Assembling Identity:
Multimedia Collage Self-Portraits

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Subjects: Social Studies, Fine Arts
Estimated Time: 2 sessions, each 1-2 hours long
Grade Level: 6-8

About This Lesson Plan:

In this two-session activity, middle school students will create a mixed media, identity-based self-portrait involving collage and sewn circuit components. The final self-portrait will make visual connections between aspects of the artist's identity and will involve a lit LED.

About Assemble:

Assemble is a 501(c)3 non-profit located in Garfield, a neighborhood in Pittsburgh's East End, that is dedicated to providing an on-ramp to Science, Technology, Engineering, Arts, and Mathematics in the community. We offer daily educational programs to youth throughout Pittsburgh, both in our 4824 Penn Avenue space and at local schools and community centers. Our programs provide a platform for experiential learning, open creative processes, and building confidence through making.

Pro Tips:

This deceptively simple lesson plan features a great STEAM activity: students will learn about electricity and circuits, and they'll also articulate the characteristics that comprise their self identities. Consider using this in a science class where students are beginning to study circuits: Consider how you might use the sewing activity to help students illustrate connections between other related concepts or ideas. Similarly, consider using this activity in an ELA class or Social Studies class as you discuss fictional characters or historical figures: how might you use a similar sewing activity to illustrate these characters' motivations, interests, or actions?

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Materials

- 8x11 cardstock
- ModPodge (2 containers)
- Glue brushes
- Embroidery thread
- Conductive thread
- Sewing needles
- Sewable LEDs
- Sewable battery holders
- Coin cell batteries
- Scotch tape
- Magazines / magazine pages for cut outs
- Markers
- Pencils
- Paint
- Paint brushes

Lesson Plan

Day 1

- **Ice Breaker Go-Around (5 minutes)**
  - Students share:
    - Their names
    - Their pronouns
    - One word they would use to describe themselves, a word that captures part of their identity
- **Project Overview (10 minutes)**
  - **Explain:** Today we're going to create mixed media, identity self-portraits involving collage and sewn circuit parts. The final self-portrait will make connections between aspects of your identity and will involve a lit LED light.
    - Show example and point to components/vocabulary words as you explain
  - **Ask and write:** What steps do you think this project will involve? Share examples of each step as you go.
    - **Identity Intro Activity (create and share list of 10 words connected to personal identity)**
    - **Collage Prep Activity** (cut and assemble a collection of images reflective of self-defined identity)
    - **Sewing Intro Activity** (sew 2 parallel 6-in running stitches on scrap fabric)
    - **Circuit Intro Activity** (draw and complete a simple circuit using a coin cell battery, sewable LED, sewable battery holder, and 2 alligator clips
    - **Putting It All Together:** Students will create mixed media, identity self-portraits involving collage and sewn circuit parts. After you collage your self-portrait, they'll use conductive thread to sew a complete circuit on final project, ultimately lighting up an LED light
- **Identity Intro Activity (10-15 minutes)**
  - Identity is the way that we understand and define ourselves through traits, beliefs, and experiences
  - Identity involves self-definition and expression of individuality but can also be used to make connections with others around similarities and differences
  - Write and/or draw a list of 5 personality traits and 5 things that make you who you are.
    - Personality trait examples: Funny, artistic, sensitive, strong, caring, introverted

- ■ Things that make you who you are examples: gender, race, ethnicity, religion, etc.
  - ○ Go around in a circle and share parts of your identities that you feel comfortable sharing
    - ■ What similarities did you notice? What differences? How did feel to share those things? Did you learn something new about your classmates?
- **Collage Prep Activity (45 minutes)**
  - ○ Show example again. Ask: What is a collage?
    - ■ Collage is an artistic technique that involves putting together an assemblage of different components to create something new
    - ■ How can individual parts of a collage gain new meaning in the context of the larger piece?
    - ■ As you move into talking about collage, ask: how might a collage connect to identity?
  - ○ Have students:
    - ■ Use cardstock to draw an outline of their silhouette
    - ■ Use their identity lists as inspiration as they begin looking through magazines and drawing things to cut out and use for inside of silhouette
    - ■ Assemble collage with paper, magazine cutouts, and markers or colored pencils -- show how to put everything down using glue sticks and Mod Podge
- **Sewing Intro Activity (30 minutes)**
  - ○ Show running stitch example.
    - ■ Ask: What is sewing?
  - ○ Sewing involves decorating or attaching objects by stitching with a needle and thread
  - ○ We're going to learn a running stitch (show running stitch)
  - ○ Pass out needles (2 per student), thread (2 18 in pieces per student), and fabric scraps
  - ○ Demonstrate and explain how to thread needle and have students follow along with both of theirs.
  - ○ Demonstrate and explain how to sew a basic running stitch like the one you'll be using for your sewn circuits. Have students follow along with their projects, ultimately sewing 2 parallel running stitches, roughly 1.5 inches apart.

Day 2

- **Review Day 1 Project (5 minutes)**
  - Ask:
    - What were we working on yesterday?
    - What did we learn how to do?
- **Circuitry Intro Activity (20 minutes)**
  - Explain: Today we're going to make both real/visual and mental/metaphorical connections between parts of our collage! We're going to do that by putting together sewing and circuits. Show example of finished project.
  - Ask: What is a circuit? How do we sew circuits?
    - A circuit is a path that electricity flows on. A circuit needs to be closed in order to successfully power an output.
    - Technologists have also created other electronic components for sewing, such as battery holders and LEDs. These components are designed to be used with conductive thread to create a functioning circuit. There are visual markers on these sewable electronics that provide information about how to use them properly.
    - LEDs are light-emitting diodes. To emit means to give off. As diodes, electricity can only flow through them in one direction. If connected the wrong way, they won't light up. The positive side of the LED (marked as a +) must be connected to the positive side of the battery holder, and the negative side of the LED (marked as -) must be connected to the negative side of the battery holder. When a battery is in the holder, the circuit will be complete and the LED will light up.
  - Circuit Demo:
    - Pass out sewable LEDs, battery holders, batteries and alligator clips
    - Ask: Based on what we just talked about, can you create a circuit with these materials?
    - See if students can make their LEDs light up.
    - Ask: How did this work?
- **Putting It All Together (45 minutes)**
  - Explain: Now we're going to do this with sewable circuits on our portraits. (Yes, you can sew through paper and cardstock!) Show example sewn circuit drawing and use this to demonstrate how to create a circuit conductive thread on their collages. Have students create their own circuit drawings, using pen or marker, directly on their collage. This will provide a guide for sewing the circuits.
  - Ask: Where might we want to add stitches and LED lights on our collage portraits? How does this add to what we're trying to communicate with our portraits?

- ○ **Sewing Circuits:**
    - ■ Have students thread 2 needles like they did in the last session, but this time, with conductive thread.
    - ■ Now students will sew their circuits, making their LED light up.
  - ○ **Troubleshooting:**
    - ■ Students who are struggling should ask 2 peers for help before approaching the instructor. This will encourage creative problem solving and collaboration.
- **Group Review (30 minutes)**
  - ○ Have students go around in a circle and share their projects:
    - ■ What does my project say about who I am?
    - ■ Where did I choose to put my LED and why?
    - ■ What did a struggle with while completing this project?
    - ■ What is something I learned while completing this project?
  - ○ Give 2 students the opportunity to respond per presentation:
    - ■ With a question
    - ■ With an observation, either - I liked or I noticed
  - ○ After group review, students can make modifications or revisions if desired

Standards, Knowledge, Skills, and Understandings

PA Content Standards
- Standard - 3.4.6.A2 - Describe how systems thinking involves considering how every part relates to others.
- Standard - 3.4.7.A1 - Explain how technology is closely linked to creativity, which has resulted in innovation and invention.
- Standard - 3.4.6.B4 - Demonstrate how new technologies are developed based on people's needs, wants, values, and/ or interests.
- Standard - 3.4.7.C3 - Describe how troubleshooting as a problem-solving method may identify the cause of a malfunction in a technological system.
- Standard - 3.4.6.E7 - Explain how the type of structure determines the way the parts are put together.
- Standard - 9.1.8.E - Communicate a unifying theme or point of view through the production of works in the arts.
- Standard - 9.1.8.J - Incorporate specific uses of traditional and contemporary technologies within the design for producing, performing and exhibiting works in the arts or the works of others.

Understandings

Overarching Understandings
- Traditional and modern forms of art and technology can be used in tandem to create complex, visually interesting mixed media creations
- Art and technology can be employed as powerful tools for creative self-expression and community-building
- "Technology" encompasses a wide range of science and innovation-based applications
- Aspects of our identity and community are interconnected

Related Misconceptions
- Art and technology are distinct areas of study that have no connection or overlap
- Art is always purely aesthetic and has no thematic, political, or cultural significance
- "Technology" refers only to electronic or digitally-based applications
- Aspects of our personalities, identities, and experiences are distinct from each other have no meaningful connections

Topical Understandings

- **Collage / Visual Art**
  - Collage is an artistic technique that involves putting together an assemblage of different components to create something new
  - The individual components of a collage can gain new meaning in the context of the larger piece
- **Sewing & Circuitry**
  - Sewing involves decorating or attaching objects by stitching with a needle and thread
  - While sewing is generally done with thread made from basic fibers, technologists have created thread that is conductive, allowing it to be part of a circuit.
  - A circuit is a path that electricity flows on. A circuit needs to be closed in order to successfully power an output.
  - Technologists have also created other electronic components for sewing, such as battery holders and LEDs. These components are designed to be used with conductive thread to create a functioning circuit. There are visual markers on these sewable electronics that provide information about how to use them properly.
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- **Identity & Community**
  - Identity is the way that we understand and define ourselves through traits, beliefs, and experiences.
  - Identity involves self-definition and expression of individuality but can also be used to make connections with others around similarities and differences

Knowledge

Students will know...
- Basic definitions associated with collage, sewing, and simple circuitry
- The components and structure of a simple circuit

Skills

Students will be able to...
- Identify and visually communicate connections between their personalities, interests, identities, and experiences through a mixed media project
- Combine art and electronic technology through the use of e-textiles
- Thread a needle and sew a basic running stitch
- Create a functioning sewn circuit that lights up an LED
- Think critically to troubleshoot issues with their sewn circuits
- Make connections between their projects and those of their peers
- Work independently and collaboratively to complete a project