

What's Science Got to Do With It?



What events influenced the design of the 1962 Seattle World's Fair, the U.S. Science Pavilion, and its exhibits?

What exhibits were in the Science Pavilion in 1962?

UNIT-AT-A-GLANCE

Primary Objectives: To give students an understanding of the historical framework, technological methods, and actual events portrayed in the United States Science Pavilion at the 1962 World's Fair in Seattle.

Student Activities: Students will analyze a variety of primary documents from the National Archives at Seattle and other National Archives facilities across the United States related directly to the United States Science Pavilion at the 1962 Seattle World's Fair, the relationship of the international space-race to the fair and public sentiment, and technology used to present these principles to the public. They will compare and contrast these materials to scientific topics and technology of today and given the opportunity to imagine a related world of tomorrow.

Materials Included:

- PDF presentations containing primary sources (historical photos, documents, and promotional materials for the United States Science Pavilion).
 - *Taking a Walk Through the US Science Pavilion of the Seattle World's Fair*
 - *Making a 1962 US Science Pavilion Documentary*
- *House of Science* documentary film (1962), U.S. Bureau of Commerce

- Handouts:
 - Student document analysis worksheets,
 - Textual Document Analysis Worksheet
 - Photograph Analysis Worksheet
 - Moving Picture Analysis Worksheet
 - Cold War and Space Exploration Timeline
 - Cutaway Detail—1962 United States Science Pavilion
 - List of Exhibits at the United States Science Pavilion
 - Account of a Visit to the United States Science Pavilion by Alistair Cooke (Mansfield (England) *Guardian Weekly*, October 1962)
 - Transcription of original Narration Track for *House of Science* documentary
- Web-links:
 - www.archives.gov/research/arc/ (individual document links are listed in the lessons themselves)
 - www.youtube.com (for clips of Sputnik Mania)
 - www.digitalvaults.org

Materials/Equipment Needed:

- Copies of selected primary sources from PDF presentation for each student.
- Copies of worksheets and handouts for each student.
- Projector to show PDF presentations and movie clips.
- Newspapers (either online or in paper form) from the recent past.

Time Management:

6 class periods, assuming a class length of 40–65 minutes.

(These lessons can be used independently)

- Lesson 1 – The Race for Space – 1 class period
- Lesson 2 – A Walk Through the United States Science Pavilion – 2 class periods
- Lesson 3 – Making a 1962 Documentary – 3 class periods (or more, depending upon the complexity of the student involvement)

Lesson 1: The Race for Space (one or two 40–60 minute class(es)): Show a clip from Sputnik Mania. Divide class into seven groups. Give each group a document or silent film to review and analyze using NARA Analysis Worksheets. Give them the opportunity to do secondary research to explain their document or filmclip. Have each group report to the whole class about their particular event or act out the document or film in class and create a joint timeline from their independent research.

Lesson 2: A Walk Through the U.S. Science Pavilion (two 40–60 minute classes).

Day 1. Explain what a “finding aid” is. Hand out the list of exhibits at the U.S. Science Pavilion from the NARA finding aid. Discuss firsthand accounts. Hand out Alistair Cooke’s description of the U.S. Science Pavilion. Show the PDF presentation. Hand out individual pages of the PDF presentation to students. Have them match their document with the list of exhibits. Ask them to write a paragraph describing their page (dress, technology) and indicating how science has advanced since 1962 in that area.

Day 2. Pass out (or visit online) newspapers from the recent past. Discuss with the class potential “most important issues” that might be included in a World’s Fair today or 50 years from today. Since the original fair was focused on what was important for that particular time, have them compile

a list of potential topics for their own fair, based on the most important topics of today or what they think might be issues in the future. Have them make a list of exhibits they might include. Have them write a paragraph defending their choices.

Lesson 3: Making a 1962 documentary (three 40–60 minute classes)

Day 1: Show the *House of Science* documentary. Show the PDF presentation. Discuss how a documentary might be done today. Demonstrate or send the students to www.digitalvaults.org. Divide into small groups for next day’s activity.

Day 2: Each group will: choose a topic using the search engine on Digital Vaults, research their individual topics, collaborate and write a narration track for their presentation and choose a speaker, and create a documentary on www.digitalvaults.org.

Day 3: Have each student draw a rough sketch for an animation cell to include at the beginning of their presentation. Have each group present their “documentary” by first presenting their sketches, then playing the documentary while the chosen speaker does the narration verbally.

Grade/Subject Recommended: Social Studies in grades 6–12.



Content and Performance Objectives

Content Objectives: The student will learn...

- political/cultural events that influenced the content of the U.S. Science Pavilion at the Seattle World's Fair in 1962.
- the layout of the Science Pavilion in 1962 and the exhibits that were displayed there.
- technological methods that were used in the creation of some Science Pavilion exhibits.
- the understanding that society focuses its attention on solving cultural and political problems most relevant to their own particular place and time.

Performance Objectives: Students will...

- examine and analyze primary source documents from the holdings of the National Archives, both from online resources and from the National Archives at Seattle that contain information about the U.S. Science Pavilion of the Seattle World's Fair.
- use critical reasoning skills in understanding multiple perspectives on the U.S. Science Pavilion choices of exhibits.
- use knowledge about the U.S. Science Pavilion to explore Washington's place in 1962 in the world and envision its future.
- demonstrate the relationship between the focus of science and technology in 1962 and those of our world today.
- create a simple documentary using www.digitalvaults.org.

A Few Selected Additional Resources

- ***Red Moon Rising: Sputnik and the Hidden Rivalries that Ignited the Space Age*** (Book), by Matthew Brzezinski. Publisher: New York: Times Books, 2007.
- ***The Fever of '57*** (DVD), David Hoffman; Eric Reid; Paul Dickson: Publisher: Varied Directions International, ©2007
- ***Sputnik Mania*** (DVD), by David Hoffman; Eric Reid; John Vincent Barrett; Paul Dickson; Liev Schreiber; History (Television network); New Video Group, 2008.
- ***House of Science*** original film. Produced for the US Science Pavilion, Area I, 1962. DVD available from the National Archives and Records Administration, College Park, MD. Contact seattle.archives@nara.gov for more information.
- ***History of Animation*** (VHS), Walt Disney Productions, Disney Educational Productions, Burbank, CA: Walt Disney Educational Media Co., 1997.
- ***Valuing Films: Shifting Perceptions of Worth*** (Book), by Laura Hubner, Houndmills, Basingstoke, Hampshire: New York: Palgrave Macmillan, 2011.
- ***Animators of Film and Television: Nineteen Artists, Writers, Producers and Others*** (ebook) by Noell K Wolfgram Evans. Jefferson: McFarland & Co Publishers, 2011.
- ***Design Essentials for the Motion Media Artist: A Practical Guide to Principles & Techniques*** (Book), by Angie Taylor. Burlington, MA: Focal Press, 2011.

National Archives Primary Source Citations

- **Publicity Files:** Records of the U.S. Commission for the U.S. Science Exhibit for the Seattle World's Fair, 1956–1963; from Record Group 43: Records of International Conferences, Commissions, and Expositions, 1825–1979, National Archives and Records Administration, Seattle, Washington
- **Photographs:** Records of the U.S. Commission for the U.S. Science Exhibit for the Seattle World's Fair, 1956–1963; from Record Group 43:

Records of International Conferences, Commissions, and Expositions, 1825–1979, National Archives and Records Administration, Seattle, Washington

- **Exhibit Information Files:** Records of the U.S. Commission for the U.S. Science Exhibit for the Seattle World's Fair, 1956–1963; from Record Group 43: Records of International Conferences, Commissions, and Expositions, 1825–1979, National Archives and Records Administration, Seattle, Washington
- **House of Science** (Moving Picture); Series: Moving Images Relating to the Seattle World's Fair Science Exhibit, compiled 1963–1963, documenting the period 04/21/1962–10/21/1962 Department of Commerce. Bureau of International Commerce. (1963–1972) National Archives & Records Administration, College Park, Maryland.

National Archives Resources for this Unit

- National Archives Document Analysis Worksheets
 - Written Document Worksheet
 - Photograph Worksheet
 - Moving Picture Worksheet
- Other Resources
 - DocsTeach Activity – www.docsteach.org
 - Online lesson plans and helps – www.archives.gov/education/
 - Student-made primary source documentary movie-maker www.digitalvaults.org



Overview



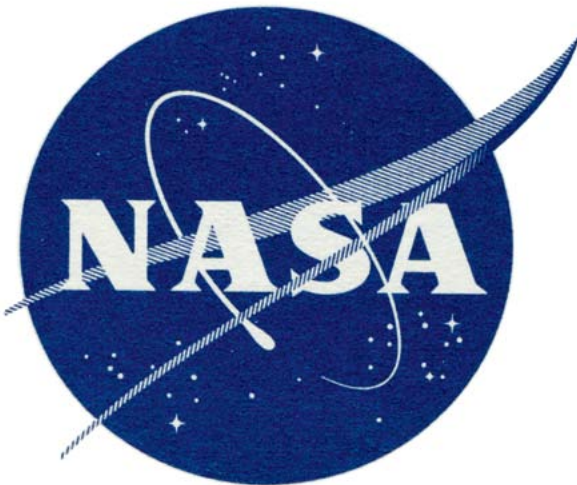
The world in which the Seattle World's Fair was created was a very different one than we live in now. People still used typewriters and created illustrations by hand. News was circulated by telephone, mail, and through newspapers, television, and newsreels projected in movie theaters.

Politically, Eastern Europe was largely governed by the Union of Soviet Socialist Republics (USSR), while the U.S. was the major political force in the west. The U.S. and USSR had been allies during World War II, but after the war the two powers vied for global domination through a “Cold War” of national competition and fear. Each country used political and economic power to secure countries all over the world to their side. The heart of the Cold War was a nuclear arms race in which both sides built up the capability to completely annihilate the other should an actual conflict ever break out. This threat was meant to ensure that neither side would ever actually start a “hot” war—and it did—but it was a terrifying prospect to live with.

Suddenly, without real warning, in the late 1950s the USSR launched a satellite that circled the globe and was believed to be sending transmissions back to the USSR. The space race had begun. Whichever country controlled space would gain a huge advantage in the Cold War's nuclear arms race.

In this 1960s environment, the 1962 Seattle World's Fair was built and exhibits planned and executed. A major theme in the exhibits of the U.S. Science Pavilion, as a result, was SPACE.

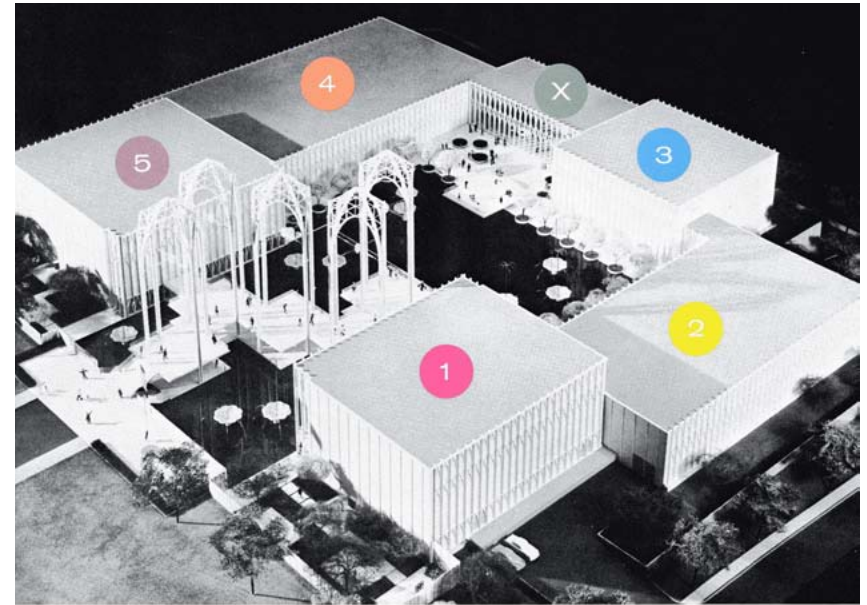
This unit focuses on the U.S. Science Pavilion at the 1962 Seattle World's Fair, particularly upon the structure, methods, and content of the buildings and exhibits at the time, and asks students to compare them to today's world and their own imaginary world of tomorrow.



ESSENTIAL QUESTIONS

to be Explored

- What events influenced the design of the Seattle World's Fair, the U.S. Science Pavilion, and its exhibits?
- What exhibits were in the Science Pavilion in 1962?
- What technology was used in the exhibits?
- What are the exhibits in the Science Center like today?
- What would you say is the main theme of the Science Center exhibits today?
- What types of technology are used?
- If you were to plan a World's Fair 50 years from now, what do you think the most important Science Center exhibits would be?
- What would the theme of the fair reflect?
- What exhibits would there be?
- What technology do you think might be used in the future?



GUIDE TO THE UNITED STATES SCIENCE EXHIBIT

Colored numbers indicate the preferred sequence in which the exhibits should be seen and are keyed to corresponding sections of this book. The Junior Laboratory of Science is for children from eight to sixteen years of age.



- 1 *The House of Science*
- 2 *The Development of Science*
- 3 *U.S.-Boeing Spacearium*
- X *Junior Laboratory of Science*
- 4 *The Methods of Science*
- 5 *The Horizons of Science*

Lesson 1: The Race for Space

Background

It is important to understand the world of the Seattle World's Fair and the U.S. Science Pavilion in the context of the world around it. The launch of Sputnik by the USSR on October 4, 1957, had a profound influence upon the American psyche and resulted in an escalation of the U.S. space effort.

The documents assembled for this lesson are held by the National Archives and Records Administration in various facilities across the United States. These materials are also available for [viewing and download](#). The hyperlinks attached to each item below will take you directly to the National Archives item description and printable digital documents.

These documents can aid in the understanding of the factors that influenced the design, methods, and subject matter of the buildings and exhibits of the Seattle World's Fair during that particular era in history.

Materials Included

- Combined Timeline of the Cold War and Space Exploration 1945–1989. (See appendix.)
- Document links to National Archives online primary sources.

Guiding Questions

- If you had been living in the late 1950s and early 1960s, how do you think you might have reacted to satellites being put in space by a country that had threatened you in the past? Do you think fears were warranted?
- How did this affect various areas of their lives?
- Do you think the renewed emphasis on science in schools was warranted?
- How important do you think the space race was to the people attending the World's Fair? Do you think it would have affected people attending from other countries? If so, in what way?

Teaching Suggestions

- Show a clip from [Sputnik Mania](#) – other clips of this documentary are also available at the same website) to help them put all the documents together into a recognizable story.
- Divide your class into seven small groups.

- Give each group one of the documents or silent films provided. The films can be viewed on a computer in the classroom or computer lab directly from the National Archives website.
- Ask them to analyze the document using the National Archives Analysis Worksheet corresponding with their document type.
- Have them conduct a Google or other search to find out more secondary information about their primary source document, being sure to place the document in context and timeframe.
- Allow each group to report to the whole class (or create a timeline and have each group act out their particular document or film in chronological order with additions from their secondary research).

National Archives Online Documents

NOTE: When accessing [National Archives web pages](#) on the Archival Research Catalog **click on the DIGITAL COPIES tab** in order to see and copy or print the actual documents.

[1957 – Memorandum of Conference with President Eisenhower on October 8, 1957, 10/19/1957](#). Item from Collection: Eisenhower, Dwight D.: Papers as President of the United States, 1953–1961.

- Memorandum discussing the reasons for delay in the space program due to military concerns. Meeting took place following Sputnik launch.

[1958 – May Day parade Moscow, 1958](#) (Silent film of parade featuring Nikita Khrushchev and Gamal Abdel Nasser and emphasis on rockets). Item from Record Group 111: Records of the Office of the Chief Signal Officer, 1860–1985

- Shot list: Shots of crowd in Red Square. Premier Nikita S. Khrushchev starts to mount reviewing platform, other man behind him. A view in Red Square during the carrying of the replica of a missile. Fellow shots of citizens walking on the street. Premier Khrushchev and President Gamal Abdel Nasser of the United Arab Republic on podium. CU, Nasser waves to crowd at airport. Views of people in the streets. Armored self-propelled guns or tanks. Nasser at reviewing point. Multiple rocket launchers on trucks

parked in street. Cut-ins, of Russian troops at curb. Troops in armored vehicles and trucks in parade. Self-propelled guns or tanks, rocket launchers, guns move past. Cut-ins, Russian faces in the crowds. HS, parade of civilian groups, people carrying flowers. HS, crowds in Red Square. MLS, MSs, CUs, Russian citizens parade past. (Excellent material, varied expressions on people, some sing). People carry posters of Khrushchev and other Soviet officials including the late Josef Stalin. Cut-in, a few people watch from windows. Scenes, police keep crowds in line. Cars pass; people cross the street. Russian band plays. A high ranking officer salutes in passing car. Russian drum corps. Large groups or contingents of officers in parade followed by naval troops, troops in armored cars. Poster of Lenin. Tilt-down to self-propelled guns or tanks, rocket launchers, track vehicles with troops towing gun. School children on parade. Civilian groups carrying picture of Soviet officials. LS, from ground of a missile (inflated balloon) in sky.

1958 – Newspaper headlines on firing of satellites, 03/10/1958 (Silent film of newspaper headlines across the country following Soviet satellite launch). Item from Record Group 111: Records of the Office of the Chief Signal Officer, 1860–1985

- Shot list: Headlines in the *New York Times*: “Soviet Fires Earth Satellite Into Space.” Zoom to lead article. “Soviet Goes All Out On Satellite Bonanza”. (Oct 1, 1957) CU, insert: “New Space Conquest Can Now Be Foreseen”. CU, insert: “Science Looks Ahead In Geophysical Year”. Picture and sketches of the explorer in orbit in the Sunday *NY Times*. CU of map indicating Explorer satellite in orbit. Headline: “Soviet Gives Satellite Timetable”. (Oct 6, 1957). Tilt down to: “Western experts believe satellite may last years.” Picture and drawings of Explorer I in newspaper. (Feb 1, 1958) Insert: “On Canaveral’s Beach the cry was ‘Go Baby!’” Front page of the ‘News of the Week Review’ in the *NY Times* on the launching of the Soviet Sputnik. Headline in *NY Times*: “Army Launches US Satellite Into Orbit; President Promises World Will Get Data; 30 lb Device is Hurlled Up 2,000 miles.” Lead article: “Jupiter C is Used. Roars Up In Florida. Tense 15-3/4 Seconds After It Is Fired.”

CU insert: “Army’s Explorer Cheers Congress.” (Feb 1, 1958) News Insert: “Military Power: How US Stands.”

1961 – Universal Newsreel Volume 34, Issue 5, 01/12/1961 Item from Collection UN: MCA/Universal Pictures Collection, 1929–1967 www.archives.gov/research/arc ARC # 2050346 Original held at NARA, College Park, MD.

- Description of events in 1961, including “CHIMPS TRAIN FOR SPACE TESTS” (there is no digital copy of this newsreel online ... the shot list is a National Archives document description only.)

1961 – Mercury-Atlas 6 Astronaut to perform many pilot tasks (ca. 1961–1962) Item from Record Group 255: Records of the National Aeronautics and Space Administration, 1903–2006. Original held at the National Archives and Records Administration, Fort Worth, Texas.

1962 – Promotional Documentary—MA-6, 1962–1962 Item from Record Group 255: Records of the National Aeronautics and Space Administration, 1903–2006. Original held at the National Archives and Records Administration, Fort Worth, Texas

- Includes biography of John Glenn and photographs.

1962 – Remarks of the President at the Ceremonies Honoring Astronaut Glenn, Hanger “S”, Cape Canaveral, FLA. February 23, 1962, 02/23/1962 Item from Collection JFK-POF: Papers of John F. Kennedy: President’s Office Files, 01/20/1961 – 11/22/1963. Original held at the John F Kennedy Presidential Library, Boston, Massachusetts.

- Elaborates about the immense popularity of the astronaut, John Glenn.

Lesson 2: A Walk Through the United States Science Pavilion in 1962

Background

As a result of both USSR and United States emphasis on space exploration as both a competition and as a protection from nuclear threat, science was promoted in the schools and the media to a much greater degree than it had been prior to the 1960s. The U.S. Science Pavilion (now called the Pacific Science Center) buildings and exhibits reflected this emphasis.

In this lesson, we will examine the exhibits and interior spaces of the U.S. Science Pavilion and ask the students to reflect on the level of technology, and scientific themes of the time period. A great deal can be observed about social stratification and fashion of the time period as well. Materials are given that serve to introduce students to some basic research methods for finding original documents at the National Archives and other archival repositories.

The students will be asked to project this information into the present and the future.

Guiding Questions

- How do the buildings of the Pacific Science Center today compare with the same buildings that comprised the U.S. Science Pavilion of the Seattle World's Fair? What is the same as it was then? What was different?
- What exhibits were cancelled in 1962? Why do you think they were cancelled?
- Which exhibits belonged in which area: 1) The House of Science (general overview of the history of scientific thought), 2) The Development of Science, 3) The Spacearium, X) The Junior Laboratory of Science, 4) The Methods of Science, and 5) The Horizons of Science. What do each of these areas represent?
- What technology did they use in 1962? What technology do you use today?
- What scientific topics were considered to be most important in 1962? What scientific topics are most in the forefront today? Do you agree that they are important?
- In the "Horizons of Science" area, they were trying to predict the future. Do you think it was an accurate portrayal? Do you think you could accurately predict what science will lead us to in 2062?

Materials Included

- PDF presentation: *Taking a Walk Through the U.S. Science Pavilion of the Seattle World's Fair*
- Handouts:
 - Student document analysis worksheets,
 - Textual Document Analysis Worksheet
 - Photograph Analysis Worksheet
 - Moving Picture Analysis Worksheet
 - Cold War and Space Exploration Timeline
 - Cutaway Detail—1962 United States Science Pavilion
 - List of Exhibits at the United States Science Pavilion
 - Account of a Visit to the United States Science Pavilion by Alistair Cooke (Mansfield (England) *Guardian Weekly*, October 1962)

Materials Needed

- Projector and screen for showing the PDF presentation
- Online or paper newspapers from the recent past

Teaching Suggestions

DAY 1

- Show the PDF presentation depicting the different area exhibits within the U.S. Science Exhibit at the World's Fair.
- Discuss with the students the importance of the subjects chosen at that time relative to the newspaper headlines they discussed in the previous lesson.
- Hand out the list of exhibits in the United States Science Pavilion from the National Archives "finding aid." Explain that a finding aid is a list of saved documents stored at the National Archives, created so that individuals doing research can find them there.
- Explain to the students that these photographs and documents found in the National Archives are in regular file folders. Most are not identified except by the heading on the file folder or a note on the back (such as "Area 4") with a photo number. As a result, some of the photos listed under specific areas in the file might have been "misfiled" at the federal agency that created them. What other problems might there be with primary source documents?
- Hand out the Alistair Cooke description of the Science Pavilion from the Manchester *Guardian Weekly* October 1962. Discuss with the

students potential problems with first-hand accounts. How long had it been since Mr. Cooke was at the Fair?

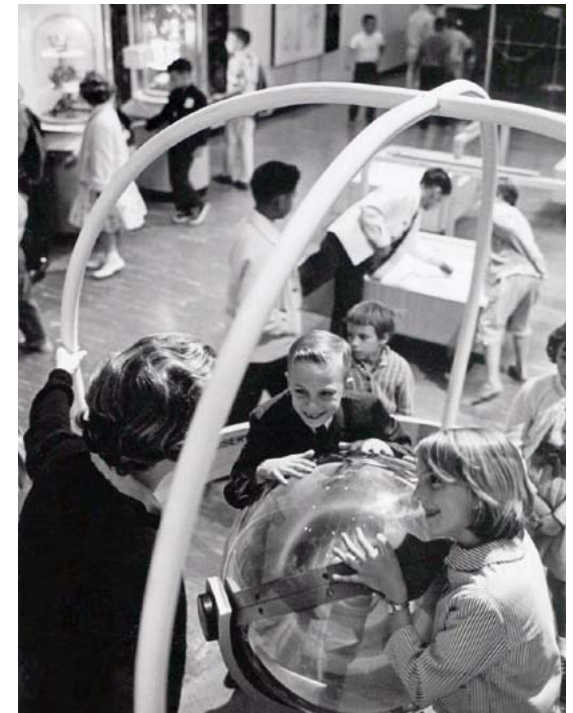
- Hand out individual pages (from the PDF presentation) of your choosing of the Science Exhibits and Areas.
- Challenge the students (in groups or individually) to match the exhibits in the PDF presentation to the list of exhibits in the finding aid
- Have the students analyze the photographs using the NARA Photograph Analysis Worksheet. There are examples of 1962 technology and other issues you might want to address that are illustrated in these photographs.
- Ask them to write a short paragraph defending their choices or describing their document, based on what was known in 1962 about Science.

DAY 2

- Review the materials from Area 4 and 5 of the U.S. Science Pavilion (see PDF presentation) to identify items to compare/contrast to present day and the future.
- Pass out copies of *The Seattle Times* or some other newspaper to small groups representing different days within the earlier few months of this year.
- Allow them to discuss among themselves the scientific discoveries and other important social issues of today, which subjects are most visible in the media, and how they would portray them at a World's Fair today. Open this up to the entire class. Have them compile an exhibit list of topics, similar to the one from the List of Exhibit Material – US Science Pavilion (appendix).
- Have the students create their own World's Fair building design, souvenir booklet, play, or short documentary based on scientific topics often discussed today. (for example, ecology, world hunger, sustainability).
- Have them speculate on the future. What might the Science Center look like in 2060? What would exhibits look like? How might a documentary film for a future Science Center be made in the future? What might it contain?

Extension Activity

- Hand out a copy of the floor plan of the U.S. Science Pavilion in 1962 to each student.
- Enlarge or draw the floor plan of the Science Exhibit and put it on the board. Have the students post paragraphs, photos, drawings, maps, or other elements found in the National Archives documents accompanying this lesson in each area of the floor plan of the building on or near the appropriate section. [See List of Exhibit Material – U.S. Science Pavilion - Appendix]
- From information obtained from the PDF presentation and board activity, ask the students to write a paragraph about each area of the Science Pavilion and how the subject matter of the individual exhibits differs from their world today.
- Review the Area 5 photographs. What did they think the future would be like? What do your students think the future will be like 50 years from today?



Lesson 3: Making a 1962 U.S. Science Pavilion Documentary

Background

Technology has changed dramatically since 1962. Then there were no cell phones, iPads, or personal computers. The process of making moving pictures was vastly different as well, even though the resulting product may look a lot like it does today.

Documents held by the National Archives about the U.S. Science Pavilion at the Seattle World's Fair (documents created by various U.S. government agencies) show the rather labor-intensive 1960s process of making a documentary film that used both animated and photographic images. This film was shown in the House of Science, on a huge screen divided into six segments. The film apparently was run on six projectors at the same time (see Area 1 photographs in Lesson 2 PDF presentation).

The story-line of the film depicted the development and growth of scientific thinking through the ages to 1962. It began with a series of sketches, a script for the narrator, moved to storyboards, and then photographic elements were added.

Materials Included

- PDF presentation: Making a 1962 U.S. Science Pavilion Documentary
- [House of Science documentary film](#) (1962), U.S. Bureau of Commerce
- Transcription of original narration track for *House of Science* documentary

Materials Needed

- Projector and screen
- Access to adequate numbers of computers for using www.digitalvaults.org as a documentary film creator.
- Art materials—paper, pencils, colored pencils, etc.
- Access to online or paper newspapers and other source material for doing research necessary for elaborating on their documentary subject.

Possible Additional Resources

It might be valuable to collaborate with science teachers, media specialists, or art teachers in your district, particularly if you have a student or students who want to go further with this activity.

- **History of Animation** (VHS), Walt Disney Productions, Disney Educational Productions, Burbank, CA: Walt Disney Educational Media Co., 1997.
- **Valuing Films: Shifting Perceptions of Worth** (Book), by Laura Hubner, Houndmills, Basingstoke, Hampshire: New York: Palgrave Macmillan, 2011.
- **Animators of Film and Television: Nineteen Artists, Writers, Producers and Others** (ebook) by Noell K Wolfram Evans. Jefferson: McFarland & Co Publishers, 2011.
- **Design Essentials for the Motion Media Artist: A Practical Guide to Principles & Techniques** (Book), by Angie Taylor. Burlington, MA: Focal Press, 2011.

Suggested Essential Questions

- In each instance, what were the animators trying to portray?
- Why do you think each particular part of science or scientific thought was important enough to include in the documentary, and from the examples included, what were they?
- Would you agree with the script using what we know about science today? What parts would you disagree with?
- What technology would you use today to create a similar documentary? Would you use the same imagery (comparing the development of science to that of adding rooms on a house)?
- What do you think a documentary introducing your own World's Fair would talk about in the future?

Teaching Suggestions

DAY 1

- Show the *House of Science* documentary film (10 minutes) and point out that it was shown in Area I of the Science Pavilion in 1962 on six screens using six separate projectors. (See PDF presentation for Lesson 2, Area 1 for a photograph of the projection equipment in the wall.)

- Show the PDF presentation *Making a Science Pavilion Documentary* (30 minutes) and explain the various procedures used at that time to create the finished product.
- Brainstorm with all the students as to how it might be done today (PowerPoint presentation, Microsoft Movie-Maker, etc, video camera downloaded onto YouTube, etc.).
- Demonstrate or send the students to digitalvaults.org to search for primary source documents on a contemporary topic of their choice. They will use this program to make a short documentary film.
- Divide into small groups for the Day 2 activity.
- Choose a topic for a documentary of their own, using one of the topics discussed in Lesson 2 and found in current newspapers and other contemporary literature relating to topics most often discussed today (ecology, world hunger, sustainability, etc.).

DAY 2

Have each group discuss and collaborate to:

- Choose a narrow topic (you may have to help them narrow it sufficiently) based on the discussion from Day 1 and the subjects available on Digital Vaults. Searching Digital Vaults requires a focus on one-word searches. Try lots of them.
- Choose a group of primary sources to include in their documentary.
- Research their topic online to find secondary sources that add life to the narration.
- Create a documentary on digitalvaults.org and determine the exact time it will run.
- Write a narration (script) similar to the one written for the *House of Science*. Give them the original script as a model and a time limit for their spoken narration depending upon the length of their documentary.

DAY 3

- Have each student draw a rough sketch for an animation cell to include at the beginning of their presentation, using the PDF presentation cell sketches as examples.
- Have each group present their “documentary” by first presenting their sketches, then playing the documentary while the chosen speaker does the narration verbally in person.

Possible Extension Activities

1. Have the groups divide tasks among members to:
 - Draw a short introductory animated sequence to introduce their topic.
 - Collect photographs related to their topic from the internet.
 - Copy, scan, or photograph their materials to create a storyboard.
 - Using Microsoft PowerPoint, create a slide show, set the program to show the slides automatically, and add their narration in a voice-over using a microphone or music clips in the program itself ... or alternately, use a movie-making program. Many are free and downloadable from the internet. They usually are specific to the computer system on which they are created.
2. Write a short paper comparing and contrasting the movie-making process in 1962 to their experience making their own movie today.

