



Les Paul Study Units

Wisconsin's Pioneer
of Rock-n-Roll



Wisconsin Department of Public Instruction
Tony Evers, PhD, State Superintendent

Les Paul Study Units

Wisconsin's Pioneer of Rock-n-Roll

Developed by
Julie A. Palkowski, PhD
Fine Arts and Creativity Education Consultant
Wisconsin Department of Public Instruction

In collaboration with:

Sue Baker
Program Director
Les Paul Foundation

Tim Wurgler
Program Associate
Wisconsin School Music Association



Wisconsin Department of Public Instruction
Tony Evers, PhD, State Superintendent
Madison, Wisconsin

This publication is available from:

Content and Learning Team
Wisconsin Department of Public Instruction
125 South Webster Street
Madison, WI 53703
608-261-7494
http://cal.dpi.wi.gov/cal_finearts-creativity

© June 2015 Wisconsin Department of Public Instruction

The Wisconsin Department of Public Instruction does not discriminate on the basis of sex, race, color, religion, creed, age, national origin, ancestry, pregnancy, marital status or parental status, sexual orientation, or disability.

Cover photo and blog article photos are courtesy of the Les Paul Foundation.



Les Paul

Wisconsin's Pioneer of Rock-n-Roll



This music unit was developed through a collaboration between the Les Paul Foundation, the Wisconsin School Music Association, and the Wisconsin Department of Public Instruction.

Student Name: _____

Student Grade: ____ Classroom Teacher: _____

School: _____ School Year: _____

Les Paul

Musician, Inventor, Sound Pioneer
Roots and Beginnings **1**



STUDENT NAME – _____ CLASSROOM – _____

Scrapbook

- Review the scrapbook page.
- Identify how the clues fit the pictures.

1



2



Clues

- Influence
- Lester Polsfuss
- Orchestra
- Phonograph
- Player Piano
- Xylophone

3



4



5



6



Standards

- I can echo short rhythmic and melodic patterns. (B4)
- I can identify various uses of music in daily experiences and describe what makes certain music suitable for each use. (I4)

Essential Question

Why and how do people create music?

Musician –



Listen to Lover by Les Paul.



Echo the leader.



Think of one word to describe the song.



Share.



K - W - L - Fill in the boxes from the information gathered from the scrapbook page and music.

What do you **know** about Les Paul?

What do you **want to know** about Les Paul?

What have you **learned** about Les Paul's start as a musician, inventor, or sound pioneer?
Complete for the Exit Ticket.

Vocabulary – Underline one word you know.

Circle one word you do not know. Quizlet

Experiment Influence Orchestra

Phonograph Xylophone Laboratory

I know the word _____.

Describe your word by drawing or writing a sentence about it. Share this work with a partner who has a different word.

Inventor and Sound Pioneer - Reading - The Wizard's Earliest Experiments



Read the excerpt with your group.



Think, share, and write with your group about the question below.

- What have you **learned** about Les Paul's start as a musician, inventor, or sound pioneer?

Musician –



Listen to Lover by Les Paul.



Echo the leader. Add new sounds with the group.



How was the song created? What is one thing you would add to the song?

Exit Ticket – Essential Question – Answer the question with either a drawing or sentence. Place on a post-it on the chart with your name on the back of the post-it.

- Why and how do people create music?





The Wizard's Earliest Experiments

February 21, 2014 | Author Sue Baker

Retrieved from the Les Paul Foundation blog on March 5, 2014.



1 Like many very young children, **Lester Polsfuss** (Les Paul) took pots and pans out of his mother's kitchen cabinets to create his "**orchestra**," as he called it. His pounding on the various pans may have been his first **experiment** with sound. Lester still was very young when he observed how the nearby train sounded differently as it moved along the track. He wondered why the living room window shuddered as the train passed. That curiosity drove Les throughout his life.

2 Les was fond of saying that his childhood living room was his **laboratory**. He disassembled anything that had moving parts to learn how it worked, which often was followed by his own modifications. Evelyn encouraged her young son to explore and learn, but she had begged Lester not to take apart her prized

player piano. When Evelyn was out of the house, Lester's curiosity won. As he disassembled the piano, Lester carefully laid everything out in order so that he could put the piano back together. Unfortunately, Evelyn returned to see her precious piano in pieces. Les relayed how he felt badly when his mother started to cry. Young Lester put everything back together and to Evelyn's delight, the piano repairman announced that indeed Lester had replaced all the parts and the piano was in fine shape.



Evelyn and young Lester in their living room.



3 Les continued to **experiment** with the piano, but he focused on the piano rolls. He observed how holes in the rolls caused notes to be played. He taped over some holes and created new ones to see if he could change the song. Les laughed as he said, “By the time I was done with ‘Barney Google,’ there was more tape than clear space on the roll.”

4 Young Lester wanted to know why he was able to alter music notes on a **phonograph** (turntable) by slowing the speed, but slowing the speed of the player piano did not change the notes. His mother took him to the junior high science teacher to find his answer. The teacher took Lester to the library and helped him uncover the answer.



Lester's childhood home in Waukesha, Wisconsin

5 Lester's curiosity and creativity never slept. He told how each night as he went up the stairs he would play songs on the “wooden **xylophone**.” As Les described it, the stairs had vertical planks that went from long to short along one side of the stairs.

Les said, “But there was a problem. The xylophone was out of tune, so I had to tune it.”

“You did what?”

“I tuned it. I cut the bottom of the plank that was out of tune.”

“And what did your mother say?”

“Oh, she thought everything I did was clever.”

Les Paul

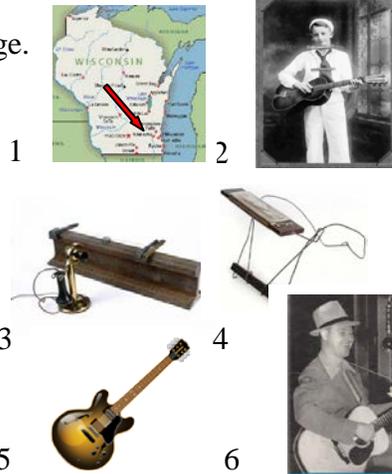
Musician, Inventor, Sound Pioneer
 Roots and Beginnings **2**



STUDENT NAME – _____ CLASSROOM – _____

Scrapbook

- Review the scrapbook page.
- Identify how the clues fit the pictures.



Clues

- Waukesha
- Red Hot Red
- Railroad Tie
- Harmonica
- Electric Guitar
- Pie Plant Pete

Standards

- I can sing in groups, blending vocal timbres, matching dynamic levels, and responding to the cues of the conductor. (A5)
- I can identify various uses of music in daily experiences and describe what makes certain music suitable for each use. (I4)

Essential Question

Why do people create or invent things?

Musician –



Listen to Over Yonder, Over There, by Pie Plant Pete.

Follow the leader in verses 1, 2, and 4. Sing verse 3.



Describe the song.



K - W - L - Fill in the boxes based on the information gathered from the Les Paul Scrapbook page.

What do you **know** about Les Paul?

What do you **want to know** about Les Paul?

What have you **learned** about Les Paul's start as a musician, inventor, or sound pioneer?

Complete for the Exit Ticket.

Vocabulary – Underline one word you know.
Circle one word you do not know. Quizlet

Amplify Electric Harmonica
Invention Replica Venues

I know the word _____.
Describe your word by drawing or writing a sentence about it. Share this work with a partner who has a different word.

Inventor - Reading - Les Paul's Inventions — Part 2 or Teen Inventor.



Read the excerpt with your group. (next page)



Think, share, and write with your group.

- What have you **learned** about Les Paul's start as a musician, inventor, or sound pioneer?

Sound Pioneer - Watch RBH Builds a Rail Guitar. (video)



How was sound produced using a railroad tie?



Share your responses in class.

Exit Ticket - Essential Question – Answer the question with either a drawing or sentence. Place on a post-it on the chart with your name on the back of the post-it.

- Why do people create or invent things?





Les Paul's Inventions — Part 2

March 19, 2014 | Author Sue Baker

Retrieved from the Les Paul Foundation blog on March 19, 2014.

1 Lester, who by his teen years was known as Red Hot Red, continued to play his **harmonica** and guitar. He wanted to be able to play both instruments at the same time. He had become **proficient** at playing both sides of the harmonica so it was important to be able to flip the harmonica without putting down his guitar.

2 Coat Hanger Contortions

Using a metal coat hanger and a bit of wood, teenage Lester invented his flipable harmonica holder. Not only could he hold his guitar and sing, his invention allowed him to access both sides of the harmonica. He could flip the harmonica with his chin. Lester used his **invention** while playing at numerous **Waukesha** and Milwaukee **venues**.



You can see versions built by Les Paul at Milwaukee's Discovery World and at the Waukesha County Museum.

3 Amplification Ramifications

While playing at a Waukesha drive-in restaurant, Lester realized he could make more tips if he could **amplify** his voice. He stuck the mouthpiece from his mother's telephone onto a wooden broom handle, and then ran it through his mother's radio speaker to amplify his voice. Indeed, he got more tips, but someone in the back of the audience gave Lester a world-changing note,



“Red, your voice and harmonica are fine, but your guitar's not loud enough.”

The challenge led to Lester trying many different ways to electrify his guitar. He settled on inserting the needle from the arm from his father's radio-phono player into the guitar's bridge. Lester then played through the amplified speaker. Teenage Lester had invented a **primitive electric guitar**.



Teen Inventor

May 14, 2013 | Author Sue Baker

Retrieved from the Les Paul Foundation blog on March 5, 2014.



4 Les Paul was an inventor from his school days in Waukesha, Wisconsin. Not only did he design **the first solid body electric guitar** when he was in his teens, but he was the guitar-playing sensation who showed the world how to play the electric guitar.

5 As a teen, guitar-harmonica playing Les created his first invention, a **coat hanger harmonica holder**. Commercial versions required taking the harmonica off the holder and repositioning it. Les wanted to be able to flip the harmonica with his chin so he could seamlessly keep singing and playing his guitar. He relayed that his brother Ralph worked at a dry cleaning store, “so there were plenty of wire coat hangers around” and that is what young Les used.

6 Les’ first solid-body guitar was even more **unorthodox** than his later wooden “Log.” In search of the hardest substance available for a guitar, Les stretched a guitar string across the top of a two-foot piece of rail from a railroad track, added a **microphone** from his mother’s telephone, added a magnet, wired it into his mother’s radio, and thus the first solid-body electric guitar came into existence at the hands of a teenager. That was in the 1920s. Les knew that a guitar based on a piece of rail was not practical, but he kept thinking about the unparalleled sustainability that strange guitar had. A **replica** of the “first log” can be seen in Discovery World’s “Les Paul House of Sound” in Milwaukee, Wisconsin.

Les Paul

Musician, Inventor, Sound Pioneer

On the Road 1



STUDENT NAME – _____ CLASSROOM – _____

Scrapbook

- Review the scrapbook page.
- Identify how the clues fit the pictures.

Clues

- Transmitter
- Rhubarb Red
- Crystal Radio
- Amplify
- Cowboy Music
- Scalawags



Standards

- I can sing/play independent instrumental parts while other students play contrasting parts. (B6)
- I can identify the sounds of a variety of instruments, as well as male and female adult voices. (F6)

Essential Question

How are people influenced in their work and play?



K – W – L – Fill in the boxes below.

<p>What do you know about Les Paul?</p>	<p>What do you want to know about Les Paul?</p>	<p>What have you learned about Les Paul as a musician, inventor, or sound pioneer?</p> <p style="text-align: right; font-style: italic;">Complete after reading the article.</p>
--	--	---

Vocabulary – Underline one word you know.
Circle one word you do not know.

- Amplify Antenna Crystal Radio
- Electronics Scalawags Transmitter

I know the word _____.

Describe your word by drawing or writing a sentence about it. Share this work with a partner who has a different word.

Musician and Sound Pioneer –



Listen to Song #1;



Sing with Song #2.



Think. Describe each version of the song Tiger Rag with either a picture or words for each.

SONG #1 – <u>Tiger Rag</u> by The Mills Brothers (1931 Billboard hit)	SONG #2 – <u>Tiger Rag</u> by Les Paul and Mary Ford (1952 Billboard hit)

Class Sharing Question: How are the versions different or the same? How would you change the song?

Inventor – Reading – Les Paul teen radio entertainer and inventor



Read the excerpt with your group.



Think, share, and write with your group about the question below.

- What have you **learned** about Les Paul as a musician, inventor, or sound pioneer?

Exit Ticket – Essential Question – Answer the question with either a drawing or sentence. Place on a post-it on the chart with your name on the back of the post-it.

- How are people influenced in their work and play?





Les Paul, teen radio entertainer and inventor

August 27, 2013 | Author **Sue Baker**;

Retrieved from the Les Paul Foundation blog on March 5, 2014.

1

From his childhood days of listening to the **crystal radio** he made to having his own radio shows, Les was mesmerized by radio. His first radio encounter was listening to **cowboy music** on Tennessee radio stations. When Les was about ten, he would ride his bicycle six miles each way from Waukesha to Milwaukee's WTMJ transmitter and tower to learn about radio operations from Bill, the station's engineer. Les reported wanting to hear everything in the station, down to the clock ticking. He did not want to miss anything.



2

According to Les, the radio was the most important thing in his childhood home because it connected his family to what was going on all over the country. Les listened to programs from Chicago, Milwaukee, St. Louis, Memphis, and Nashville. Not only did Les listen to the radio, he experimented with its parts. As a teen performer at Waukesha's drive-in barbeque stand, he used the speaker from his mother's radio to **amplify** his voice. He also used his father's radio-phono player to create his first **electric guitar**.

3

Even as a teen, Les constructed his own radio station. He built a one-tube radio transmitter and lengthened the **antenna** to the roof so he could be heard throughout his neighborhood. Les was enthralled with radio, both the music and **electronics**.

Les



4

Les and his friend Sunny Joe Wolverson performed with The **Scalawags** on St. Louis' KMOX radio in 1932. Les is sitting with the jug and Joe's L5 guitar. Sunny Joe is on the **fiddle**.

Les Paul

Musician, Inventor, Sound Pioneer

On the Road

2



STUDENT NAME – _____ CLASSROOM – _____

Scrapbook

- Review the scrapbook page.
- Identify how the clues fit the pictures.

Clues

- Listing
- Rhubarb Red
- Broadcast
- Engineer
- Professional
- Gigs



Standards

- I can sing/play independent instrumental parts while other students play contrasting parts. (B6)
- I can identify the sounds of a variety of instruments, as well as male and female adult voices. (F6)

Essential Questions

- How do people stay connected and find out what is happening around their neighborhood and world?



K – W – L – Fill in the boxes below.

What do you know about Les Paul?	What do you want to know about Les Paul?	What have you learned about Les Paul's start as a musician, inventor, or sound pioneer? Complete after reading the article.
---	---	--

Vocabulary – Underline one word you know.

Circle one word you do not know.

Broadcast Engineer Gigs

Midwest Professional

I know the word _____.

Describe your word by drawing or writing a sentence about it. Share this work with a partner who has a different word.

Sound Engineer –



Watch How Radio Works – 1943 Video. What does the radio offer to people?



Watch the WKID video. Does the radio still offer the same kind of support as it did in 1943?



Create a report for the radio topic assigned. Your team will be sharing the report. Consider adding sound effects to the report to create added interest and believable sounds.

Inventor – Reading – Rhubarb Red on the Radio



Read the excerpt with your group.



Think, share, and write with your group about the question below.

- What have you **learned** about Les Paul as a musician, inventor, or sound pioneer?

Exit Ticket - Essential Question – Answer the question with either a drawing or sentence. Place on a post-it on the chart with your name on the back of the post-it.

- How do people stay connected and find out what is happening around their neighborhood and world?





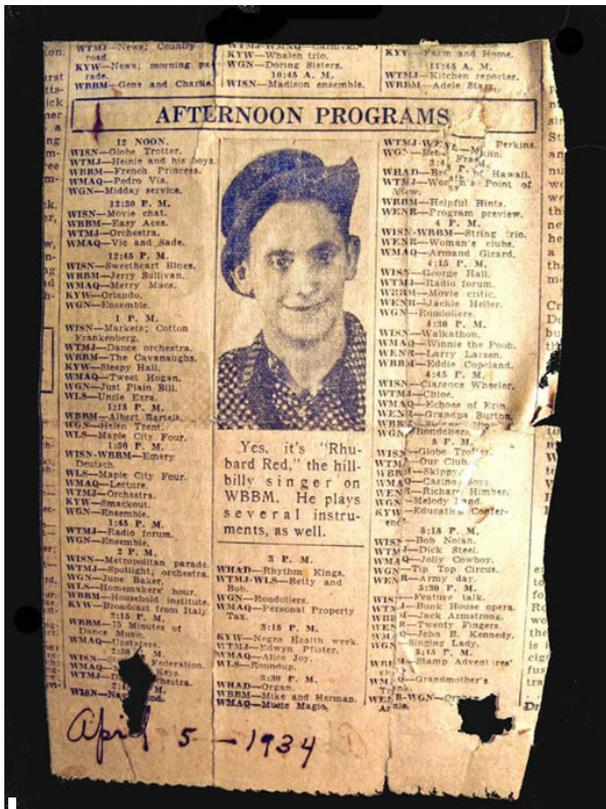
Rhubarb Red on Radio

July 22, 2013 | Author Sue Baker

Retrieved from the Les Paul Foundation blog on March 5, 2014.

1 Someone recently shared this April 5, 1934, **radio listing** with us (Les Paul Foundation). It most likely came from a Wisconsin newspaper, maybe Milwaukee. The radio stations are primarily from Chicago and Milwaukee. Even today Chicago AM radio stations can be heard in Milwaukee and vice versa. The two cities are approximately 90 miles apart. Waukesha is 20 miles west of Milwaukee.

What makes this listing so interesting is that Les Paul had ties to most of the stations. In 1934 Les Paul was known as **Rhubarb Red** and occasionally he was tagged with his earlier stage name of Red Hot Red. He and his partner, Sunny Joe Wolverton, had just moved to **Chicago** from Springfield, Missouri.



2 WISCONSIN – Les' first radio performance was on WRJN Radio in Racine, Wisconsin, followed by Milwaukee's WISN radio. (Racine is 25 miles south of Milwaukee.) Milwaukee's WHAD originally **broadcasted** from Marquette University. Les told how he performed songs on WHAD in exchange for having his teeth cleaned at Marquette's dental school. WTMJ radio had a **transmission** tower near Waukesha. As a young teen, Les learned how radio stations function from the station's **engineer**. WTMJ was the fourth radio station where Les performed.



3 CHICAGO - When Les was growing up he would listen to country music on Chicago's WLS. In fact, his hero, Pie Plant Pete, was a regular on WLS. When Les was a teen, Rube Tronson's WLS Cowboy's Band performed at towns across the **Midwest** section of the U.S. Sunny Joe Wolvertson was part of the band. Les met his first **professional** partner when the group came to a town near Waukesha. After Sunny Joe and Les split their act in Chicago, Les played solo on WLS. A later connection between Les and WLS is that his first trio members, Jimmy Atkins and Ernie Newton, had been WLS staff musicians before the three of them headed to New York in 1938. The trio managed to join a WLS road show that was headed to New York State, so they performed their last country **gigs** as they worked their way to New York.



Chicago's Wrigley Building

4 Les and Sunny Joe Wolvertson worked for about a year in St. Louis and in Springfield, Missouri, when they got an offer to work for Chicago's WBBM. They performed as the Ozark Apple Knockers, a name they had used in Missouri, doing WBBM's daily Sendol show. They also worked as staff musicians. At that time, WBBM was in Chicago's Wrigley Building. Les talked about working at WBBM as Rhubarb Red during the day and spending his evenings on Chicago's South Side learning how to play **jazz**. This is when he took the name "Les Paul," though he continued to play **country music** as Rhubarb Red. In 1941, when Les decided it was

time to leave New York and head to California, he worked for awhile in Chicago at WBBM before finally leaving for Hollywood. Les talked about working as a solo musician for WGN as well. Les Paul started at Wisconsin radio stations then honed his skills at Chicago's stations.

Les Paul

Musician, Inventor, Sound Pioneer

Les and Mary 1



STUDENT NAME – _____ CLASSROOM – _____

Scrapbook

- Review the scrapbook page.
- Identify how the clues fit the pictures. 1



2



Clues

- Tinker
- Iris Colleen Summers
- Jazz 3
- Stage Name
- Country Music
- Radio Show 5



4



6

Rhubarb
Red &
Mary Lou

Standards

- I can sing in groups, blending vocal timbres, matching dynamic levels, and responding to the cues of the conductor. (A5)
- I can identify various uses of music in daily experiences and describe what makes certain music suitable for each use. (I4)

Essential Question

How do people use their creativity through music?

Musician and Sound Pioneer –



Listen to “The Les Paul Show” – Sweet Georgia Brown excerpt. (Start at 2:10 minutes; End at 4:20 minutes.)



Clap / Move to the song. (Clap / move with different rhythm parts alone and together during the song.)



Describe the show.

- How did Les perform the piece Sweet Georgia Brown?
- What would you add to the song?



K – W – L – Fill in the boxes based on the information gathered from the Les Paul Scrapbook page.

What do you **know** about Les Paul and Mary Ford?

What do you **want to know** about Les Paul and Mary Ford?

What have you **learned** about Les Paul being a musician, inventor, or sound pioneer?

Complete for the Exit Ticket .

Vocabulary – Underline one word you know.

Circle one word you do not know. Quizlet

Country Music

Jazz

Radio Show

Stage Name

Tinker

I know the word _____.

Describe your word by drawing or writing a sentence about it. Share this work with a partner who has a different word.

Musician – Reading – How Mary Ford Got Her Name



Read the excerpt with your group.



Think, share, and write with your group.

- What have you **learned** about Les Paul being a musician, inventor, or sound pioneer?

Sound Pioneer – Create two different class rhythm parts to accompany Sweet Georgia Brown.



Rhythm 1 –

Rhythm 2 –

(The class may use rhythm instruments, hands, or movement alone or at the same time to perform.)



Perform parts with the Sweet Georgia Brown excerpt. (Start at 2:10 minutes; End at 4:20 minutes.)

Exit Ticket – Essential Question – Answer the question with either a drawing or sentence. Place on a post-it on the chart with your name on the back of the post-it.

- How do people use their creativity through music?



How Mary Ford Got Her Name

January 21, 2014 | Author [Sue Baker](#)

Retrieved from the Les Paul Foundation blog on March 5, 2014.



1 Les didn't meet Mary Ford. He met **Iris Colleen Summers**. It was the mid-1940s. Les was living in Hollywood. He and his trio had worked for NBC. His stint with the **Armed Forces Radio** during World War II was complete, and he was back doing nine jazz and pop shows a week with NBC.

2 When NBC said it needed to fill nine more shows and they wanted a different sound, Les suggested his Rhubarb Red country **persona** along with his Missouri Ozark Apple Knockers show. Les' trio had the musical skills to perform the country show, but Les wanted a female singer to add variety. Cowboy singer Gene Autry, who Les had known from his days in Chicago, suggested one of the singers from The Sunshine Girls that had been backing him. Colleen took the stage name of Mary Lou for the country show, "Rhubarb Red and the Ozark Apple Knockers, featuring Mary Lou."

3 In 1948, Les' brother and father were opening a tavern in Waukesha. By now, Les and Mary went everywhere together, so they headed to Waukesha for the grand opening. Les was playing **jazz** and pop songs and Mary was strictly a **country** singer. It was only when they arrived in Waukesha that Les learned his brother had not arranged for another guitarist or bass player. After much cajoling by Les, Mary agreed to play guitar and sing with Les. Les later recounted that after the show, "...it dawned on me that Mary and I could perform together and do something unique. That's when I knew I'd found my singer, and that she'd been right there with me the whole time."



4 Once Les realized he had his female singer, he knew she needed a **stage name**, one that was rich sounding and short. Les grabbed a Milwaukee phone book to find a last name. "Hey, what about Mary Ford?" Mary replied, "Whatever you think, Les."

And, that is how Iris Colleen Summers became Mary Ford, one half of the gold-record recording, TV show stars duo of Les Paul and Mary Ford.

Les Paul

Musician, Inventor, Sound Pioneer

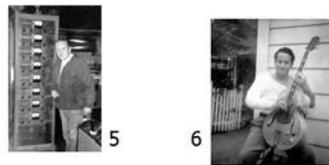
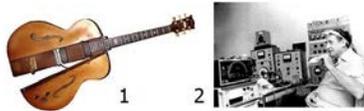
Les and Mary 2



STUDENT NAME – _____ CLASSROOM – _____

Scrapbook

- Review the scrapbook page.
- Identify how the clues fit the pictures.



Clues

- The Log
- Audio Engineer
- Fret
- Thumb Pick
- Multi-track Recording
- Recovery

Standards

- I can sing in groups, blending vocal timbres, matching dynamic levels, and responding to the cues of the conductor. (A5)
- I can identify various uses of music in daily experiences and describe what makes certain music suitable for each use. (I4)

Essential Question

How do people use their creativity through music?

Musician and Sound Pioneer –



Watch the making of How High the Moon by Les Paul and Mary Ford.



Think of how the song was created. Share what you would add to the song.



K - W - L - Fill in the boxes based on the information gathered from the Les Paul Scrapbook page.

What do you **know** about Les Paul and Mary Ford?

What do you **want to know** about Les Paul and Mary Ford?

What have you **learned** about Les Paul being a musician, inventor, or sound pioneer?

Complete after the reading excerpt.

Vocabulary – Underline one word you know.
Circle one word you do not know. Quizlet

Audio Engineer

Fret

Multi-track Recording

The Log

I know the word _____.
 Describe your word by drawing or writing a sentence about it. Share this work with a partner who has a different word.

Musician - Reading – Les Paul talks about adapting to physical challenges



Read the excerpt with your group.



Think, share, and write with your group.

- What have you **learned** about Les Paul being a musician, inventor, or sound pioneer?

Sound Pioneer – Create two different class melody parts for the main melody shared.



Main Melody –



Part 1 –

Part 2 –



How is the performance of this class song different than what Les Paul and Mary Ford did for How High the Moon?

Exit Ticket – Essential Question – Answer the question with either a drawing or sentence. Place on a post-it on the chart with your name on the back of the post-it.

- How do people adapt to challenges?





Les Paul talks about adapting to physical challenges

May 21, 2013 | Author Sue Baker

Retrieved from the Les Paul Foundation blog on March 5, 2014.

Excerpts from Les Paul in His Own Words with additional cuts for the lesson reading.

Les Paul, the father of the solid-body electric guitar, gold record performer, inventor of the 8-track tape recorder as well as many of today's recording techniques, had multiple physical challenges. In his autobiography, Les Paul in His Own Words, Les reflected on how each circumstance affected him. Text in italics and in parentheses is added to clarify.

1 Electrical shock at age 26

The doctors said what I'd experienced was very similar to being struck by lightning, the results of which, if not fatal, can leave you with **handicaps** you don't recover from. One doctor was of the opinion that the **numbness** might never go away completely, so I didn't know to what degree I'd be able to regain my playing ability.

I never really believed I wouldn't recover, but the future was very uncertain and the course of my life was changed forever.

While I was laid up, for the first time in my life, I had to take it easy. I couldn't **jam**, perform or do anything I was used to doing because my hands were dead and my energy level was **kaput**. The down time gave me the opportunity to think about everything I'd done, and what I still wanted to do. I was 26 years old and confident of regaining my abilities.



2 Near-fatal accident at 33 years

*Les and Mary were caught in a terrible snowstorm when their **convertible** went off a railroad overpass and dropped 20 feet. There were no seat belts and both of them were thrown through the roof.*

...My back, collarbones, a shoulder and six ribs were broken, I had a fractured pelvis, a punctured spleen, and my nose was smashed. My right arm was completely shattered and the elbow crushed to a pulp. On top of everything else, I contracted **pneumonia** lying out there in the snow unconscious for what

they said was eight hours before help arrived. They took me by ambulance to Oklahoma City...It was the general **opinion** of everyone involved that if I did survive, I would never play guitar again. There were many, including my Dad, who predicted I wasn't going to make it....



3 I had **pneumonia**... I was rigged up like a **trapeze act** in the hospital bed. My mental state was shot. My future as a musician, as an entertainer, as the person I'd always been, was one big question mark. Those first weeks in the hospital were a very dark time. I passed the time by reading and listening to the radio. I read one book after another about electronics, **audio engineering** and human behavior, whatever I could find to take an interest in. I was day after day lying in that hospital bed thinking about how I could continue if the worst happened and I lost the arm. And that's when it came to me. I had the plans (for a synthesizer) drawn out in detail, but after my arm was saved, I didn't pursue it.

4 Adapting To Limitations

The (secondary) **surgery** (in California) was successful, but there was a long way to go. My right hand stuck out of the cast and was terribly weak and swollen, so I started right away to exercise my fingers, doing whatever I could to try and restore feeling and movement. The doctors said there was potential **nerve damage** that I shouldn't count on regaining full use of the hand, but I wasn't buying it.

5 I was determined it was going to come back and that I would play again, even if I had to learn how all over again. I could **fret** okay with my left hand, but couldn't get my right hand on the strings because of the **cast**. My solution was to take a guitar stand and have it altered to hold my guitars at a height and angle matching the arm cast. I couldn't grasp a straight pick, so we jammed a **thumb pick** on my swollen thumb, slapped a guitar into the elevator stand, and I started putting down parts. My arm was getting better and I was adjusting to having a frozen elbow, but it was still one day at a time, and very slow going.



6 This time provided an important beginning for all the music and invention ideas I'd stored up during my long (18 months) **recovery**, when my mind was going all the time with the **synthesizer**, electric guitar experiments, **recording experiments** and a million other things. I was thinking, "Oh boy, I could do this, I could do that, and when I get my hand back I'm going to have to learn to pick a different way because it isn't going to be like it was." The long recovery period was quite a challenge, and also a blessing because it gave me a chance to think, and read, and plan, and dream.

Additional excerpts from the blog are available online.

Les Paul

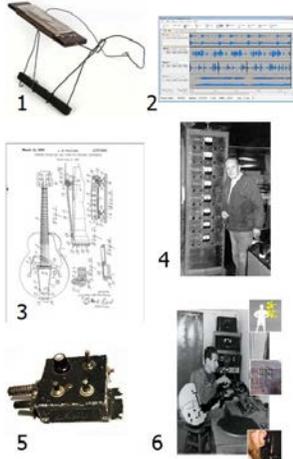
Musician, Inventor, Sound Pioneer
Influence on Today's Music **1**



STUDENT NAME – _____ CLASSROOM – _____

Scrapbook

- Review the scrapbook page.
- Identify how the clues fit the pictures.



Clues

- Harmonica Holder
- Multi-track Recording
- Solid-body Guitar
- Eight Track Recorder
- Les Paulverizer
- Reverb, Echo, Close Miking

Standards

- Play independent instrumental parts while other students play contrasting parts. (B6)
- Use appropriate terminology in explaining music and music performances. (F4)

Essential Question

What would the music of today be like without the inventions used within modern music?

Musician –



Listen to Love by Les Paul.



Echo the leader.



Think of the recording techniques used to create this song.



Share one recording technique that was used to create this piece.

How has this technique influenced today's music?



K - W - L - Fill in the boxes based on the information gathered from the Les Paul Scrapbook page.

What do you **know** about Les Paul?

What do you **want to know** about Les Paul?

What have you **learned** about Les Paul as a musician, inventor, or sound pioneer?

Complete for the Exit Ticket.

Les Paul: Inventor and Performer

May 14, 2013 | Author **Sue Baker**

Retrieved from the Les Paul Foundation blog on March 5, 2014.

1 Les Paul, the inventor and guitar-playing sensation, will forever be associated with the **solid-body electric guitar** that he helped design and bears his name.

Les stated that if there was one thing that he would want in a time capsule that symbolized him it would be the Gibson Les Paul guitar.



2 His other inventions may not be as visible, but they continue to have a tremendous effect on the music world.

The **eight-track tape recorder**, for which Les Paul holds the patent, along with his numerous recording techniques, swung open the door for Rock and Roll.

3 Les' Sel-Sync®, over-dubbing, tape delay, **echo**, **reverb**, phase shifting, and **close miking** have become commonplace in today's recordings.

4 The Rock and Roll Hall of Fame, which **inducted** Les in 1988, states on its website, "It's safe to say that rock and roll as we know it would not exist without his inventions." The National Inventors Hall of Fame added Les to its **luminaries** in 2005.

Les Paul

Musician, Inventor, Sound Pioneer
Influence on Today's Music **2**



STUDENT NAME – _____ CLASSROOM – _____

Scrapbook

- Review the scrapbook page
- Identify how the clues fit the pictures.

Clues

- Pirate Radio
- Speeding Up
- Multi-track Recording
- Reverb
- The Log
- Digital Recordings



Standards

- Play independent instrumental parts while other students play contrasting parts. (B6)
- Use appropriate terminology in explaining music and music performances. (F4)

Essential Question

What people or trends offer some potential for innovation in music and technology for the future?

Musician –



Watch Charlie Worsham's Low Rider from One Man, One Day Covers.



Think of how many parts the musician recorded for the song.



What would you add to the song? How is this example the same or different than Les Paul's use of multi-track recording?



K– W– L– Fill in the boxes based on the information gathered from the Les Paul Scrapbook page.

What do you **know** about Les Paul?

What do you **want to know** about Les Paul?

What have you **learned** about Les Paul as a musician, inventor, or sound pioneer?

Complete for the Exit Ticket.

Vocabulary – Underline one word you know.
Circle one word you do not know. Quizlet

Pirate Radio Speeding Up

Multi-track Recording Reverb

Digital Recordings

I know the word _____.
Describe your word by drawing or writing a sentence about it. Share this work with a partner who has a different word.

Scrapbook – How do the clues fit the pictures?



Watch video excerpts.



Think, share, and write with your group. Share how the scrapbook picture and clue fit, along with one more idea shared about Les Paul and his influence on the music world.

Sound Pioneer - Create two different class parts.



Part 1 -

Part 2 -



How is the performance of this class song the same or different than Les Paul's song Lover?

Exit Ticket – Essential Question – Answer the question with either a drawing or sentence. Place on a post-it on the chart with your name on the back of the post-it.

- What people or trends offer some potential for innovation in music and technology for the future?





STUDENT NAME – _____ CLASSROOM – _____



Scrapbook – Clues are on page one of this lesson.

Musician

1. Joe Satriani
2. Paul McCartney
3. Bonnie Raitt
4. Al Di Meola
5. Billy Gibbons of ZZ Top
6. Slash of Guns and Roses



Watch a video excerpt.

Excerpt chosen (number) _____

How was this musician influenced through the work of Les Paul?



Think, share, and identify at least one person of today and one part of their music that is changing music for the future. Why do you think this?

