

Make a Hand Drum - Create Percussion Sounds

When engaging in the IEEE REACH hands-on activities contemplated in the IEEE REACH lesson plans please proceed with caution and use all reasonable safety measures. All IEEE REACH hands-on activities are designed for classroom use only, with supervision by a teacher or an adult educator. Please be advised that IEEE shall not be responsible for any injuries or damages related to the use of these lesson plans or any activities described herein.

Materials

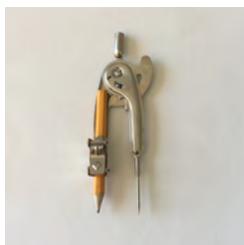
1. Mini Glue Gun and Glue Stick
2. Hole Punch
3. Drawing Compass
4. Thread or Yarn (Waxed thread works great!)
5. Two Beads
6. Colorful Sticky Tape (or paint and paint brushes, crayons, or markers)
7. Unsharpened Pencil, Wood Dowel, or Twig
8. Piece of thick Card Stock
9. Cardboard 14" W X 7" H minimum (You could also use a cereal box, or a round plastic container and with a top for the drum.)
10. Scissors
11. Ruler or measuring tape
12. Stapler



1



2



3



4



5



6



7 & 8



9



10



11



12



1. Using the drawing compass and draw two 4" circles on the cardboard.
2. Then draw a line, one inch from the edge of the cardboard, creating a 14" W X 1" H strip
3. Using the scissors, cut out both circles and the one inch strip of cardboard.
4. Roll strip around finger to create spiral so cardboard bends to make a circular sphere that matches the cut cardboard circles and staple together.



Roll 1" strip around finger

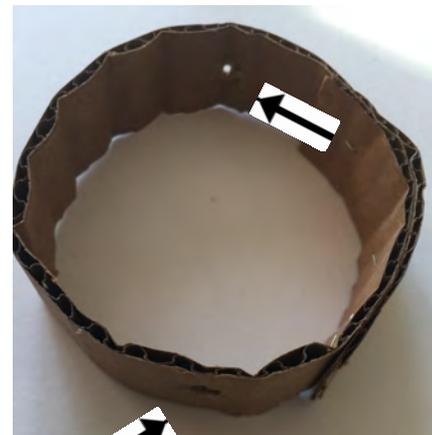


Staple ends of 1" sphere to make a circle.

5. Close circular sphere in half and mark folded ends in the middle of fold. Use hole punch to create a hole at the marks on each opposite end of the circular sphere. The corrugated paper is thick, use scissors if necessary to create the holes.



Mark at fold



Punched hole

Punched hole

When engaging in the IEEE REACH hands-on activities contemplated in the IEEE REACH lesson plans please proceed with caution and use all reasonable safety measures. All IEEE REACH hands-on activities are designed for classroom use only, with supervision by a teacher or an adult educator. Please be advised that IEEE shall not be responsible for any injuries or damages related to the use of these lesson plans or any activities described herein.

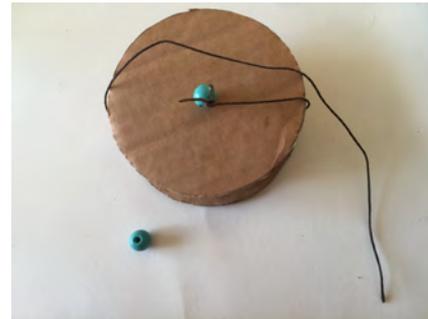
6. Fold sphere again and punch hole in middle of side of sphere, this is where the dowel will go.



7. Place 1" sphere on one of the circles and feed yarn, or thread, through the opposite two side holes in the sphere. Knot bead on one end. Before cutting yarn/thread, ensure the length of the yarn is long enough so that the beads, which will be on either end of the yarn, will hit the middle of the circle. To judge place the other circle on the top of the sphere and measure where the beads will hit, however, add at least an extra inch of yarn before cutting, because the yarn will be wrapped around and glued to the dowel.



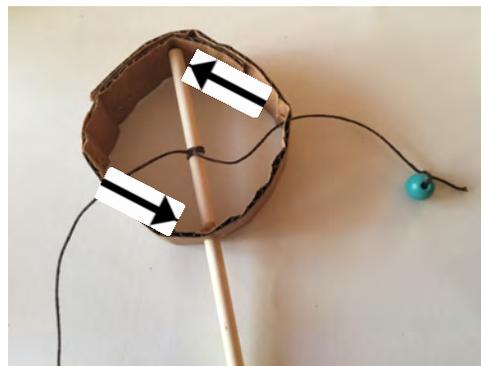
Feed yarn through two side holes and add bead to end with a knot.



Yarn with bead folded over hits center of circle and there is enough yarn, to wrap around a dowel and to add the other bead.

8. Separate all pieces, place dowel in bottom hole and pull the yarn without the bead back to the middle so that it can be wrapped around the dowel.

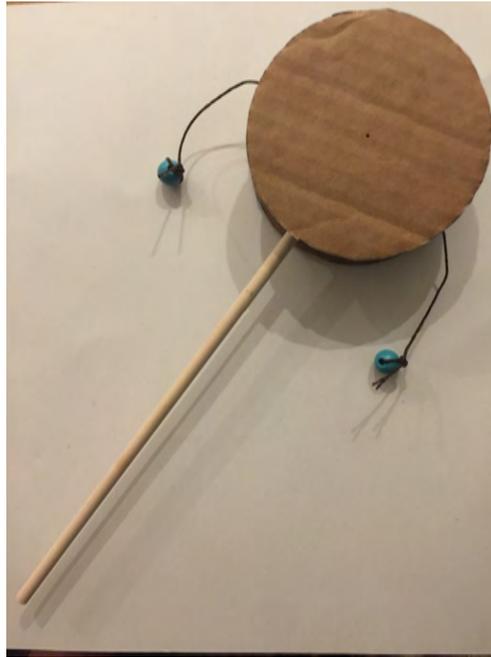
Glue dowel at top and at bottom.



9. Use glue gun to glue the dowel to the top of the sphere in the center. Add glue to the bottom of the dowel and the sphere. Once glue is dry put open end of yarn back through hole, and add bead, knotting it to the yarn. Make sure, when yarn is folded over on either side, that both beads will be in the center of the circle. Then glue knot of yarn on the dowel to secure the yarn in place.

When engaging in the IEEE REACH hands-on activities contemplated in the IEEE REACH lesson plans please proceed with caution and use all reasonable safety measures. All IEEE REACH hands-on activities are designed for classroom use only, with supervision by a teacher or an adult educator. Please be advised that IEEE shall not be responsible for any injuries or damages related to the use of these lesson plans or any activities described herein.

10. Use glue gun and glue the circles to the top and bottom of the sphere. Once dry, hold dowel and move it side to side so beads hit the circles. Listen to the persussion! Your drum is ready to be decorated.



11. Use colored tape to cover the inside sphere. Use the card-stock to cover the cardboard circles and either use colored tape, markers or paint to decorate your drum!



When engaging in the IEEE REACH hands-on activities contemplated in the IEEE REACH lesson plans please proceed with caution and use all reasonable safety measures. All IEEE REACH hands-on activities are designed for classroom use only, with supervision by a teacher or an adult educator. Please be advised that IEEE shall not be responsible for any injuries or damages related to the use of these lesson plans or any activities described herein.

Connections to Electronic Music Inquiry Unit

Critical Thinking, Analysis, & Discussions

Have students read the “Art of Noises” document 1D from the Electronic Music Inquiry and contemplate if the sound from the drum is “noise” or a “musical tone”, why, and if there is a meaningful difference between the two?

Ask students to consider the “vibrations” created by the drum and contemplate the force, pitch, and quality of the sound it creates.

Then have students contemplate Russolo's thoughts on noise, its presence in modern society, and its relationship to music.

Have students discuss the list of noise categories and where this instrument would fit and have them analyze the “noise” of the hand-drum in reference to vibration, in terms of tempo and intensity, rhythms, and pitch.

Lastly, have students research this type of drum and how it has been used in the past, and compare it to the synthesized drum sounds in use today.