



Academic Resource for Teachers & Students

DAVID HABBEN

12.15.17 – 01.07.18

6-8



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lesson overview

lesson plan

Designed to extend and enhance the learning experience of our exhibits while linking to core curriculum subject matter.

lesson objectives

- To discuss the role of movement in visual art.
- To explore non-traditional drawing methods.
- To learn about basic motors and gears.
- To create a machine that can draw independently.

core curriculum tie-ins

Sixth through Eighth Grades:
Visual Art, Technology and Science.

lesson overview

On the ARTS tour, students will learn about the artwork and ideas of David Habben, a Utah-based artist who creates detailed ballpoint and watercolor pencil drawings as well as abstract paintings with rapid brushstrokes. Then students will explore nontraditional ways of connecting motion to drawing by creating a drawing machine.

length of class

One to Three Class Sessions.

supplies

- Large Drawing Paper.
- Markers, Pens and pencils.
- Tape.
- Battery-Operated Electric Toothbrush.
- Pool Noodle.
- Scissors or Knife (Adult Use).
- Tape.
- Supplies to add Personality to Drawing Robot.



DAVID HABBEN-

core curriculum tie-ins

6th grade Visual Arts

Standard 6.V.CR.1:

Combine concepts collaboratively to generate an innovative idea for art-making.

Standard 6.V.CO.2:

Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding by analyzing how art reflects changing times, traditions, resources, and cultural uses.

7th grade Science

Strand 7.1: Forces interact with matter.

Forces are push or pull interactions between two objects. Changes in motion, balance and stability, and transfers of energy are all facilitated by forces on matter. Forces, including electric, magnetic, and gravitational forces, can act on objects that are not in contact with each other. Scientists use data from many sources to examine the cause and effect relationships determined by different forces.

8th grade Technology

Standard 2

Demonstrate knowledge of current changes in information technologies and the effect those changes have on the workplace and society. (2)



DAVID HABBEN -

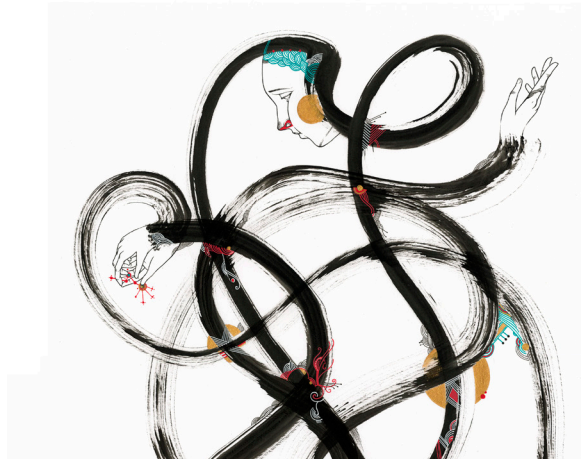
ABOUT *David Habben: Flow*

David Habben has filled sketchbook after sketchbook with what he calls his “strange doodles”—curious characters and creatures that come to life in his highly detailed ballpoint and watercolor pencil drawings. Two years ago, he began collaborating with the University of Utah’s School of Dance program, where he embraced a new creative dialogue. Gaining inspiration from the dancers’ movement, he created a series of abstract paintings meant to invoke the energy, power and flow of what he was witnessing. Like the movement of the dancers, each rapid brushstroke was to be deliberate and thoughtful—to be placed specifically somewhere rather than anywhere.

David Habben: *Flow* at the Kimball Art Center will unite the artist’s two creative modes—the personal one within the pages of his sketchbooks, and the collaborative one of his *Be Somewhere* series. Here, the abstract compositions of *Be Somewhere*—work that documents time, place and energy—become the base for a new story, oftentimes with the wit and humor that is characteristic of his sketches.



DAVID HABBEN - 2 - 16 - 2



DAVID HABBEN - DANCERS 2



DAVID HABBEN - DANCER 1

lesson plan

1. Discuss the work of David Habben and his collaboration with the University of Utah Dance Department. Explain to students that collaboration occurs when artists working in different mediums team up to explore new ideas to create something. In this situation, David Habben was inspired by music and dancers' movements to create abstract drawings with ink and rapid brushstrokes.

2. Showing samples of Habben's work, ask students what impact movement may have on drawing. Explain that when we move a brush on a canvas it is called a stroke. To create a line an artist has to make a motion. Demonstrate gestures with a marker on a white board. Underline that movement is

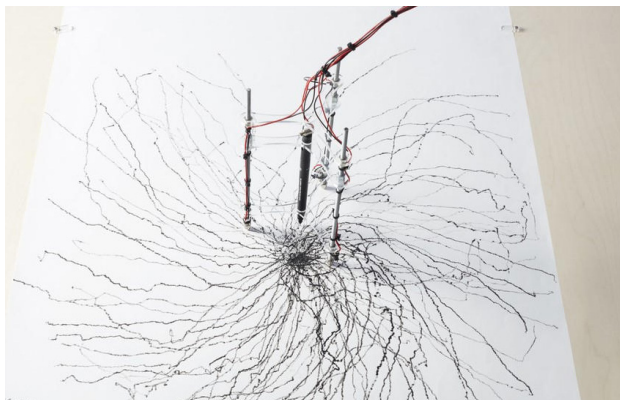
connected to the trace you leave on the white board. Demonstrate small and large gestures to illustrate this connection.

3. Then, show artwork by Alan Storey another contemporary artist. Explain that he created a 'Drawing Machine' to record traces of human activity in a specific environment. In 'Device for Drawing the Movements of a Ballerina,' the drawing machine traces out the dancer's movements across the stage over several evenings of performance. The machine moves to create lines that show the trajectories of the dancers. Ask students how David Habben's and Alan Storey's work is similar. Follow up with the question: Can a machine replace artists? In the case of Alan

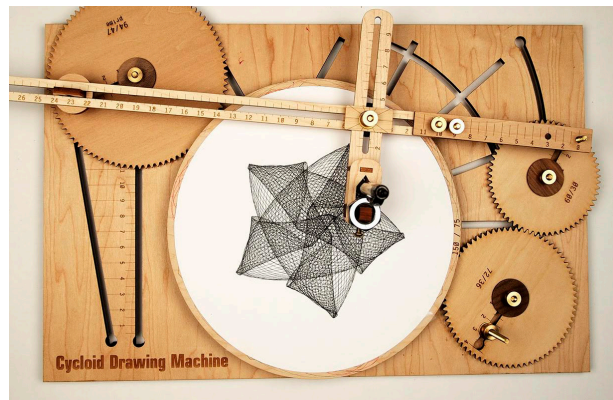
Storey, who is the artist? Or is his work just another collaboration with the dancers and a machine?

4. Explain that this question is not new. In 17th-century Antwerp, Rubens had a small workshop of trained assistants who painted most of his large-scale works. He created the small sketch of the composition that was then blown up, under his supervision, to the size of a ceiling or an altarpiece. In this case ask students who is the artist or author of the artwork?

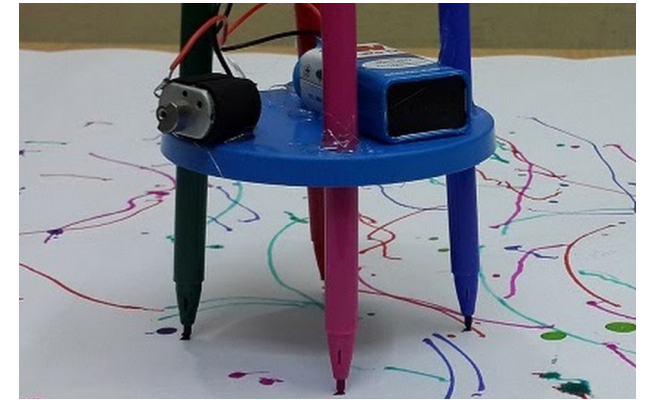
For further discussion or to set up a class debate on this topic, the role of technology in contemporary artwork and the definition of an artist see resources below.



VALERIE FREY - MACHINE #1



JOE FREEDMAN - DRAWING MACHINE



HOMEMADE TOY ROBOTS YOUTUBE CHANNEL

lesson plan continued

5. Explain to students that using a basic motor; they too can create a drawing machine that turns movement into line. For this project they will use an electric toothbrush as a motor.

To explore other ways of making drawing robots with a simple motor and battery pack, see resources below.

6. Divide the class into groups of three or four to create their own drawing robot. Provide each group with an electric toothbrush. Take a look at the toothbrush and how it works (use resources below for a diagram). The electric motor spins while connected to a battery. That spinning

motion is then turned into a back and forth motion of the bristles with the cam and gear unit. Instead of taking apart the electric toothbrushes, show a diagram.

7. Pass out precut swimming pool noodles to encase the toothbrush (feel free to swap this out with any other material to enclose the toothbrush). Show students that the toothbrush should be pointing down. Then pass out drawing materials that can be taped to the pool noodle. Students can experiment to find the best position of the markers on the pool noodle. The device should be stable and stand on its own. Once the robot is complete, pass out large sheets of drawing paper. Students can turn on the toothbrush

and see their robot at work.

8. Ask students to reflect on this experiment. Ask students if they consider their robot drawings a piece of art and why. Explain to students that this is a basic drawing machine model. Using the electric toothbrush as a starting point and ask them what they would do to change or adapt their designs. As a group students can sketch ideas and redesign their drawing robots.



DAVID HABBEN - BEING SOMEWHERE

vocabulary

Artist – A person who practices the various creative arts, such as a sculptor, novelist, poet, or filmmaker.

Cam – A rotating disk shaped to convert circular into linear motion.

Collaboration – Working together on a common project.

Gear – A toothed wheel designed to transmit torque to another gear or toothed component.

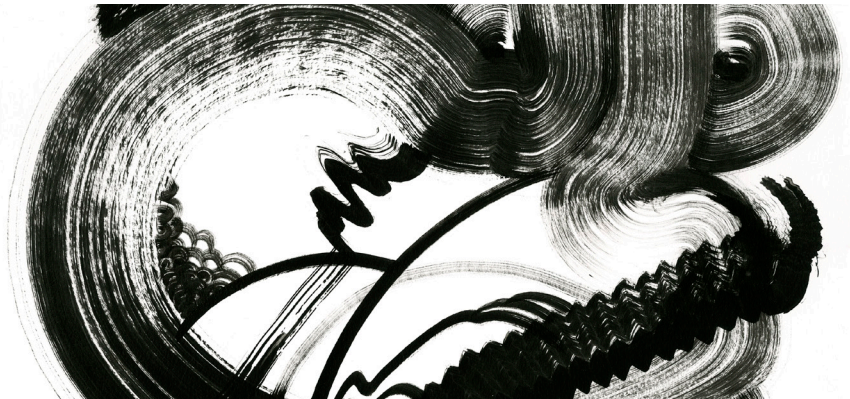
Motor – Machine that converts other forms of energy into mechanical energy and so imparts motion.

Movement – The act of changing location from one place to another, or a change of position.

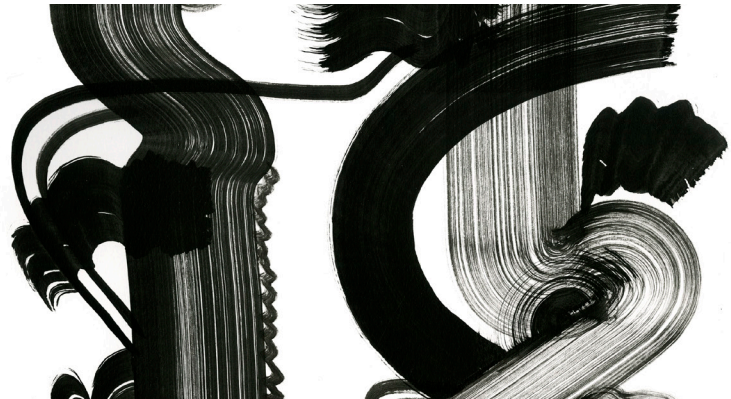
Stroke – A mark made by a writing instrument.

Technology – Technology is a field that applies to science to solve problems with an industrial or commercial end in mind.

Vibration - A shaky motion.



DAVID HABBEN - 2 - 16 - 5 DETAIL



DAVID HABBEN - 2 - 16 - 2 DETAIL

resources

David Habben:

<http://habbenink.com/be-somewheremfa>

Ink:

https://www.youtube.com/watch?time_continue=9&v=bafDzT-mCwto

<https://handmadekidsart.com/art-bot-art-projects-kids/>

<https://makezine.com/2016/04/06/6-of-our-favorite-drawbot-projects/>

<http://bkids.typepad.com/bookhoucraftprojects/2008/04/project14-kinet.html>

<http://www.explainthatstuff.com/electrictoothbrush.html>

Art and Technology:

<http://www.alanstorey.net/drawing-machines.html>

http://www.c4gallery.com/artist/alan_storey/artist-alan-storey.html

<https://www.technologyreview.com/s/600762/robot-art-raises-questions-about-human-creativity/>

https://creators.vice.com/en_us/article/nz4jj7/harvey-moons-drawing-machines



DAVID HABBEN – IN THE STUDIO