Lesson Plan

<table>
<thead>
<tr>
<th>Course Title:</th>
<th>Audio/Video Production</th>
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</thead>
<tbody>
<tr>
<td>Session Title:</td>
<td>History of American Broadcasting</td>
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</tbody>
</table>

**Lesson Duration:** Approximately two 90-minute class periods
[Lesson length is subjective and will vary from instructor to instructor]

**Performance Objective:**
Upon completion of this assignment, the student will be able to identify the significant events and people involved in the development of American television broadcasting.

**Specific Objectives:**
1. Identify the people and significant events involved in the development of American television broadcasting.
2. Explain the significance of key individuals and events involved in the development of American television broadcasting.
3. Research technological developments related to broadcasting.
4. Create a timeline of significant people and events in American television broadcasting history.

**Preparation**

**TEKS Correlations:**
130.85(c)
(2) The student understands professional communications strategies. The student is expected to:
   (C) interpret and communicate information, data, and observations; and
   (D) present formal and informal presentations.

(4) The student applies information technology applications. The student is expected to use personal information management, email, Internet, writing and publishing, presentation, and spreadsheet or database applications for audio/video production projects.

(5) The student understands design systems. The student is expected to analyze and summarize the history and evolution of the audio and video production fields.

(8) The student applies ethical decision making and complies with laws regarding use of technology in audio and video production. The student is expected to:
   (D) analyze the ethical impact of the audio and video production industry on society.

(11) The student develops a basic understanding of audio and video production. The student is expected to:
   (A) understand the industry, including history, current practice, and future trends by:
      (i) explaining the beginnings and evolution of audio, video, and film;
      (ii) describing how the changing technology is impacting the audio, video, and film industries; and
      (iii) defining terminology associated with the industry.
Interdisciplinary Correlations:

World History Studies

113.33(c)
(28) Science, technology, and society. The student understands how major scientific and mathematical discoveries and technological innovations have affected societies from 1750 to the present. The student is expected to:
  (D) explain the role of telecommunication technology, computer technology, transportation technology, and medical advancements in developing the modern global economy and society; and
  (E) identify the contributions of significant scientists and inventors such as Marie Curie, Thomas Edison, Albert Einstein, Louis Pasteur, and James Watt.

Instructor/Trainer

References:
- Bob Miller’s Light Walk. http://www.exploratorium.edu/light_walk/lw_main.html
- Vanderbilt Television News Archive. http://tvnews.vanderbilt.edu

Instructional Aids:
1. History of American Broadcasting slide presentation
2. Written Assignment
3. Timeline Project
4. Rubric

Materials Needed:
- Adding machine tape (optional – see Optional Process on Timeline Project)
- Colored pencils (optional – see Optional Process on Timeline Project)
- Online search for historical video on the origins of television broadcasting

Equipment Needed:
- Computer for slide presentation, video, and online resources
- Projector to view presentation, video, and online resources
- Computer lab access for research and timeline assignment

Learner

Pen or pencil and paper for notes
# Introduction

**LSI Quadrant I:**

Introduce the lesson by showing a historical video on the origins of television and significant people involved in the development of American broadcasting. (See References for the “Instructor/Trainer” section above.)

## Outline

**LSI Quadrant II:**

### Instructor Notes:

Begin Slide Presentation  Slide 2

**ASK:** (What’s a medium?)

1. Identify the people and significant events involved in the development of American television broadcasting.
   - 1700s newspapers in US
   - 1837 telegraph
   - 1876 telephone
   - 1920 First commercially licensed radio station in Pittsburgh, Penn.
   - 1948 TVs in homes

2. Explain the significance of key individuals and events involved in the development of American television broadcasting.
   - **Television Development**
     - 1920s Many people/companies experimenting with and developing TV
     - 1926 Philo T. Farnsworth, American, experimented with electronic TV – stream of electrons
     - 1928 Vladimir Zworykin develop/refines iconoscope tube
     - 1928 First TV drama broadcast “The Queen’s Messenger”
     - 1931 Experimental scheduled TV
     - 1935 Electronic TV is demonstrated to press. Few people have TVs
     - 1936 Germany televises Olympics. Britain airs a few hours of regular programming a day
     - 1939 TV presented at New York World’s Fair *(First TVs screen size - 13 cm (5 in), B&W, cost ½ the price of a car)*
     - 1941 FCC authorizes TV broadcast
     - 1942 TV station airs 15 hours programming per week
     - 1945 WWII ends
     - 150 applications for TV stations
   - **Color Television**

**NOTE:** Development of TV was influenced by radio

1920s **NOTES:**

1. Early 20s engineers knew pictures and sound might be conveyed by radio waves
2. Small screen - few inches with mechanical TV system
3. Late 20s engineers concluded mechanical TV had too many limitations and problems - shifted efforts to electronic TV
During War, technicians experimented w/color
1946 Non-compatible mechanical color system is presented
1947 FCC refuses request for color programs
1948 50 TV stations on air, 124 authorized
*not enough channels for national TV*
FCC - four year freeze on new TV licenses
Need to allocate more channels (only 12)
and select color system.
1950 Korean War slows color TV progress
1950 FCC announces mechanical color system;
negative response from stations & public
*color system still mechanical, incompatible with present sets, new set $700-$1000*
1951 National Television System Committee (NTSC) explores color.
1952 FCC lifts TV freeze
FCC approves UHF
Old TVs don't get UHF,
Rules all new TVs must have both VHF and UHF
1953 FCC approves NTSC compatible electronic color system.
Korean War ends
1954 12 inch color TV sets, manufactured and sold for $1000

- **Television Programming**
  - 1950s Live dramatic series
  - 1952-60 Rampant growth in TV
    - 108 stations in 1952, 522 in 1960

- **Video recorders**
  - 1956 Videotape recorder demonstrated
  - 1960 90% homes have TVs
    - Only one station had color programming
  - 1966 All three major networks have color
  - 1960s Large variety of TV programs
  - 1963 Home reel VTR sells for $995

- **Television**
  - 1967 Public Broadcasting Act of 1967 authorized
    Corporation for Public Broadcasting
    Color TV sets outsold black and white sets for the first time.
  - 1980 1% of homes have VCRs,
    Consumer camcorder goes on the market
  - 1984 Stereo AM and TV
    FCC begins deregulation

- **Cable Television**

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**ASK:** How would this change TV programs?

**NOTE:** By 1966 all three networks have color.
1950  Community Television  
**Lansford, PA - 70 miles from Philadelphia**  
1952  Coaxial cable installed in large cities, reduces ghosting  
1972  FCC ends ban on cable TV in large cities  
Pay TV for cable is initiated  
1977  Two-way cable in Columbus, Ohio  
1980  Cable news begins  
1981  Music videos on cable  
1987  50% of homes w/TV have cable  
1998  Digital compression used in cable  
2004  More than 30% of US cable - approximately 22.9 million - receive digital cable service  

- **Digital Television**  
1997  DVD introduced  
FCC rules - all US SDTV stations must be DTV by 2006, later pushed back to 2009  
1999  Stations begin broadcasting Digital TV and wide screen HDTV  
2004  More than 1,000 US TV stations broadcast digital signal three million HDTV sets in homes  
All manufactured 36” and larger sets must have a digital tuner.  
2006  1000+ U.S. digital TV stations on the air; consumers buying HDTV sets in significant numbers.  
2009  Broadcast TV in the U.S. goes all digital, most analog TV transmitters shut down.  
2010  3D TV sets go on sale in the US  

3. Research technological developments related to broadcasting.  
- Identify information sources using standard search engines  
- Use at least three different sources to compare and confirm major events.  
- Read and take notes on information.  
- Summarize information to add to timeline.  
- Place events in chronological order.  
- Identify images to support events.
4. Create a timeline of significant people and events in American television broadcasting history.
   - Use desktop publishing software to create an 11” x 16’ document.
   - Using desktop publishing tools, plot and label the various events and developments in the document space.
   - Color code each medium and major events
     AM – black
     FM – blue
     TV – red
     Related events (historical and other) – green

### Application

<table>
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<tr>
<th>MI</th>
<th>Guided Practice (LSI Quadrant III):</th>
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<tr>
<td></td>
<td>- Demonstrate how students can access current events online.</td>
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<td>- Illustrate how to use desktop publishing software to create an 11” x 16’ document while students follow along to set up their own document.</td>
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<tr>
<td></td>
<td>- Illustrate how to use desktop publishing tools, plot and label the various events and developments in the document space while students follow along to set up their own document.</td>
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<th>MI</th>
<th>Independent Practice (LSI Quadrant III):</th>
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<td>- For each of the key events and people listed below, students write a short paragraph (2-3 sentences). Each item worth 10 pts.</td>
</tr>
<tr>
<td></td>
<td>✓ Philo T. Farnsworth</td>
</tr>
<tr>
<td></td>
<td>✓ Vladimir Zworykin</td>
</tr>
<tr>
<td></td>
<td>✓ Telegraph</td>
</tr>
<tr>
<td></td>
<td>✓ Color system</td>
</tr>
<tr>
<td></td>
<td>✓ Korean War</td>
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<tr>
<td></td>
<td>✓ Public Broadcasting Act</td>
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<tr>
<td></td>
<td>✓ Color Television</td>
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<tr>
<td></td>
<td>✓ National Television System Committee</td>
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<tr>
<td></td>
<td>✓ Community Antenna Television</td>
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<tr>
<td></td>
<td>✓ Digital TV</td>
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<td></td>
<td>- Timeline Assignment (may be done in pairs or individually)</td>
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<td><strong>NOTE:</strong> Another option on the timeline project is to have students create an animated timeline that could be displayed digitally. The guidelines for the project would not change, but the rubric would need to be revised to reflect the use of appropriate technology.</td>
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### Summary

<table>
<thead>
<tr>
<th>MI</th>
<th>Review (LSI Quadrants I and IV):</th>
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<tr>
<td></td>
<td>Students present their timelines to the class and display on the walls in class or hallway. Students should use the assignment rubric to assess their own timelines as well as those submitted by their peers.</td>
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<tr>
<td></td>
<td>An alternative to using a printed rubric is to establish an online evaluation tool so students can record their feedback electronically. The teacher can then provide students with individual access to peer feedback received on their projects.</td>
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### Evaluation

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<tr>
<th>MI</th>
<th>Informal Assessment (LSI Quadrant III):</th>
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<tr>
<td></td>
<td>Students will be assessed on their level of participation in class discussions, individual and group work. The teacher will monitor progress and redirect interactions as needed. Establish check points for the Timeline Project so that students can manage their projects successfully.</td>
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<tr>
<th>MI</th>
<th>Formal Assessment (LSI Quadrant III, IV):</th>
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<tr>
<td></td>
<td>Grade written assignment on key events and people to assess student understanding. Use the rubric to assess timeline projects.</td>
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### Extension

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<tr>
<th>MI</th>
<th>Extension/Enrichment (LSI Quadrant IV):</th>
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<tr>
<td></td>
<td>Students may review the Technology Timeline and Gallery to reflect on the history of broadcasting. Search online for additional events that occurred in the history of television broadcasting.</td>
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</table>
History of American Broadcasting Written Assignment

**DIRECTIONS:** Explain the significance of the following key events and people from the history of American broadcasting. Include 2-3 complete sentences in each of your responses. Each response is worth 10 pts.

1. Philo T. Farnsworth

2. Vladimir Zworykin

3. Telegraph

4. Color system

5. Korean War

6. Public Broadcasting Act

7. Color Television

8. National Television System Committee

9. Community Antenna Television

10. Digital TV
History of American Broadcasting Timeline Project

Objective:
Develop a timeline that illustrates the history of broadcasting.

Scope:
• Review your notes covering the history of broadcasting.
• Research developments in broadcasting to the present.
• Place the events in the development of broadcasting in chronological order.
• Start with 1700, newspapers in the U.S. End with the current year.

Process:
• Use desktop publishing software to create an 11” x 16’ document.
• Using desktop publishing tools, plot and label the various events and developments in the document space.
• Color code each medium and major events
  o AM – black
  o FM – blue
  o TV – red
  o Related events (historical and other) – green

Alternate Process:
• Get 16 feet of adding machine paper.
• Create a unit marker for each decade (6” = 10 years).
• Using colored pencils, pens, or markers, plot and label the various events and developments on the paper.
• Color code each medium and major events
  o AM – black
  o FM – blue
  o TV – red
  o Related events (historical and other) – green
# Rubric - History of American Broadcasting Timeline

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Excellent</th>
<th>Above Average</th>
<th>Average</th>
<th>Below Average</th>
<th>Poor</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>:-D</td>
<td>:-)</td>
<td>:-</td>
<td></td>
<td>:-\</td>
<td>:-(</td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>Complete</td>
<td>Nearly all highlights included</td>
<td>Missing some highlights</td>
<td>Missing several highlights</td>
<td>Very few or no highlights</td>
<td></td>
</tr>
<tr>
<td>Color Coding</td>
<td>Events color coded correctly</td>
<td>Nearly perfect; very few errors</td>
<td>Most events color coded correctly</td>
<td>Color coding appears random</td>
<td>Very little or no color</td>
<td></td>
</tr>
<tr>
<td>Presentation</td>
<td>Very neat; Excellent work</td>
<td>Neat and complete work</td>
<td>Somewhat neat; some errors are noticeable</td>
<td>Errors detract from the overall project</td>
<td>Not neat; incomplete</td>
<td></td>
</tr>
<tr>
<td>Creativity and Design</td>
<td>Exceptional design &amp; creativity</td>
<td>Creative and well designed</td>
<td>Well designed</td>
<td>Plain or simplistic</td>
<td>Very little indication of creative design</td>
<td></td>
</tr>
</tbody>
</table>

**Total Points Earned:**

**Point to Grade Conversion Scale:**

- 15 – 16 = A
- 13 – 14 = B
- 11 – 12 = C
- 9 – 10 = D
- Below 9 = F