

Book Binding Lesson Plan – Elementary & Middle Years

Roedde House Museum, Vancouver BC

“As soon as someone cracks the spine, a book develops a character all its own. What impresses or concerns one reader is never the same as what impresses or concerns all others. So, each book, once read, will fall open at a different place. Each book, once read... will have told a slightly different story.”

– Pip Williams

Note: The authors acknowledge that this lesson plan was prepared on the traditional, ancestral, and stolen lands of The xʷməθkʷəy̅əm (Musqueam), Sḵwxwú7mesh (Squamish), and səilwətat (Tseil-Waututh) peoples, all of whom are the original inhabitants the place that is now known as the city of Vancouver, and have been since time immemorial.

Introduction:

Bookbinding is a greatly valuable topic to explore for a variety of reasons both abstract and tangible. Bookbinding is important because it ensures the preservation of knowledge, contributes to cultural heritage, enhances aesthetics, and serves the practical function of containing ideas and values. It bridges the gap between functionality and artistry, connecting historical traditions with modern sensibilities. The British Columbia Arts Education curriculum is “founded on the artistic habits of mind – (to) explore and create, reason and reflect, communicate and document, and connect and expand”. Through this lesson plan we explore how bookbinding touches on these overlapping notions of the aesthetic and practical, of the cultural and experiential. Similarly, the Applied Skills, Design, and Technology learning standards in BC stress that by “using creative and critical thinking, students have the opportunity to work collaboratively to address challenges by exploring materials, using tools and equipment, designing and building, developing processes, and communicating the merits of their work”. In bookbinding we find an avenue to engage with tangible arts, with the legacy of the Roedde name, and with the ability to design and create for ourselves.

Lesson Overview:

Through three stages, this lesson will work in conjunction with the Roedde House Museum to provide students the opportunity to engage with bookbinding in a tactile and experiential fashion. Prior to visiting the Roedde house, students will first be briefly foregrounded in the concept and purpose of bookbinding. Students can then build upon this introduction as they learn about Gustav Roedde and his bookbinding artisanship. Upon returning to their classroom, students will take part in two elements of bookbinding construction. First is the initial building of the book, creating the structural foundation and primary piece of the craft. Following this, students will have the opportunity to build on what they have learned about Gustav Roedde’s marbling technique as they create bespoke covers for the bound books that they have crafted.

Big Idea(s):

- Engaging in creative expression and experiences expands people’s sense of identity and community. (Arts 4-7)
- Artistic expressions differ across time and place. (Arts 6-8)
- Dance, drama, music, and visual arts are each unique languages for creating and communicating (Arts 7/8)
- Skills are developed through practice, effort, and action. (ADST 4-6)
- Design can be responsive to identified needs. (ADST 7-8)

Curricular Competencies:

- Choose artistic elements, processes, materials, movements, technologies, tools, techniques and environments using combinations and selections for specific purposes in art making. (Arts 4-7)
- Demonstrate an understanding and appreciation of personal, social, cultural, historical, and environmental contexts in relation to the arts. (Arts 5-8)
- Identify and use appropriate tools, technologies, and materials for production. (ADST 5-8)
- Make a plan for production that includes key stages, and carry it out, making changes as needed. (ADST 5-8)

Content:

- Processes, materials, technologies, tools and techniques to support creative works (Arts 5-8) manipulation of elements and principles to create meaning in the arts, including but not limited to visual arts .(Arts 5-8)
- Techniques for using text to communicate information, settings, ideas, and structure. (ADST 6-8)
- Digital and non-digital media, and their distinguishing characteristics and uses. (ADST 6-8)

Core Competencies:

- *Communicating:*
Acquiring and presenting information,
Connecting and engaging with others
- *Thinking:*
Creating and innovating.
Evaluating and developing.

First Peoples Principles of Learning:

- Learning is embedded in memory, history, and story.
- Learning involves patience and time.

Materials/Resources:

- Bright white, A4 sized paper to be used as interior paper.
- Cardstock, to be used as cover sheets.
- Elmer's PVC glue, for book assembly.
- 33 paintbrushes, for glue application in book assembly.
- 33 popsicle sticks, for paint marbling activity.
- Ribbon (to be cut into 12 inches each), for book assembly.
- Origami paper, for cover decoration.
- Washi tape, for cover decoration.

Lesson Outlines:

1. *What is Bookbinding?* Foregrounding and foundations prior to the Roedde House Museum experience.
 2. *Bookbinding Activity:* The Roedde House, heritage in Vancouver, and standards for preservation.
 3. *Cover Marbling:* Student-selected heritage focus assignment.
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Lesson Part 1: Bookbinding Intro (Before Roedde Visit)

Begin by introducing the word ***bookbinding***, and asking students how they might define the word. Breaking it down, what is binding? What happens when we put these words together (book + binding)? This lesson can stay open ended, and the goal should be to percolate ideas related to bookbinding that can be built upon during the class visit to The Roedde House museum. Have students think-pair-share in groups of 2 or 3 before writing response ideas on the board. Which ideas show up most often?

Explain to students that ***bookbinding*** is the process of putting together the pages of a book to create a sturdy and organized structure. It involves attaching the pages to a cover, using techniques like sewing or gluing, to make sure the book stays together and can be opened and read easily. It's like giving a book its "skin" and making sure all the pages stay in place.

The following three questions can be used as group discussion pieces. Depending on the age and makeup of your classroom, answers can be orally presented, scribed by a group member, or fitting with the artistic intention of the lesson, drawn on available paper. By dividing your class into small groups, they can engage with partner ideas while scaffolding conversations. At younger age levels, students should be provided roles for group work such as "timekeeper," "artist," "scribe," and "brainstormer". All students can take part in these elements, but distinct roles can ease students into their group discussions.

- **Question 1:**
What materials or tools do you think you would need for binding?

- **(Extension for intermediate students):**
Understanding the person using tools is often as important as the tools themselves. Who do you imagine would have taken part in bookbinding?
- **Discussion answers for conclusion:**
This includes items like paper, covers (hard or soft), thread or cord, needles, rulers, folders, adhesives such as glue or clamps. The specific materials and tools may vary based on the type of binding method you're using and the complexity of the project.
- **Discussion answers for intermediate extensions:**
In the 19th century, marginalised groups such as women, orphans, and the impoverished were taught bookbinding as a means of making a living, and widows often took over their husbands' workshops; therefore, it is a trade that has provided vital opportunities to a diverse population. Women were employed in bookbinding particularly frequently, in sectors such as sewing, headbanding (the process of sewing a cord into the backbone of the book to strengthen the edges), and decoration. The Guild of Women-Binders, which existed in Britain from 1898-1904, taught classes on these skills for women.
- **Question 2:**
What different ways can you think of that books could be stuck or "bound" together?
- **(Extension for intermediate students):**
What are the different bookbinding techniques and when should they be used? What materials might be used for the cover?
- **Discussion answers for conclusion:**
Bookbinding encompasses various techniques, such as stitched, glued, and woven binding.
- **Discussion answers for intermediate extensions:**
A variety of covering materials could be used based on manufacturing location and the price point of the book. These include leather, calfskin, goatskin, pigskin, sheepskin, vellum, parchment, cloth, and paper.

The following methods can act as teacher context and can be added to the discussions at the discretion of the educator:

- **Perfect Binding:** *This is the method used for most paperback books. The pages are stacked together, and then the spine edge is glued to a paper cover (this is the method we will be engaging with later on in the process).*
- **Saddle Stitching:** *Often used for smaller booklets or magazines, the pages are folded in half and stapled along the fold in the center.*
- **Sewn Binding:** *In this method, the pages are sewn together using thread before attaching them to the cover. This creates a durable and flexible binding.*
- **Question 3:**
How do you ensure that your book stays together? What can bookbinding tell us about a certain time or people?
- **Extension for intermediate students:**
Maintaining the structural integrity of a bound book is key to its longevity, what factors could contribute to this. What else can we learn about people from bookbinding?
- **Discussion answers for conclusion:**

Choosing the right paper weight, cover materials, thread or adhesive, and reinforcement methods is important. Additionally, understanding how to align pages, create even and tight stitches, and properly finish the book's edges will help to create a pleasing final product.

Discussion answers for intermediate extension:

Book bindings can also tell us: Information about trade routes and how ideas spread, the owner's economic status, contemporary aesthetic or design tastes, what literary or historical texts were significant at a given time, the types of technology available at the time of printing, how the book was used and who it was read by; earlier religious and academic texts might be stored flat, while in the 19th century smaller and lighter volumes that could be carried in the owner's pocket were popular.

Remember that bookbinding involves both skills and creativity, so exploring these questions will not only help your class both understand what bookbinding is, but will also later scaffold them in their activities to create well-crafted and visually appealing books.

Lesson Part 2: Bookbinding Activity (After Roedde Visit)

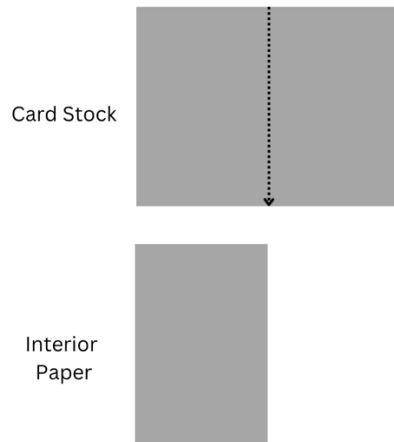
This bookbinding activity uses the adhesive method rather than sewing, both for accessibility and safety. With that said, we recommend reading through the instructions in advance to make sure that the teacher-lead is well acquainted with the steps.

Step 1 - Preparation and alignment:

The initial step for the activity is the cutting and alignment of paper. We will be working with two (2) paper types during this activity, with both playing important roles in the construction of our book.. First is the interior pages, using typical paper stock. The second type is the card stock used for cover and end pages. As will be seen, the interior paper should be cut to be slightly less than half the width of width of the exterior cardstock (see Diagram A.). This is because the card stock will eventually be folded over the exterior of the book made by the interior pages.

Align your chosen number of pages and test that they are half as wide across as your card stock cover.

(Diagram A.)



(Optional Step: Rounding Corners)

At this point students may choose to round the outer corners of their page with scissors or a rounding cutter, but this is not necessary to the project. It can be included as an extension for upper-intermediate classes

Step 2 - Gluing sheets:

With sheets aligned, they can be clamped in one of two fashions. The first option is to use alligator paper clips, while the second involves textbooks on top and underneath your book. If the second method is selected, we recommend using a layer of construction scrap paper as a buffer between the textbook and the project. Once pages are “clamped,” students can begin brushing one medium layer of PVC glue over the “spine” of the book. It is entirely alright to get glue on the outside pages of the booklet, but **it is important to not track glue onto the top or bottom page edges of the book**, as this will cause the pages to be glued together. Again, **it is important to only “paint” PVC glue over the spine of the pages, not the top or bottom edges.**

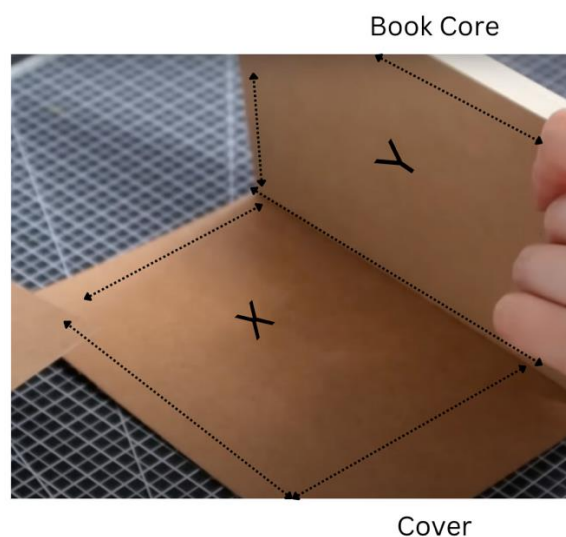
The dry time for this spine glue layer will vary based on the heat, humidity, and group sizes in your classroom. **We recommend 3 layers of PVC glue on the spine**, giving time to suitably dry in between layers. This may mean that you wish to complete step 2 over the course of an afternoon, or even that you may wish to complete the layers in stages over multiple days.

Step 3 - Making the cover attachment:

With your book now featuring a connected spine, we must create 2 cover attachment pages per book. These will act as the connective liner page between cover and book. To do so, for each of

the two attachment pages, fold an interior weight piece of paper just as you did for the cover. This will create a folded piece that when open is the size of the cover cardstock, and when folded over is the width of the interior pages. Two of these folded pages are required per book, with one being glued onto the front and back of your almost completed book. Once glued, they should open in the same. Orientation as the book does, closed at the spine and opening as the book does. **Do not** glue these folding pages together. One side of the paper will be glued to your book, and the other to the cover. **One** side of this attachment page may now be glued both front and back cover of your book, essentially creating one more “page” or place of attachment at the front and back of your book. In Diagram B, we see the attachment page represented as dotted lines, with X & Y representing the page on either side of the fold. Page Y is ready to be glued to the book core, while page X is to be glued to the cover in the next step.

(Diagram B.)



Step 4 – Gluing the cover:

From here the choice exists to independently decorate the cardstock and, having folded it as demonstrated in Diagram A., glue both attachment sheets to the interior side of the folded cardstock, thus creating an attached cover. Alternatively, students may. Engage with Part 3, and marble their cardstock. This will add an artistic extension, as well as mirroring the technique that Gustav Roedde was famed for employing. Whether marbling or not, the origami paper and washi tape can be used both as additional decorations or as the final stage in a differentiated version of this plan.

Lesson Part 3: Marbling (After having built the core of the books – Extension)

Step 1 – Vessel Preparation:

Any shallow dish can be used for the marbling process, so long as your folded stock can fit within the diameter of the vessel. This can range from a lipped baking tray to Tupperware or a rectangular bucket.

Step 2 – Paint Consideration:

To create a marbled effect with paint through an easy to access process, begin by diluting your paint slightly. Acrylic paint varies in weight from brand to brand, and you're looking for a consistency that will float across the top of the water, but that will not immediately dissipate. We recommend a teacher practice trial to determine a given consistency with the paint available to you. Aim for a paint consistency that resembles milkiness. Be cautious not to add too much water, as this can diminish the intensity of the colour.

Step 3 – Paint Laying:

Gently drop/pour out two or three strands of paint onto the surface of your water. At this point, you can lightly mix the strands of coloured paint to create a marbling effect. This should be done gently, and with care so as to not entirely combine the paints. We recommend using the back of a paint brush, a pencil, or even a pipe cleaner. Remember that excessive stirring can blur the colors, so opt for a few uncomplicated swirls to achieve the desired effect, as shown in Diagram C. below.

(Diagram C.)



(Delineate Your Dwelling, 2019)

Step 4 – Cover Marbling:

At this point, carefully lay a cover page onto the surface of the water, dunking it only slightly before removing it. The paper should collect the marbled effect and can now carefully be laid

out to dry before being attached to the core of the book described at the end of step 2. Finally, as a flourish of completion, glue a piece of ribbon to the top of the front inset page. With the ribbon attached, your bound book now has a bookmark and the activity is complete.

Optional/Extension:

If you find that your paint is of such a makeup that it will not float, a starch water can instead be used. To do so, combine one teaspoon of cornstarch with one cup of warm water for each vessel in advance of the marbling process. Once cooled, add one of these cups of solution to any of your water vessels prior to adding acrylic paint. By adding this solution to your vessel in advance of marbling, you will create a denser medium for the paint to float upon.

Differentiation & Considerations:

Students learn best when made to feel comfortable and it is acknowledged that their ideas are valid. The use of video content, like the video tutorials provided in the resource links section, will aid visual learners. ELL and recent newcomers should be encouraged to consider art in whatever form they best connect with. It is also important to emphasise that art is cross cultural and exists outside of capitalistic mechanisms. Indigenous, Queer, and BIPOC art can be highlighted, both as historical and contemporary endeavours. Exploring these subjects through both the Art and ADST curriculum designations allows for a varied, creative, and practical understanding of bookbinding and artistic creations.

Assessment

FOR LEARNING: (Formative assessment, collection of data to make students understanding visible to the educator):

Student responses at the culmination of Part 1 will demonstrate an understanding that bookbinding includes artistic, as well as practical elements of focus. This will ground students as they move on to explore The Roedde House in person.

AS LEARNING: (Formative assessment, student self-assessment):

Upon completion of Part 2, students can respond to what they think went well, or did not in their book binding process. How might they have revised or done something differently? These questions will not only allow for student self-assessment, but they will engage with the iterative notions inherent to the BC Applied Design, Skills, and Technologies curriculum.

OF LEARNING: (Summative assessment: done at the end of the unit/course):

With the final assignment bookbinding piece completed, students will be able to showcase their learning in both tangible and abstract fashions. Describing what bookbinding looks like in a practical and design sense, as well as in line with the creative methodologies described by the BC Arts curriculum, will show both creative and pragmatic function. Additionally, student ability to communicate their design understanding to their class and teacher will showcase the skill-use mentality built into the BC ADST curriculum.

Resources, Links, & Sources:

- Roedde House Museum
<https://www.roeddehouse.org/>
- iBookBinding
<https://www.iobookbinding.com/>
- My Handbound Books
<http://myhandboundbooks.blogspot.com>
- Making Handmade Books
<http://makinghandmadebooks.blogspot.com>