Nylon strings are easier to deal with than steel strings are, because nylon isn't as springy as steel. Attaching the string to the tuning post, however, can be trickier. As you do with the steel-string acoustic, begin by securing the bridge end of the string first and then turn your attention to the headstock.

Step 1: Securing the string to the bridge

Whereas steel-string acoustic strings have a ball at one end, nylon strings have no such ball: Both ends are loose. (Well, you *can* buy ball-ended nylon-string sets, but they're not what you normally use.) You can, therefore, attach either end of the string to the bridge. If the ends look different, however, use the one that looks like the middle of the string, not the one that has the loosely coiled appearance. Just follow these steps:

1. **Remove the old string, as described in the earlier section “Off with the Old: Removing Stressed Strings.”**

2. Pass one end of the new string through the hole in the top of the bridge, in the direction away from the soundhole, leaving about $1\frac{1}{2}$ inches sticking out the rear of the hole.
3. Secure the string by bringing the short end over the bridge and passing it under the long part of the string, as shown in Figure 3-6a. Then pass the short end under, over, and then under itself, on the top of the bridge, as shown in Figure 3-6b.



You may need a couple of tries to get the end at just the right length, where not too much excess is dangling off the top of the bridge. (You can always cut the excess away, too.)

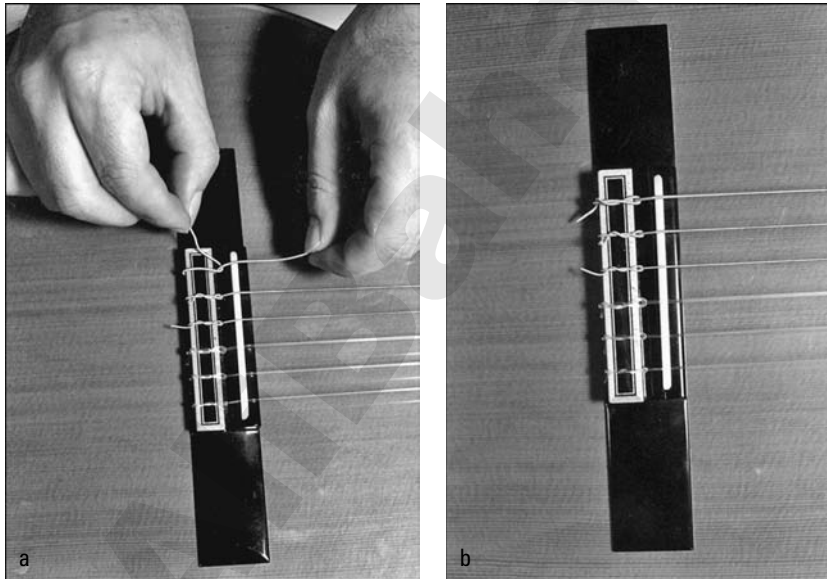


Figure 3-6:
Tying off the
bridge end
of the string.

4. Pull on the long end of the string with one hand and move the knot with the other to remove excess slack and cause the knot to lie flat against the bridge.

Step 2: Securing the string to the tuning post

On a nylon-string guitar, the tuning posts (called *rollers*) pass through the headstock sideways instead of perpendicularly as on a steel-string acoustic or electric guitar. This configuration is known as a *slotted headstock*.

To attach the string to the tuning post in a slotted headstock, follow these steps:



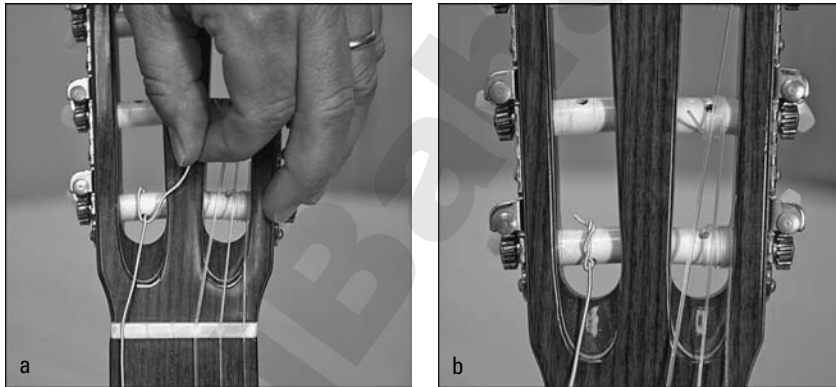
1. **Pass the string through the hole in the tuning post. Bring the end of the string back over the roller toward you; then pass the string under itself in front of the hole. Pull up on the string end so that the long part of the string (the part attached to the bridge) sits in the U-shaped loop you just formed, as shown in Figure 3-7a.**

Make your loop come from the outside (that is, approaching from the left on the lower three bass strings, and from the right on the upper three treble strings).

2. **Pass the short end under and over itself, creating two or three wraps.**

Doing so should hold the loose end firmly in place, as shown in Figure 3-7b, and prevent the string from slipping out of the hole.

Figure 3-7: Creating a U-shaped loop with the short end of the string (a). Creating wraps to hold the short end of the string in place (b).



3. **Wind the peg so the string wraps on top of the loop you just formed, forcing it down against the post.**
4. **Pull the string length taut with one hand and turn the tuning peg with the other hand.**

Wrap the windings to outside of the hole, away from the guitar's center.

Tuning up



As you continue turning the tuning peg, the string slowly comes nearer to pitch. Nylon strings, like steel strings, require quite a bit of stretching out, so after you get the string initially up to pitch, grab it at various places on its length, pull on it, and then tune it up again. Repeat this process two or three times to keep the guitar in tune longer. Snip away the excess string after

you're done with all six strings. Nylon strings aren't as dangerous as steel strings if any excess protrudes, but the extra string hanging out is unsightly, and classical guitarists are extra-fussy about how their instruments look.

Stringing an Electric Guitar

Generally, electric guitarists need to change their strings more often than steel-string acoustic or classical guitarists. Because changing strings is so common on electric guitars, builders take a more progressive approach to the hardware, often making changing strings very quick and easy.

Changing strings step by step

First secure the string to the bridge and then attach the string to the headstock. Electric strings are similar to steel-string acoustic strings in that they have ball ends and are made of metal, but electric strings are usually composed of a lighter-gauge wire than steel-string acoustic strings, and the 3rd string is unwound, or plain, whereas a steel-string acoustic guitar's is wound. (A nylon-string's 3rd string also is unwound but is thicker.)

Step 1: Securing the string to the bridge

Most electric guitars use a simple method for securing the string to the bridge. You pass the string through a hole in the bridge (sometimes reinforced with a collar, or *grommet*) that's smaller than the ball at the end of the string — so the ball holds the string just as the knot at the end of a piece of thread holds a stitch in fabric. On some guitars (such as the Fender Telecaster), the collars anchor right into the body, and the strings pass through the back of the instrument, through a hole in the bridge assembly, and out the top.

Figure 3-8 shows two designs for attaching a string to an electric: from a top-mounted bridge and through the back. The following steps show how to secure the strings to the bridge.

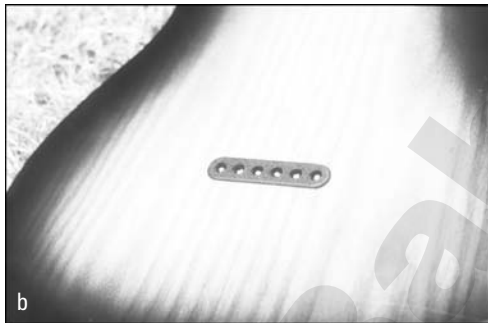
- 1. Remove the old string, as described in the section “Off with the Old: Removing Stressed Strings,” earlier in this chapter.**
- 2. Anchor the string at the bridge by passing the string through the hole until the ball stops the movement.**

Then you focus on the tuning post. You do this on all but a few guitars (such as those with a Floyd Rose mechanism — see the end of this chapter).



Figure 3-8:

Strings pass through the bridge in the direction of the headstock (a). Strings pass through the bridge from the back of the guitar (b).



Step 2: Securing the string to the tuning post

In most cases, the posts on an electric resemble those of a steel-string acoustic. A post protrudes through the headstock, and you pass your string through the post's hole, kink the string to the inside (toward the center of the headstock), and begin winding while holding the long part of the string with one hand for control. Refer to Figure 3-4 to see how to kink the string to prepare it for winding and about how much slack to leave.

Some electric guitars, notably Stratocasters and Telecasters, feature *string retainers*, little rollers or channels screwed into the top of the headstock that pull the top two or four strings down low onto the headstock, like a tent stake. If your guitar has string retainers, make sure you pass the strings under them.

Some tuners feature a *locking mechanism*, so you don't need to worry about winding, slack, and all that bother. Inside the post hole is a viselike device that clamps down on the string as it passes through. A *knurled* (ridge-covered) dial underneath the headstock loosens and tightens the vise. Perhaps the best-known company to make this locking device is Spurzel.

Some guitars have tuners with slotted posts instead of a hole. These also enable quick string changes, because you simply lay the string in the slot at the top of the post, kink it, and wind.

The special case of the Floyd Rose bridge

Rock music in the '80s made extensive use of the whammy bar and *floating bridge* (where the bridge isn't fixed, but floats on a spring assembly). Standard floating bridges weren't meant for the kind of abuse that creative guitarists such as Steve Vai and Joe Satriani cook up, though, so manufacturers developed better ways to make sure that bridges return to their original position and the strings remain in tune.

Floyd Rose invented the most successful of these assemblies. Rose used his own patented design to ensure a highly accurate, movable bridge system and *locking nut* (a clamplike device that replaces the standard nut).



The bridge takes the strings in a top-mounted approach, instead of through the back, but with one notable difference: Guitarists must snip the ball end off before attaching the string so the end can fit in the tiny viselike mechanism that holds the string in place. If you own a Floyd, you must carry spare strings with the balls snipped off or have wire cutters at the ready.

Because the Floyd Rose also features a locking nut, winding the string on the post isn't so critical. After you lock the nut (by using a small Allen wrench), what you do with the tuning pegs doesn't matter. You then do all tuning by using ridge-covered knobs on the bridge. These knobs are known as "fine tuners" because their movements are much smaller and more precise than are those on the headstock.

Stringing up an electric guitar fitted with a Floyd Rose system takes a little longer than it does on a regular electric, but if you plan to do a lot of whammy bar work, a Floyd Rose is well worth the effort.

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Chapter 4

Deciphering Music Notation and Tablature

In This Chapter

- ▶ Reading standard music notation
- ▶ Applying symbols to your guitar playing
- ▶ Decoding fingering indications and tablature

Reading music is not necessary to guitar playing, but it *is* helpful. Plenty of great guitarists don't read a note. But then again, plenty of great guitarists read music very well. Knowing how to read music can open up many avenues in guitar playing and can provide a new understanding of how it all fits together. Let's put it this way: It sure can't *hurt* to read a little music. Plus, if you plan to write music, being able to put it down on paper is a secure way to have it for good, without worrying about losing that demo tape or mp3 file — and it's also satisfying.

We try in this chapter to make reading music as quick and easy as possible, and we give you more than one way to approach the written music examples that appear in this book. You can absorb how to play music more quickly if you read music even a little bit, rather than not at all. So in this chapter you can familiarize yourself with all the written symbols and notation practices used in this book — including tablature — so you can better understand the written exercises and pieces that appear here and elsewhere.

Knowing the Ropes of Standard Music Notation

Standard music notation for guitar is the stuff of clefs, staves, and notes — just as you find in music for the violin, flute, piano, trumpet, and saxophone. So we start off by introducing the symbols you see when looking at “normal

music.” In the following sections we show you the blank slate on which composers record music notation, and we cover the three main elements of music: pitch, duration (rhythm), and expression/articulation.

The composer’s canvas: The staff, clef, measures, and bar lines

Our current system of writing music has evolved from centuries of different approaches, and it’s come a long way since the medieval era. When composers sit down today to write music, they don’t write on just any old piece of paper. The blank canvas for a composer isn’t really totally blank. It’s a series of horizontal grids that hold the notes and other music symbols from the composer’s pen.

Figure 4-1 shows a blank staff, according to the way any musician first sees it, just waiting for a masterpiece to be written on it. The following sections explain its components.

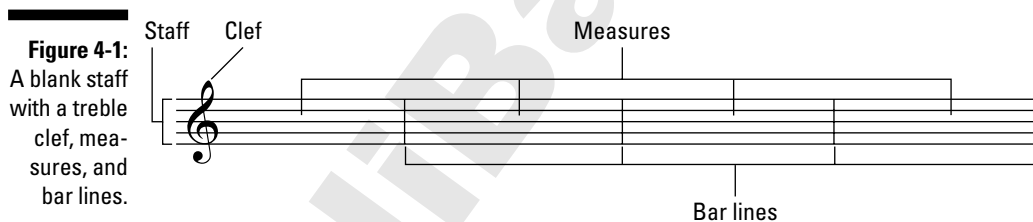


Figure 4-1:
A blank staff
with a treble
clef, mea-
sures, and
bar lines.

Staff

The grid of five horizontal lines and four spaces onto which all notes are placed is called a *staff*. The bottom line is the first line, and the top line is the fifth line. The space between the first and second lines is the first space. Notes can appear either on a line or in the space between two lines. The placement of a note on the staff designates the note’s *pitch* (how high or low it is) and its letter name (C, D, G, and so on).

Clef

The staff appears with a *clef* (the squiggly thing at the beginning of the line), which defines what the pitches are on the lines and spaces. Guitar music uses the *treble clef*, also called the *G clef* because the curlicue of the clef

symbol (which looks sort of like a fancy G) wraps around the second line from the bottom, which is its way of telling you, “This is G.” You can then find any note on the staff by counting up or down the lines and spaces starting from G.

Measures and bar lines

Just as you need a staff and a clef to tell you the notes’ pitches, you must also have some sort of context in which to place notes in time. Most music has a *beat*, or pulse, that gives the music a basic rhythmic unit that the notes play off. (If the notes go fast, it usually means they go fast in relation to the beat.)

The beat in turn is usually “felt” in larger groups of two, three, or four; you represent this division on the staff with vertical lines that separate the music into sections called *measures*, or *bars*. The section between two vertical lines is a *measure* (or *bar*), and the vertical lines themselves are called *bar lines*. Grouping music into measures is a way to keep it manageable by organizing the notes into smaller units — units that support the beat’s natural emphasis. Measures allow you to keep your place in the music and to break it down into smaller chunks for easier digestion.

Pitch: The highs and lows of music

Pitch is the highness or lowness of a note. Music notation uses the staff, the clef, and the placement of a note on the staff to show pitch. Take a look at Figure 4-2 and Table 4-1 for a breakdown of the various symbols and definitions used for pitch.

Figure 4-2:
Music
showing the
elements
of pitch.

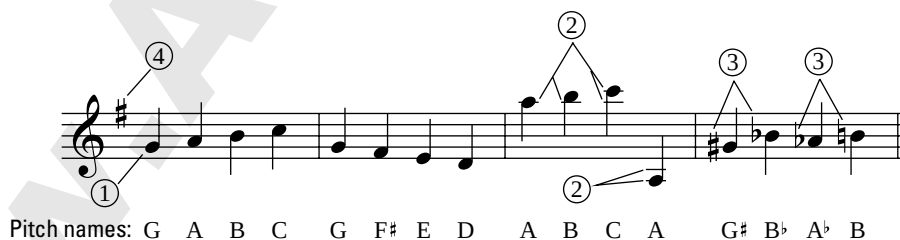


Table 4-1		Symbols Used to Show Pitch
Number in Figure 4-2	Symbol Name or Term	Description
1	Note	A musical symbol whose position on the staff indicates its pitch and whose shape indicates its duration. The notes on the five lines of the staff (from bottom to top) are E, G, B, D, and F. You can remember these using the saying “ Every Good Boy Does Fine .” The notes placed on the four spaces in between the lines (from bottom to top) spell out the word <i>face</i> (F, A, C, and E).
2	Ledger lines	Notes can fall above or below the staff as well as within the staff. To indicate a pitch that falls higher or lower than the staff, use ledger lines, which you can think of as short, temporary staff lines. Note names progress up or down the ledger lines (and the spaces between them) the same way they do on the staff lines. So, for example, the first ledger line below the staff is C, and the first ledger line above the staff is A. Try counting down two notes from the bottom line E and up two notes from the top line F to verify this for yourself.
3	Sharps, flats, naturals, and accidentals	The first seven letters of the alphabet — A through G — make up the <i>natural</i> notes in music, the white keys of the piano keyboard. In between some of the natural notes (white keys) are other notes (the black keys) that don’t have names of their own. These notes are known as <i>sharps</i> or <i>flats</i> and are named according to their adjacent natural notes by adding either a sharp symbol (#) or flat symbol (b) after the letter name. When you see F# in music, you play F one half step (one fret) higher than natural F. For a note with a flat symbol, such as Db, play the note one half step lower than the natural version. A <i>natural sign</i> (♮) restores a note that’s been modified by a sharp or flat to its natural state — it cancels the sharp or flat. <i>Accidentals</i> are notes outside the key (defined by the key signature) and are indicated in the music by the appearance of a sharp, flat, or natural sign modifying a note. An accidental holds for all the notes of that pitch for the rest of the measure.

<i>Number in Figure 4-2</i>	<i>Symbol Name or Term</i>	<i>Description</i>
4	Key signature	The listing of flats or sharps at the beginning of the staff, immediately to the right of the clef, tells you which notes to play flat or sharp for the entirety of the piece (or at least a major section of the piece), unless otherwise indicated with an accidental. For example, the music in Figure 4-2 has a <i>key signature</i> of one sharp — F#. That means anytime you encounter any F (whether in the staff or on a ledger line), you play it a half step (one fret) higher. In other words, the key signature sends out the loud and clear message: "All Fs are hereby sharped until further notice!"

Duration: How long to hold a note and what determines rhythm

Although the placement of a note on the staff indicates its pitch, the *shape* of the note indicates its length in time, or *duration*, in relation to the beat. The longer in duration the notes are, the more slowly they move, or the more time there is between their respective starting notes. The shorter the notes' values, the faster they come. Without rhythm, notes have no motion. You need both pitch and rhythm together to make music.

Rests also pertain to duration; these symbols indicate musical silence and have specific values, just as notes do.

You can increase the length of individual notes or rests by placing a *dot* to the right of the note head or rest. You can also increase the length of a note by adding a *tie*, which connects one note to another of the same pitch immediately following it. See Table 4-2, along with other common symbols used to indicate duration — the table corresponds to Figure 4-3, which shows the symbols in the context of a musical excerpt.

Figure 4-3:
Music
showing
duration.

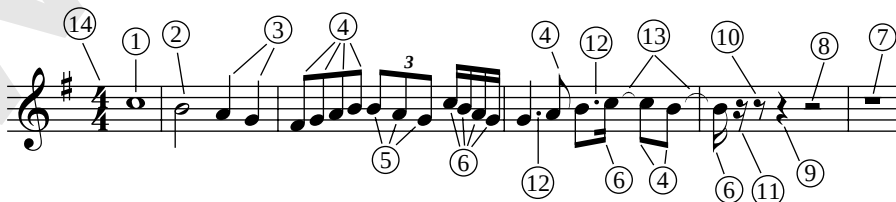


Table 4-2 Symbols Used to Indicate Duration		
<i>Number in Figure 4-3</i>	<i>Symbol Name or Term</i>	<i>Description</i>
1	Whole note	An open note head with no <i>stem</i> ; receives four beats in 4/4 time.
2	Half note	An open note head with a stem; receives two beats in 4/4.
3	Quarter note	A solid note head with a stem; receives one beat in 4/4.
4	Eighth note	A solid note head with a stem and one <i>flag</i> or <i>beam</i> ; receives half a beat in 4/4.
5	Eighth-note triplet	An eighth note grouped with other notes and appearing with the numeral 3, sometimes accompanied by a bracket, to indicate three eighth notes in the space of two eighth notes' time.
6	16th note	A solid note head with a stem and two flags or beams; receives one quarter of a beat in 4/4.
7	Whole rest	A small rectangle that hangs down from a staff line indicating an entire measure's rest in any meter.
8	Half rest	A small rectangle that sits on a staff line indicating two beats' rest in 4/4.
9	Quarter rest	A symbol that indicates one beat of rest in 4/4.
10	Eighth rest	A symbol that indicates a half beat's rest in 4/4.
11	16th rest	A symbol that indicates a quarter beat's rest in 4/4.
12	Augmentation dot	A <i>dot</i> appearing to the right of the note head or rest that tells you to increase the note's or rest's length by half of the original value. For example, a quarter note is one beat, so a dotted quarter note equals one and a half beats.
13	Tie	A curved line that joins two notes of the same pitch. You play the first note for its full value, and instead of restriking the second (tied) note, you let the note sustain for the combined value of both notes.

<i>Number in Figure 4-3</i>	<i>Symbol Name or Term</i>	<i>Description</i>
14	Time signature	A two-digit symbol that appears at the beginning of the piece that helps you count the beats in a measure and tells you which beats to stress, or give emphasis to. The top number indicates how many beats are in each measure, and the bottom number tells you what type of note (half, quarter, eighth, and so on) gets one beat. For example, in 3/4 time, you play three beats to the measure, with the quarter note receiving one beat. In 4/4 time, you play four beats to the measure, with the quarter note receiving the pulse or beat. Knowing how to read (and play according to) the time signature helps you to capture the feel of the music.



When you tap your foot to the music on the radio, at a concert, or on your portable music player, you're tapping (or stomping or clapping) along to the *beat*. If you count to yourself 1-2-3-4, or 1-2-3 — or however many beats logically make up one measure of that song or piece — you can figure out the time signature. Most popular music is in 4/4, as is most of the music in this book. Some song forms are specifically written in a certain time signature. For example, a waltz is written in 3/4. So the next time someone says, "Do I hear a waltz?" listen and tap along in units of three to tell if that's correct.

Written high, sounding low

Guitar music is written in treble clef, but the actual sound of the pitches you play is an octave lower. For example, when you see a third-space C on the staff, you play the 2nd string, 1st fret. And you'd be playing the note correctly, according to the way guitar players play written notes on the treble clef. But just remember in the back of your mind somewhere that the note you play there actually sounds *middle* C

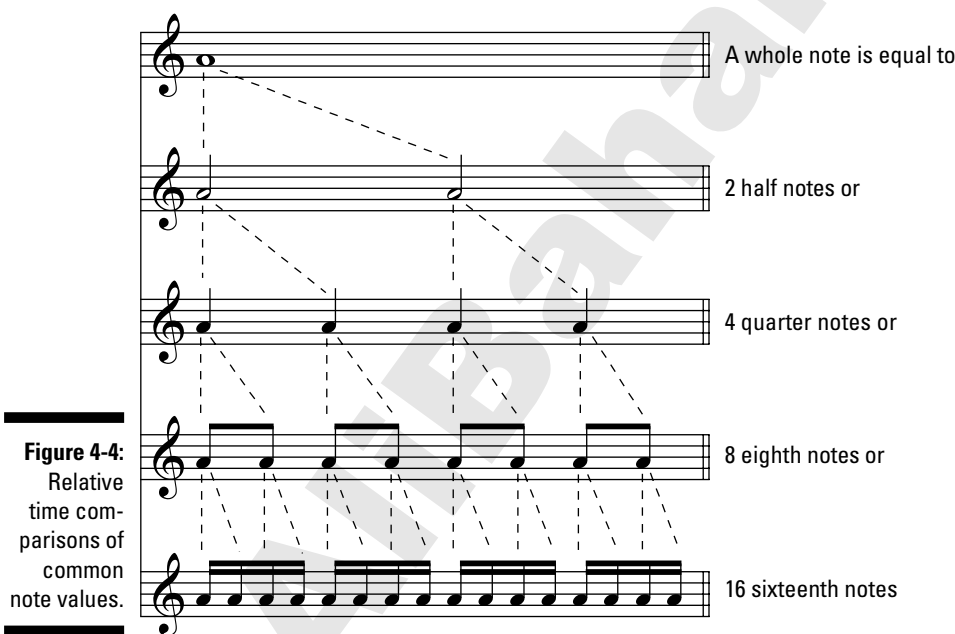
(which is the first ledger line below the staff in music for other sound-as-written instruments, such as the piano). So the guitar is kind of a low-pitched instrument, at least compared with instruments that sound as written, such as the flute, violin, and oboe. Why is that? Writing the *actual* sounding pitches would be a little more awkward to read because it would put so many of the notes many ledger lines below the staff.



The different types of note values relate to the other types of notes. For example, a whole note is equal to two half notes, and a half note equals two quarter notes. Therefore, a whole note is equal in total duration to four quarter notes. Figure 4-4 shows the relative durations of the most common note types.



When “playing” a rest on the guitar, you often have to stop a string from ringing. Be careful not to get into the bad habit of looking only where to play notes rather than where to “play” or observe rests. When you see a rest, make sure that you’re not only *not* striking a note during that time but also that you stop any previously struck string or strings from ringing through the rest.



Expression, articulation, and other symbols

Beyond the primary elements of pitch and duration, you often see other symbols and terms in written music. These additional markings give you a range of instructions, from how to play the music more expressively to how to navigate instructions to repeat a certain passage, and so on. Figure 4-5 and Table 4-3 show just some of these expression and articulation (how notes are struck) symbols and other markings.

Figure 4-5:
Expression,
articulation,
and miscel-
laneous
symbols and
terms.

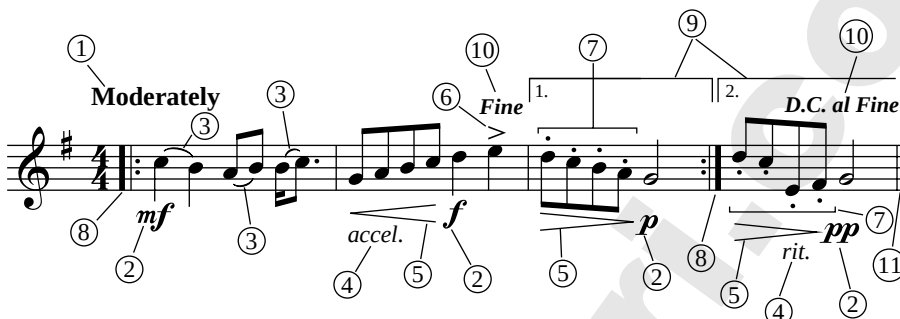


Table 4-3

Expression, Articulation, and Miscellaneous Symbols and Terms

Number in Figure 4-5	Symbol Name or Term	Description
1	Tempo heading	A word or phrase that offers guidance on the speed and/or general feel of the piece. In much classical music, tempo headings are written in Italian (such as <i>Andante</i> , <i>Adagio</i> , or <i>Moderato</i>), but it's also common to see the words written in the composer or publisher's native language (as in Figure 4-5, with <i>Moderately</i>).
2	Dynamic marking	Letters that tell you how loud or soft to play. The letters are the abbreviations of Italian words and terms, such as <i>mf</i> for <i>mezzo-forte</i> (medium loud), <i>mp</i> (<i>mezzo-piano</i> , medium soft), <i>f</i> (<i>forte</i> , loud), <i>p</i> (<i>piano</i> , soft), <i>ff</i> (<i>fortissimo</i> , very loud), and <i>pp</i> (<i>pianissimo</i> , very soft).
3	Slur	A curved line between two notes of different pitch that tells you to connect the second note smoothly to the first. Slurs appear in music requiring a <i>legato</i> (<i>ligado</i> in Spanish) approach, where the notes blend together in a sustained, uninterrupted fashion.
4	Accelerando and Ritardando	Instructions that tell you to play gradually faster (<i>accelerando</i> , abbreviated <i>accel.</i>) or gradually slower (<i>ritardando</i> , abbreviated <i>ritard.</i> or <i>rit.</i>).

(continued)

Table 4-3 (continued)

Number in Figure 4-5	Symbol Name or Term	Description
5	Crescendo and decrescendo (diminuendo)	Symbols that resemble open wedges (called “hairpins” by some musicians) or the abbreviated versions <i>cresc.</i> and <i>decresc.</i> (or <i>dim.</i>) that tell you to play gradually louder (<i>crescendo</i>) or softer (<i>decrescendo</i> , <i>diminuendo</i>).
6	Accent	A small wedge-shaped or caret-like marking above or below a note that tells you to emphasize the note by striking it harder than normal.
7	Staccato dot	A small dot placed above or below the note head that tells you to play the note short and detached.
8	Repeat signs	Special bar-line-type symbols that tell you to repeat the measures between the signs.
9	Ending brackets	Lines that separate different endings in a repeated section. In Figure 4-5, play the measure under the first ending bracket the first time. On the repeat, play only the second ending, skipping the first ending.
10	D.C. al Fine	A score direction that tells you to go back to the beginning (<i>D.C.</i> stands for <i>Da capo</i> , Italian for “from the top”) and play to the part marked <i>Fine</i> (Italian for “end”). D.C. al Coda tells you to go back to the beginning and play until you see the words <i>To Coda</i> . Then skip to the part of the music marked <i>Coda</i> (which indicates the final part of the music — <i>coda</i> is Italian for “tail”) with the coda symbol (which resembles a set of crosshairs or a cross covering an oval). D.S. (for <i>dal segno</i> , or “from the sign”) tells you to go back to the sign (a slanted, stylized <i>s</i> with two dots on either side and a slash bisecting the <i>s</i>).
11	Double bar lines	Two bar lines spaced close together, indicating the end of a section or, if the lines are a combination of a thick and thin pair, the end of a piece.

Relating the Notes on the Staff to the Fretboard

Guitarists are no different from other musicians when dealing with written music in that after they identify and understand the symbols of standard music notation, they have to relate them to their instrument. And by “relate,” we mean *play*. At the most basic level — executing the correct pitch and rhythm — you must be able to play the note you see on the staff correctly on the guitar.

Associating a note on the staff with a string and fret location (even if the fret is zero — meaning an open string) is the first step to reading music on the guitar. A good way to begin associating notes on the staff as they relate to the guitar is to consider the pitches of the open strings, as shown in Figure 4-6.

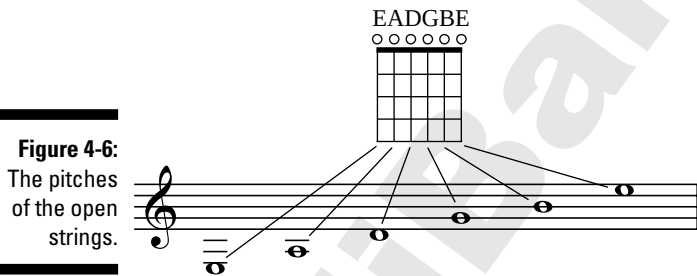


Figure 4-6:
The pitches
of the open
strings.



You can use these pitches to help tune your guitar to a piano or other fixed-pitch source. See Chapter 1 in Book I for more on tuning your guitar.

To help you correlate the notes of the treble clef with the frets on the guitar, check out Figure 4-7, which shows notes from E to F on the staff as they correspond to the fingerboard. Don't worry about playing anything yet — just get used to the idea that when you see, for example, an E on the 1st (lowest) line of the treble clef, it corresponds to the 4th string, 2nd fret.

Figure 4-7:
The notes
on the staff
correspond-
ing to the
frets on the
fingerboard.

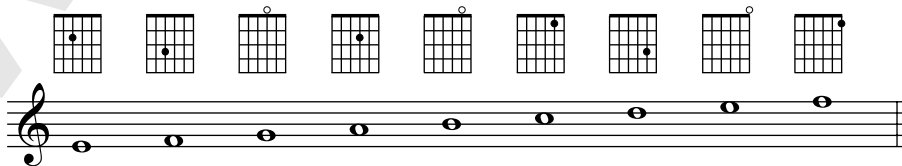


Figure 4-8 shows the entire range of notes (including sharps and flats) on the guitar on the treble clef using ledger lines above and below the staff. All 12 frets of each of the six strings are shown on the staff, which allows you to see how to play some pitches on multiple strings. The lowest possible note is the open low-E string, three ledger lines and a space below the treble staff. The highest note is E, three ledger lines above the staff.



Though the notes extend off the staff in each direction by at least three ledger lines (see “Ledger lines” in Table 4-1 for more info), in reality you rarely have to deal with notes higher than the high E that occurs three ledger lines above the staff. (You play this note on the 1st string, 12th fret.) However, the low part of the guitar’s range — from the open low E on up — sees a lot of action, so be sure you get familiar with those pitches, because you’ll be playing them quite a bit.

Guitar-Specific Notation

Guitarists who read standard music notation observe all symbols and practices regarding clefs, *staves* (plural of *staff*), pitches, and rhythms that other musicians do. But music written specifically for guitar also employs additional symbols that instruct you to perform the music in certain ways. If these symbols appear, observing them helps you perform the music in an easier, more efficient way, or enables you to better realize the composer or arranger’s intent.

These extra symbols don’t change anything regarding the pitch or rhythm; their purpose is to instruct you on how to perform the piece in the best way. In the following sections, we explore some symbols you encounter only in music written for guitar.

Fingering indications for the right and left hands

If you see little numbers and letters in the treble staff, it usually means someone (the composer or arranger, a teacher, or the editor of the music) has gone through and thoughtfully provided you with the suggested, the best, or even the *only possible* working fingering indications. *Fingering* is the term guitarists use for the choice, or assignment, of specific fingers to play a given note or passage of notes. And in classical guitar especially, the issue of fingering comes up a lot.

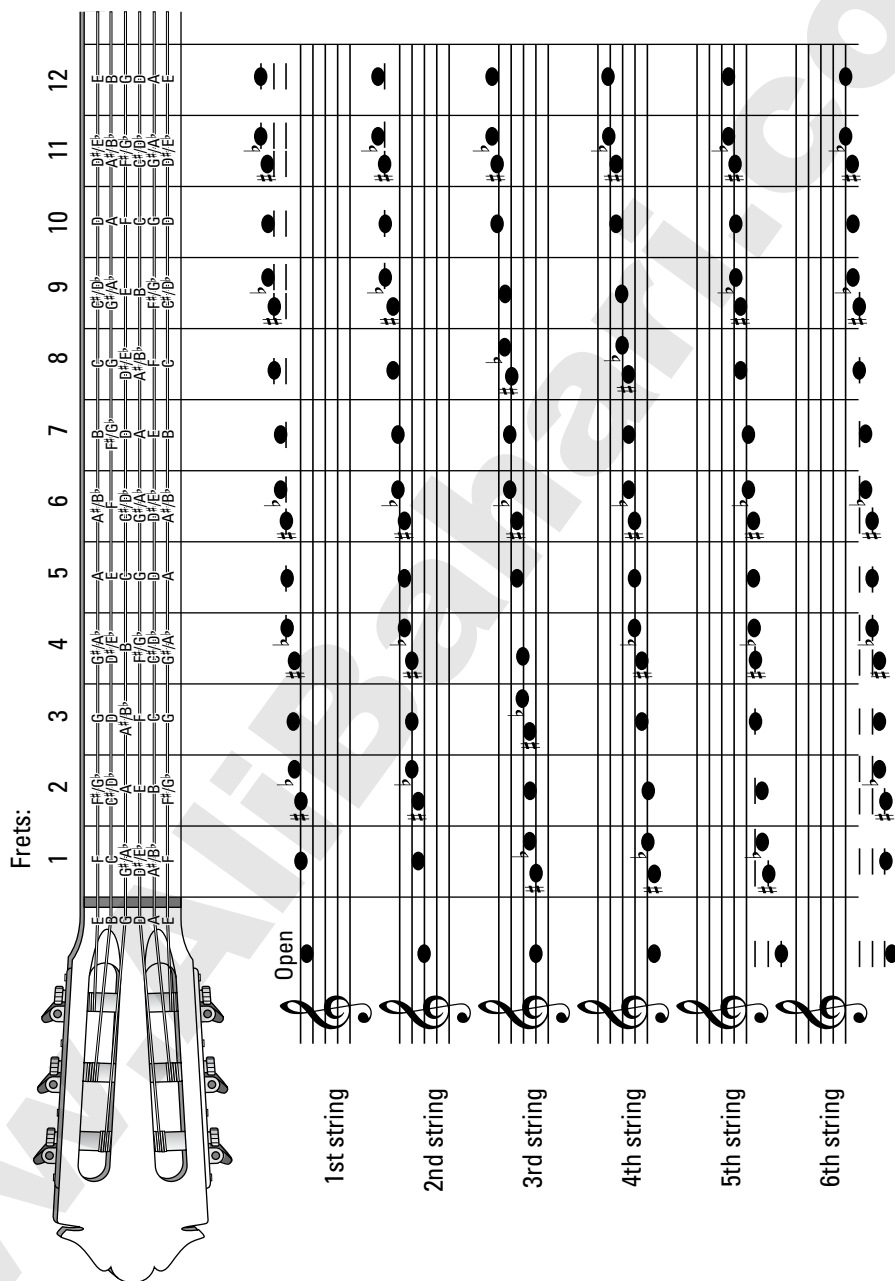
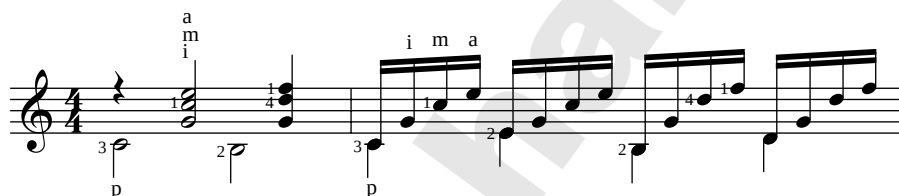


Figure 4-8:
The guitar's
entire range
of notes
shown on
the treble
clef and the
fretboard.

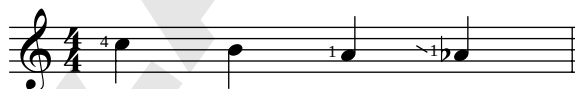
Numbers without circles appearing next to or near note heads tell you which left-hand fingers to use, as follows: 1 = index finger; 2 = middle finger; 3 = ring finger; and 4 = little finger. (You don't use the left-hand thumb in fingering.) Letters above or below notes indicate right-hand fingers, with the letters signifying the Spanish words for the thumb and the index, middle, and ring fingers: *p* = thumb (*pulgar*); *i* = index (*índice*); *m* = middle (*medio*); and *a* = ring (*anular*). Except for some special percussive techniques and in flamenco style, you don't use the right-hand little finger. Figure 4-9 shows a passage of music with some left- and right-hand fingering indications. Note that the right-hand pattern continues in both measures.

Figure 4-9:
Music with
left- and
right-hand
fingering
indications.



Sometimes you have to use the same left-hand finger to fret two consecutive notes on the same string at different frets. This requires you to actually move your left hand up or down the neck. Keeping your finger in contact with the string as you move to the new fret helps to guide your left hand. The guide finger is indicated in notation with a short, straight line appearing to the left of the second of the two finger numbers, slanting in the direction of the left-hand movement (up or down). Figure 4-10 shows the first finger acting as a guide finger moving down one fret from A to A $\flat$.

Figure 4-10:
Notation
indicating a
guide finger.



Unlike the piano, where each note on the staff indicates one and only one piano key, the guitar fretboard often provides more than one place to play a given note. For example, you can play the second line G on the open 3rd string or on the 4th string at the 5th fret. If the music requires you to play a note or passage of notes on a certain string, you see a number inside a circle, which indicates the string. For example, if you must play a second-line G on the 4th string (instead of as an open 3rd string), you see a 4 inside a circle. Figure 4-11 shows a passage that's playable only if you take the downstem G on the 4th string, 5th fret, with your thumb.

Figure 4-11:
A number
inside a circle
tells you
on which
string to
play a note.



Stepping up to the barre

You often have to fret more than one string at a time at the same fret, and you do this by taking a finger and flattening it out to form a “bar” — or, as it’s known in guitar lingo, *barre* (Chapter 3 in Book II tells you how). You may see various ways to indicate a barre in guitar music, but here we use a capital *C* (for the Spanish *ceja* or *cejilla*) for a full barre (all six strings) and a *C* with a vertical line bisecting it for a half or partial barre (fewer than six strings). A Roman numeral tells you which fret to place the barre on, and a dotted line indicates the number of beats you must hold the barre in place to successfully execute the passage underneath it. Figure 4-12 shows how barre notation appears in guitar music.

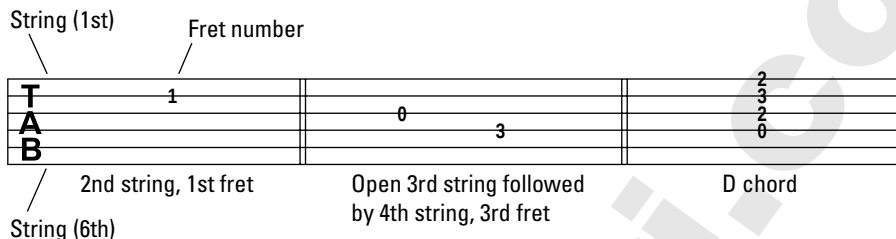
Figure 4-12:
What
a barre
indication
looks like.



Taking on tablature, a nice complement to standard notation

Sometimes a tablature staff (called “tab” for short) is added to the standard notation staff. *Tablature* looks kind of like normal music notation but it’s not. Tablature is a six-line staff that represents the guitar fretboard (see Figure 4-13). Note that each line represents a string of the guitar, with the top line corresponding to the 1st (high-E) string and the bottom line corresponding to the 6th (low-E) string. A number on a line provides the fret location for that note. (Tablature doesn’t tell you which finger to use, but you may be able to get that information from the standard music staff.)

Figure 4-13:
The six-line
tab staff
shows
notes as fret
numbers on
lines.



Remember when we said that all musicians have to be able to understand the symbols of standard music notation and *then* relate them to their instrument? Tablature skips that step! You can use tab right away, with no previous experience in reading music. However, tab is more limited than standard music notation. For one thing, it works only for guitar, so it doesn't teach you the more universal skill of reading music, and it doesn't indicate rhythm.



Tab does, however, work very well in conjunction with the standard music staff. All the notes in the tab staff align vertically with the notes appearing above in the standard music staff. If you're ever unsure as to where to play a note appearing in the music staff, all you need to do is shoot your eyes straight down to the corresponding string-and-fret location in the tab staff. Conversely, if you find yourself in the tab staff and you're uncertain of what's supposed to be happening with regard to rhythms or rests, take a quick trip uptown to see how that passage is displayed in the music staff. Figure 4-14 shows how the notes on the standard music notation staff relate to the tab staff and vice versa.

Figure 4-14:
Standard
music nota-
tion and tab
play nicely
together in
the same
system.