ALEXANDER CALDER: ENGINEER & ARTIST

OVERVIEW
Participants design and create a balanced hanging mobile in the style of famed artist and engineer, Alexander Calder.

LEARNING OBJECTIVE
Participants explore the concept of weight and balance while engineering a balanced hanging mobile.

VOCABULARY
- **KINETIC SCULPTURE** – a sculpture that moves
- **MOBILE** – a hanging kinetic sculpture

MATERIALS
- Straws or sticks (1 – 2 per participant)
- Yarn, ribbon, string or fishing line (4 – 6 feet per student)
- Construction paper or cardstock in a variety of colors
- Print outs of 3D shapes (optional)
- Scissors
- Tape
- Markers
- Hole punches
- Examples of Calder’s work (printout of Tentacles 1947, Boomerangs 1941 and Fish 1945)

SET-UP
- Gather materials onto a supply table that participants can access throughout the lesson.
- Print examples of Alexander Calder’s work or prepare the images for projection from a computer.

LESSON PLAN
1) Show some examples of Alexander Calder’s work, highlight the mobiles.
2) Share some facts about Alexander Calder (see Suggested Reading/Additional Resources)
3) Discuss mobiles
   a. What makes a mobile different from other sculptures?
   b. What strategies could you use for balancing a mobile?
4) Use construction paper or cardstock to cut out different shapes or color, cut and build 3D shapes (provided).
5) Hang the shapes from a straw or a stick using the yarn, ribbon, string or fishing line.
6) Create mobile by assembling straws or sticks together.
   a. Experiment with balance while creating mobile.
7) Discuss strategies for balancing mobiles.
   a. What worked?
   b. What didn’t work?
8) Display finished mobiles.

FURTHER EXTENSION

In the Museum
Visit the patio outside the Wings Café and look at the kinetic sculptures. Discuss how the sculptures move and what you notice about the sculptures.

SUGGESTED READING/ADDITIONAL RESOURCES

- Facts about Alexander Calder:
  o Born in 1898 in Lawton, PA; both his parents were artists (father a sculptor, mother a painter).
  o He sculpted and painted as a child.
  o Studied mechanical engineering in college.
  o Became an engineer on board a passenger ship; when it docked in San Francisco, he traveled up the coast and moved in with his sister in Aberdeen, WA.
  o While in Aberdeen, the natural beauty of the area inspired him to return to art.
  o Studied art in New York and Paris and became a sculptor.
  o Best known for kinetic sculptures; credited with inventing the mobile.
  o What’s going on with this piece of art (sculpture, painting, drawing, mobile, etc.)?
  o What do you see that makes you say that?
  o What else can we find?
Pyramid Calder Sculpture
Cuboid Calder Sculpture
Cube Calder Sculpture
Cone Calder Sculpture