

Teaching Bead Weaving on a Loom to 5th Grade Students

By Deana Merz

As a volunteer at Cragmont Elementary School in Berkeley, I have been teaching bead weaving on a loom to 5th grade students for four years. Each child creates a 9 x 33 bead design, makes a simple bead loom, weaves the design, weaves a selvage, and sews the beading onto a strap to make a wrist band. This project incorporates some 5th grade math skills, new vocabulary, and art concepts. The project is very popular with the teacher, students, and parents. The first 3 years it was all crammed into the last 4 weeks of the school year. This past year it was done in 13 weeks of 1½ hour segments. The project is divided into 8 “lessons”.

Lesson 1: Introduction to Bead Weaving

This is a show and tell session to introduce the idea of bead weaving to the students. I take my looms, some of my bead work, a couple of necklaces woven by a Native American artist, and a couple of the bead graphs for necklaces that I have made. The children are allowed to handle my pieces to get the tactile feel of them. I introduce the terms loom, warp, weft, bead graph, and key for a graph. I show them a sample of the wrist band that they will be making and give a quick demonstration of how the beads are attached to the loom. After this lesson the children usually express a great deal of excitement at the prospect of learning bead weaving.

Lesson 2: All About Beads

This is another show and tell using a display board. The first segment is about the variety of characteristics of beads such as materials, shapes, sizes, colors, and what I call visual textures such as opaque, transparent, translucent, shiny, and matte.

The second section focuses on using beads in a design with emphasis on the concepts of contrast and similarity. Beyond contrast of brilliance, intensity, and light and dark, I introduce the students to the color wheel and concepts of primary colors, secondary colors, and complimentary colors. Using the set of beads that they will be choosing from, they learn about characteristics of the different visual textures in a design. (For example, opaque beads are more prominent in a design than gilt lined beads.) The textural choices include opaque, gilt lined, color lined, and metallic.

Lesson 3: Designing a Bead Pattern

I go over what I call “elements” that the students can use to build a design. The elements include basic shapes such as rectangle, triangle, diamond, and things I call crosses, exes, arrows and stripes. We notice that some of the elements can be solid, an outline, or congruent. We talk about symmetry and asymmetry. I show them how to use a code with a key to create their design in pencil so that they can easily make changes and correct mistakes. Their assignment is to make designs that have two axes of symmetry, one horizontal and one vertical. The children are encouraged to play with making designs and then to choose a favorite. With a sample card showing the palette of the actual beads they can use, they then begin choosing which beads the pencil symbols stand for. They color in the cells and update the key with the colors and bead numbers represented on the grid.

Lesson 4: Bead and Thread Order

In this lesson the students need to use a lot of math skills. First each child cuts and pastes his final design and key on a worksheet. Then we go through a set of worksheets that leads them through the process of finding out how many grams of each color of bead they each need for their design and how many yards of thread they need to warp their looms. They each fill out a bead order card and give it to me. I compile their orders, place an online order for beads that are needed for the whole class, and then ,when I get the beads, I fill the children’s individual orders.

Lesson 5: Making a Loom

While we wait for the beads to arrive, we make the bead looms. In past years we used shoe box lids and candy boxes, but the quality of the cardboard has declined to the point that the boxes are no longer strong enough to hold the thread tension. Last spring I found some shallow melamine trays at a dollar store. We plan to use similar trays again this year. We use size 8^o Japanese seed beads and size D Nymo thread. Toothpicks are the perfect size to space the warp threads for 8^o beads. The toothpicks are attached to the end of the box/tray with a piece of duct tape.

Lesson 6: Weaving

Finally the big day arrives, we actually begin the weaving. I arrange to have additional adult volunteers come in to help on this day. I give a demonstration using larger string and beads so that the students can see what I am doing. Then we do the first couple of rows together. Last year it took about four 1½ hour sessions for all of the children to finish weaving their patterns.

Lesson 7: Weaving a Selvage

When their pattern is completed, the children weave thread back and forth to create a selvage at both ends of their beading. An adult puts clear fingernail polish on the selvage and knots to glue the threads together. When the fingernail polish is dry the piece is cut off of the loom.

Lesson 8: Sewing to Strap

Each child has been given a kit that contains a 1" x 4" cloth-backed vinyl strap, 1" square of Velcro, and thread. The children tuck the selvage under the beading and sew the beading onto the strap by sewing up from the bottom of the strap next to one end of a row of beads, going through the row, and then down through the strap at the other end. After the first few rows they can go through every third row until they get near the end of the beading where they revert to going through three or four consecutive rows. The children then attach the Velcro to the strap to complete the wrist band.

If anyone else is interested in volunteering to teach bead weaving to children, I would be happy to share my lesson plans and experience. I know there would be a demand for this project in the schools. Because of the amount of time it requires, not just to do the teaching, but to do the preparation gathering materials and putting together the kits, I can only do one class a year. I know the other 5th grade teachers at Cragmont would love to have this project for their classes. The joy of the children, especially those who struggle and succeed, makes doing this project very rewarding for me.