

Day 1

Journal Making

Overview:

Making a journal is always the first thing we do in NYSCI after-school programs. It's a good introductory activity because it provides plenty of opportunities for success and is open enough to allow for plenty of variation. Students use a variety of tools and materials to make their journals and then spend some time personalizing it with decorative flair, buttons, stickers and whatever else they come up with.

Materials (per Student)

- 1 sheet of cardstock for cover
- 10 sheets of paper
- Embroidery floss
- Embroidery or tapestry needle
- Binder clips
- Large nail
- Hammer
- Foam block
- Scissors

Optional Materials for Personalization

- Markers
- Washi tape
- Stickers
- Buttons
- Elastic cord
- Different colors of duct tape

Key Vocabulary

Sewing
Binding
Hammer
Needle eye
Iteration
Diagram
Design

Introduction/Discussion

At the New York Hall of Science, we begin each activity with a group discussion, in a circle on the floor. We often sit on large mats or carpets because it provides a platform for a focused conversation away from the work space.

Begin the activity by asking students if they've ever had a really great meal. This will open up the room for discussion, and allow the students to share personal experiences. Ask them what the meal was and how it was made. You can follow up by asking how we pass down recipes and ideas from one person to another.

Typically students will say through cookbooks or notecards. You can then introduce recording ideas rather than recipes, and ask students where we would do something like that. Ask which of them use a notebook

or a journal, and what they use it for. You'll likely get examples about school notes and diaries, and through discussion should come to the idea that notebooks and journals are places where we can record information we don't want to forget and keep records of our ideas to go back to later. Prepare some journal samples in advance to show the students. This provides a reference point for them as well as providing you the opportunity to make the project before they do. After the discussion, let them know that today's activity will be making journals, and that they are going to design, make and personalize their own journals. Explain that they will use the journals to record their thoughts, ideas, feelings and drawings throughout the program.

Exploration: Properties of Materials

Begin by showing the students a sample notebook. You can pass around a few examples for them to look at and explore. *What is it made of? How was it made? What tools do you think you would need to make this?*

Show students how to thread a needle. You can use an online video to show a close-up shot.

Show students the hammer. *What is a hammer for? Why would we need a hammer to make a journal? We are going to use the hammer to drive nails through the binding of our journal so it is easier to sew the binding.* Explain that hammers are usually used to drive nails into wood, but today they're going to use them to hammer through paper into the foam. *Ask: What material do you think is harder, wood or foam? Which material would require more force to hammer into it? For this project we only need to tap gently on the nail to punch the holes through the paper. What would happen if we used too much force on the nail?* Once you've explained how the tools are used, you can go through the process of the build.

From the discussion, the group should have been exposed to all the materials necessary to make their journal. You can also have journal samples at the tables they can reference if needed.

Start Making

Go over the steps below verbally with the students, introducing each step and how it leads to the next. Then have them gather all their materials and start making!

1. Start by folding just your cardstock cover in half by lining up the far corners. Once folded, slide the craft stick down the fold to make sure it is a straight edge.
2. Fold all 10 sheets of paper in half in the same manner. You can fold each sheet individually, but it's better to fold them all together.
3. Open the cover and insert your 10 sheets of paper. Use a binder clip to secure the cover to the inserted pages. Typically one on the top and one on the bottom works well.
4. When you've got your pages all clipped up, lay your booklet open (paper side up) on your foam block, lining up the crease from the folds with the foam. (We're about to hammer into it, so you want to make sure they're lined up.)
5. Start your first hole at the top of the binding in the crease. Hammer the nail all the way down, through all of the pages and your backing. It's alright if it goes into the foam; that's what it's there for. Pull the nail out and move it down the seam about a half an inch and add another hole. Continue in this manner until you've reached the bottom of the page. You can make as many holes as you want, the more holes the stronger the binding, but the longer it will take to sew.
6. Time to cut your thread and thread the needle. The appropriate length of thread always turns out to be about the length of your outstretched arms. So grab the end of the thread and unroll slowly with the other hand until your arms are stretched wide, snip it off and you're ready to thread your needle. Embroidery needles have a slightly larger eye and are therefore a bit easier to thread, however a needle threader is always helpful. No matter how you do it, once you get that thread through the eye, you want to pull it until it's doubled and then knot the two ends together.
7. Once your needle is threaded and your knot is tied, you can begin sewing the binding. Start with the knot on the outside (meaning the cardstock side) and go up through to the paper. Make sure you're going through all the layers here from the backing all the way up through all 10 sheets and pull until the knot reaches the backing.

Then go back down through the next hole in the paper and pull until taut again. Continue in this fashion until you've reached the opposite end of the book, then go back the other direction toward where you started. This time you want to sew in and out of every opposite hole, thereby closing up the white space gaps between the binding thread. When you get back to the top where you started, tie a knot and cut the remainder of the thread off.

8. Take the binder clips off and you're done! You may now personalize your journal with available materials.

Helpful Hint: Set up materials in a designated place, allowing students to select their materials and return to their tables to work on their projects. This is a fairly materials intensive activity, and it is helpful to have a clear workspace free of clutter or excess materials.

Reflection Prompts

Now that students have journals, they can write their first reflections. We try and keep journal prompts fairly open-ended, but always encourage students to write what they made and how they made it. They can write, diagram or do some combination of the two. Explain that diagramming and journaling help us to make changes in the future and remind us of our process. After the students have journaled, invite them to share their responses and processes in a group discussion at the end of the day.

What did you make?

How did you make it?

What tools did you use? How did you use them?

How might you use these tools in the future?

What materials did you use?

What might you change in the future?

What was challenging?

What was easy?

Did anything surprise you?

