

You have made your own layered image just like a layered-sound track!

Time To Explore:

Flip over the beach scene and create your own scene. Place the clear papers with the ball, chair, and shark wherever you want, maybe even in space!

Draw your own 'track' or picture on the blank clear piece. What would you add to the picture?

Create your own sound waves below and then combine them into one track

sound wave 1	sound wave 3
sound wave 2	All combined into one track

# LEARN ABOUT SOUND

With Les Paul

Layering Sound

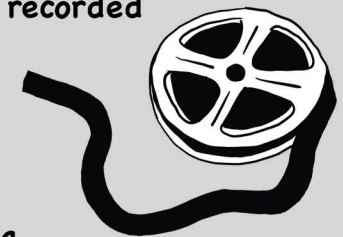
Time To Learn

**What is Music?**  
 Music is a series of sounds all combined together. Imagine if you were in a band. Someone would sing, others would play an instrument. Together you make music.

**Sound Tracks:**  
 The sound waves from each instrument can be combined and recorded together. Each recording is called a track.

## Les Paul - the innovator

Les Paul was a guitar player who recorded his own music. He and other musicians recorded songs onto tape - think scotch tape but not sticky. The machines recorded all the sounds in the room onto the tape as a single recording called a track. But Les wanted to record himself playing a guitar and then add himself playing another guitar onto the same tape. He studied the recording machines and found a way to add the extra sound. This new innovation was called "sound on sound."



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## Think About It

You cannot be all the parts of a band at once.  
Or could you? Innovators like Les realized  
machines could help musicians do things they  
couldn't normally do.



## Vocabulary:

Les changed the recording machine so  
he could add layers of sound to his  
tape. When you improve a device, its  
called INNOVATION.

## Multiple Tracks

His device added sound onto the existing layers of a track. But this still had problems. What if you wanted to remove an instrument? It was all on one track so you had to start all over. Les realized you needed to record each instrument onto its own track and invented a machine to record more than one track. His machine recorded 8 tracks in sync..



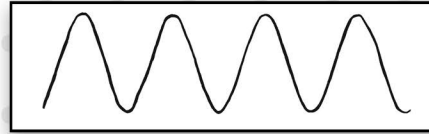
Les Paul and the 8-track recorder

## Fun Fact:

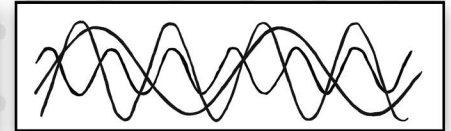
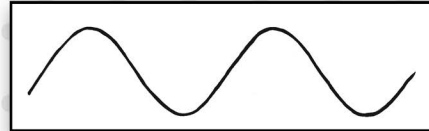
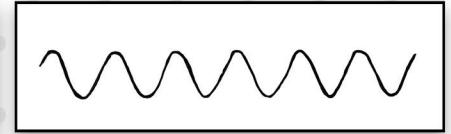
Today we have computers that  
can play as many as 72  
tracks at once!

We can't see sounds but we can learn about how to layer sound by layering pictures of sound waves. See how the sound track below changes when you add more layers.

Track 1



Track 3



Track 2

All layered together

## Time To Make



Tools: colored sharpies

1. To visualize how soundtrack layers work we are going to create a layered image

2. Lay down the bottom picture of the beach

3. Use markers to color the beach ball, chair, and shark transparencies

4. Lay them on top of the picture

5. Each clear piece of paper is like a track. Just like sound, you can add or remove one to change the image

