

Calder Inspired Mobiles

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Grade Level: 9-12
(Sculpture class)

Time Span: 3-4 weeks

Essential Question: How can a Calder inspired mobile be made?



Guiding Questions: Who was Alexander Calder? What is a mobile and what is a stabile? How can a balanced mobile be made? How does movement affect the look of a mobile? Why do the mobiles move more after the paper shapes are added?

Objective: Students learn about the artist Alexander Calder and his famous mobiles. Students paint sumi paper with watercolor paints to prepare the colored mobile elements. Students learn how to construct a balanced mobile inspired by Alexander Calder with colored geometric or organic shape elements. Students observe how movement affects their mobile, and students learn that both balance and air currents can cause mobiles to move.

Vocabulary: Mobile, Stabile, Balance, Fulcrum

Materials:

- Wire (we used High Test electric fence wire)
- Wire cutters (one per student)
- Sumi paper
- Watercolor paints
- Paintbrushes
- Elmer's glue
- Fishing line

Resources:

Calder foundation . (n.d.). Retrieved from <http://calder.org/>

Mobile maker. (n.d.). Retrieved from

<http://www.nga.gov/education/classroom/interactive/mobile.htm>

Performance Tasks: Before the first class of the lesson, students are given a brief explanation about the upcoming project, and completed examples are shown. Each student is given a sheet of sumi paper, and students are asked to paint colors and/or designs they would like to incorporate into their mobiles. Painted papers are left to dry for use in the following class.

First Class: Students are asked what a mobile is, and what is needed to make a mobile. The instructor then gives a brief biography about



Alexander Calder, while showing Powerpoint slides that correspond to the biography from <http://calder.org>:

Alexander "Sandy" Calder (1898-1976) was born into a family of renowned artists who encouraged him to create from a very young age. As a boy, he had his own workshop where he made toys for himself and his sister. He received a degree in mechanical engineering in 1919 but soon after decided to pursue a career as an artist.

After translating drawing into three dimensions, Calder envisioned putting paintings into motion. He developed constructions of abstract shapes that can shift and change the composition as the elements respond to air currents. These sculptures of wire and sheet metal (or other materials) are called "mobiles." A mobile laid flat exists only as a skeleton, a reminder of its possibilities, but when suspended it seems to come alive. Alexander Calder said, "To most people who look at a mobile, it's no more than a series of flat objects that move. To a few, though, it may be poetry."

Calder also developed "stabiles," static sculptures that suggest volume in multiple flat planes, as well as standing mobiles, in which a mobile is balanced on top of a stabile.

Calder was an artist of great originality who defined volume without mass and incorporated movement and time in art. His inventions redefined certain basic principles of sculpture and have established him as the most innovative sculptor of the twentieth century ("Calder foundation,").

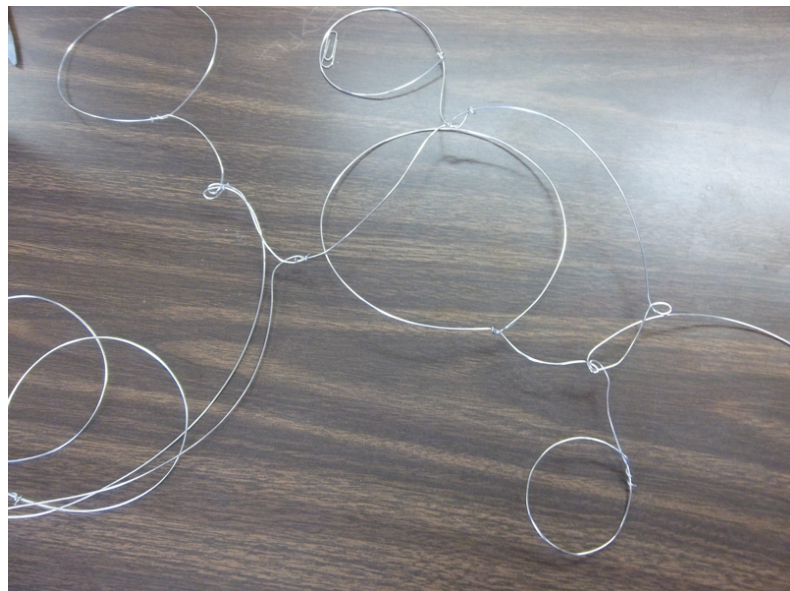
The instructor explains the concept of sculpture that contains open space, volume without mass, balance, and movement, and especially how this movement creates a constantly changing composition. The instructor shows sculpture from the same time period to emphasize how Calder's sculptures were very

innovative. The instructor also explains that Calder's use of simple industrial materials such as steel, aluminum, and wire was a new concept to the field of sculpture.

Requirements for the project are discussed:

1. Construct an original Calder inspired mobile that has at least 9 colored shape elements.
2. Use balance, spacing, size, color, and shape to create a dynamic moving composition.
3. Demonstrate craftsmanship:
 - No unwanted kinks in the wire
 - Paper is well attached- not falling off and no unwanted holes

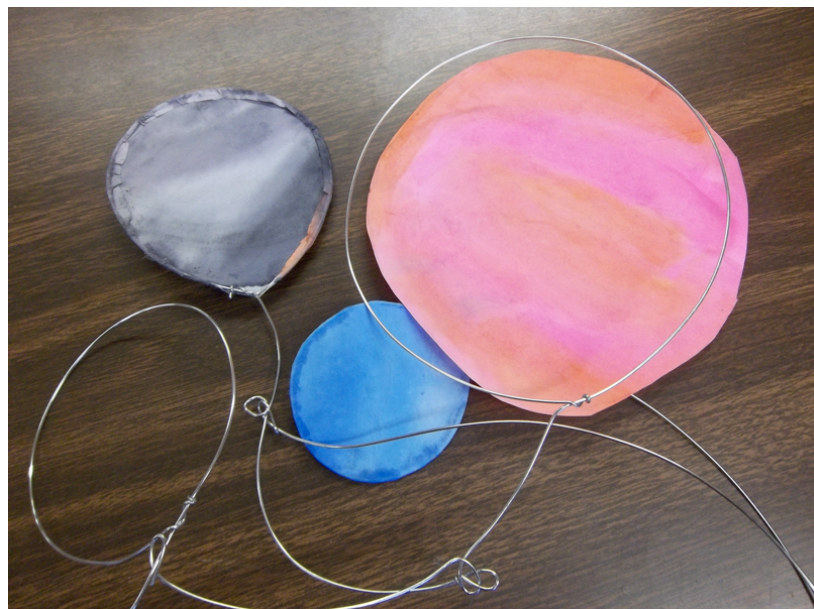
Demo: The instructor shows several completed mobiles and explains how there are many ways to approach the project. A printed diagram is given to the students detailing several ways to balance and attach wires. The instructor explains that these diagrams and Calder's mobiles are not to be copied directly- students are asked to put their own "spin" on the kind of mobile they wish to make. Then the instructor asks students if they know what a fulcrum is, the instructor compares it to a see-saw and has students practice balancing a pencil on their finger. The instructor then demonstrates several ways to bend and



attach balancing wire elements.

Art Making: Students are told that they will first sketch at least 3 designs that they possibly would like to construct. Once a student has decided on a structure, they then begin constructing their mobile. Wire, wire cutters, scissors, and fishing line are available on one of the tables for students to collect as needed. Each student's seat has a fishing line hanging from the ceiling, which makes constructing and balancing easier to visualize. Once a student has assembled a mobile they are happy with they can begin adding paper.

A demo on how to attach the paper is given once the first student is ready to add paper. The instructor shows how to lay down the wire, trace the paper, cut, apply glue, and then carefully fold the edges over to attach the paper.



Clean Up: Five minutes before the end of class students are reminded to clean up. Wire and paper scraps are thrown away. Scissors, unused wire, glue, watercolors, and

paintbrushes are put back where they belong.

Modifications: Students who have fine-motor issues and difficulty attaching the Sumi paper can use cut (or pre-cut), cardboard for their shapes on the mobile. Mobiles that incorporate more fishing line tend to be easier to assemble. For advanced students a larger amount of shape elements can be required.

Assessments: A rubric is given to the students at the beginning of the project. Requirements for the project are clearly posted in the classroom. At the end of the assignment a self-evaluation form is given based off the rubric.

Maine Learning Results:

A. Disciplinary Literacy - Visual Arts: Students show literacy in the art discipline by understanding and demonstrating concepts, skills, terminology, and processes.

A3. Media, Tools, Techniques, and Processes:

Students compare the effects of *media* and their associated *tools, techniques, and processes*, using *elements, principles*, and expressive qualities in *art forms and genres*.

B. Creation, Performance, and Expression - Visual Arts: Students create, express, and communicate through the art discipline.

B1 Media Skills:

Students choose multiple suitable *media, tools, techniques, and processes* to create a variety of original art works.

C. Creative Problem-Solving: Students approach artistic problem solving using multiple solutions and the creative process.

C1 Application of Creative Process:

Students apply and analyze *creative problem-solving* and creative-thinking skills to improve or vary their own work and/or the work of others.

E. Visual and Performing Arts Connections: Students understand the relationship among the arts, history and world culture; and they make connections among the arts and to other disciplines, to goal-setting, and to interpersonal interaction.

E1 The Arts and History and World Cultures:

Students analyze the characteristics and purposes of products of the visual/performing arts to understand history and/or world

E2 The Arts and Other Disciplines:

Students analyze skills and concepts that are similar across disciplines.