



# PMC's *FUN WITH DRUMS*: 'Make Your Own Can Drum'

By Dr. Craig Woodson



## Overview

Using simple tools and easily available materials, students young and old, along with parents and/or teachers can make great sounding percussion instruments for use at home and in the classroom. In addition to learning how to play music, students will learn how these skills relate to science, technology, engineering, art, math (STEAM).

**Audience focus ages/grades** – This project can typically be made by children ages 9 to 13 without much assistance. Students ages 6 to 8 will need some older student or adult help.

**Required resources/instruments** – You will need:

- MATERIALS**
1. Large (#10) can – for free at a pizza or ice cream store, one end is open
  2. PVC clear tape (optional colors) – 2-inch wide, best if thin
  3. Masking tape – ¾ inch wide, plain (optional colors)
  4. Colored markers (optional) – for decoration
  5. Stick (or unsharpened pencil) – for the drum beater
- TOOLS:**
6. Can opener – manual or electric
  7. Pliers – for flattening any metal points after taking the lid off
  8. Scissors (optional) – for cutting tape
  9. Pencil – to cut the PVC tape
  10. Soap and water – to clean the can

**Impact of this video** – This video will stimulate interest in drumming alone and with others by providing simple music making activities based on the building of easy-to-make instruments in the home. It also provides connections to the STEAM approach.

## STEAM Connections

**Science** – When you make the drum you can experiment with different amounts of tension when you pull the drumhead tape and will find out what that means for the sound of the drum.

**Technology** – The PVC tape is made of molecule chains that are strong when stretched in a straight direction but break easily or 'unzip' when the tape is broken with a sharp object.

**Engineering** – Criss-crossing the tape in a hashtag pattern makes it stronger when hitting the drumhead. This is similar to the weave pattern for making most types of cloth.

**Art** – This is the way children make and decorate a simple drum in Africa, except they use rubber from a tree instead of tape to make the drumhead.

**Math** – When you play music, experiment with numbers like 2-3-4 counts. Make a pattern (repeat the set of numbers), for example, hitting on the first count only play 3, 3, 4, 2, 4.

## Set up for lesson

**Instruments/supplies** - If possible, use a store-bought drum for comparison to your homemade drum. Get tools and materials listed above ready to make your drum.

**Resources** – Go to [www.PlayDrums.com](http://www.PlayDrums.com) for more information about playing drums, and go to [www.RootsofRhythm.net](http://www.RootsofRhythm.net) for similar drum making projects.

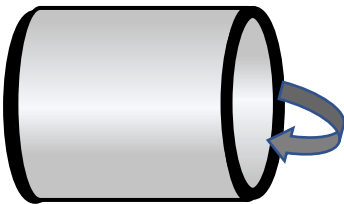
## Lesson Plan

**Instructions** that go with the 10-minute video found at [www.PlayDrums.com](http://www.PlayDrums.com).

### **Video Steps for Making the Can Drum**

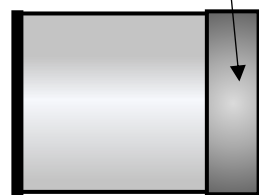
1. Lid Off – After taking the paper cover off, take the remaining lid off with a can opener.
2. Flatten Points – Inspect then carefully flatten any sharp points with pliers if needed.
3. Tape Ends – Wrap both ends with masking tape so that half of the tape is above each end, then fold that extra tape into the can. This gives protection while holding the drum at the bottom and hitting the drumhead at the top.
4. Anchor – To begin the drumhead, first wrap PVC tape around the can below one masking tape end. This is where the drumhead tape will attach or 'Anchor.'

#3 Tape Ends



Wrap masking around the can's end with half of the tape's width above the rim. Press this extra tape inside the can. Now tape the other end the same way.

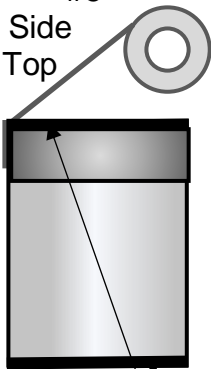
#4 Tape Anchor



Add the Anchor strip of tape around the can just below the drumhead end.

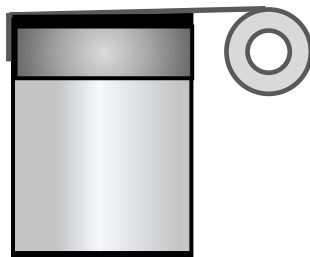
5. From Side Over Top - Holding the roll, attach the tape to the Anchor and pull it over the top.
6. Tape on Top – Pull that piece across the can's open end medium tight.
7. Down on Anchor – Then stick the tape to the other side of the can on the Anchor
8. Cut Tape Below Anchor – Push a pencil point into the tape below the Anchor to cut the tape only after the tape is stuck to the can. Use scissors if needed to cut the tape.
9. Minus Sign – This creates what looks like a 'minus' sign across the can.
10. Add 1<sup>st</sup> Layer – Using the same technique, pull 4 more pieces of tape on each side of the minus sign. All pieces should be pulled to about the same tension. Overlap them about ¼ inch.
11. Add 2<sup>nd</sup> Layer – Starting in the middle, pull five more pieces in the opposite direction (90 degree to the first layer) with the same ¼ inch overlap for each newly added piece of tape.

#5  
From Side  
Over Top

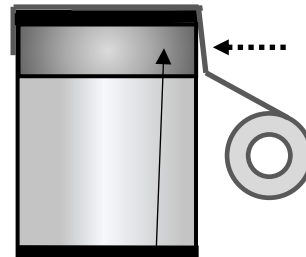


Masking tape

#6  
Tape on Top

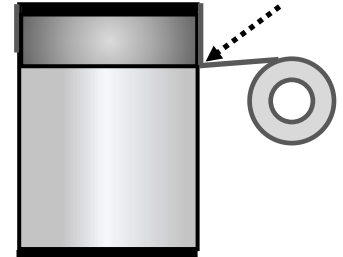


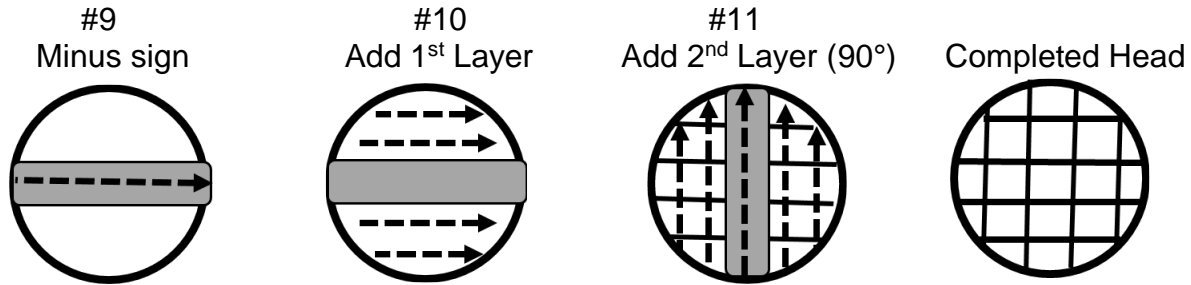
#7  
Down on Anchor



Anchor

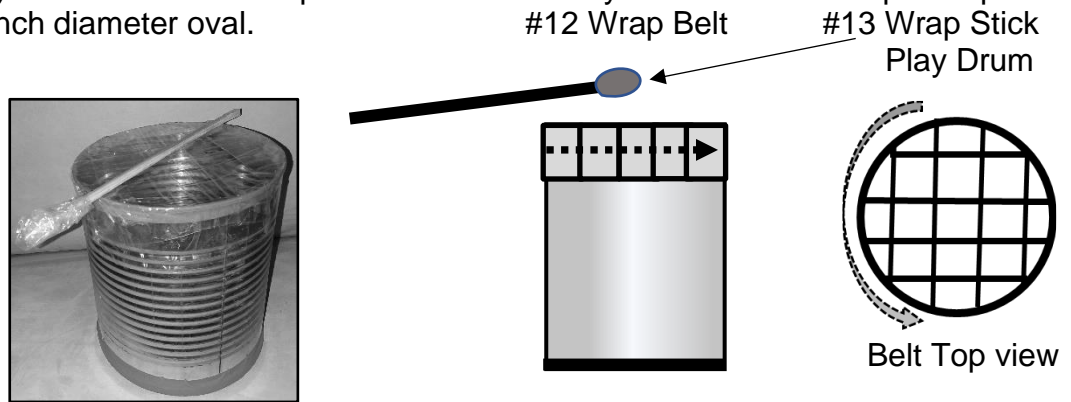
#8  
Cut Tape  
Below Anchor





12. Wrap Belt – Pull PVC tape completely around the Anchor position. This 'Belt' will help to keep the drumhead tension tight. *Pull one extra tight piece across to tighten the drumhead.*

13. Wrap Stick Play Drum – Add PVC tape around the end of your stick or unsharpened pencil stick, making a  $\frac{3}{4}$  inch diameter oval.



14. Rub Ribs – Scrape the ribs on the side for a guiro sound.

15. Playing the Bell – Get a metallic bell sound by hitting the can's side with the stick.

16. Other Techniques – Just before hitting, press your finger tip onto the drumhead to get a muffled sound. Hit the can's bottom edge on a hard surface or table (gently) for a 'clunk' sound. Hit the can's rim to get a 'click' sound.

### 3. Questions to stimulate and nurture your interest in:

- Music – If you made another Can Drum with a looser tension, what would it sound like? How about a tighter tension? How about putting drumheads on each end of the can?
- Rhythm – Can you play just the rhythm of the song 'Happy Birthday?' Next, play it for someone and see if they can guess the name of the song. Try other songs.
- Percussion – This drum has at least three different sounds, a drum, a scraper and a bell. What if you wrapped a rubber band around the drum over the drumhead, how would that change the sound when you hit the drumhead? What if you made the drumhead thicker with more strips of tape, how would that change the sound?
- Playing drums – If your friends made Can Drums do you think they would sound the same as yours? Are there other ways to play your drum?

Written by,

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