

POLY-PALOOZA SERIES

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Roaring 20's



Don't know much about geometry?

No worries. Beading bridges the gap.

*Peyote twenty (20)
equilateral triangles.*

*Then fashion them into a
polyhedron jewel, inviting
intrigued observers to delight
in a beaded interpretation of an
icosahedron.*

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Roaring 20's

*"Do not worry about your difficulties in mathematics.
I can assure you mine are still greater."
- Albert Einstein*

TECHNIQUE: PEYOTE
LEVEL: INTERMEDIATE

A 25mm wooden bead is covered with twenty (20) equilateral triangles, also known as a regular icosahedron.



Icos is Greek for "twenty" and hedron is an Indo-European word meaning "seat".

An icosahedron has twelve (12) vertices (where the edges meet), 20 equilateral triangles (face), and 30 edges.




The simplicity of one of these geometric beauties on a chain is sure to make an artistic statement.

Expand the triangle dimensions to create holiday ornaments; just imagine larger sizes for tassels or spheres, as home decor elements.

May you be awesomely inspired to explore and express the possibilities of size, color, and pattern combinations from your own imagination.

— EVA MARIA

MATERIALS:

5 grams		A	Main Color - cylinder bead - size 11
5 grams		B	Alternate Color - cylinder bead - size 11
5 grams		C	Alternate Color - seed bead - size 15
1 each	25mm		Wooden bead - painted

TOOLS AND NOTIONS:

- Braided Wire - Fireline® Crystal™ 6#
- Scissors - designated for braided wire only
- Size 12 beading needles
- Optional: Thread Burner
- Optional: Double-sided "tacky" tape, (See Page 7)
- Optional: 25mm wooden bead - plain, (See Page 7)

CONSIDERATIONS:

- Due to multiple thread passes, avoid knotting, adhesives, and/or waxing.
- When selecting cylinder beads, consider the finish and durability.
- Make a small peyote test sample. Weave multiple thread paths, to test the bead strength and the thread tension tolerance.

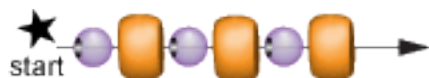
TRIANGLE CENTER

- 1 Single - thread a #12 beading needle on a minimum of twelve (12) inches (30.5cm) of braided wire.

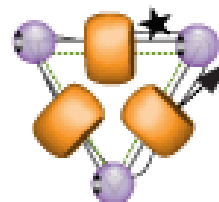
NOTE:

If you prefer working with longer thread, an arms length easily completes two (2) triangles.

- 2 Alternating (1)C and (1)A, string a total of 6 beads, leaving a six (6) inch (15.2cm) tail.

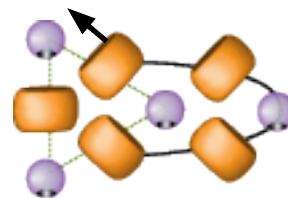


- 3 Pass the thread thru all beads twice, forming a triangle. Tighten the working and tail threads by pulling both ends slowly and gently. Forward the needle and EXIT the second A. Check thread tension again; to avoid knots and/or looping.

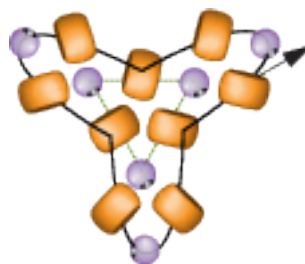


CORNER INCREASE

- 4 Pick up (1)A, (1)C, and (1)A. This is the corner increase. Skip over the C in previous row, EXIT the next A.



- 5 Repeat the corner increases twice more, (remembering to skip over the C in the previous row) STEP UP thru 2(A), EXITING the corner A.



TENSION: MODERATE


Designer Tip:

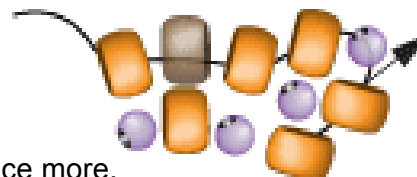
A pattern defining the steps is offered in this lesson. Consider a solid color for an understated, yet elegant beaded bead.




NOTE: The “C” bead is a spacer bead, bridging the cylinders; camouflaging threads, and defining the triangle pattern. The “C” is also referred to as the “spine” bead. Keep the tension in mind; too loose, the C floats, too tight, the C protrudes, or horror of horrors – breaks!

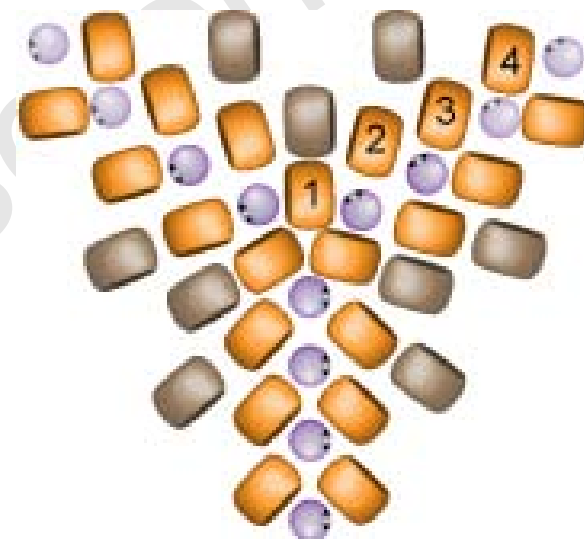
TRIANGLE SIDES

-  Repeat the corner increase.
Pick up (1)B, pass thru and EXIT the next A.
Continue the corner increase and (1)B across triangle side, twice more.
STEP UP thru 2(A), EXITING the corner A.



TRIANGLE SIZING

-  Repeat the corner increase.
Pick up (1)B, pass thru next B, pick up (1)B, EXIT next A.
Repeat twice more, for a total of four (4) "UP" and four (4) spine beads.
STEP UP 2(A), EXITING the corner A.




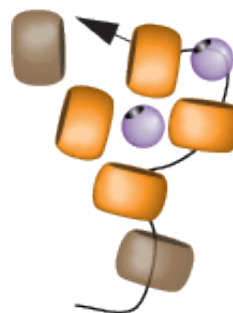
Completed 4 "UP" Equilateral Triangle

NOTE:

To increase the triangle size repeat corner increase and triangle sides.
For larger sizes, a form or stuffing is recommended, as it will collapse.
When you have reached the desired size, continue with Step 8.

SECURE WORKING THREAD

-  To cover the 25mm wooden bead exactly the triangle size is four (4) "UP" beads.
STOP CORNER INCREASE HERE!
Forward the needle thru the next C and EXIT the corner A.



EXAMPLES:

- 4 "UP" beads = 25mm
- 5 "UP" beads = 30mm
- 10 "UP" beads = 50mm
- 15 "UP" beads = 3 inch (7.6cm)

SECURE WORKING THREAD (CONTINUED)

- 9** Forward the needle to the center of the triangle.
Pass thru the next two A's, EXIT the A.
Continue up to the adjacent B, EXIT the B.
Make a U-TURN and stitch a full circle around the center A.
Pass thru the adjacent B again, EXIT the B.
Continue forward thru the next two A's, EXIT.
Pull thread gently to tighten circle stitch, TRIM.

NOTE:

By selecting the adjacent B, less thread passes thru the center A.
This allows for extra thread passes as new thread and/or future turns become necessary.

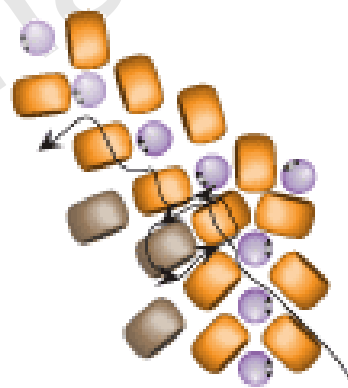
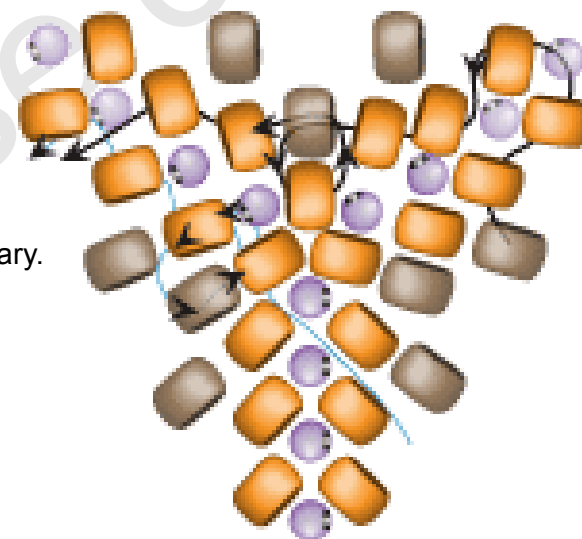
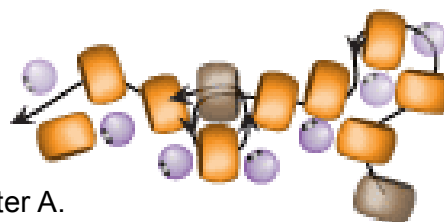
SECURE TAIL THREAD

- 10** The tail thread exits an A in the triangle center.
Make a U-TURN into and pass thru the adjacent B.
Circle back around the A.
Continue thru the next two A's. EXIT
Pull thread gently to tighten the circle stitch, TRIM.

CONGRATULATIONS!

YOU HAVE COMPLETED ONE (1) EQUILATERAL TRIANGLE.

REPEAT STEPS 1 THRU 10; MAKE A TOTAL OF TWENTY (20) INDIVIDUAL TRIANGLES.



OPTIONAL STEP: PRE-ASSEMBLY

NOTE: The pre-assembly offers a visual guide prior to joining the triangles. The optional materials, (double-sided “tacky” tape and a plain 25mm wooden bead) are used here.

- A. On the plain 25mm wooden bead, vertically and evenly place at least five (5) thin strips of the “tacky” tape from the end, to the center. **DO NOT TAPE OVER OPENINGS.**

(**NOTE:** You do not want to put the “tacky” tape on your finished (painted) wooden bead, as it shows through the openings. Also, removing the tape will damage the painted finish).

Position ten (10) individual triangles on one side of the taped 25mm wooden bead as follows:

- 1). Place five (5) triangles around the bead opening, to form the bead-cap. The “C” beads will crest the opening.
- 2). Place five (5) triangles, adjacent to each of the bead cap triangles, forming one side of the circumference.

(**NOTE:** To even up the join rows prior to the zip-up stitch, beads are added during the triangle joins, (See Step 13).

- B. As you work the “join” steps, remove the sections needed from the pre-assembled bead, and then replace the joined triangles back on the bead; completing the visual guide of Side 1.
- C. Remove Side 1 from the “tacky” plain bead, and replace with the painted 25mm bead.
- D. AS-YOU-WISH, repeat the “pre-assembly” steps for Side 2, and/or proceed to Step 11.



Bead cap placement



Circumference placement



“Tacky” tape placement



Bead placement - Side 1

ASSEMBLY - BEAD CAP

11 Thread a comfortable length of braided thread. Weave working thread into the triangle from the center out. EXIT a corner A. Weave in the tail thread, TRIM.

12 Working thread EXITS a corner A.
Needle into an adjacent triangle corner A. Circle stitch around the two corners. Position the needle toward the triangle center, EXITING the corner A.

NOTE:

The full circle stitches reinforce and support the corner joins.

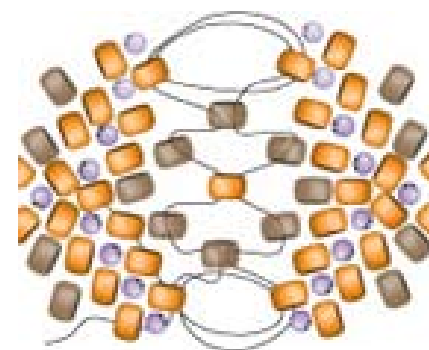


13 Work up the triangle side. Between existing “UP” beads, place 1B, 1A, and 1B.
Pull the thread gently to tighten stitches. EXIT a corner A.

NOTE:

This step prepares the “UP” beads for the even count required, prior to the “ZIP” stitch.

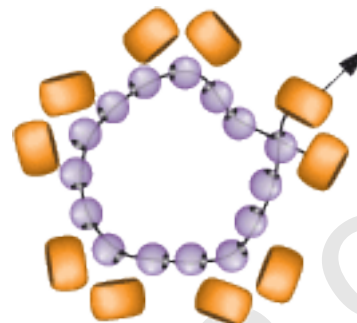
14 Circle stitch around the opposite A corners. EXIT a corner A.
Position the needle towards the triangle center.
Zip stitch the triangle by zigzagging between the “UP” beads. EXIT a corner A.
Pull the thread gently to tighten. Continue thru the next C, and EXIT the next corner A.
REPEAT Steps 12-14; completing a total of five (5) triangles. EXIT a C.



Completed Triangle Join

BEAD CAP FINISH

- 15** With thread EXITING a C, place (2)C's between each C already in place around the bead cap opening. EXIT a C and the next corner A. Position the needle towards the triangle center. Weave the working thread into the zipped area, TRIM. REPEAT Steps 11 -15 for a total of two (2) bead caps.



Completed Bead Cap Join

BEAD CIRCUMFERENCE

- 16** Repeat Steps 11-15 for the remaining ten (10) triangle joins; starting and ending thread as needed.

During the circumference joins, you may need to turn around and/or re-position the needle direction for the next triangle join.

- 1.) Forward thru two (2) cylinders
- 2). Pass up thru an adjacent cylinder
- 3). Forward and EXIT either the left or right corner cylinder bead

Complete the triangle join openings with the C fills, (See Step 15)

Weave in any remaining working and/or tail threads. TRIM.

CONGRATULATIONS! YOU HAVE FINISHED YOUR POLYHEDRON JEWEL!

EMBELLISH TRIANGLE JOIN OPENINGS (OPTIONAL):

Embellish the ten (10) circumference triangle join openings with 3mm beads.

With the thread EXITING between two C's, pick up a 3mm bead and position it diagonally across the opening. Stitch between two C's across the opening. Continue down thru adjacent C and up between the next two C's.

Pass back thru the 3mm bead, EXITING between the original two C's. Continue to each remaining opening and repeat. Weave thread into the "zipped" areas. Trim.



Completed icosahedron

