

Simple Machines, Complex Minds Lesson Plan



Overview:

- Grade 1
- 4-6 30 minute class periods
- Students will draw networks of simple machines in a silhouette self-portrait to demonstrate understanding of simple machines and to represent their complex and individual minds.

Materials

- 12" x 18" white paper
- Pencils and sharpies
- Watercolor paint and brushes
- Scissors, glue sticks
- 12" x 18" colored paper
- Silhouette stencils

Art Vocabulary:

- Silhouette
- Contour line drawing

Essential Questions:

How can I draw simple machines to illustrate a complex network?

How can I draw using only contour lines?

How can I appropriately use watercolor paints to carefully fill in my artwork?

NC Essential Standards:

1.V.1.2 Create original art that expresses ideas, themes, and events.

1.V.1.4 Understand characteristics of the Elements of Art, including lines, shapes, colors, textures, form, and space.

1.V.2.1 Recognize that artistic problems have multiple solutions.

1.V.3.3 Use the processes of drawing, painting, weaving, printing, stitchery, collage, mixed media, sculpture, and ceramics to create art.

1.CX.2.2 Identify connections between art and concepts from other disciplines, such as math, science, language arts, social studies, and other arts.

Interdisciplinary concepts: Simple Machines-what are they? What can they do?

Day-by-day Process

Day one

- Review some different types of simple machines-pulleys, wedges, inclined plane, wheel. Have images available or drawings on the board.
- Show students the OKGO music video “This too shall pass” and Rube Goldberg-inspired videos from youtube. Talk about how you can use a bunch of simple machines together to create a complex network. These are often created with a ball moving throughout the circuit to show the movement.
- Introduce students to the word ‘silhouette’ and provide students with silhouette stencils. Each student will trace the silhouette that they think looks the most like them onto 12”x18” white paper using a pencil. They may make alterations to the hair, chin, nose, etc to make it look more similar to them.
- Students will begin their drawing with a lightbulb up in the head to represent an idea or thought. From there, students begin using their imagination to draw a network of simple machines. They must draw arrows or a ball to show how something would move throughout this network. This represents their thoughts moving through their mind. Only use contour lines, no shading.

Day two

- Finish pencil drawing of network of simple machines. Make sure that the space is filled up with their design. If necessary, fill in empty space with gears, wheels, etc.
- The design only goes inside of the silhouette.
- Trace over entire drawing with Sharpie marker or black oil pastels.

Day three-Four

- Students will begin painting their simple machines. Using watercolor paints (neon paints are fun), fill in the light bulb first. Next begin carefully painting in all of the simple machines. Use a variety of colors, try not to mix the colors too much and try to paint inside of the lines.
- When the machines are all painted in, begin doing a watercolor wash in the background areas around them. Again, be careful to not mix the colors and stay in the lines.

Day five

- Once paintings are finished and dry, cut out along the outside of the silhouette and glue down onto a brightly colored piece of construction paper using a glue stick.

Blog post:

<http://anniesartroom.weebly.com/elementary-art/1st-grade-simple-machines-complex-minds>