



# THE BEATLES: MULTITRACKING AND THE 1960S COUNTERCULTURE

## OVERVIEW

### ESSENTIAL QUESTION

How did The Beatles' use of cutting edge recording technology and studio techniques both reflect and shape the counterculture of the 1960s?

### OVERVIEW

From the invention of music recording in the late 19th century through the early 1960s, most artists, producers and listeners conceived of a record as a musical “photograph.” The recording studio provided a means to capture a brief performance, preserving the moment of a live performance so that others could experience it later. For instance, in 1963 when The Beatles entered Abbey Road studio with producer George Martin to begin work on their debut album *Please Please Me*, they quickly replicated a selection of songs culled from their nightly setlist, creating a record that closely resembled their nightclub act. Those who couldn't see the group's performance could now buy a recording of it. As The Beatles drummer Ringo Starr explains in *Soundbreaking Episode Two*, “The first album only took us 12 hours. We all knew those songs so well because that was our live show. We were just in there doing the gig.”



In the mid-1960s however, studio recording techniques evolved dramatically. In particular, the introduction of expanded multitrack recording machines allowed musicians to add parts to or remove elements from the recording. Multitracking began to transform the studio from a place for documentation to a playground of creative possibilities. Now, rather than capturing music as a “snapshot” of a performance, artists began to conceive of the studio as a place where they could build something that was beyond what they could do in live performance.

The emerging technologies of the recording studio appealed to The Beatles who, like others of their generation, were involved in a restless pursuit of the new. The Beatles had begun to explore the possibilities of multitrack recording in greater depth with each passing recording. In 1966, with *Revolver*, they achieved new heights of studio creativity. It affected them to such a degree that after their summer 1966 tour, they chose to cease performing live altogether so they could work in the studio exclusively. “Tomorrow Never Knows,” a densely layered *Revolver* track featuring tape loops, samples and distorted vocals processed through a rotating Leslie Speaker, showcases The Beatles' evolving conceptual approach to the recording studio. Rather than “playing” music, they were now creating it track by track. With “Tomorrow Never Knows” and their following recordings,

## OVERVIEW (CONTINUED)

The Beatles and producer George Martin became the vanguard recording artists of their era, inspiring a surge in experimental recording techniques among Pop and Rock and Roll musicians that would extend for years to come, from Pink Floyd to The Flaming Lips to Jay-Z.

To many, the sense of limitless possibility The Beatles arrived at while working inside Abbey Road Studios was part of a broader pattern of change connected to the 1960s countercultural movement. Political and social events, including student protests against the Vietnam War, a popular interest in the study of Eastern religions, and the publication of books such as 1964's *The Psychedelic Experience*, helped to inform The Beatles' musical decisions as much as the music the group invented fueled the rise of a new youth culture. The Beatles provided the soundtrack to a new experience. As popular icons that challenged social norms and encouraged creative thinking, recording artists like The Beatles began using multitracking technology to make music in the studio that could not be reproduced on the concert stage and that expanded our understanding of what popular music could be and what it could do. The studio was no longer a predictable space for recording live performances; it became a laboratory for constructing sophisticated musical imaginings. As such, it was a perfect reflection of the new youth culture's spirit.

## OBJECTIVES

Upon completion of this lesson, students will:

### 1. KNOW (KNOWLEDGE):

- How advances in multitracking technology allowed The Beatles to innovate as recording musicians
- About the interaction between the dominant culture and the counterculture that shaped the 1960s, reflected in the civil rights demonstrations, the escalation of the Vietnam War, the emergence of a “hippie” youth movement and more
- How The Beatles used technology to make music that expressed ideas of the 1960s counterculture
- The basic history of “sound-on-sound” and multitrack recording technologies
- Working definitions of basic recording studio technology

### 2. BE ABLE TO (SKILLS):

- Identify connections between music and the social and political conditions from which that music emerged
- Evaluate content presented in diverse formats and media, including visually and musically, as well as in words
- Relate changes in fashion and appearance to changes in world events and popular culture
- Extrapolate arguments about music by assessing sound, mood, tone, and instrumentation

## ACTIVITIES

### MOTIVATIONAL ACTIVITY:

#### 1. Play Clip 1, Soundbreaking - Les Paul & Sound-on-sound. Ask your students:

- What are Les Paul and Mary Ford doing with the tape machines they use in this clip?
- Why do you think the host registers surprise? What do you think he was accustomed to seeing musicians do when they performed? (Answers may include: they are layering sounds, Mary Ford is harmonizing with herself. The host has never seen technology like this; at this point, no one has, music was all performed “live.”)

#### 2. Explain to your students that Les Paul and Mary Ford are using a recording technique called “multitracking,” which we will explore in this lesson. Distribute Handout 1: Glossary of Terms and have your students read the definition of “multitracking.” Ask your students:

- In what ways do you think that “multitracking” can be different from playing music live or can change our understanding of performance? Can you think of any ways that people might make use of the technology?
- Do you think any of the music you listen to currently was made using multitracking? Why or why not? (Students may offer specific examples of songs, but if they’re not sure, explain that nearly all studio recordings use multitracking. Evidence of multitracking includes: more than one layer of a single artist’s voice or instrument, if any instruments or samples are looped, if the song includes sounds that don’t seem to come from instruments.)

## PROCEDURE:

1. Have a student read the definition of “counterculture” out loud from Handout 1.

Ask your students:

- What do you think the “prevalent societal culture” is? Where do you think we might find it? (Encourage students to consider things that are expected of them on a daily basis as well as great expectations regarding what they will do as they get older.)
- How do you think music might be able to express something “counter” to the “prevalent societal culture”?
- Do you think there is any current music that is countercultural? If so, what aspects of culture is this music “countering”?

2. Play Clip 2, Soundbreaking - Counterculture in the 1960s US. Have your students keep a list of the images juxtaposed in this clip and then ask the class:

- What images did you see in this clip? (Students may answer music, dance, war, protest, police and arrests, bright colors, military greens, etc.)
- Both John Lennon and George Harrison express the idea that their generation of the 1960s was pushing toward something culturally new. Judging by what you saw in this clip, what do you think they were pushing away from?
- Ask your class and keep track of their answers on the board:
  - How might you diagram this relationship between a dominant culture and counterculture?
  - Use your diagram to show what kinds of things you think they might have felt they were pushing toward? (Students may mention less formal dress, enforced “responsibilities” of war, etc.)

3. Break your students into small groups and distribute Handout 2: Counterculture Timeline. Have students discuss the timeline together and circle their answers. Then ask the class:

- Where on the handout did you circle “dominant” culture? Why?
- Where did you circle “counterculture”? Why?
- Do you see any common themes and ideals expressed in the counterculture of the 1960s? (Answers may include: it was a time in which many people protested or otherwise challenged the power of the government to draft citizens, challenged each other to change long-held conceptions of racial superiority, sought new ways of thinking and innovative philosophies, often from other countries, attempted to defy tradition in order to embrace alternative lifestyles, etc.)
- In what ways do you think music might have fit into the counterculture?
- How do you think a musician might be able to record music that somehow sounds “countercultural”?

4. Explain to your students that you will explore the relationship between the 1960s counterculture and the rise of multitrack recording technology through examples of The Beatles. Begin by projecting side-by-side photographs of The Beatles, the first taken in 1963 and the second taken in 1967.

5. As a class, examine the differences between how the Beatles appear in the two photos.



## PROCEDURE: (CONTINUED)

6. Ask students to consider the following questions:

- What is your impression of the first slide? Is your impression of the second slide different? Why?
- Which photo do you think shows The Beatles in the earlier part of their career? Why?
- What are the differences between the photos? (Students may observe that their wardrobes are very different, that they're standing or seated, or differences in their posture and staging.)
- What message do you think The Beatles wish to present with their wardrobes and staging in each photo? (Students may observe that their wardrobes in the first photo are uniform; that they look like a team. In the second photo, their clothing still has conceptual continuity but is no longer a "uniform". The colors are bright and they look more like four individuals. Nothing about them says "business." "Love" is written above Ringo's drumset and there are flowers on stage. They may observe that in Photo 2 The Beatles' posture has relaxed and they are performing seated; they are no longer attempting to earn the audience's affection, they know they have it and are comfortable.)

7. Explain to your students that you will now compare two Beatles' songs that correspond roughly with the dates of the two images above. First, play Clip 3, Soundbreaking - Early Beatles Recording Sessions. Ask your students:

- How long does The Beatles' drummer Ringo Starr say it took to record their first album in this clip? Why did it take so little time? (Student should recall that Ringo says it took "12 hours," that they recorded all the songs in a single day, and they just performed music they usually performed live.)
- Judging by the commentary you've just seen, what was the goal of a recording session at this time? (Students might observe that recording a song served to capture a document of what a group sounded like live. As Ringo states, The Beatles basically performed their live show.)

- In the sense that it is presented here, do you think that in 1963 The Beatles conceived of the recording studio as a tool to use to promote themselves or as a place to develop their music? Explain your answer. (Students might answer that for the early Beatles, the studio was a tool with which they could capture and then distribute a snapshot of the songs they'd already written. They arrived with the music almost completely prepared in advance. They might recall from the clip that The Beatles didn't have much time to "develop" their music in the studio because of their touring schedule.)

8. Explain to your students that the following clip, "Tomorrow Never Knows," was recorded three years later for The Beatles' 1966 album Revolver. Play Clip 4, Soundbreaking - Multitracking and the Making of 'Tomorrow Never Knows. Discuss with your students:

- How does the process of making "Tomorrow Never Knows" we see in this clip contrast with the process we saw The Beatles using for their first album? (Students should recall that "Tomorrow Never Knows" was never performed live before it was recorded. It was never intended for the stage; it was created in the studio. Students might recall that it took the band longer to record "Tomorrow Never Knows" than it took to record their entire first album.)
- It is said that The Beatles used multitracking to "make the music that was going on in their heads." In what ways do you think "Tomorrow Never Knows" might reflect that idea?
- How did multitrack recording enable the making of "Tomorrow Never Knows"?
- In what ways might this song reflect the ideas of "counterculture" we discussed earlier

9. Direct your students to return to their groups and have them open the Soundbreaking Mixing Board TechTool. Tell your students that each "channel" on the TechTool represents a "track" from multitrack recording. Instruct the groups to do the following:

## PROCEDURE: (CONTINUED)



- Go through each channel on the mixing board and engage the “mute” button. What happens?
- Now experiment with engaging the “mute” button on two tracks at a time. How does this change the way you hear this song?
- Now move the sliders on each track, making the various channels louder and softer. What happens when you change the balance of tracks?

- Spend two minutes freely experimenting with this TechTool.

### 10. As a class, discuss the following:

- Can you think of functional or creative ways an artist could use multitracking while recording?
- What happens when you “mute” a track? In what ways do you think this facet of multitracking created new possibilities for artists?
- Having experimented with multitracking through the TechTool, and seen how The Beatles used the technology in the previous clip, why do you think producer Rick Rubin suggests that “Tomorrow Never Knows” made people “rethink what music is”? (Students may answer that until this point, recordings were a representation of musical reality, like an aural photograph of the band. A song had to be learned, and then played to be recorded. To the ears of mid-60s Rock and Roll fans, “Tomorrow Never Knows” was a science experiment; The Beatles had created life in the lab. The concept of composing and realizing a song in this fashion was entirely new.)

## SUMMARY ACTIVITY:

Ask your students:

- How do you think multitracking might have created a way to express countercultural ideas?
- In what ways might the new possibilities of multitrack recording represent a “freedom” from former expectations and practices? (Encourage your students to consider how multitracking changed perceptions of time. One could now record a song and go back and change part of it later. One never actually had to perform the whole song to end up with a finished recording. Not everyone who appeared on the recording even had to be in the studio at the same time.)
- How do you think the changing expectations of what The Beatles were doing as musicians in the studio reflect changes elsewhere? (Students may observe that like The Beatles decision to forgo live performance and traditional recording practices, young people were choosing to subvert social norms in many ways including hairstyles, clothing choices, the use of illegal substances, opposing the war and avoiding the “responsibility” of the draft.)

## STANDARDS

### COMMON CORE STATE STANDARDS

#### *College and Career Readiness Reading Anchor Standards for Grades 6-12 for English Language Arts*

Reading 1: Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text

Reading 4: Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone

Reading 7: Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words

Reading 8: Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence

Speaking and Listening 1: Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively

Speaking and Listening 2: Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally

Speaking and Listening 3: Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric

Speaking and Listening 4: Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience

Speaking and Listening 5: Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations

Speaking and Listening 6: Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate

Language 1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking

Language 2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing

Language 3: Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening

Language 5: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings

## **SOCIAL STUDIES – NATIONAL COUNCIL FOR THE SOCIAL STUDIES (NCSS)**

Theme 1: Culture

Theme 2: Time, Continuity, and Change

Theme 3: People, Places, and Environments

Theme 4: Individual, Development and Identity

Theme 5: Individuals, Groups, and Institutions

## **NATIONAL STANDARDS FOR MUSIC EDUCATION**

### *Core Music Standard: Responding*

**Analyze:** Analyze how the structure and context of varied musical works inform the response. Describe how the elements of music and expressive qualities relate to the structure of pieces, including contrasting works and programs of music

**Enduring Understanding:** Response to music is informed by analyzing context (social, cultural, and historical) and how creators and performers manipulate the elements of music

**Essential Question:** How does understanding the structure and context of music inform a response?

**Interpret:** Support interpretations of musical works that reflect creators'/performers' expressive intent. Describe a personal interpretation of works or contrasting works and explain how creators' and performers' application of the elements of music and expressive qualities, within genres, cultures, and historical periods, convey expressive intent

**Enduring Understanding:** Through their use of elements and structures of music, creators and performers provide clues to their expressive intent

**Essential Question:** How do we discern the musical creators' and performers' expressive intent?



### *Core Music Standard: Connecting*

Connecting 10: Synthesize and relate knowledge and personal experiences to make music. Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music..

Enduring Understanding: Musicians connect their personal interests, experiences, ideas, and knowledge to creating, performing and responding.

Essential Question: How do musicians make meaningful connections to creating, performing, and responding? Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music?

Connecting 11: Relate musical ideas and works to varied contexts and daily life to deepen understanding. Demonstrate understanding of relationships between music and the other arts, other disciplines, varied contexts, and daily life..

Enduring Understanding: Understanding connections to varied contexts and daily life enhances musicians' creating, performing, and responding.

Essential Question: How do the other arts, other disciplines, contexts and daily life inform creating, performing, and responding to music?

## RESOURCES

### VIDEO RESOURCES

- Soundbreaking – Counterculture in the 1960s US
- Soundbreaking – Les Paul & Sound-On-Sound
- Soundbreaking – Yesterday
- Soundbreaking – Early Beatles Recording Sessions
- Soundbreaking – Multitracking and the Making of “Tomorrow Never Knows”

### FEATURED PEOPLE

- The Beatles
- Les Paul

### HANDOUTS

- Handout 1: Glossary of Terms
- Handout 2: Counterculture Timeline