

# KUMIHIMO

Braiding art, history, and mathematics together

**Curriculum topics:**

- Braiding
- Patterns
- Problem Solving
- Japanese Art

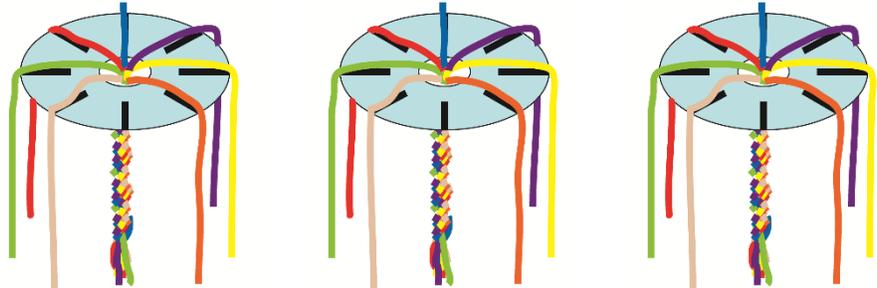
**Subject:**

**Art, Mathematics,  
Social Studies**

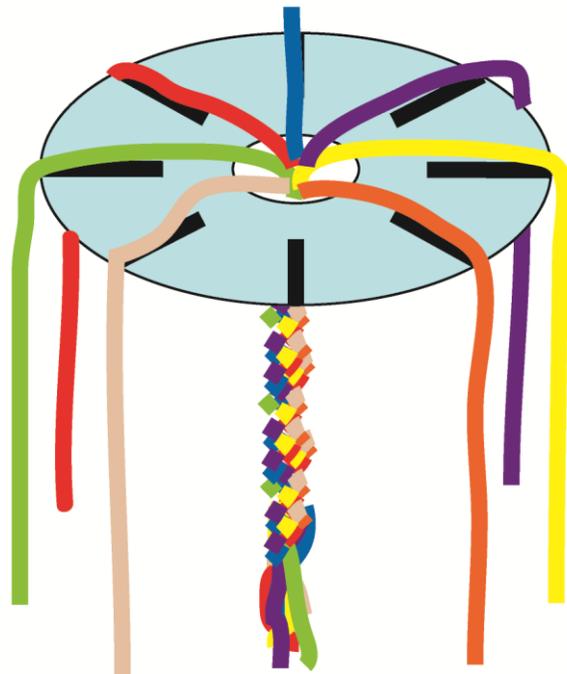
**Grade range: K – 7**

**Who we are:**

Resource Area for Teaching (RAFT) helps educators transform the learning experience by inspiring joy through hands-on learning.



This simplified version of an ancient braiding technique ties together art, history, and mathematical patterns in a fun activity suitable for all ages. Kumihimo, “braided cord”, is a Japanese art which has been practiced for centuries. Originally created by finger-loop braiding, several looms and stands have been created that allow for braids with complex patterns using dozens of threads. The braided cords have been used as part of religious ceremonies, as ornamentation, and to lace together samurai armor.

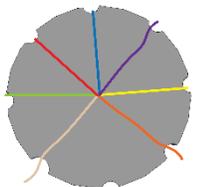


# Materials required per student

- Loom – Cardboard, stiff foam, or equivalent, cut in 4-inch circle (x1)
- Yarn, smooth and thick (7 different colors), cut into 2-foot lengths
- Optional: Scissors, beads (not included)

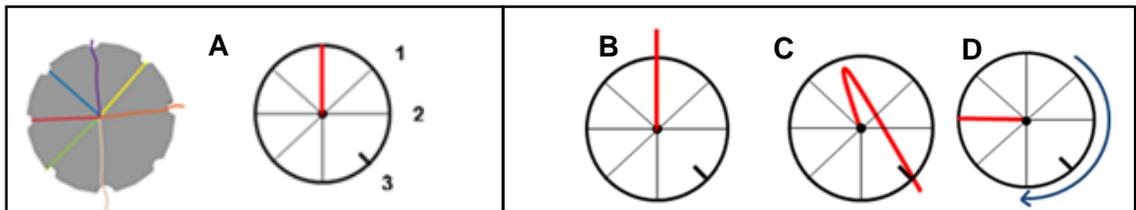
## Set-Up

- 1 Make a small hole in the center of the loom. Cut 8 evenly spaced slits around the edge of the loom.
- 2 Hold the seven 2 ft. yarn strands with the ends even. Knot them together about 2" from one end.
- 3 Push the yarn knot down through the center hole of the loom, top to bottom. The long ends of the yarn strands will drape over the top, and the knot will come out of the bottom (see title page).
- 4 Hold the knot in one hand under the loom. Use the other hand to pull each strand of yarn from the hole, across the top of the loom, and down into an empty slit. One slit will be empty (shown at right).



## To do and notice

- 1 Hold the loom top side up so that the empty slit is 3 strands clockwise from noon (**A, B** below).



- 2 Take the strand of yarn at the 12 o'clock position, count 3 slits clockwise. Move the strand over the 2 intervening strands into the empty slit (**C**). Keep the yarn taut and tug down on the knot from below.
- 3 Turn the loom clockwise until the newly emptied slit is 3 strands clockwise (**D**).
- 4 Repeat steps 2-3 until the braid forming below the loom reaches the desired length, pulling the braid down through the hole as it is being formed. Comb the yarn with your fingers to separate the unbraided strands under the loom.
- 5 When the braid is finished, detach the yarn from the loom and knot the loose ends together, leaving a 2" tassel if desired.
- 6 Create additional braids with various combinations of colors and different movement sequences.

## Content Standards:

### CA VISUAL ARTS

Relate artistic ideas and works with societal, cultural, and historical context:

[K.VA.Cn11](#)

[1.VA.Cn11](#)

[2.VA.Cn11](#)

[3.VA.Cn11](#)

# The content behind the activity

Kumihimo, or “braided cord”, is a Japanese art which has been practiced for centuries. Originally created by finger-loop braiding, several looms and stands have been created that allow for braids with complex patterns using dozens of threads. The braided cords have been used as part of religious ceremonies, as ornamentation, and to lace together samurai armor. Braiding techniques have been used in many cultures around the world. The Andeans in Peru have many similar traditional patterns. The variations in the number and colors of strands combined with the braiding patterns combine to create designs of both mathematical and artistic beauty.



## Learn more

- Create a loom with more slits and/or from different materials
- Vary the number, types, & colors of yarn
- Slip pony beads onto the strands of yarn to add “flare” to the braid
- Add a metal ring or carabiner to make the braid a keychain or attachable ornament / accessory
- Use multiple braids to create an article of clothing, armor, or other project

Visit <https://raft.net> to view the following related activities!

Ojos de Dios  
Scalloped Circle String Art  
Hawaiian Yarn Leis  
Tessellating Lizard  
Foil Art  
Patterning with Polygons  
Faux Stained Glass

## Resources

- YouTube (2:35), Kumihimo tutorial - <http://bit.ly/3bX0ctZ>
- Kumihimo history - [http://bit.ly/Kumihimo\\_history](http://bit.ly/Kumihimo_history)