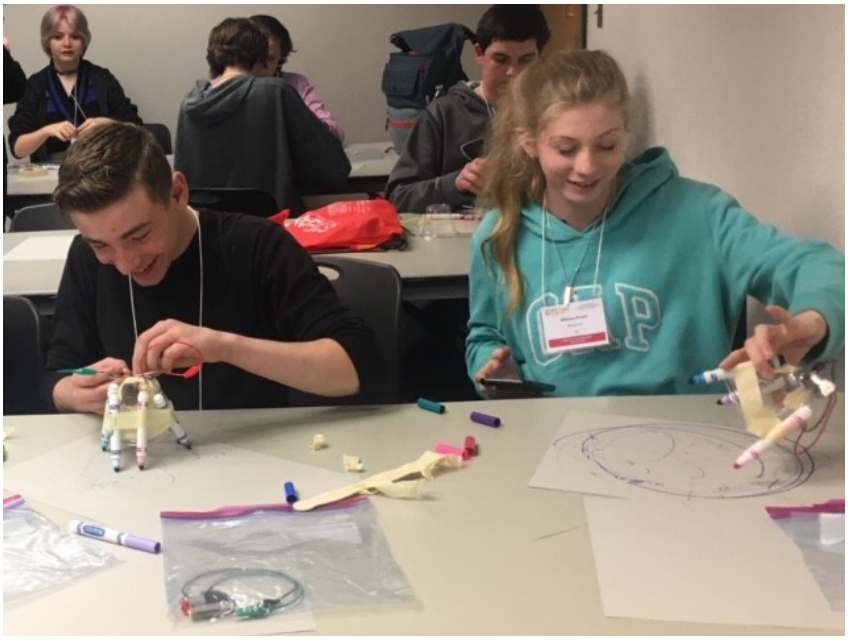
Scribble Bots

SCHOOL WORKSHOPS | Classroom Connections
Grade Level: 5th-8th

The Nelson-Atkins Museum of Art



WORKSHOP DESCRIPTION

Science, Technology, Engineering, Art and Math come to life as students explore the galleries, then tinker with simple circuitry to create a motorized mark-making machine. Lots of fun!

WORKSHOP OBJECTIVES

Students will:

- Create a circuit using objects provided
- Use creative problem-solving skills.
- Create a mark-making machine that incorporates the use of circuitry
- Discover connections between art and science.

COLLECTION FOCUS

Works of art will be visited that illustrate types of mark making with a variety of tools and methods as well as art that illustrates science concepts connected to art making.

Certain collections or galleries may be unavailable due to rotations or construction. We apologize for the inconvenience.

4525 Oak Street | Kansas City, Missouri 64111 nelson-atkins.org

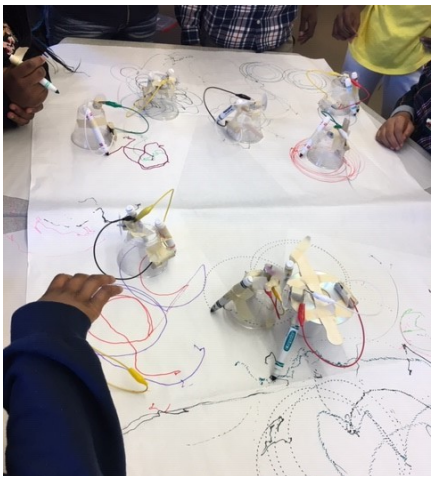
CURRICULUM CONNECTIONS

National Visual Arts Standards

- Generate and Conceptualize Artistic Ideas and Work: Generate Innovative Ideas for Art Making(VA:Cr1.1.5a-8a)
- Organize and Develop Artistic Ideas and Work: Experiment with Forms, Materials, Art-making approaches (VA:Cr2.1.5a-8a)
- Analyze How Technologies Have Impacted the Preservation and Presentation of Artwork (VA:Pr4.1)
- Identify /Analyze How Art Reflects Changing Times, Traditions, Resources and Cultural Uses (VA:Cn11.1)

Next Generation Science Standards

- Make Observations of an Object's Motion to Provide Evidence that a Pattern Can Be Used to Predict Future Motion (3.PS2.2)
- Plan and Conduct an Investigation to Provide Evidence of the Effects of Balanced and Unbalanced Forces on the Motion of an Object.(3.PS2.1)
- Make Observations that Energy Can Be Transferred From Place to Place by Sound, Light, Heat, and Electric Currents (4-PS3-2)



BEFORE YOUR VISIT

- Review the vocabulary/concepts list

VOCABULARY/CONCEPTS

Circuit: In electronics, a circuit is a path between two or more points along which an electrical current can be carried
Motor: In electronics, a circuit is a path between two or more points along which an electrical current can be carried
Jitter Bot: A motorized contraption that jitters or vibrates
Scribble Bot: A motorized contraption that moves in unusual ways and leaves marks to trace its path
Vibrate: To move or cause to move continuously and rapidly to and fro
Mark Making: A term used to describe the different lines, patterns and textures that are created in artwork using a variety or materials
Alligator clip test leads: A spring loaded clip with serrated jaws used to make temporary electrical connections
Balance: *Asymmetrical* - Organization of a design so that unlike objects have equal visual weight
Symmetrical - Organization of a design so that elements are the same on either side of a central axis

AFTER YOUR VISIT

- Continue experimenting with the scribble bots. Conduct research where students collaborate and resolve student generated questions. Some examples:
  1. How many students' bots moved in circles? How many in straight lines? Do they all have a characteristic in common?
  2. How can changes be made to make the scribble bot move faster/ slower or in an unrecognizable pattern?
  3. Which bots make dotted lines? Why?
- Create collage art utilizing the scribble bot mark making patterns on paper. Add to the lines and shapes created with markers, oil pastels and pencils.
- Ask students to write about their bots and brainstorm various ways the bot could be used to solve a problem or accomplish a task.

George Rickey, American, 1907-2002
Two Planes Vertical-Horizontal, 1968

Jackson Pollock, American, 1912-1956
No. 6, 1952, 1952

Franz Kline, American, 1910-1962
Turin, 1960

EDUCATOR RESOURCE CENTER

The ERC can help you expand your before and after visit activities to fully connect your museum experience with your classroom curriculum. The ERC provides:

- *Curriculum Consultations*
- *Circulating Resources including Art Connection Kits*
- *Professional Development Workshops*

nelson-atkins.org/educators/