GATEWAY REGION YMCA
MODEL HAND CHALLENGE

Build a model hand! Explore the hand’s joints and bones to build a functional hand.

Supply List
- Cardboard (doesn’t need to be very big, just enough to trace your hand on, could be part of a cereal box even!
- Scissors/Utility Knife
- Bendable Straws or Construction paper rolled into a skinny tube
- String or Yarn
- 5 Rubber bands
- Hot Glue Gun with Glue Sticks or Liquid Glue (stick glue will not work)
- Pencil

Instructions
1. Trace your hand on the cardboard and carefully cut it out
2. Using a pencil mark where your knuckles would be on the cardboard hand. Then very carefully score using the scissors/utility knife so that the fingers will bend.
3. Glue the straws/construction paper tubes on the inside portion of your cardboard hand. Trim the straws so that they line up with the ends of the fingers.
4. Using the scissors/utility knife slice through the straws/construction paper tubes at the same pencil marks where you marked your joints! This will help your cardboard hand to bend properly!
5. Take your string or yarn and run it through the straws/construction paper tubes leaving a long tail out of both ends.
6. Cut your five rubber bands so that instead of a circle you have one long piece!
7. Tie one of your long rubber bands onto the ends of the string/yarn coming out of the finger tips in a knot
8. Turn the cardboard hand over (so that the empty side is facing up) and glue the Rubber bands ends only to the back of the hand.
9. Now you have a functioning hand! Use the strings/yarn that you left untied to pull the fingers and make them move!

For more information about this activity visit: gwrymca.org/blog/steam-activity-model-hand