***Lesson Summary***:

  Students will create a medal, inspired by the Olympic medal designers, focused on an activity they feel they excel at. The project will involve copper tooling and weaving processes combined into one finished project. The students will learn about designing simplified logos for their medals, that will be translated into tooled metal. Weaving processes will be used to create two straps for the medal to “hang” from.

***Estimated Duration***:
2.5-3 weeks (1.5 weeks for idea generation and copper tooling, 1 week for weaving)

***Commentary***:
Weaving vs. Knitting-explain difference.  Knitting is a series of knots that bind the fabric together. Weaving utilizes an internal skeletal structure.

Historical Textile reference.  I.e. Mexican blankets, Textile manufactures, Pioneers.

**Scoring Guidelines**:

For Weaving:  Is the tapestry the same width throughout?  Were all techniques used throughout?  Were at two to three colors used?  Were the techniques used correctly?

For Metal Tooling:  Have all surfaces been touched by the tools? Does the metal have a finished look? Is there a balanced amount of convex and concave areas? Are the edges of the Medal crisp and neat?

**Post-Assessment**:

See grade sheet attachment

**Instructional Procedures**:

Metal Tooling:

1. The class will be meeting in the school media center, and will look at Olympic medals from the past. They will discuss what medals signify, and how the designers of the medals create logos to represent the event or activity. Students will generate a list of ten activities they feel they are good at, including those that people do not typically receive awards for (should not just be sports). The students will then pick their three favorites, and create a one page word document collage of inspiration images. The images will be the inspiration for their final medal designs.
2. The students will look at their inspiration images and begin drawing their medals. The edges of the aluminum plates will be covered with masking tape, and their designs will be taped on top of the plate. The teacher will demonstrate how to transfer the designs onto the aluminum.
3. The teacher will demonstrate basic metal tooling techniques, and the class will discuss concave and convex tooling, and creating an even balance between the two. Students will begin the tooling process (will take several days).
4. The teacher will demonstrate how to cut out the medals and fold back the edges so they are not sharp. The medals will be put aside and stored during the weaving part of the project.

Weaving:

1. The students will discuss how weaving creates fabric, and the difference between knitting and weaving. The students will then take a loom, and the teacher will demonstrate how to warp the loom with the warp thread. On the “slanted” side of the warped loom, put a piece of tape with name and period number.
2. The teacher will demonstrate the proper way to get yarn for their projects. Yarn is to be used one string at a time, and must be wrapped back up nicely to prevent tangling. If the students cannot find the end of the yarn, the teacher must help find it, do not cut the yarn to untangle it. Throughout the weaving process, needles will be checked in and out, to assure that none leave the classroom. It will also be stressed that scissors are returned to where they belong. No scissors should be left in the yarn, and scissors should never be near a loom.
3. The teacher will demonstrate the tabby weaving process. The class will walk through how to thread a needle, through the eye of the needle, not tied. Students will start weaving in the center of the project, to avoid loose ends that would have to be woven in. The class will work through at least one row of weaving together to make sure the process is understood. The teacher will also go over changing colors. The yarn the students cut for themselves is to be used until it completely runs out, they are not to cut their piece of yarn shorter. The next piece of yarn will be added two or three “unders” before the last piece ended. This will keep the end of the yarn in place. The students will weave two strips to be used as the “lanyard” for their medals.

Assembly: The students will spend one class period gluing their medal and woven strips onto a board. On the back of the board, they will be taping a writing assignment, on which they will explain what their medal is about and the artistic choices they made.

**Differentiated Instructional Support**:

Students who tend to move faster through projects will be urged to try a more complicated design for their medal. They may also be interested in adding more striping to their woven strips.

Students who need extra attention will be able to review processes every day. The two halves of the project will be broken into small, step-by-step segments for the students to work through. While both the metal tooling and weaving are new techniques, once the technique is mastered it is simply repetition through the rest of the project.

Instructions will all be read aloud for students with reading deficiencies. The project will be broken into small chunks for students with attention deficits.

**Interdisciplinary Connections**:
Math, History.

**Materials/Resources Needed**:
Tapestry needles, yarn, looms, warp thread, scissors, ballpoint pens, aluminum sheeting, dowels/tools, magazines

**Key Vocabulary**:

Warp: Thin white string on loom acts as skeletal structure.  Do not see.

Weft: Colored yarn that makes designs.

Loom: Object that you wrap your warp string onto and holds the tapestry until it is completed.
Tabby Weaving: standard “over-under” weaving

Concave: designs that are pressed into the metal

Convex: designs that pop out of the metal

Relief: a type of sculpture in which forms project from a flat surface. It is not sculptural in the round.

**Attachments**: