Inspiring Greatness

ISD

INDEPENDENCE SCHOOL DISTRICT

Guitar Virtual Learning

Anatomy of a Guitar (Part I)

May 11, 2020

Guitar

Lesson: May 11, 2020

Objective/Learning Target:

What are the different parts of a guitar, and how do these different parts help the guitar make sound?

Warm-Up Activity

Draw an acoustic guitar. Feel free to use this image as inspiration. Then, label as many different parts on that guitar that you can.

2nd Warm-Up Activity

Watch the video on the next slide of how an acoustic guitar is made!


How It's Made
SCI
science

Parts of a Guitar

Today we are going to break down the different parts of a guitar. For this lesson, we will focus on an acoustic steel-string guitar.

For the next lesson, we will see how classical (nylon-string) guitars and electric guitars are similar and different in their construction.

Acoustic Guitars: how they work

Before we start breaking down the different components of an acoustic guitar, let's make sure we understand how an acoustic guitar works.

Guitars have two main factors that contribute to their sound: the strings, which produce their sound, and the body, which amplifies and resonates the sound.

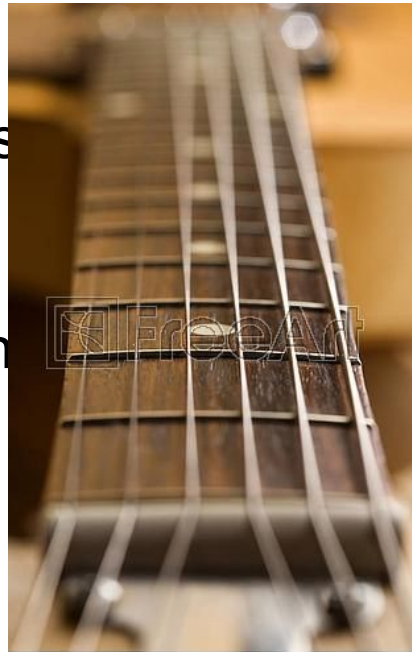
The strings

With all instruments, sound is produced when something vibrates.

With guitars, the things that vibrate are the strings. When one or more of the strings is plucked or strummed, the string starts to vibrate all over. This creates a very specific note or tone.

The strings

How thick the string is, and what length the string is as it vibrates, determine how high or low the pitch is that the string creates. The string will vibrate all the way from the **nut** on one end of the guitar to the **saddle** on the other end, unless the string is pressed down to a specific **fret**. When that happens, the length of string that is allowed to vibrate is shortened, which raises the pitch the string produces!

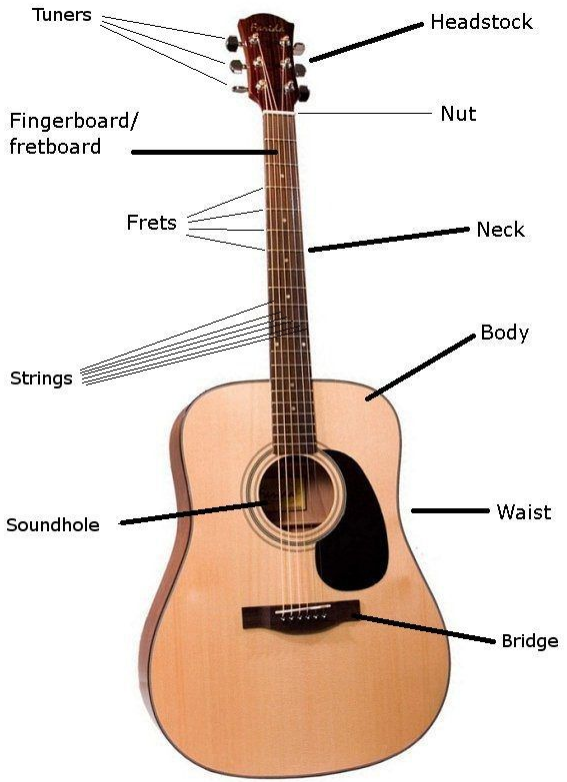


The body

As the string vibrates, it creates a sound wave. This sound wave then travels into the body of the guitar, which is hollow. Inside the body of the guitar, the sound wave is able to bounce around and **resonate** (or echo). This naturally **amplifies** the sound of the string (makes it louder).

Parts of the Guitar

Now that we have a basic understanding of how a guitar works, let's walk down the different components that help this process happen, starting at the head of the guitar:

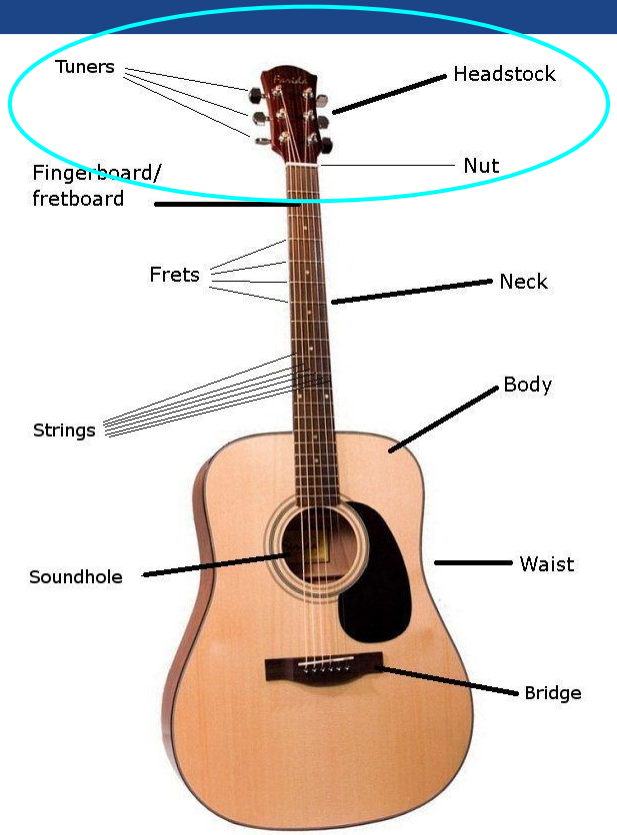


Parts of the Guitar

The **head** or **headstock** of the guitar sits at the top of one end of the guitar.

It holds the 6 **tuners**.

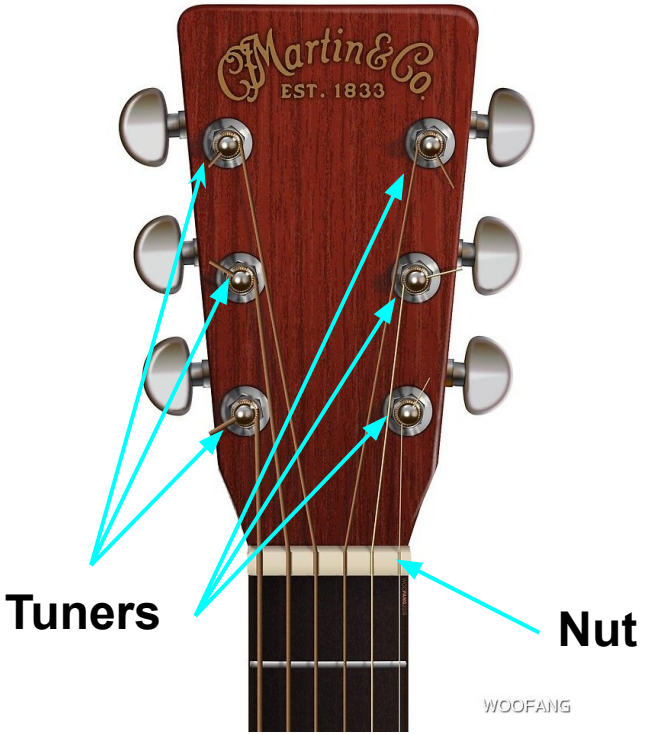
It ends with the **nut**.



Parts of the Guitar

Each **tuner** holds one of the 6 strings. The tuners are used to adjust the tension of the string, which adjusts the string's pitch.

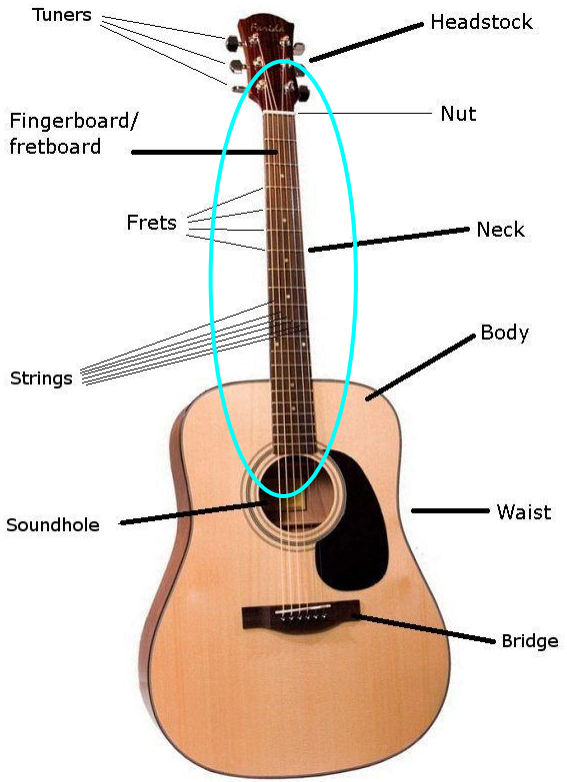
The **nut** has 6 grooves that hold each of the strings and set one end of the vibrating length of the strings.



Parts of the Guitar

The **neck** of the guitar attaches to the headstock on one end and the body of the guitar on the other end.

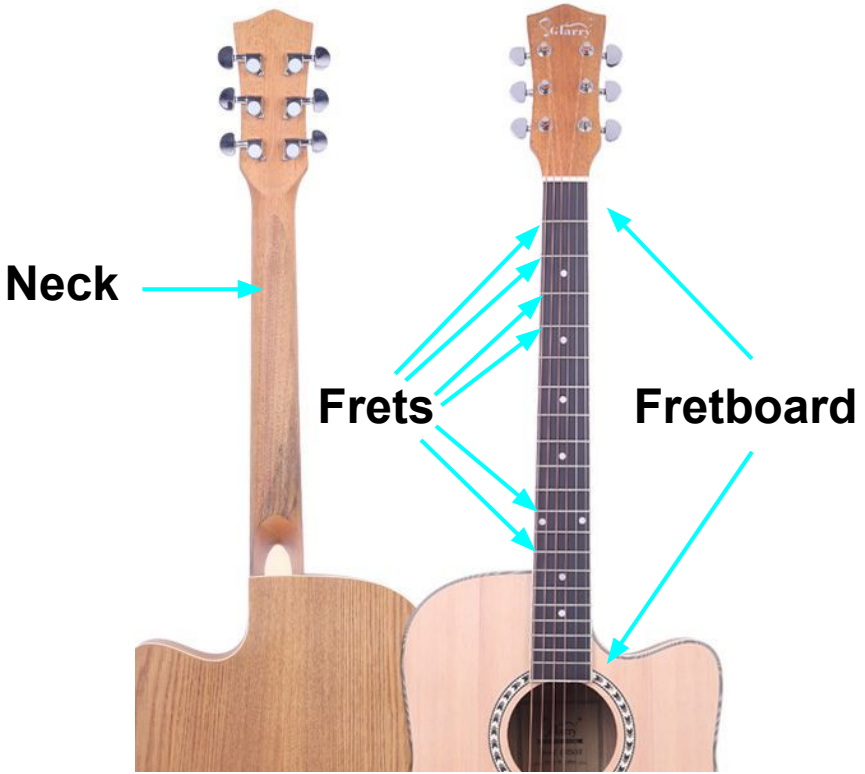
The **fretboard** or **fingerboard** sits on top of the neck.



Parts of the Guitar

The **neck** is long and thin, allowing the player's hand access to the fretboard.

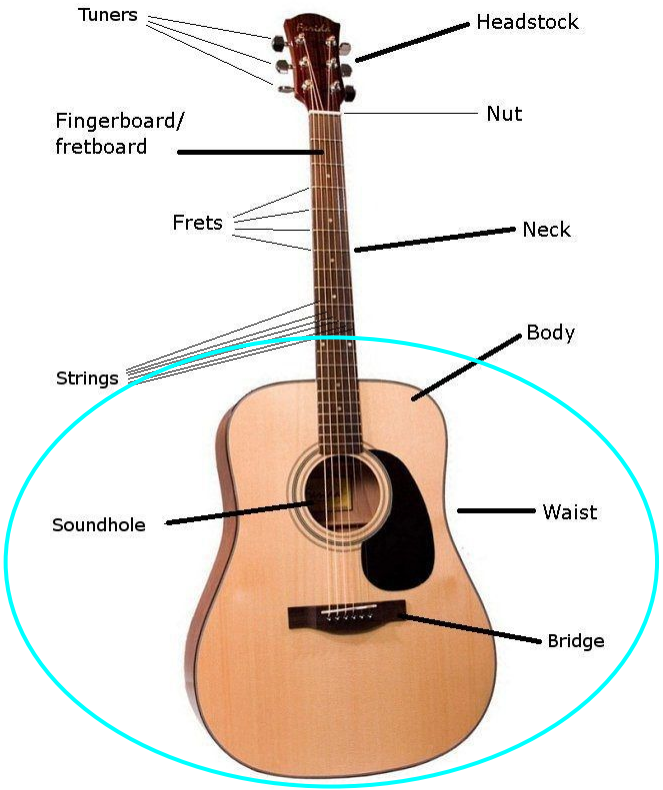
The **fretboard** or **fingerboard** typically holds between 18-22 **frets** - thin metal bars used to change a strings pitch.



Parts of the Guitar

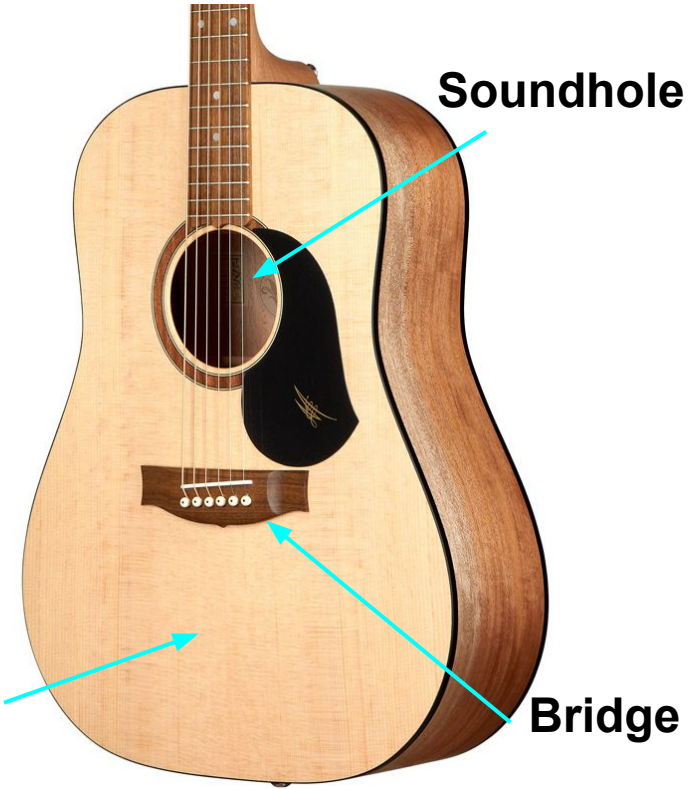
The **body** of the guitar is made of a back, sides, and a top.

It is usually hourglass shaped, with a waist separating an upper bout and a lower bout.



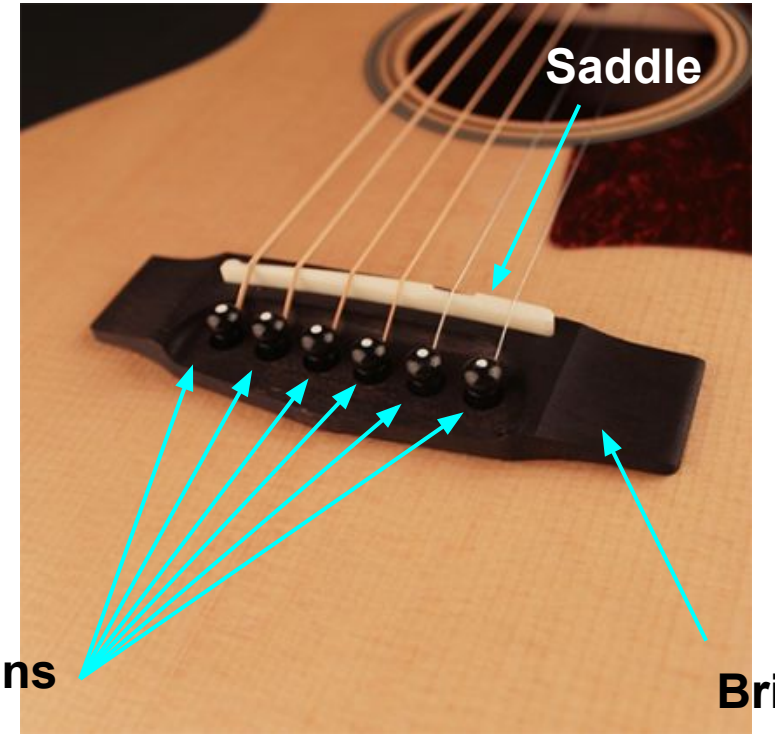
Parts of the Guitar

The wood panel that makes the top of the body is called the **soundboard**, and has a hole cut into it under the strings called a **soundhole**.



Parts of the Guitar

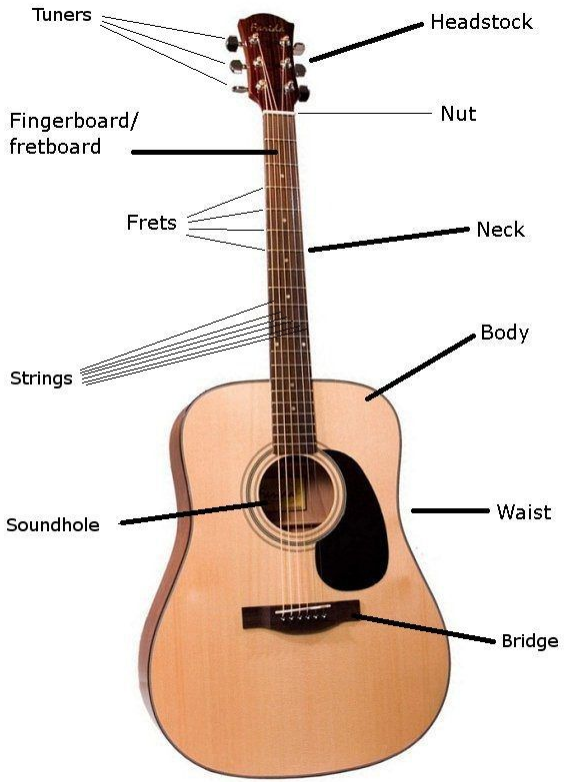
The soundboard also has the **bridge** of the guitar attached to it. The bridge has the **endpins** that hold the bottom end of the strings, and the **saddle**, which is the other end of the vibrating length of the string.



Parts of the Guitar

All of these parts work together to produce and shape the sound and tone of the guitar.

Later this week, we will explore how different materials and shapes can change the tone a guitar produces!



Follow-Up activity

Take out your sketch of a guitar you did at the beginning of the lesson. Using the knowledge you learned from this lesson, edit your diagram to include all the parts we just learned about.

Then, write a 2-paragraph summary of how a guitar produces sound, making sure to mention guitar parts we discussed today.

2nd Follow-Up activity

Watch Josephine Alexandra play a fingerstyle guitar arrangement of Maroon 5's song "Memories". As you watch, pay special attention to the body of her guitar (a Yamaha FSX830C), and specifically how the strings vibrate. As she uses her left hand to press down strings on the fretboard, notice the strings making higher pitches when they are shortened.


MEMORIES

Follow-Up activity: Your Own Guitar

If you have your own guitar, take it out and identify all of the parts we discussed today. Then, practice plucking the strings, one at a time, while pressing down on the different frets on the fretboard. Watch the length of the string that vibrates change as you listen to how that changes the pitch of each string each time.