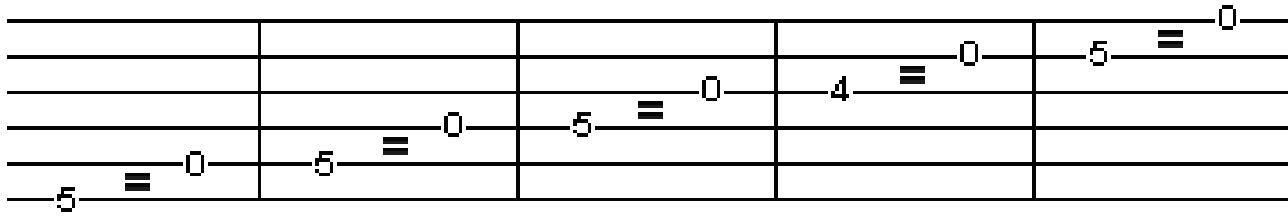


# Tuning Your Guitar

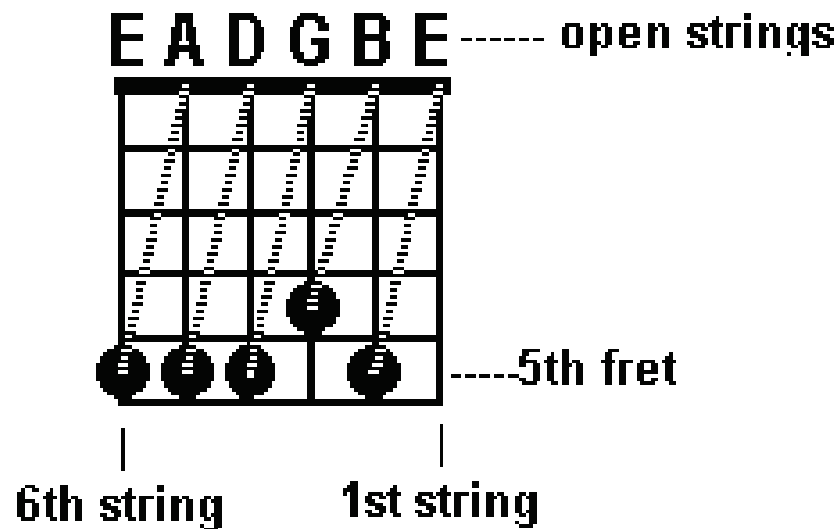
# Tuning Your Guitar

- Key is to match pitches.
- Easiest way is as follows:
  - Tune 1<sup>st</sup> string to a reference.
  - Tune 2<sup>nd</sup> string by playing 5<sup>th</sup> fret 2<sup>nd</sup> string and 1<sup>st</sup> string open. Adjust 2<sup>nd</sup> string to match first string.
  - Tune 3<sup>rd</sup> string by playing 4<sup>th</sup> fret 3<sup>rd</sup> string and 2<sup>nd</sup> string open. Adjust 3<sup>rd</sup> string to match 2<sup>nd</sup> string.
  - Tune 4<sup>th</sup> string by playing 5<sup>th</sup> fret 4<sup>th</sup> string and 3<sup>rd</sup> string open. Adjust 4<sup>th</sup> string to match 3<sup>rd</sup> string.
  - Tune 5<sup>th</sup> string by playing 5<sup>th</sup> fret 5<sup>th</sup> string and 4<sup>th</sup> string open. Adjust 5<sup>th</sup> string to match 4<sup>th</sup> string.
  - Tune 6<sup>th</sup> string by playing 5<sup>th</sup> fret 6<sup>th</sup> string and 5<sup>th</sup> string open. Adjust 6<sup>th</sup> string to match 5<sup>th</sup> string.

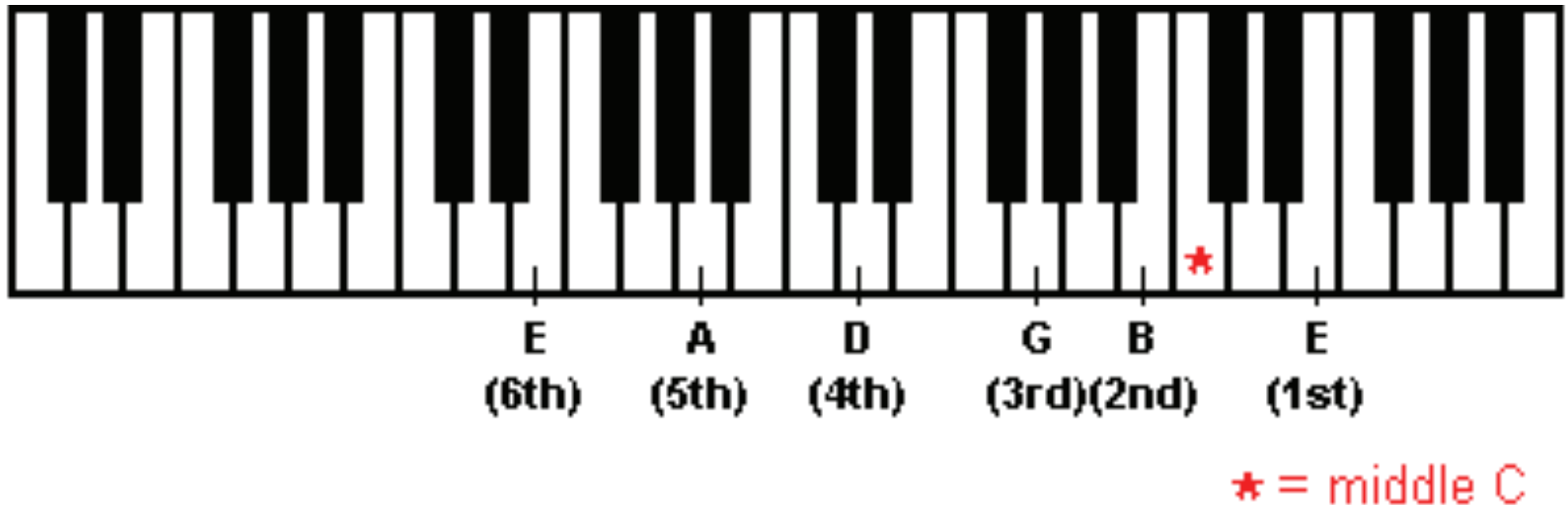
## Tablature of the basic relative tuning method



## Basic relative tuning in chord chart format



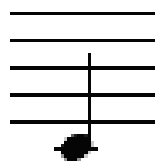
# To a Piano or Keyboard



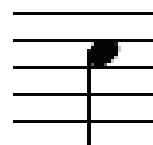
This of course means that the piano itself must be in tune. Another strategy is to tune just one string (typically the high or 1<sup>st</sup> string) to the piano and then tune the rest of the guitar to that string.

\* One important thing to know about the guitar, especially if you have played another instrument. Music for the guitar sounds an octave lower than where it is written. If you try and tune the guitar to the piano thinking that they are exactly the same, you will break all of your strings. You would be trying to tune the guitar an octave higher than where it should be.

Middle C on the piano is  
written like this



Middle C on the guitar is  
written like this



A *harmonic* is a "bell like" tone that is produced by lightly touching a string of the guitar over some specific fret bars. What we are going to be talking about in this lesson is *natural harmonics*. These harmonics are produced from the open strings of the guitar only. There are other techniques for playing harmonics (artificial harmonics, touch harmonics, tap harmonics, pinch harmonics) but they will be the subjects of another lessons.

First we are going to take a look at how to play harmonics, and then look a little more in depth look at what they are. For the moment just think of harmonics as notes on the guitar that have a little different tone than normal notes.

### **Playing a natural harmonic**

Go to the 6th string, and place the tip of any finger above the 12th fret bar. Normally when you play a note at the 12th fret, you are pressing down just to the left of the 12th fret bar. When playing a harmonic, you are going to be very lightly touching the string (not pressing down) over the fret bar, and not to the left. While lightly touching the it, pick the 6th string.

Right after you play the string, lift your left hand finger off. This will let the harmonic note ring louder, and more clearly. If you were to leave your finger on the string, the harmonic would sound, but would be more muffled. If you lift up your left hand finger too soon, then you will hear the open string. This takes a little practice to get the right timing.

## Tuning Method 2

The most accurate way I find of tuning my guitar is by using **harmonics**.

Harmonics are done by not actually holding down a string, but just gently touching it lightly. When you strike the string, it should be hard so you get a clear "ping" out of it and not an actual string note. You have to be spot on when using harmonics otherwise if you are a tiny bit off, it won't come out.

Tuning your guitar using harmonics is very similar to the first method. Again, say you have the top string (6th string) tuned correctly;

### **Step 1:**

Place your finger on the 5th fret of the top string.

### **Step 2:**

At the same time, place your other finger lightly on the 7th fret of the 5th string.

### **Step 3:**

Strike both strings at the same time. They should be the exact same 'ping' sound.

If not, one of them is out of tune. Therefore, the 5th string must be adjusted.

Using this technique is more accurate as by striking both strings at the same time, they both produce a very distinct ping sound that is easier to spot if one is out of tune.

Again, this technique works with all the strings, except the 3rd. So, the most accurate way to do this is to use the first tuning method just for this string. The rest are fine to continue on with harmonics method. For the 1<sup>st</sup> string strike it open and use the 6<sup>th</sup> string 5<sup>th</sup> fret harmonic to tune it. Tune the 2<sup>nd</sup> string to the first using the method described above (5<sup>th</sup> fret 2<sup>nd</sup> string harmonic and 1<sup>st</sup> string 7<sup>th</sup> fret harmonic).

# Harmonics

Some advanced guitarists prefer to tune using string harmonics, which cut out some of the string overtones, leaving a clear, easy-to-hear pitch. This is a little tricky to learn, but it gives a very accurate, resonant, pure-interval-based tuning.

Harmonics are played by touching the string very lightly at the fret, rather than holding it down just below the fret. You must be comfortable with playing harmonics to use this tuning method; it is not recommended for beginners.

## Tuning Using Harmonics

**tune E string  
to tuning fork etc.**

**tune open  
B string**

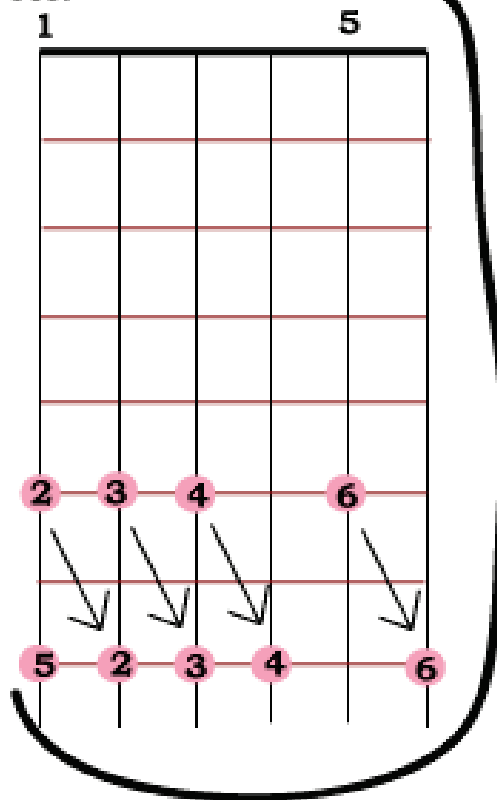


Figure 4  
Tuning Using Harmonics



## Tuning Using Harmonics

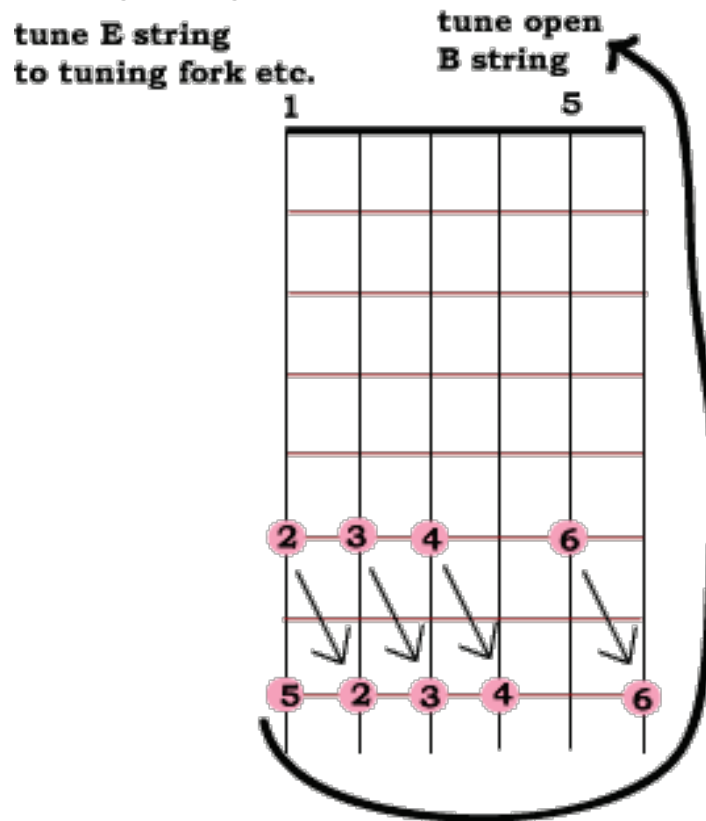


Figure 4  
Tuning Using Harmonics

1. Tune the low E string using a tuning fork, keyboard, etc.
2. Tune the A string by matching the harmonic at the fifth fret of the 6th string to the harmonic at the 7th fret of the 5th string.
3. Tune the D string to the A string and the G string to the D string using the same procedure (matching the 7th fret harmonic of the higher string to the 5th fret harmonic of the lower string).
4. Tune the B string by matching the *open B string* to the harmonic at the 7th fret of the 6th string.
5. Tune the top E string to the B string using the 5th fret/7th fret harmonics.
6. Check the tuning using an E's and B's only chord (see [above](#), and adjust as necessary).