Energy Issues & Art Activism

Lesson Overview: This lesson provides a format for investigating the role of the artist in raising awareness about energy issues; and although it focuses on nuclear leaks, the plan can be adapted to other issues, such as fracking and fuel consumption. Students begin by exploring videos and visual imagery, and ultimately take on the artist’s role by creating short videos and zines to promote public discourse.

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Subject(s): Visual Arts, Science, Social Studies, Literature, Technology

Suggested Grade Level(s): 7 - 12

Time Duration: Ten 40-45 minute class periods

Common Core State Standards Addressed:

National Core Standards for the Visual Arts
Visual Arts/Creat ing #VA:Cr3.1
Process Component: Section 6
Anchor Standard: Refine and complete artistic work.
Enduring Understanding: Artist and designers develop excellence through practice and constructive critique, reflecting on, revising, and refining work over time.

Visual Arts/Responding #VA:Re8.1
Process Component: Section 11
Anchor Standard: Interpret intent and meaning in artistic work.
Enduring Understanding: People gain insights into meanings of artworks by engaging in the process of art criticism.

Visual Arts/Connecting #VA:Cn10.1
Process Component: Section 13
Anchor Standard: Synthesize and relate knowledge and personal experiences to make art.
Enduring Understanding: Through art-making, people make meaning by investigating and developing awareness of perceptions, knowledge, and experiences.

Visual Arts/Connecting #VA:Cn11.1
Process Component: Section 14
Anchor Standard: Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding.
Illinois State Standards for the Visual Arts
State Goal 25: Know the Language of the Arts
a. Understand the sensory elements, organizational principles, and expressive qualities of the arts.
b. Understand the similarities, distinctions, and connections in and among the arts.
State Goal 26: Through creating and performing, understand how works of art are produced.
a. Understand processes, traditional tools and modern technologies used in the arts.
b. Apply skills and knowledge necessary to create and perform in one or more of the arts.
State Goal 27: Understand the role of the arts in civilizations past and present.
a. Analyze how the arts function in history, society, and everyday life.
b. Understand how the arts shape and reflect history, society and everyday life.

Objectives:

• Students will investigate the impact of nuclear accidents on human health and the environment.
• Students will analyze videos and visual images that promote viewer awareness of the potential dangers associated with nuclear leaks.
• Students will examine reports that focus on the pros and cons of relying on nuclear energy as a power source, and they will interpret written accounts that provide insight into the magnitude of the devastation caused by nuclear leaks.
• Students will create persuasive illustrations, photos and/or videos to initiate public discourse in their own communities about the potential effects of nuclear accidents.

Materials:

Activities and Procedures:

1. Begin by having students view artist Isao Hashimoto’s, “A Time-Lapse Map of Every Nuclear Explosion Since 1945” on YouTube. Divide the students into small groups to form a consensus on whether or not Hashimoto has achieved his goal of showing “the fear and folly of nuclear weapons.” Ask each group to list at least five visual elements and three sound elements used in the video to create tension and build anxiety, such as juxtaposition, repetition, emphasis, and scale. Also, ask each group to consider why Hashimoto’s video resembles a game. Then have the students view street artist Combo’s “Attaque de tchernobyl,” on the ENENEWS website. Direct the students to continue working in small groups to cite commonalities between the two videos in both theme and form. In their journals, ask students to write responses to the following: Is Hashimoto’s video about nuclear explosions or more about nuclear weapons? What is his point of view? Does he rely on ethos, pathos, and/or logos to persuade his viewers? Provide evidence from the video to support your answers. If Combo’s video is about nuclear accidents, why does he refer to it as an “attack” on Chernobyl? What is his point of view? What mode(s) of persuasion does Combo use? Provide evidence from the video to support your conclusions. Distribute and discuss project guidelines (sheet provided).

Homework: Read “Nuclear Energy – Pros and Cons” (online or handout), and write a journal entry about whether or not the cons outweigh the pros.

2. Using the Internet, have students investigate how many active and non-active nuclear power plants exist in their state, and the proximity of any of these plants, along with plants in neighboring states, to their community. Provide butcher-block paper or poster board, and assign each small group the task of creating a large-scale map that illustrates the location of the plants in respect to residences, schools, hospitals, and other places in their community. They should also include all areas of possible
contamination in the surrounding areas, such as lakes, farms, or forests. Students can draw and/or create a collage of images from magazines to represent people, buildings, animals, birds, fish, etc.

Homework: Read excerpt from *Chernobyl Consequences of the Catastrophe for People and the Environment* (pages 318 – 326). Write a reflection or sketch an image inspired by the passage.

3. Introduce the students to the work of artist Hiroshi Kaihara as shown on The Asahi Shimbun website. As a class, have the students discuss the visual impact of “Grandmothers of Belarus” and “No. 4 reactor” from the Kaihara exhibit “Thinking of Fukushima—downwind villages.” Ask them how these images relate to the passage from *Chernobyl Consequences of the Catastrophe for People and the Environment*. Then ask students to begin sketching each other as possible victims of a future nuclear disaster.

Homework: Using a cell phone or camera, photo/video document places within the community that could be contaminated by a nuclear leak or explosion. Also, document found text and symbols that relate to safety or danger (stoplight, caution sign, billboard slogan, etc.), and record sound effects or select a musical piece to enhance or juxtapose to the visuals that have been developed throughout the project.

4. Working in teams, students should create short, narrative videos that incorporate their drawings, maps, found text, symbols, and sound to compel the viewer to consider the adverse effects of reliance on nuclear power. Before students get started remind them to consult their journal responses on how Hashimoto and Combo used juxtaposition, repetition, emphasis, scale, sound and other elements to persuade their viewers.

Note: Students whose research supports the conclusion that the pros of nuclear power outweigh the cons can use the same format to reinforce their ideas, and by doing so will provide an added dimension to the potential public discourse when videos are viewed in a festival setting.

Homework: Write an artist statement for your participation in creating your team’s video. Team videos should include a statement from each participant. To establish credibility with your audience consider talking directly to the viewer, citing your research, relating personal experiences, and/or discussing your evolving awareness.

5. Pair teams to peer review videos, and then provide time for students to add, delete, and/or clarify images, sound, etc. according to feedback.

Homework: Read excerpt “Radiation and Washing Memories” from Chapter 7 of *Precarious Japan* (pages 193 -196). In this passage, of Allison’s chronological account of the aftermath of the tsunami and the nuclear leak in Fukushima in 2011, the devastation is described in very human terms. In your journal, choose either Hiroshi Kaihara drawings or Combo’s video to write about the similarities in theme and imagery as seen in the artist’s work to that of Alison’s written account.” Cite at least three specific examples.

http://cis.uchicago.edu/
6. Begin by asking the students to share their thoughts about “Radiation and Washing Memories.” Ask them if they agree with Tim Ingold that through drawing the artist can “prise and opening, to find a way through.” Then show them “HOW TO MAKE A ZINE!! | iamericahart” on YouTube. After viewing the video, tell students that they will be making their own zines to “prise an opening, to find a way through” by bringing attention to the dangers associated with nuclear disasters. Using their previous research, students can begin planning how they will illustrate, collage, and use found text and imagery to create informational zines.

Note: For those students whose videos support the use of nuclear energy, their zines can provide information on possible safety measures.

Homework: Continue planning zines and editing team videos.

7. Students begin implementing plans for their zines.

Homework: All groups must email their finished video to the teacher (every student is responsible for making sure his/her group video has been emailed). Continue working on zine.

8. Conduct a peer review of zines. Using feedback from peers and instructor, students should finish editing and finalize their zines.

Homework: Finish your zine and make at least 10 photocopies. Fold all copies and bring to next class.


10. Final assessment, followed by students working in small groups to devise strategies to share videos and zines with the school and greater community. At the end of class have a spokesperson for each group share strategies, and as a class determine best means for sharing.

Assessments:

- Peer, self, and final assessments attached.

Adaptations:

Both the video and zine making activities can be adapted to explore other issues involving global energies. The following is a list of suggested references for fracking and fuel consumption.
http://cis.uchicago.edu/outreach/summerinstitute/2014/resources.shtml

Photographer Terry Evans has documented the effects of fracking in North Dakota. Her photographs provide a compelling portrait of the people, places, and institutions that
have undergone change over the last few years, and her presentation at the Center for International Studies in 2013, contextualizes the images.

- Her presentation can be viewed at: http://cis.uchicago.edu/outreach/summerinstitute/2013/resources.shtml

Suggested readings – access at http://cis.uchicago.edu/outreach/summerinstitute/2014/resources.shtml:

- Ingraffea, Anthony: “Gangplank to a Warm Future” (NY Times).

Extra Credit/Additional Resources:

Additional reading material on nuclear energy can be found at http://cis.uchicago.edu/outreach/summerinstitute/2014/resources.shtml
ENERGY ISSUES & ART ACTIVISM PROJECT GUIDELINES

CONSIDER:

It seems there's almost no one in this room who understands what this means. It's on fire. The graphite moderator, which in itself is just - unbelievably radioactive, and what's left of the fuel core, are on fire. Now, that's about two and a half thousand tons of carbon, which, burning at one ton an hour will burn roughly for 3 months. And everyday that it burns it will send into the atmosphere more radiation than has ever been released in - in all the nuclear accidents that have ever happened anywhere in the world all put together. Everyday! For three months! You have my word that people that are asleep in their beds in this town tonight have effectively died today. As I speak, radiation is entering the bodies of everybody in this room, everybody outside for hundreds of miles. We can no longer pretend. It's criminal. And - and it's got to stop. And you have got to stop it.

Valery Legasov, Chief of the commission that investigated the Chernobyl disaster.

YOUR ASSIGNMENT

After researching the pros and cons associated with nuclear energy, you will produce the following:
1) As a member of a collaborative team you will create a video to persuade viewers to consider your team’s collective point of view regarding the use of nuclear energy as a power source.
2) You will design and illustrate an informational zine (small reproducible magazine) to inform readers about the repercussions associated with nuclear accidents.

YOUR RESPONSIBILITIES

Read all assigned articles and excerpts; write responses to journal prompts; actively participate in class/group discussions and studio work; and provide honest and helpful feedback to your peers. You are also expected to come to class prepared and to stay on task throughout the entire class period; to meet all deadlines, including team deadlines; and to complete all assignments and homework.

TIMELINE

Day 1 – Viewing of videos: Isao Hashimoto’s, “A Time-Lapse Map of Every Nuclear Explosion Since 1945” and Combo’s “Attaque de tchernobyly,” followed by small group discussions, and journal entries. Homework: Read “Nuclear Energy – Pros and Cons.” Write a journal entry about whether or not the cons outweigh the pros.

Day 2 – Individual investigation of how many active and non-active nuclear power plants exist in our state, and the proximity of any of these plants, along with plants in neighboring states, to our community. (Computer lab time will be provided.) Small group activity: Map the locations of nearby plants in proximity to community residences, schools, hospitals, lakes, farms, forests, etc. Homework: Read excerpt from Chernobyl: Consequences of the Catastrophe for People and the Environment. Write a reflection or sketch an image inspired by the passage.

Day 3 – Class discussion of artist Hiroshi Kaihara’s “Grandmothers of Belarus” and “No. 4 reactor” drawings. Studio work: Sketch other students in class as possible victims of a future nuclear disaster. Homework: Using a cell phone or camera, photo document places within your community that could be contaminated by a nuclear leak or explosion. Also, document found text and symbols that relate to safety or danger (stoplight, caution sign, billboard slogan, etc.), and record sound effects or select a musical piece to enhance or juxtapose to the visuals that your group has developed throughout the project.

Day 4 – Small group activity: Select images/film footage from homework documentation of all group members to create a short, narrative video to compel potential viewers to consider the adverse effects of reliance on nuclear power. If your group agrees to support nuclear energy as a power source, consider creating a video that focuses on safety measures for using nuclear power. Also select from the
documented sounds or music of members of your group. Keep in mind that, as a collaborative piece, every student should have an equal amount of contributions.

Homework: Write an artist statement for your video. (Team videos should include a statement from each participant.) Use this opportunity to establish credibility with your audience. You can talk directly to the viewer, cite research, relate personal experiences, and/or discuss your evolving awareness.

Day 5 – Small group peer review: Small groups will be paired to provide and receive feedback about their videos. Small group activity: Use your group’s feedback to make additions, deletions, and/or clarification of images, sound, etc.

Homework: Read excerpt “Radiation and Washing Memories” from Chapter 7 of Precarious Japan (pages 193 -196). In your journal, choose either Hiroshi Kaihara or Combo’s drawings to write about the similarities in theme and imagery as seen in the artist’s work to this excerpt. Cite at least three specific examples.

Day 6 – Class discussion of “Radiation and Washing Memories,” and viewing of "HOW TO MAKE A ZINE!! | iamericahart.” Studio work: Begin planning a zine to inform readers of the dangers associated with nuclear accidents.

Homework: Continue planning your zine and collaborate with team members to edit your group’s video.

Day 7 – Studio work: Begin illustrating and using collage techniques to produce your zine.

Homework: Your group must email your team’s completed video to your instructor. Choose a responsible member of your team to email the video, as all members are accountable. Continue working on zine.

Day 8 – Peer review: Provide feedback to a classmate on his/her zine. Studio work: Use your feedback from peers and instructor to edit your zine.

Homework: Finish your zine and make at least 10 photocopies. Fold all copies and bring to next class.


10. Finish peer and self assessments. Small group activity: Devise strategies to share videos and zines within the school and with the greater community.

VIDEO GRADING CRITERIA
- Narrative effectively tells a story with beginning (introduction), middle (content) and end (conclusion), leading viewer to understand the filmmakers’ point of view.
- Effective integration of photos, text, drawings, and sound contributions from all group members.
- Film has a title frame, bibliography, and credits.
- Assertions are based on facts that are cited in the bibliography.
- Individual artist statement is complete and without spelling/grammar errors.

ZINE GRADING CRITERIA
- Zine provides information that is based on fact. All facts are linked to a source. For example, “according to . . .”
- Effective drawing style, integration of Illustrations, found images and text using variations in scale, emphasis, and types of imagery.
- Zine has visually exciting title page (front cover) and a thought provoking back cover.

ADDITIONAL GRADING CRITERIA
- Meeting all deadlines.
- Attendance and prompt arrival to class.
- Active and productive participation in all class activities.
- Thoughtful participation in small group/class discussions and peer reviews.
- Responsible care/cleanup of tools, materials, equipment, and workspace.
ENERGY ISSUES & ART ACTIVISM: SELF-ASSESSMENT OF VIDEO PROJECT
Score your group’s video and your participation according to the following scale: 0 – 5 pts. (This section is worth up to 50 pts.)

_____ My group’s video tells a story, and includes an introduction, the content is understandable, and it has a clear conclusion, all of which convey our collective point of view.

_____ Our video effectively integrates an equal share of components (photos, text, drawings, and/or sound) from all members of the group.

_____ Our video has a title frame, and ends with a bibliography and credits.

_____ Any assertions put forth in our video are based on facts, with sources cited in the bibliography.

_____ My individual artist statement is complete, without spelling/grammar error, and establishes my credibility as a filmmaker.

_____ I met all deadlines.

_____ I did not have any unexcused absences or unexcused tardies.

_____ I actively participated in all class activities, and I was productive throughout.

_____ I enthusiastically participated and readily shared my ideas in all small group discussions, and I provided meaningful feedback to my peers, and used their feedback along with my instructor’s, to improve my work.

_____ I took excellent care of all tools, materials, equipment, and workspace, and I actively participated in all cleanup activities.
ENERGY ISSUES & ART ACTIVISM: PEER-ASSESSMENT OF VIDEO PROJECT
Score your peer’s group video according to the following scale: 0 – 10 pts. (This section is worth up to 50 pts.)

_____ The video tells a story, and includes an introduction, the content is understandable, and it has a clear conclusion, all of which convey a point of view.

_____ The video effectively integrates photos, text, drawings, and sound contributions.

_____ The video has a title frame, and ends with a bibliography and credits.

_____ Any assertions put forth in this video appear to be based on facts, with sources cited in the bibliography.

_____ My peer’s individual artist statement is complete, without spelling/grammar errors, and establishes a sense of his/her credibility as a filmmaker.

Instructor’s adjustments __________

Total Score __________

Comments:

Comments:
ENERGY ISSUES & ART ACTIVISM: SELF-ASSESSMENT OF ZINE PROJECT
Score your zine and participation according to the following scale: 0 – 5 pts. (This section is worth up to 50 pts.)

_____ My zine provides information that is based on fact, and all facts are linked to a source.

_____ The drawing style, integration of Illustrations, found images and text in my zine effectively convey my ideas.

_____ My zine is visually exciting and content filled.

_____ I have used variations in scale, emphasis, and types of imagery throughout my zine.

_____ My zine has a visually exciting cover, which includes the title, and my back cover encourages the reader to take action and/or to look further into the issue.

_____ I met all deadlines.

_____ I did not have any unexcused absences or unexcused tardies.

_____ I actively participated in all class activities, and I was productive throughout.

_____ I provided meaningful feedback to my peers, and used their feedback along with my instructor’s, to improve my work.

_____ I took excellent care of all tools, materials, equipment, and workspace, and I actively participated in all cleanup activities.
ENERGY ISSUES & ART ACTIVISM: PEER-ASSESSMENT OF ZINE PROJECT
Score your peer’s zine according to the following scale: 0 – 10 pts. (This section is worth up to 50 pts.)

_____ The zine provides information that appears to be based on fact, and all facts are linked to a source.
_____ The drawing style, integration of illustrations, found images and text used in the zine effectively convey a point of view.
_____ The zine is visually exciting and content filled.
_____ There are variations in scale, emphasis, and types of imagery used throughout the zine.
_____ The zine has a visually exciting cover, which includes the title, and the back cover provokes the reader to take action and/or look further into the issue.

Instructor’s adjustments __________

Total Score __________

Comments:
ENERGY ISSUES & ART ACTIVISM: FINAL ASSESSMENT

Respond to Questions 1 – 3, by choosing one of the videos or drawings listed below. You do not have to choose the same video or drawing to answer each question. Begin each response by noting the artist and the video or drawing that you are referencing. Your response should be at least one, full paragraph in length.

- Isao Hashimoto – “A Time-Lapse Map of Every Nuclear Explosion Since 1945”
- Combo – “Attaque de tchernobyl”
- Hiroshi Kaihara – “Grandmothers of Belarus”
- Hiroshi Kaihara – “No. 4 reactor”

1) What is the artist’s point of view in respect to the use of nuclear energy as a power source? Cite at least three examples from the video to support your argument. (0 – 20 pts.)

2) What elements of art are used in the video or drawing to propel the viewer toward the artist’s point of view regarding nuclear energy as a power source? Cite at least three examples from the video or drawing to support your argument. (0 – 20 pts.)
3) What mode of persuasion does the artist primarily rely on to sway his audience? Cite at least three examples from the video to support your argument. (0 – 20 pts.)

4) What facts did you learn about nuclear energy that guided your own art making during either the video or zine production? Describe at least three facts, the source for each, and where each is addressed in your video or zine. (0 – 20 pts.)

5) Choose either your group video or your zine. Describe how you used at least three of the elements of art to persuade your viewers to your decided point of view regarding nuclear energy as a power source. (0 – 20 pts.)