LESSON OVERVIEW: Summary of the task, challenge, investigation, career-related scenario, problem, or community link.

Alexander Calder was an American sculptor who became widely recognized when he created the mobile, which is a delicately balanced kinetic sculpture that moves in response to air currents. In this lesson students will explore Calder’s mobiles and will create their own version using wire and foam shapes. This lesson will encourage students to understand how artists achieve physical balance as they are challenged to create their own balanced mobile.

STANDARDS: Identify what you want to teach. Reference State, Common Core, ACT Readiness Standards and/or State Competencies.
**Tennessee State Standards**
1.1 Use a variety of tools in a safe and responsible manner.
2.2 Create artwork using the elements of art with specific intent.
3.1 Select subject matter, symbols, and ideas for the student’s own work.
5.1 Analyze the characteristics and merits of the student’s own work.
5.3 Understand and demonstrate that viewers have different responses to art.
6.1 Understand connections between visual art and other disciplines.

**Common Core Connections for Integrated Subject-Science & Writing**
GLE 0307.Inq.2 Select and use appropriate tools and simple equipment to conduct an investigation.
GLE 0307.T/E.3 Identify appropriate materials, tools, and machines that can extend or enhance the ability to solve a specified problem.
CCSS.ELA-Literacy.W.3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
CCSS.ELA-Literacy.W.3.2b Develop the topic with facts, definitions, and details.

**OBJECTIVE:** Clear, Specific, and Measurable-NOT ACTIVITIES. Student-friendly.

1. Students will be able to define balance.
2. Students will be able to identify and discuss Alexander Calder’s work, specifically his mobiles.
3. Students will be able to demonstrate an understanding of physical balance by creating a mobile that consists of at least five pieces of wire with at least one foam shape hanging from each wire.

**ASSESSMENT/EVALUATION:** Students show evidence of proficiency through a variety of assessments. Aligned with the Lesson Objective.

1. Students will participate in a class critique in which they analyze the different approaches used to create balance.
2. Students will complete a written response defining balance and comparing and contrasting their mobile with Alexander Calder’s mobiles.

**MATERIALS:** Aligned with the Lesson Objective. Rigorous and Relevant.

- (5) One-foot pieces of wire per student (18-24 gauge)
- (2) Bowls of assorted foam shapes per table
- (1) Hole punch per student or as supplies allow
- (1) Pair of wire cutters for the teacher
- (1) 8 ½” x 11” Piece of paper per student
- (1) Pencil per student
- (2) Sets of markers per table

**ACTIVATING STRATEGY:** Motivator/Hook. An Essential Question encourages students to put forth more effort when faced with complex, open-ended, challenging, meaningful, and authentic questions.
1. Read the book Alexander Calder and His Magical Mobiles by Jean Lipman.
2. Inform students that they will be creating their own version of a Calder mobile using wire and foam shapes.
3. Show an example of a mobile. Ask students to make observations about what makes the mobile balanced.

**INSTRUCTION:** Step-By-Step Procedures-Sequence. Discover/Explain-Direct Instruction.

1. The teacher will introduce the project with a pre-made example and state the objectives.
2. The teacher will demonstrate how to securely attach pieces of wire to form a mobile.
3. The teacher will demonstrate how to safely punch holes into foam shapes and attach the foam shapes to their mobile.
4. Students will receive five pieces of wire before returning to their seats.
5. Each table will contain two bowls with assorted foam shapes and one hole punch for each student or as supplies allow.
6. Allow students to sketch an idea for their mobile with a pencil and then add color using markers. Students will use their sketch as a reference as they construct their mobile.
7. Each mobile must contain at least five pieces of wire as well as a minimum of five foam shapes.
8. As they construct their mobiles students will periodically hold or hang their mobile to ensure it is balanced. Students may work with a partner to help achieve balance.
9. When construction is complete students will show their completed project to the teacher and will hang their mobile within the classroom.
10. To hang mobiles within the classroom the teacher will attach a piece of string to two wall hooks on opposite sides of the classroom. The teacher should avoid placing the hooks near exits or entryways.
11. The string will span the length between the two hooks providing a place for students to display their mobiles. This provides a display method that will not interfere with fire code concerns and which, if needed, can be easily taken down before the end of class.
12. Clean-up will occur during the last ten minutes of class. Students will return materials to the appropriate materials bin.

**ALTERNATE/EXTRA ACTIVITIES:**

1. Students can use pipe cleaners instead of wire to construct the base of their mobile.
2. Shapes could be taped to the end of the wire instead of using a hole punch.
3. Teachers can use the same display method outside of the classroom by using string to span the distance between two trees or pieces of playground equipment. This could allow students to view how the wind affects the movement and balance of their mobile.
4. Foam shapes could be pre-hole punched for students with special needs.

**CLOSURE:** Reflection/Wrap-Up. Summarizing, Reminding, Reflecting, Restating, Connecting.

1. The students will participate in a class critique discussing the various approaches used to achieve balance within their mobile.
2. Students will submit a written response in which they define balance and compare and contrast their work with the work of Alexander Calder.

**CROSS-CURRICULAR CONNECTIONS**
EXTENDED LEARNING

Books:
1. Alexander Calder and His Magical Mobiles by Jean Lipman
2. Alexander Calder- Getting to Know the World’s Greatest Artists by Mike Venezia
3. Sandy’s Circus: A Story About Alexander Calder by Tanya Lee Stone and Boris Kulikov

Online Enrichment:
1. The Artist’s Toolkit
   http://www.artsconnected.org/toolkit/encyc_balancesymmetry.html

Videos:
1. American Masters - Alexander Calder
   http://www.pbs.org/wnet/americanmasters/episodes/alexander-calder/about-the-artist/78/

Additional Activities:
1. Color Mobiles
   http://www.incredibleart.org/lessons/high/tint_shades.html

Cross-Curricular Learning:
1. Planets in Balance: Explore the Solar System Through the Creation of a Calder Type Model
   http://artsend.kennedy-center.org/educators/lessons/grade-6-8/Planets_in_Motion.aspx
2. Design Squad: Balance Magic
   http://pbskids.org/designsquad/build/balance-magic/

For additional lesson plans and activities, visit us online at www.fristkids.org. This lesson plan was created by an art education student in the Frist Center for the Visual Arts’ Teaching Assistant program under the guidance of education department staff and/or a mentor teacher. The Teaching Assistant program is designed to introduce participants to museum education by providing unique teaching experiences in an informal learning environment. For more information about this program or other educational opportunities offered by the Frist Center, please visit our website at www.fristcenter.org.