

TRADITIONAL TRANSPORTATION: SUGPIAQ PADDLES GR: 6-12 (LESSON 6&7)



Sugpiaq Paddles located in the Cordova Historical Museum. Photo courtesy of Nick Jordan

Elder Quote/Belief:

A one handed paddle was generally used. It had a spear-shaped blade and a crutch handle at the end of the shaft... The paddler was kneeling and took two or three strokes on one side, then two or three on the other.ⁱ

Grade Level: 6-12

Overview: The Sugpiaq paddle is a prized personal possession. Most paddles were hand carved out of found driftwood. Each paddle was painted and adorned with traditional designs and hunting scenes. Paddles were built specifically for the owner based on their height and hand size. The single blade paddle was designed for efficiency and for sound reduction while hunting.

Standards:

<i>AK Cultural:</i>	<i>AK Content Science:</i>	<i>CRCC:</i>
D5: Culturally-knowledgeable students are able to engage effectively in learning activities that are based on traditional ways of knowing and learning.	F1: A Student should understand the dynamic relationships among scientific, cultural, social and personal perspectives.	S7: Students should know how to make tools from natural resources in the outdoor environment.

Lesson Goal: Learn how paddles were measured and carved for each individual owner. In this class, the students will carve a full length paddle from one inch width red or yellow cedar board (or cardboard).

Lesson Objective(s): Students will:

- Learn about the parts of a paddle
- Learn how to measure a traditional Sugpiaq paddle to fit their body
- Carve a Sugpiaq paddle from cedar, spruce or materials available to classroom.

Vocabulary Words:

Sugt'stun Dialects

English:	Prince William Sound:	Lower Cook Inlet:	Eyak:
Paddle		Paqun / Pakiutaq	kAwusgL
Driftwood		Tep'ak	dAkinh (wood)
Spruce		Napak	Lis, AdAlis
Handle		Pakiutem Ikua	
Blade		Uklucinampia	

Materials/Resources Needed:

- When possible, invite an Elder or Recognized Expert from the Region to share their traditional ecological knowledge (TEK) and expertise to enrich the lesson(s).
- 'My Sugpiaq Paddle Dimensions' worksheet
- Classroom set of acrylic paint and paint brushes
- Ten- 15foot tape measures
- Book: [The Chugach Eskimo](#) pg. 45-51 (for images of paddles)
- Video: Sven Haakanson www.vimeo.com/184085247 (Minutes 16-18:15)

If doing cardboard paddles:

- Gather long pieces of cardboard (1'x 6') for each student.
- Yard sticks
- X-Acto knives

If carving paddles:

- Carving wood: 1' x 6' cedar, spruce or available wood.
- One quart Tung Oil (non-toxic)
- Classroom set of carving tools:
 - Draw knife 8"
 - Small block plane
 - Rasp
 - Angle gauge
 - Clamps
 - Carving boards
- Sandpaper (60,120, 220 Grit)
- Carving Gloves
- Safety glasses

Teacher Preparation:

- Invite an Elder or Recognized Expert to class and share their expertise on the lesson content.
- Before the Elder or Recognized Expert arrives, please review with all of the students, ways to show respect for the Elder during their visit.
- Preview video with Sven Haakanson <https://vimeo.com/184085247>
- Prepare a chart to measure students for paddle height and blade width.
- Make copies of 'My Sugpiaq Paddle Dimensions' worksheet (attached)
- Make copies of *The Chugach Eskimo*, pg. 45-51
- Review school rules and prepare any necessary paperwork for classroom concerning the use of sharp objects / and carving knives.
 - Review attached carving safety guidelines, make revisions as needed.

Opening:

The Sugpiaq and Eyak of the Chugach region used single bladed paddles to navigate the qayaq/kayak, anyaq and dugout canoe. The paddles were carved from single pieces of driftwood. The length of the paddle is determined by: type of boat, paddler's height and hand width. These paddles look similar but vary in length. The qayaq/kayak paddle is the shortest of the three. The anyaq and dugout canoe paddles are similar in length. Each paddle was carved and painted with traditional designs. Today, you will measure yourself with a tape measure to see how tall a real paddle would be based on traditional measuring methods to make a full size replica of a Sugpiaq paddle. If time permits, make a paddle specific to your measurements.

Activities:

Class I:

1. Introduce the Elder/Recognized Expert to share the TEK. Allow time for questions.
2. Introduction to lesson and discussion on types of paddles
3. Ask students to read the article from [*Chugach Eskimo*, pgs. 45-51](#) and take notes on construction methods and purposeful design methods for travel and hunting.
4. Show the video from the Alutiiq Museum of Sven Haakanson describing the uses and styles of paddles for qayaq, and anyaq; <https://vimeo.com/184085247>
 - a. Select Minutes 16-18:15
5. Measuring student height and hand width.
 - a. Have students work in small groups to measure in inches and centimeter, record information on their handout.
 - i. **For paddle height:** students lay on floor with arms at sides. Using a tape measure, students in the group measure their height from the top of their head to their feet.
 - ii. **Blade width:** students will measure hand by holding out their hand flat. Students will measure from side of thumb to side of pinky.
 - iii. **Blade length:** with arms out stretched; measure from tip of fingers to center of chest.
 - iv. **Shaft length:** paddle height minus (-) blade length = shaft length.
 - b. Students will record measurements on 'My Sugpiaq Paddle Dimensions' worksheet (attached) for use during the next activity.

6. Using their measurements, ask the students to draw out their specific paddle size on the cardboard.
7. Encourage the students to double check their measurements BEFORE cutting out the paddle.
8. Review and emphasize the safety rules need to be strictly followed.
9. Hand out the X-Acto knives for students to carefully cut out the paddle.
10. When finished have students paint their paddles with traditional colors.
11. Take a class picture with completed paddles.
12. Display for school.

Class II: Five (45 minute sessions)

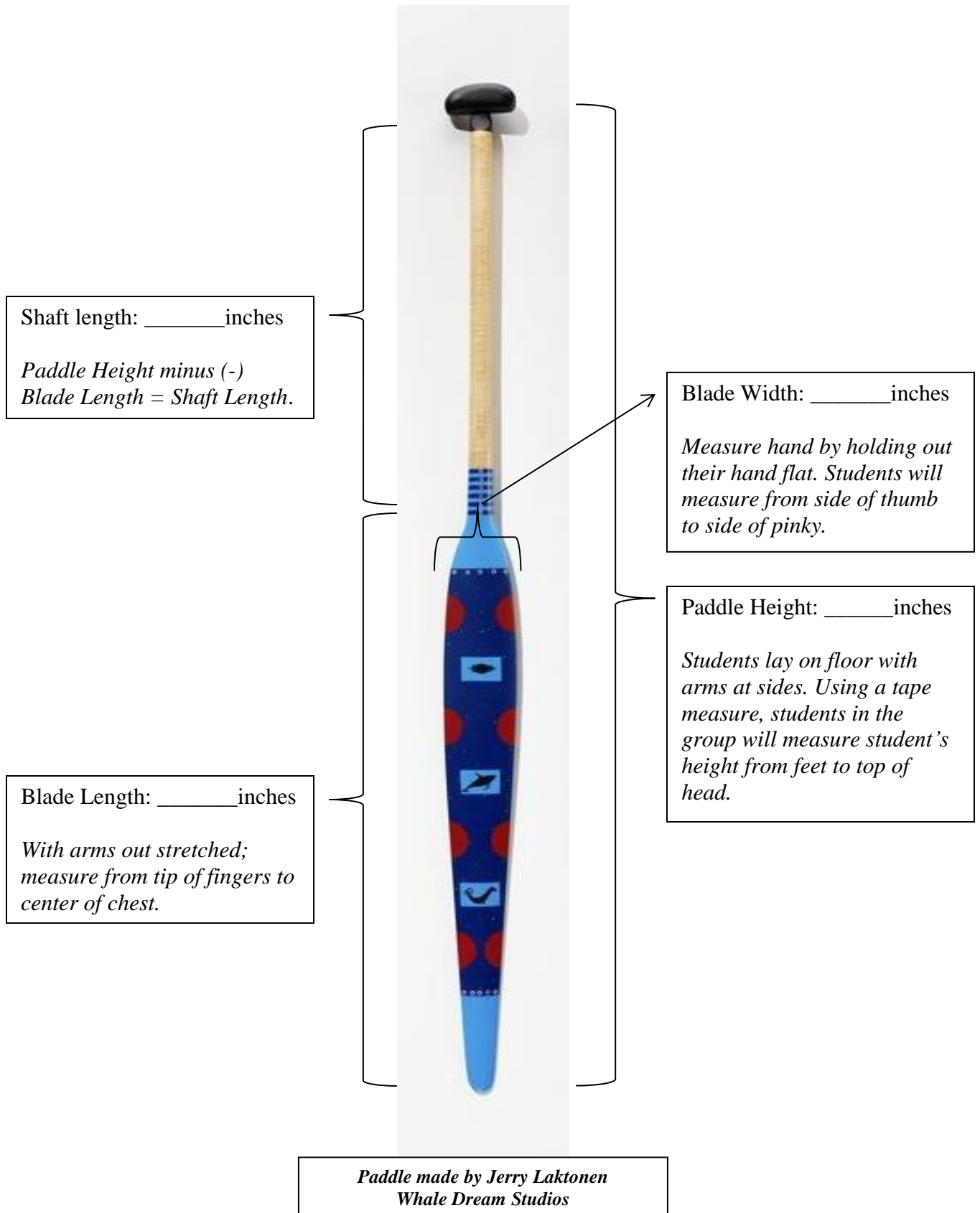
1. Prior to class, ask the students to bring permission slips home.
2. All parents will need to review and sign the permission slip, 'Carving, Wood Working Safety Checklist' and return to teacher before activity begins.
3. Give each student a 1'x 6' cedar board and develop a paddle template based on their paddle measurements.
4. As a class, review the permission slip and any school rules as pertains to carving and use of tools. These rules should be strictly followed. No horseplay.
 - a. **Additional carving directions and suggestions below.**
5. Students will share carving tools, and techniques at table stations.
6. Ask the students to research and paint paddles with traditional designs (see example below).
7. Use Tung oil to finish and complete.
8. Take a class picture with completed paddles.

Assessment:

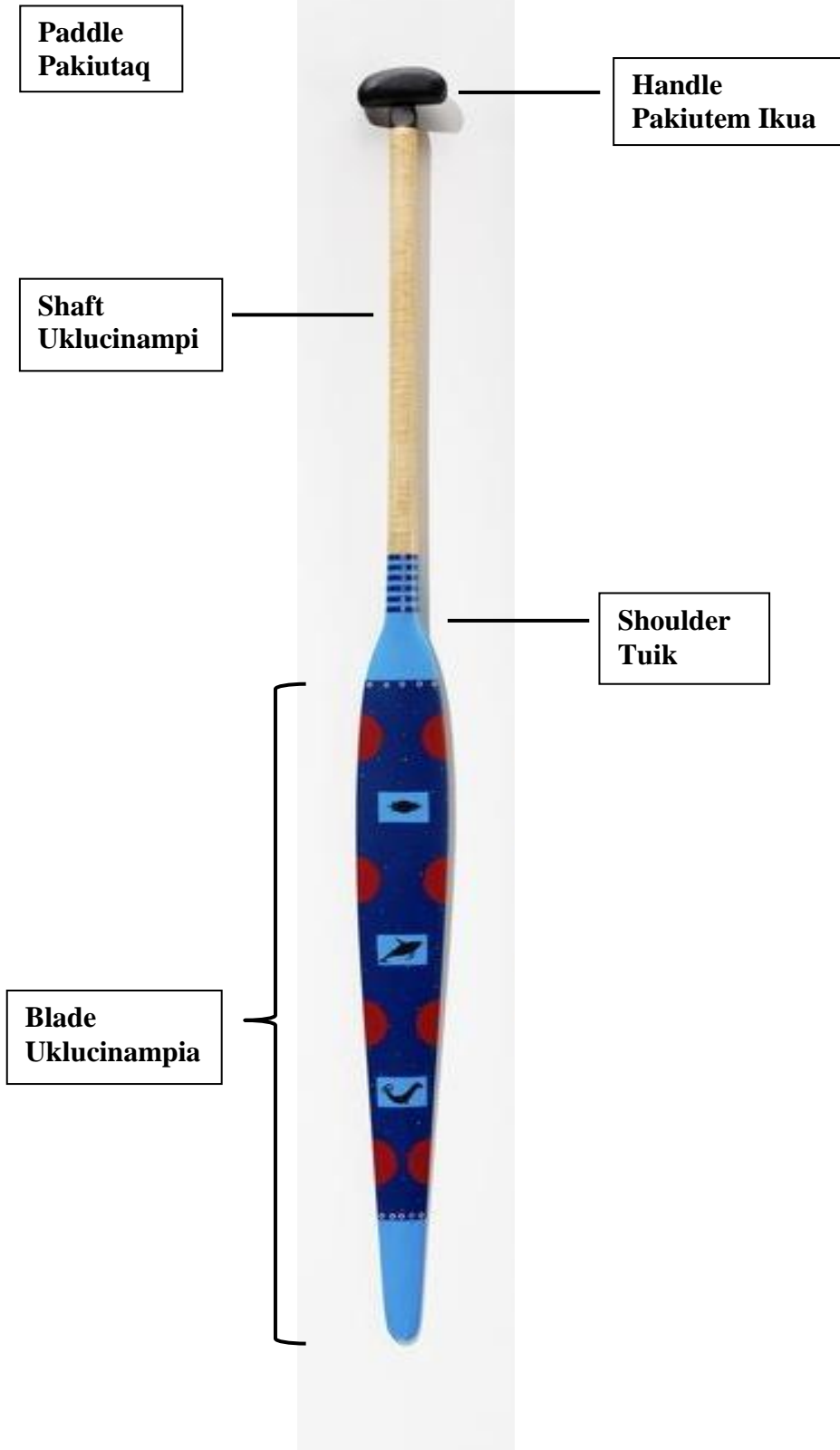
- Students are able to describe the parts of a paddle in Sugt'stun/Eyak.
- Students will understand and demonstrate how to traditionally measure the body for blade width, blade length and overall paddle construction as they successfully completes the 'My Sugpiaq Paddle Dimensions' worksheet.
- Students successfully carve a full length custom paddle to their dimensions with traditional paint color and designs.

¹ *The Chugach Eskimo: Communications by Kaj Birket-Smith pg. 48*

My Sugpiaq Paddle Dimensions



English and Sugt'stun vocabulary



Carving, Wood Working Safety Checklist

1. Judgement
 - Knives and other carving tools are not toys.
 - Carve only under the direction of a teacher or adult supervision.
 - Carve only when you can focus on your work. Avoid distractions
 - Never bring a knife to school for carving.
 - Horseplay is not allowed near or around carving and knives.
2. Caring for your tool.
 - Keep tools and knives sharp and clean
 - Wear protective safety gear, such as: carving gloves, safety glasses and mask.
 - Store tools in a safe place and never bring tools home.
3. Work Environment
 - Use a clamp, and carving board for better control when carving small or shaped objects.
 - Use a clamp to hold down wood while using a coping saw.
 - Use a bench, sturdy chair and appropriate lighting.
4. Handling Knives
 - Never pass a knife across to other people at the table.
 - Never carve in your lap or near your face or wrists.
 - Take small carving strokes for more control.
 - Never “muscle” a project when carving.
 - Always make sure your knife is sharp. Dull knives are challenging and dangerous to carve with.
 - Never pound or “hammer” your carving knife to make a cut.
5. Choices
 - Choose the correct wood for a project
 - Lay out your project and have plenty of space around you while cutting them out.

We have read, understand, agree and will abide to the safety rules in order to make Sugpiaq paddle.

Student Signature_____ Date_____

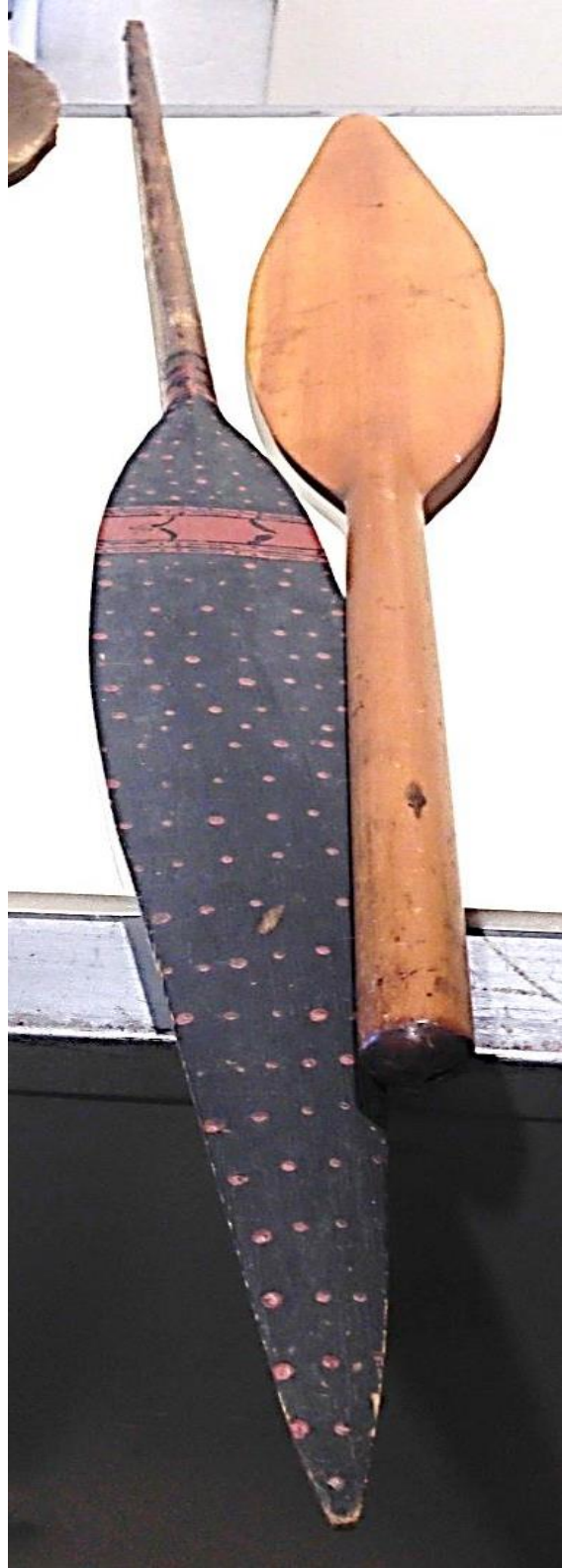
Parent Printed Name_____

Parent Signature_____ Date_____

Emergency Contact Information: (907) _____

Paddle Carving Directions and Suggestions:

1. Develop a template on butcher paper to help with drawing out the paddle design on the carving wood.
2. Before carving, create a straight centerline on the wood lengthwise. **This will be an important reference mark**, use a pencil line or chalk line.
3. Start removing wood with a draw knife that will not be a part of the paddle, use your reference lines, and paddle outline.
4. When you get within a quarter of an inch (1/4") slow down and switch to the hand planer.
5. Re-draw your reference lines if they have been removed during carving process.
Continue this process throughout the carving of the paddle.
6. Once the handle and shaft have been shaped, begin on the blade.
7. Start removing wood from the blade using the block plane, and drawknife. As you remove wood shavings keep measuring the center line and tip (1/4 inch) and taper down to the edges of the paddle blade (3/8 inch). This process will take a while.
8. Move back up to the handle and shaft. Using the rasp, begin to carve out the paddle handle to the desired shape and size.
9. At this point your paddle will still have many corners and will be angular. You can now start to shape the edges of the shaft, handle and blade. Use the draw knife lightly, rasp and heavy grit sand paper #80.
10. Start sanding. Start with heavy grit sandpaper (80 on hardwoods, 120 on softer woods) and sand until the rasp marks are gone. Switch to finer grits until you get to 180-200 grit. If you have a soft sanding block this can be useful to sand the contours of the shaft and blade, but it's not necessary.
11. Once finished with sanding smooth, add designs and finish with a clear poly urethane or Tung oil or a varnish of your choice, repeat process if necessary. Sand with fine grit #320 in-between coats if needed.



Sugpiaq Paddles located in the Cordova Historical Museum.
Photo courtesy of Nick Jordan

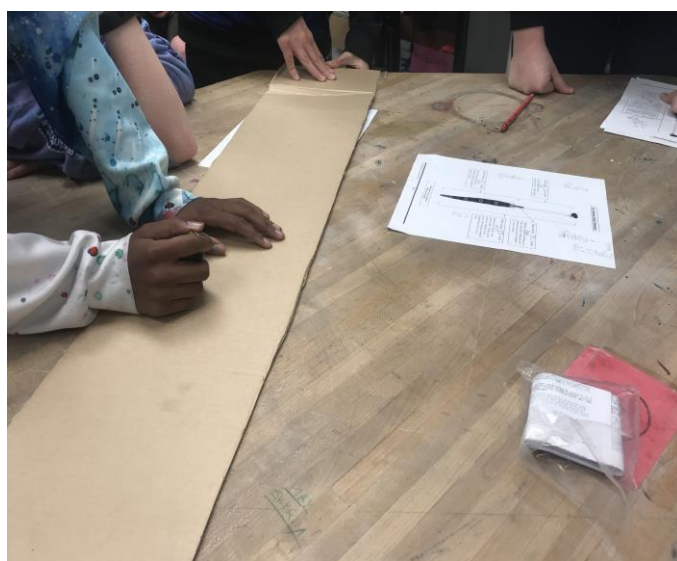


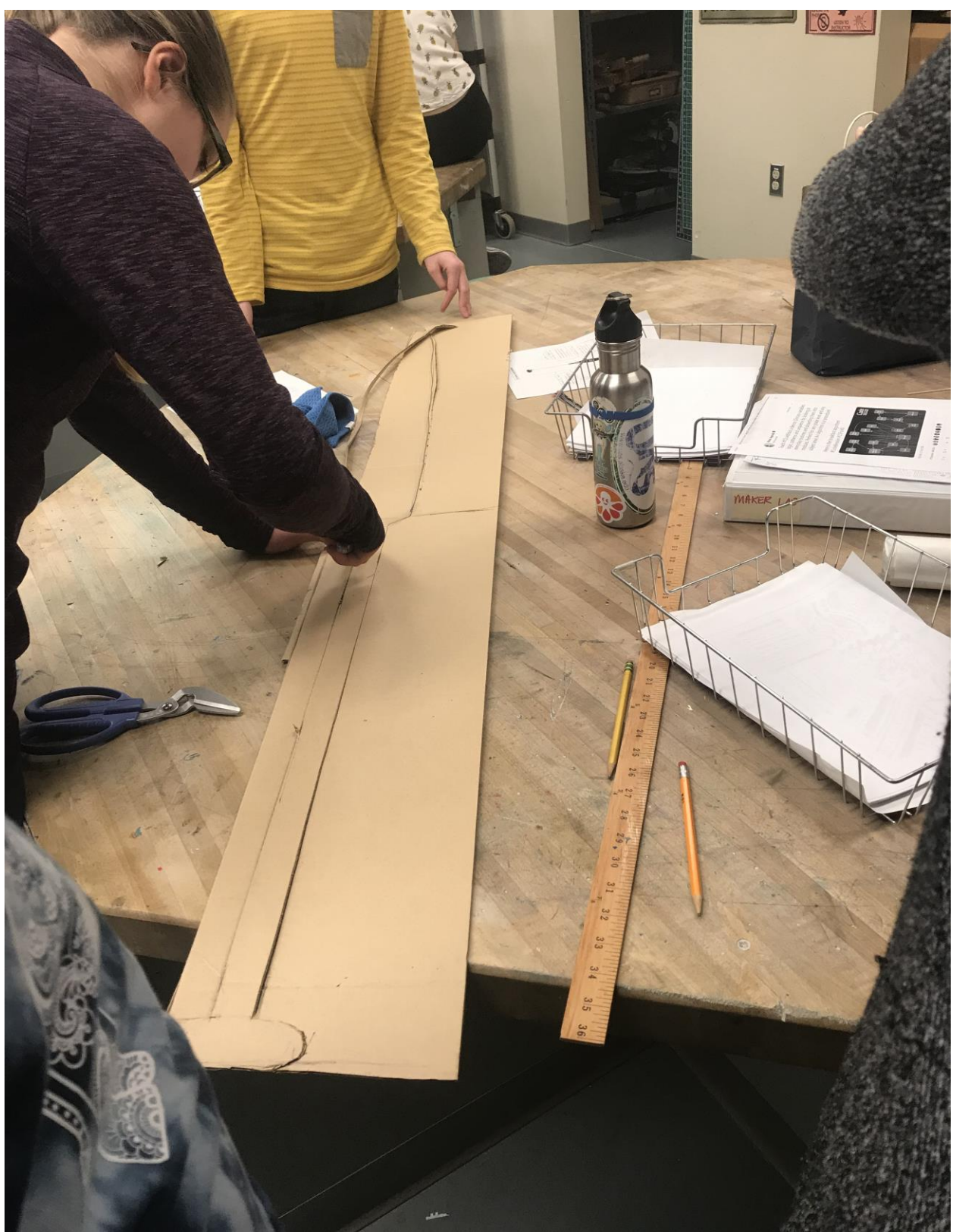
Close-up of the Sugpiaq Paddle located in the Cordova Historical Museum. Photo courtesy of Nick Jordan

Students in Ms. Dixon's class working on the *Traditional Sugpiaq Paddle* lesson with Nick Jordan at Seward Middle School (Following photos courtesy of Nick Jordan, Seward)

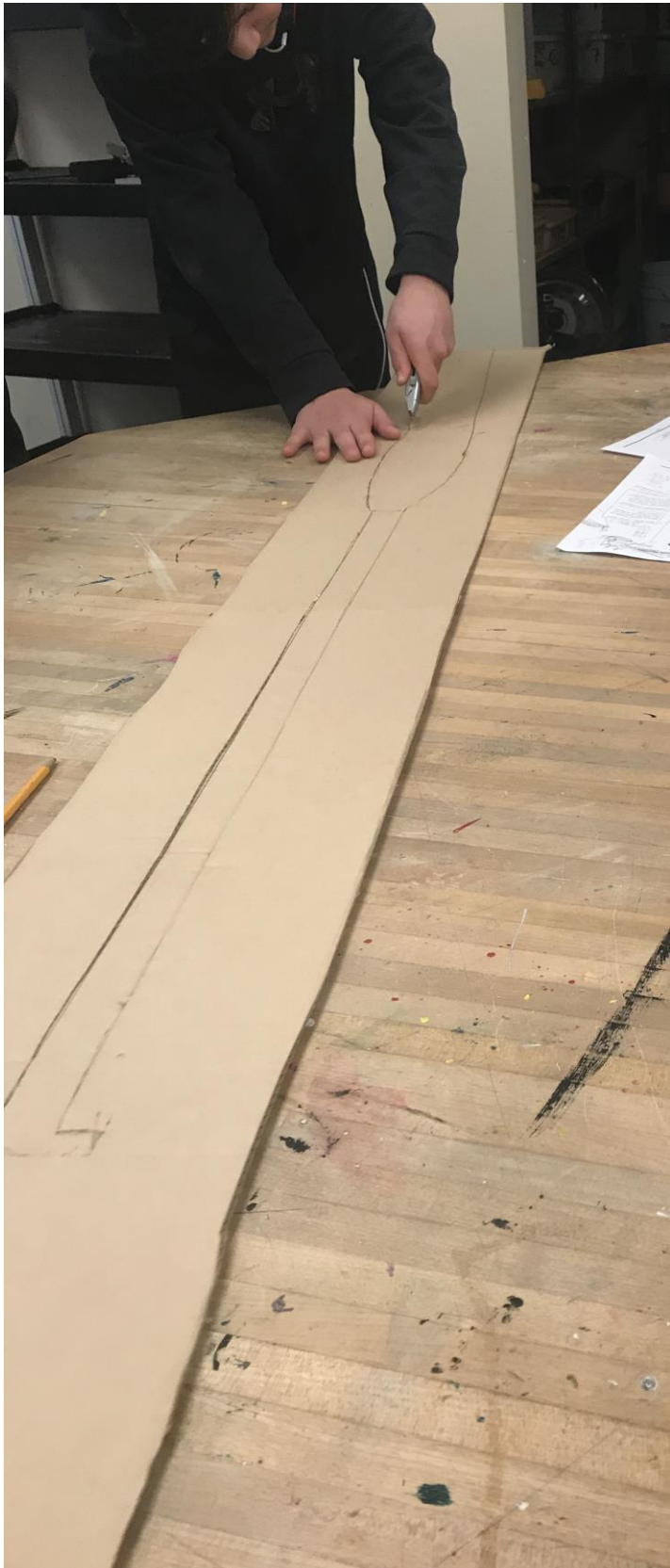


Note the filled out "My Sugpiaq Paddle Dimensions" worksheet and then drawing out paddle accordingly.

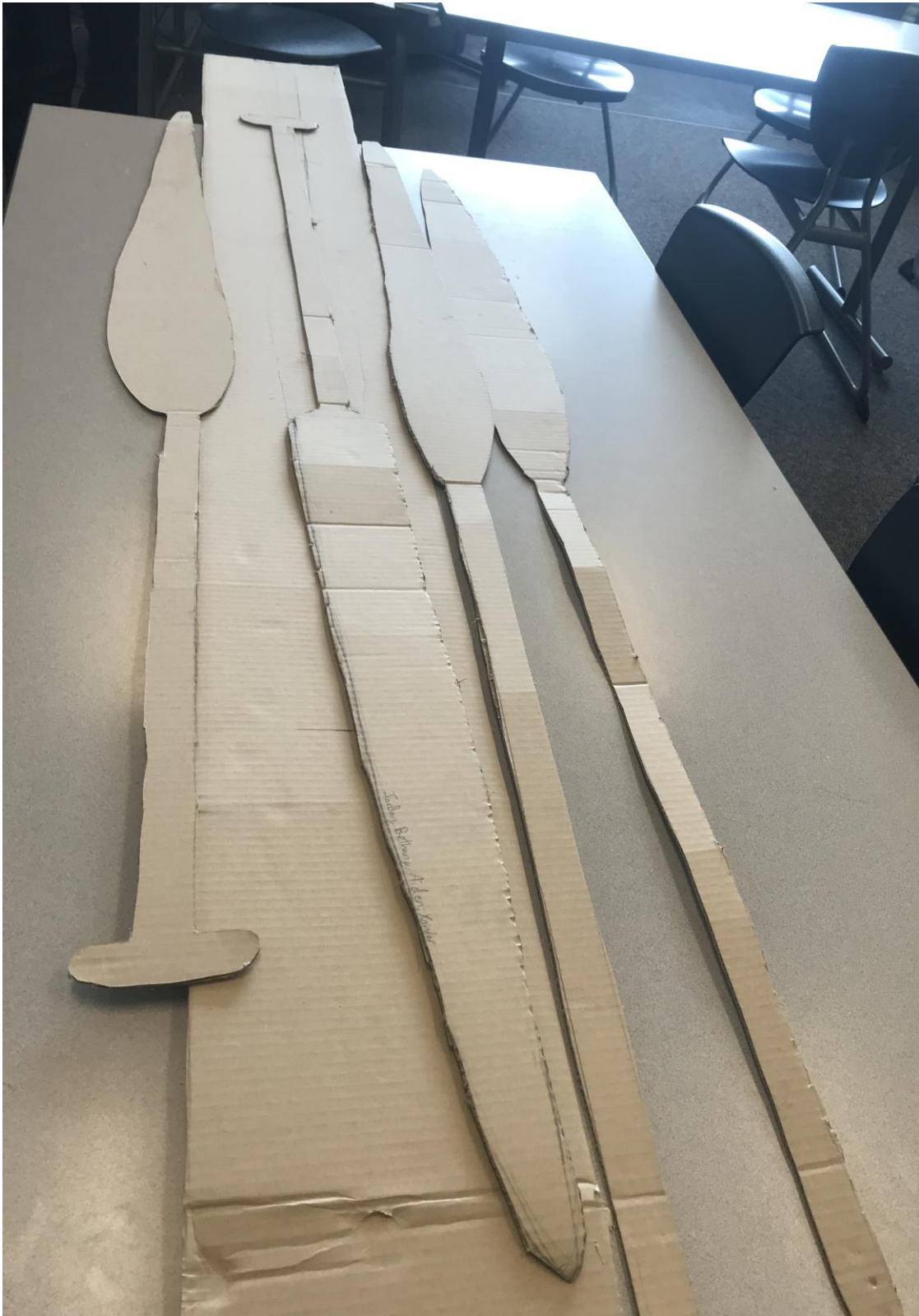




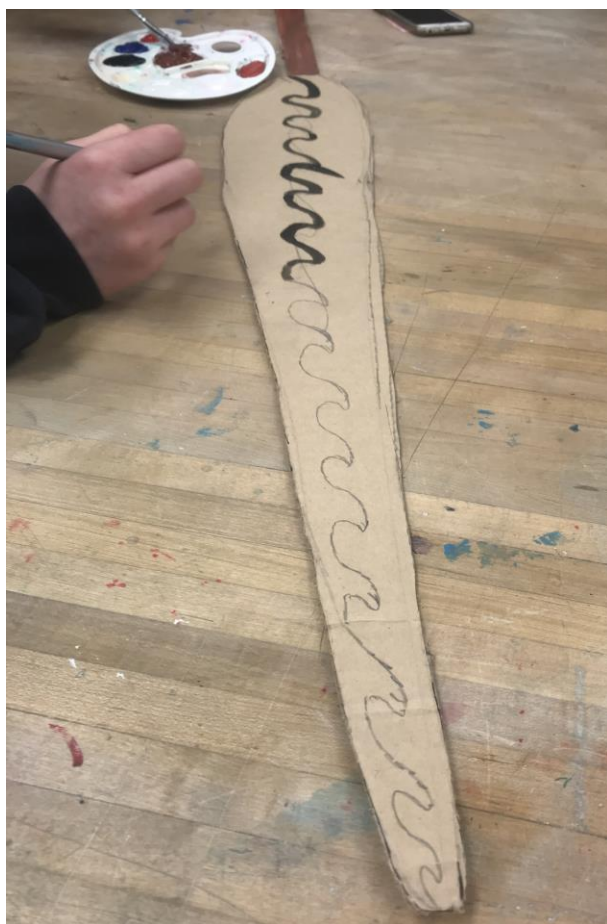
With an X-Acto knife, carefully cut following the outlined paddle.



Be sure to work on a cutting surface.



Cardboard paddles cut out to specific body measurements of students and ready to paint.



Draw out traditional designs with pencil.



Encourage painting with traditional colors.



Set aside and allow to completely dry.



Finished paddles made specifically to student's body measurements. Awesome job!